elco

HEATING CATALOGUE



ErP
Energy-related Products

www.elco-burners.com

HEATING CATALOGUE



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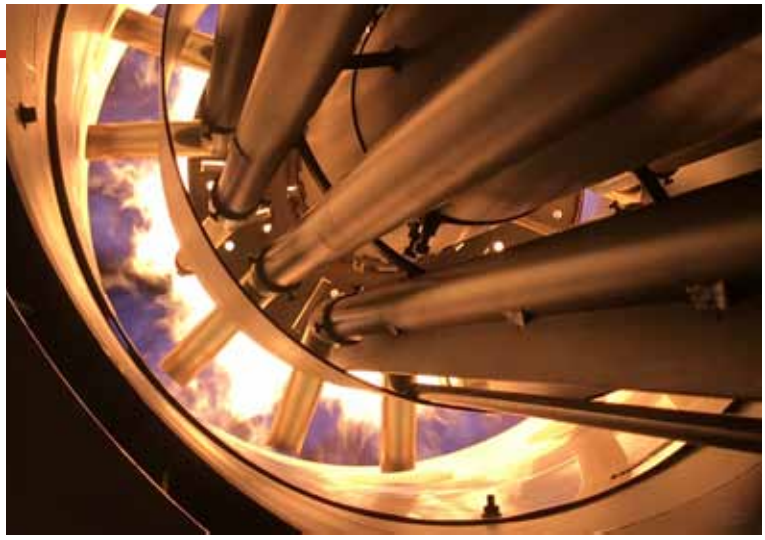
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CUTTING-EDGE BURNERS FOR HEATING AND INDUSTRIAL APPLICATIONS

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 on-going operation of the plant throughout its life cycle.
As an ELCO customer, you can rely on your installation to perform reliably. Our guarantee is backed up by a service that sets standards in our field.



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



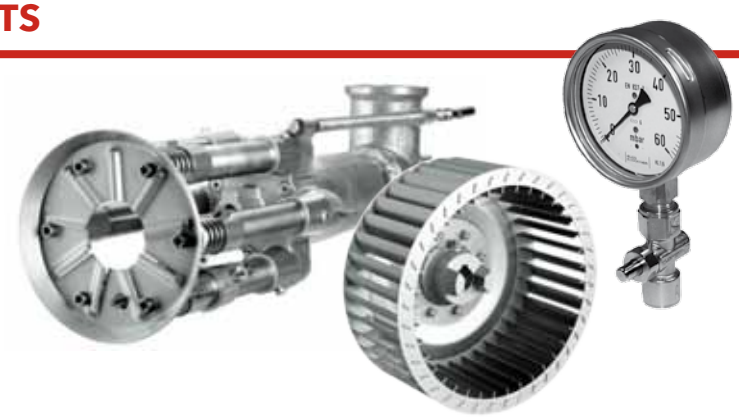
For safe and efficient operation of your burner system it is very important that the burner is commissioned by a competent person. The combustion will be optimally adjusted over the whole power range of the burner, and all the safety devices will be tested.
To keep your installation in good conditions,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

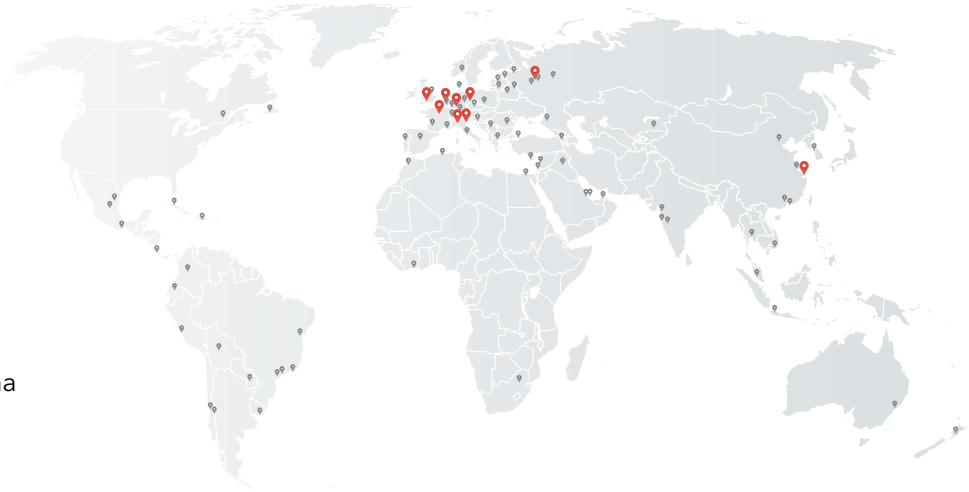


WORLDWIDE NETWORK

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

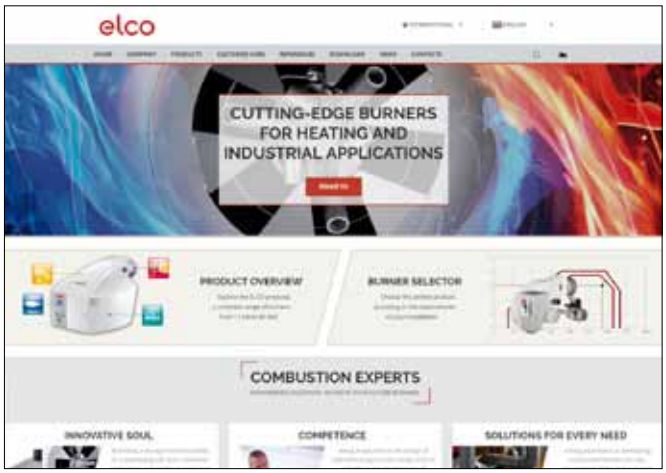
In Western Europe, ELCO has a well organised service network. Outside Western Europe ELCO uses a network of partners, consisting of well-trained local engineers, to carry out its service operations.
These technicians are able to perform both commissioning and local service and they do it in a very professional 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 - 13000 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

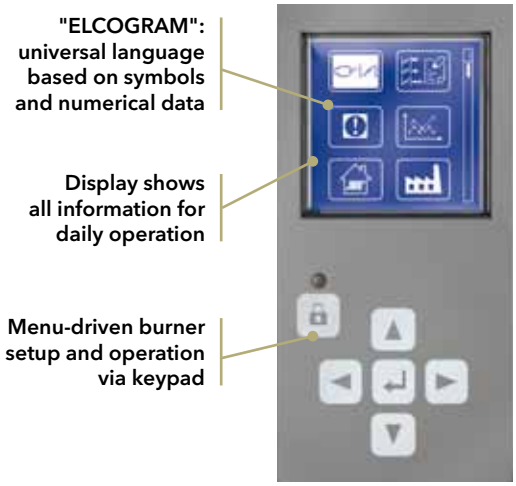
ELCO SYSTEMS AND TECHNOLOGIES

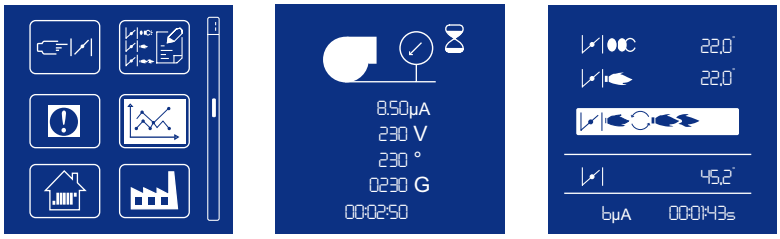
To constantly improve its products, ELCO is committed to develop innovative technological solutions allowing to optimise the running of the installations, to ease technicians work, and naturally to preserve the environment.
In order to provide quick responses to its market's demands, the range of ELCO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

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.

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.



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).



Low Noise System

Increase the comfort in-use and protect the environment

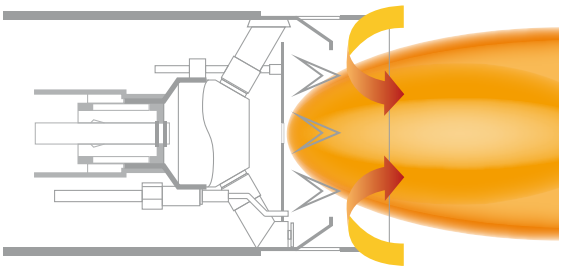
Among all the harmful things that people have to bear with every day life, the most annoying is noise, which is difficult to reduce and expensive to reduce.
This is the reason why ELCO has developed quiet burners both by selecting sound absorbent materials, and by treating each noise sources internally. The main noise comes from the air intake and the air mixing in the fan wheel: all the ELCO burners are equipped with a sound trap on the air intake channel leading to the fan.
This brings the acoustic level to an accceptable value in respect of the environment.

COMBUSTION TECHNOLOGIES

Diamond Head

Low emissions and reliable operation

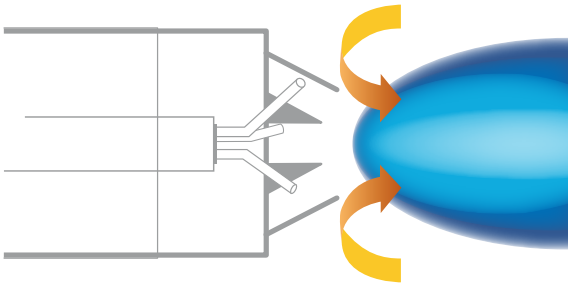
The principle of the Diamond Head combustion technology is based on the internal recirculation of the combustion flue gases. These are partially drawn into the base of the flame via triangular openings positioned at the end of the combustion head. The position and geometry of the gas injectors are such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

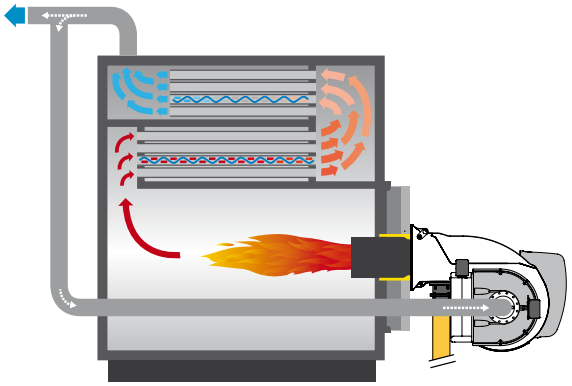
The principle of the Free Flame oil combustion is based on rapid gasification of the fuel by recirculating the combustion gases internally and allows the fuel-air to mix quickly.
Once the fuel has been vaporised, it will burn and stabilise 30 centimetres from the combustion head.
The flame appears to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

Burner body

OPERATION TYPE
- **-** = 1 stage
- **P** = 1 stage standard with pre-heater (light oil)
- **D** = 2 stages
- **DP** = 2 stage progressive/modulating pneumatic Low NOx (gas) / 3 stages (light oil)
- **DP R** = 2 stage progressive/modulating pneumatic
- **V** = 2 stage progressive/modulating pneumatic + fan speed control
- **VD** = 2 stages PWM Low NOx (light oil)
- **M** = 2 stage progressive/modulating electronic Low NOx
- **M R** = 2 stage progressive/modulating electronic
- **M V** = 2 stage progressive/modulating electronic Low NOx + fan speed control
- **M V R** = 2 stage progressive/modulating electronic + fan speed control

PLATFORM
From **1** to **6**
(**05-06** for VGL only)

SIZE
Max power (kW)

VG3.290 M E /TC KN 6H

FUEL AND COMBUSTION TYPE
- **G** = Natural gas
- **GL** = Dual fuel (natural gas/light oil)
- **L** = Light oil standard
- **B** = Light oil Low NOx Blue flame
- **E** = Light oil Low NOx Yellow flame

ERP COMPLIANCE
- **-** = not compliant
- **E** = compliant (for gas only)

ADDITIONAL EQUIPMENT
- **/TC** = Tightness control
- **/PED** = PED equipped
- **/FGR** = FGR equipped

HEAD LENGHT
- **KN** = short
- **KM** = medium
- **KL** = long

ELECTRICAL SUPPLY
- **-** = 230V / 50Hz
- **6H** = 230V / 60Hz
- **110** = 110-120 V/50-60 Hz

Gas train

VALVE MANUFACTURER
- **d** = Dungs
- **s** = Siemens
- **k** = Kromschröder
- **h** = Honeywell

VALVE NOMINAL DIAMETER
1/2"...2" or 50...100 mm

GAS TRAIN CONNECTION DIAMETER
Rp1/2"...Rp2" (when threaded) or DN50...100 (when flanged)

d335 - 1"1/2 - Rp2" /TC 110

OPERATION TYPE
- **1** = 1 stage
- **2** = 2 stages
- **3** = Pneumatic
- **4** = Electronic

SERIES
Progressive number

ADDITIONAL EQUIPMENT
- **/TC** = Tightness control

ELECTRICAL SUPPLY
- **-** = 230V / 50Hz
- **110** = 110-120 V/50-60 Hz

Other burner versions

- 60 60 Hz version
- TC Version with tightness control
- VENT Versions for continuous ventilation and post-ventilation
- PED PED version for continuous operation
- ErP ErP compliant

Gas range

Main features

- Fuels:
  - natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³);
  - LPG (G31, H_u = 25,89 kWh/m³).
- Cubic type architecture allowing optimal accessibility, maximum compactness, minimum weight.
- Complete electrical equipment in the body of the burner with MDE2 System and display: this ensures that information is easier to read than ever before, constantly giving real-time information to professional operators, during the commissioning, the operation and at each operation cycle.
- Quiet ventilation and reduced electrical consumption.
- Closing of the air flap at burner shut-down.
- Maintenance operation are simplified: the combustion parts can be quickly removed, easily cleaned and, even when they are disassembled, they easily get back to their position after all the servicing work.
- Gas train factory assembled and tested for tightness and electrical security.
- All products are in compliance with EN676 European standards and with the following directives:
  - 2014/35/EU Low Voltage Directive
  - 2014/30/EU EMC Directive
  - 2016/426/EU Gas Appliance Regulation
  - 2006/42/EC Machine Directive
- All products up to VG4.440 are in compliance with ErP Directive



ONE STAGE Low NOx

VG1.40 E /TC	60 Vent ErP	15 ... 41 kW	**p. 20**
VG1.55 E /TC	60 Vent ErP	35 ... 55 kW	**p. 20**
VG1.105 E /TC	60 Vent ErP	50 ... 105 kW	**p. 20**
VG2.140 E	60 Vent ErP	80 ... 140 kW	**p. 22**
VG2.205 E	60 Vent ErP	130 ... 205 kW	**p. 22**

0 50 100 150 200 250 kW

TWO STAGES Low NOx

VG1.105 D E	60 Vent ErP	37 ... 105 kW	**p. 24**
VG2.120 D E	60 Vent ErP	40 ... 120 kW	**p. 26**
VG2.160 D E	60 Vent ErP	50 ... 160 kW	**p. 26**
VG2.205 D E	60 Vent ErP	65 ... 205 kW	**p. 26**
VG3.290 D E	60 TC Vent ErP	95 ... 290 kW	**p. 28**
VG3.350 D E	60 TC Vent ErP	105 ... 350 kW	**p. 28**
VG4.440 D E	60 TC Vent ErP	110 ... 440 kW	**p. 32**

0 100 200 300 400 500 kW

TWO STAGE PROGRESSIVE/MODULATING PNEUMATIC Low NOx

VG2.120 DP E	60 Vent ErP	40 ... 120 kW	**p. 36**
VG2.160 DP E	60 Vent ErP	50 ... 160 kW	**p. 36**
VG2.205 DP E	60 Vent ErP	65 ... 205 kW	**p. 36**
VG3.290 DP E	60 TC Vent ErP	95 ... 290 kW	**p. 38**
VG3.350 DP E	60 TC Vent ErP	105 ... 350 kW	**p. 38**
VG4.440 DP E	60 TC Vent ErP	110 ... 440 kW	**p. 42**
VG4.610 DP	60 TC Vent	130 ... 610 kW	**p. 46**
VG5.950 DP	60 TC Vent	170 ... 950 kW	**p. 50**
VG5.1200 DP	60 TC Vent	250 ... 1160 kW	**p. 50**
VG6.1600 DP /TC	60 Vent	300 ... 1600 kW	**p. 54**
VG6.2100 DP /TC	60 Vent	400 ... 1900 kW	**p. 54**

0 500 1000 1500 2000 kW

TWO STAGE PROGRESSIVE/MODULATING PNEUMATIC

VG5.950 DP R	60 TC Vent		150 ... 1000 kW	**p. 58**
VG5.1200 DP R	60 TC Vent		200 ... 1200 kW	**p. 58**
VG6.1600 DP R /TC	60	Vent	200 ... 1700 kW	**p. 62**
VG6.2100 DP R /TC	60	Vent	300 ... 2300 kW	**p. 62**

TWO STAGE PROGRESSIVE/MODULATING PNEUMATIC Low NOx + fan speed control

VG2.205 V E	Vent ErP		65 ... 205 kW	**p. 66**
VG3.290 V E	TC Vent ErP		95 ... 290 kW	**p. 68**
VG3.350 V E	TC Vent ErP		105 ... 350 kW	**p. 68**
VG4.440 V E	TC Vent ErP		110 ... 440 kW	**p. 72**
VG4.610 V	TC Vent		130 ... 610 kW	**p. 76**

TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC Low NOx

VG2.120 M E /TC	Vent ErP		40 ... 120 kW	**p. 80**
VG2.160 M E /TC	Vent ErP		50 ... 160 kW	**p. 80**
VG2.205 M E /TC	Vent ErP		65 ... 205 kW	**p. 80**
VG3.290 M E /TC	Vent ErP		95 ... 290 kW	**p. 82**
VG3.350 M E /TC	Vent ErP		105 ... 350 kW	**p. 82**
VG4.440 M E /TC	Vent ErP		110 ... 440 kW	**p. 86**
VG4.610 M /TC	Vent		90 ... 610 kW	**p. 90**
VG5.950 M /TC	Vent	PED	160 ... 900 kW	**p. 94**
VG5.1200 M /TC	Vent	PED	160 ... 1160 kW	**p. 94**
VG6.1600 M /TC	Vent	PED	240 ... 1600 kW	**p. 98**
VG6.2100 M /TC	Vent	PED	260 ... 1900 kW	**p. 98**



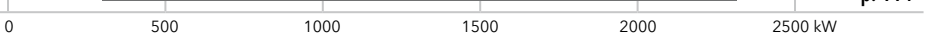
TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC Low NOx + fan speed control

VG5.950 M V /TC	Vent	PED	160 ... 900 kW	**p. 102**
VG5.1200 M V /TC	Vent	PED	160 ... 1160 kW	**p. 102**
VG6.1600 M V /TC	Vent	PED	240 ... 1600 kW	**p. 106**
VG6.2100 M V /TC	Vent	PED	260 ... 1900 kW	**p. 106**



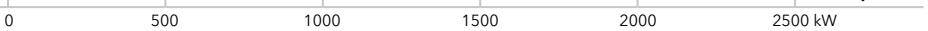
TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC

VG5.950 M R /TC	Vent	PED	150 ... 1000 kW	**p. 110**
VG5.1200 M R /TC	Vent	PED	200 ... 1200 kW	**p. 110**
VG6.1600 M R /TC	Vent	PED	200 ... 1700 kW	**p. 114**
VG6.2100 M R /TC	Vent	PED	300 ... 2300 kW	**p. 114**



TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC + fan speed control

VG5.950 M V R /TC	Vent	PED	150 ... 1000 kW	**p. 118**
VG5.1200 M V R /TC	Vent	PED	200 ... 1200 kW	**p. 118**
VG6.1600 M V R /TC	Vent	PED	200 ... 1700 kW	**p. 122**
VG6.2100 M V R /TC	Vent	PED	300 ... 2300 kW	**p. 122**



Dual fuel range

Main features

- Fuels:
  - natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³);
  - light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg).
- Cubic type architecture allowing optimal accessibility, maximum compactness, minimum weight.
- Complete electrical equipment in the body of the burner with MDE2 System and display: this ensures that information is easier to read than ever before, constantly giving real-time information to professional operators, during the commissioning, the operation and at each operation cycle.
- Maintenance operation are simplified: the combustion parts can be quickly removed, easily cleaned and, even when they are disassembled, they easily get back to their position after all the servicing work.
- Quiet ventilation and reduced electrical consumption.
- Closing of the air flap at burner shut-down.
- Gas train factory assembled and tested for tightness and electrical security.
- All products are in compliance with EN676 and EN267 European standards and with the following directives:
  – 2014/35/EU Low Voltage Directive
  – 2014/30/EU EMC Directive
  – 2016/426/EU Gas Appliance Regulation
  – 2006/42/EC Machine Directive



ONE STAGE in gas and in oil

VGL2.120	VENT	35 ... 120 kW	**p. 126**
VGL2.210	VENT	100 ... 190 kW	**p. 126**

0 100 200 300 400 500 kW

TWO STAGES in gas and in oil

VGL3.290 D	VENT	95 ... 290 kW	**p. 128**
VGL3.360 D	VENT	120 ... 360 kW	**p. 128**

0 100 200 300 400 500 kW

TWO STAGE PROGRESSIVE/MODULATING PNEUMATIC in gas / TWO STAGES in oil

VGL4.460 DP	VENT	168 ... 460 kW	**p. 132**
VGL4.610 DP	VENT	190 ... 610 kW	**p. 132**

0 250 500 750 1000 kW

TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC in gas / THREE STAGES in oil

VGL5.700 M /TC	VENT	200 ... 700 kW	**p. 136**
VGL5.1000 M /TC	VENT	240 ... 1000 kW	**p. 136**
VGL6.1600 M /TC	VENT	300 ... 1600 kW	**p. 140**
VGL6.2100 M /TC	VENT	480 ... 2050 kW	**p. 140**

0 500 1000 1500 2000 2500 kW

TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC + fan speed control in gas / THREE STAGES in oil

VGL5.700 M V /TC	VENT	200 ... 700 kW	**p. 144**
VGL5.1000 M V /TC	VENT	240 ... 1000 kW	**p. 144**
VGL6.1600 M V /TC	VENT	300 ... 1600 kW	**p. 148**
VGL6.2100 M V /TC	VENT	480 ... 2050 kW	**p. 148**

0 500 1000 1500 2000 2500 kW

Light oil range

Main features

- Fuel: light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg).
- Cubic type architecture allowing optimal accessibility, maximum compactness, minimum weight.
- Complete electrical equipment in the body of the burner with MDE2 System and display: this ensures that information is easier to read than ever before, constantly giving real-time information to professional operators, during the commissioning, the operation and at each operation cycle.
- Quiet ventilation and reduced electrical consumption.
- Closing of the air flap at burner shut-down.
- Maintenance operation are simplified: the combustion parts can be quickly removed, easily cleaned and, even when they are disassembled, they easily get back to their position after all the servicing work.
- All products are in compliance with EN267 European standards and with the following directives:
  - 2014/35/EU Low Voltage Directive
  - 2014/30/EU EMC Directive
  - 2006/42/EC Machine Directive
- All products up to VL4.440 D are in compliance with ErP Directive



ONE STAGE Low NOx Yellow Flame

VE1.34	Vent ErP	16 ... 34 kW	**p. 152**
VE1.50	Vent ErP	28 ... 50 kW	**p. 152**
VE1.75	Vent ErP	44 ... 75 kW	**p. 152**

0 20 40 60 80 100 kW

TWO STAGES Low NOx Yellow Flame

VE2.100 D	Vent ErP	50 ... 100 kW	**p. 154**
VE2.150 D	Vent ErP	65 ... 150 kW	**p. 154**

0 50 100 150 200 250 kW

ONE STAGE Low NOx Blue Flame

VB1.20	Vent ErP	11 ... 20 kW	**p. 156**
VB1.24	Vent ErP	14 ... 24 kW	**p. 156**
VB1.28	Vent ErP	20 ... 28 kW	**p. 156**
VB1.30	Vent ErP	22 ... 30 kW	**p. 156**
VB1.35	Vent ErP	25 ... 35 kW	**p. 156**

0 10 20 30 40 50 kW

TWO STAGES PWM Low NOx Blue Flame

VB2.38 VD	Vent ErP	22 ... 38 kW	**p. 158**
VB2.45 VD	Vent ErP	25 ... 45 kW	**p. 158**
VB2.54 VD	Vent ErP	32 ... 54 kW	**p. 158**
VB2.66 VD	Vent ErP	40 ... 66 kW	**p. 158**
VB2.77 VD	Vent ErP	45 ... 77 kW	**p. 160**
VB2.85 VD	Vent ErP	48 ... 85 kW	**p. 160**
VB2.95 VD	Vent ErP	52 ... 95 kW	**p. 160**

0 20 40 60 80 100 kW

ONE STAGE with pre-heater

VL1.40 P	Vent ErP	18 … 40 kW	**p. 162**
VL1.55 P	Vent ErP	30 … 55 kW	**p. 162**

ONE STAGE

VL1.42	Vent ErP	20 … 42 kW	**p. 162**
VL1.55	Vent ErP	30 … 55 kW	**p. 162**
VL1.105	Vent ErP	45 … 105 kW	**p. 162**
VL2.140	Vent ErP	80 … 140 kW	**p. 164**
VL2.200	Vent ErP	130 … 200 kW	**p. 164**



TWO STAGES

VL2.120 D	Vent ErP	60 ... 120 kW	**p. 166**
VL2.160 D	Vent ErP	80 ... 160 kW	**p. 166**
VL2.210 D	Vent ErP	100 ... 210 kW	**p. 166**
VL3.290 D	Vent ErP	130 ... 290 kW	**p. 168**
VL3.360 D	Vent ErP	170 ... 360 kW	**p. 168**
VL4.440 D	Vent ErP	180 ... 440 kW	**p. 168**
VL4.460 D	Vent	180 ... 460 kW	**p. 170**
VL4.610 D	Vent	195 ... 610 kW	**p. 170**
VL5.950 D	Vent	260 ... 950 kW	**p. 172**
VL5.1200 D	Vent	400 ... 1186 kW	**p. 172**



THREE STAGES

VL4.460 DP	Vent	180 ... 460 kW	**p. 174**
VL4.610 DP	Vent	195 ... 610 kW	**p. 174**
VL5.950 DP	Vent	260 ... 950 kW	**p. 176**
VL5.1200 DP	Vent	400 ... 1186 kW	**p. 176**
VL6.1600 DP	Vent	320 ... 1600 kW	**p. 178**
VL6.2100 DP	Vent	400 ... 2080 kW	**p. 178**



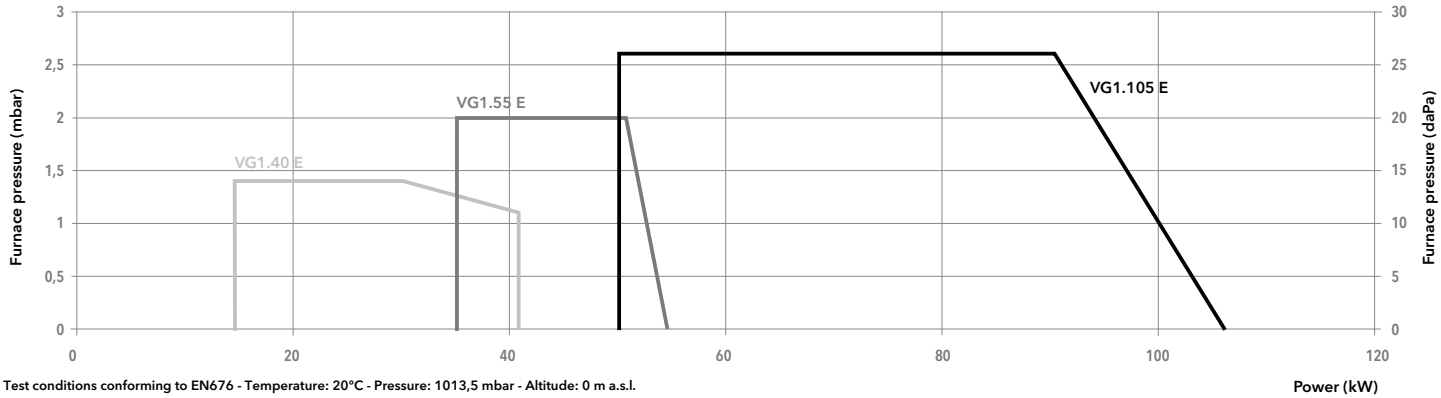
VG1.40 E, VG1.55 E, VG1.105 E

15 ... 105 kW
1 stage (ErP compliant)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** compliant with ErP Directive
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG1.40 E /TC		VG1.55 E /TC		VG1.105 E /TC	
Operation range			15 - 41 kW		35 - 55 kW		37 - 105 kW	
Gas pressure			20 - 100 mbar		20 - 100 mbar		20 - 360 mbar	
Control box / flame detection			TCG1... / ionization		TCG1... / ionization		TCG1... / ionization	
Fan motor			230 V - 50 Hz - 85 W		230 V - 50 Hz - 85 W		230 V - 50 Hz - 85 W	
Electrical consumption (max/min/stand-by)			119 W / 137 W / 3 W		129 W / 131 W / 3 W		196 W / 212 W / 3 W	
Acoustic level (LpA)			55 dB(A)		55 dB(A)		61 dB(A)	
CE certificate			0476 CT 2423		0476 CT 2423		0476 CT 2423	
Head lenght			KN	KL	KN	KL	KN	KL
Complete burner code	VR4625	h3/8"-Rp1/2"/TC	**3866346**	**3836506**	**3836347**	**3836517**	-	-
	MB-DLE 407	d3/4"-Rp3/4"/TC	-	-	-	-	**3836348**	**3836518**

OTHER AVAILABLE VERSIONS

60 60 Hz version

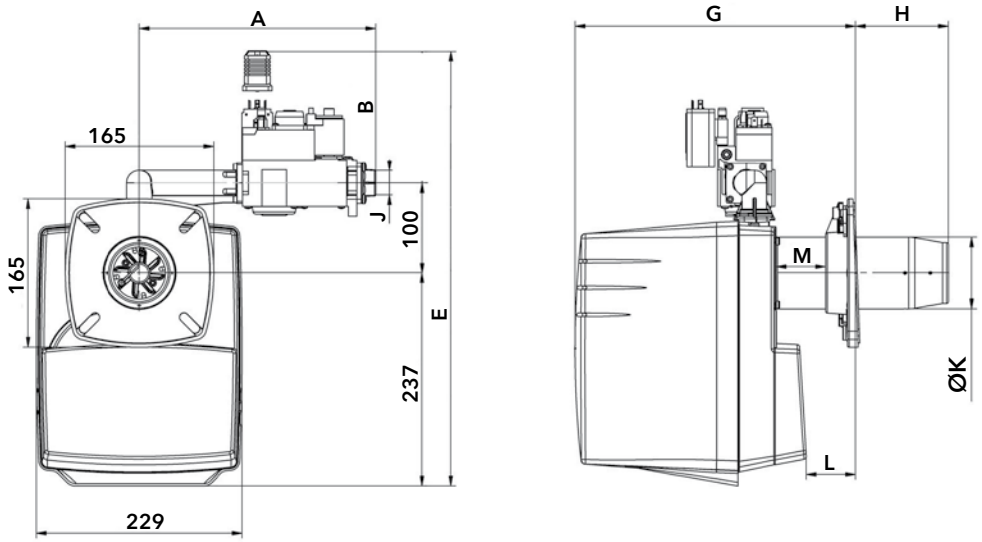
V_{ENT} Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 gas connection flange
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 burner flange with insulation
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

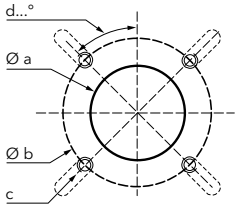
DIMENSIONS (mm)



Model	A	B	E	G		H		J	Ø K	L		M
				KN	KL	KN	KL			min	max	
VG1.40/55 E	263	147	484	297...337	297...387	70...110	70...200	Rp1/2"	80	21	61	48
VG1.105 E	282	140	477	300...355	300...390	70...138	70...228	Rp3/4"	90	15	83	52

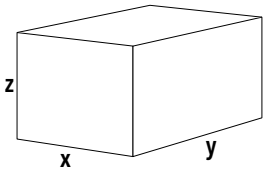
Connecting flange

Model	Øa (mm)	b (mm)	c	d
VG1.40/55 E	85-104	150-170	M8	45°
VG1.105 E	95-104	150-170	M8	45°



PACKAGING

The burner is delivered in 1 single package containing all components



Burner	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG1.40 E	300	260	650	12
VG1.55 E	300	260	650	12
VG1.105 E	300	260	650	12

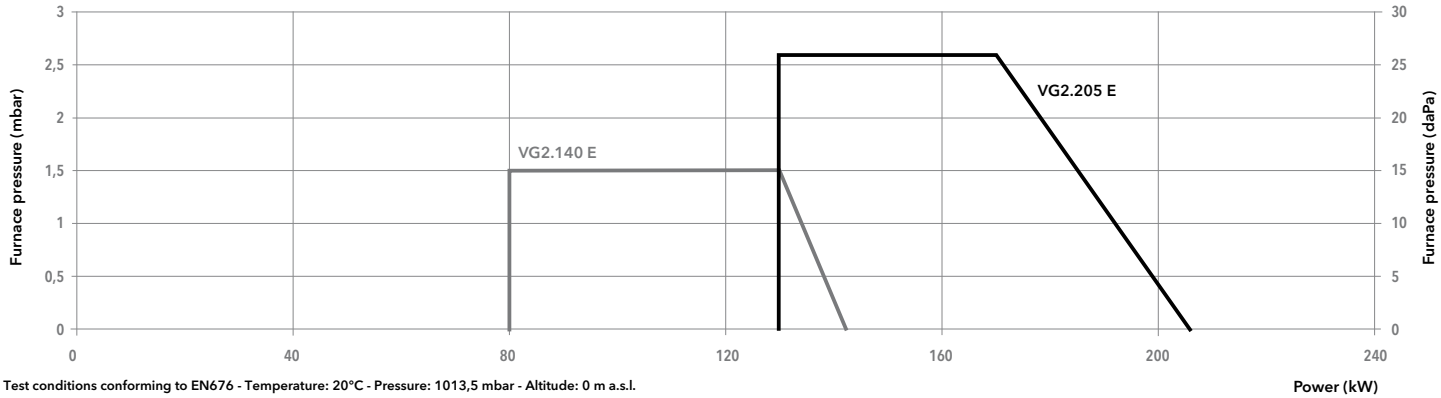
VG2.140 E, VG2.205 E

80 ... 205 kW
1 stage (ErP compliant)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** compliant with ErP Directive
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG2.140 E		VG2.205 E	
Operation range			80 - 140 kW		130 - 205 kW	
Gas pressure			20 - 360 mbar		20 - 360 mbar	
Control box / flame detection			TCG1... / ionization		TCG1... / ionization	
Fan motor			230 V - 50 Hz - 100 W		230 V - 50 Hz - 130 W	
Electrical consumption (max/min/stand-by)			270 W / 230 W / 3 W		302 W / 267 W / 3 W	
Acoustic level (LpA)			62 dB(A)		65 dB(A)	
CE certificate			0476 CT 2423		0476 CT 2423	
Head lenght			KN	KL	KN	KL
Complete burner code	MB-DLE 412	d1"1/4-Rp1"1/4	-	-	**3836351**	**3836352**
	MB-DLE 407	d3/4"-Rp3/4"	**3836349**	**3836350**	**3836353**	**3836354**

OTHER AVAILABLE VERSIONS

60 60 Hz version

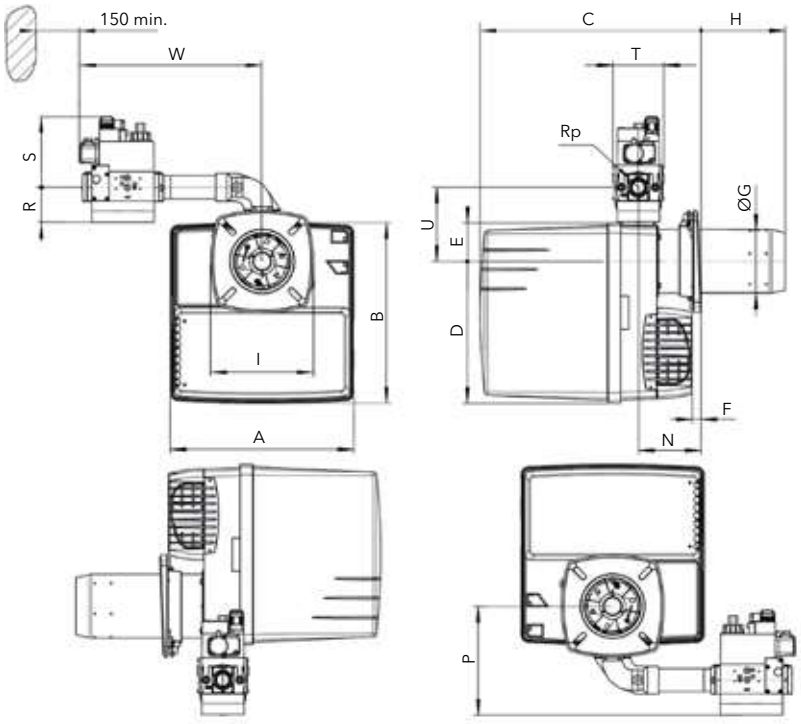
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 gas connection flange
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 burner flange with insulation
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

RTC | LOW NOx CLASS 3 | ErP COMPLIANT

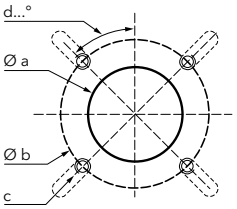
DIMENSIONS (mm)



Model	Gas train	A	B	C		D	E	F min	ØG	H		I	N min	P	Rp	R	S	T	U	W
				KN	KL					KN	KL									
VG2.140	**d3/4"-Rp3/4"**	331	325	398...518	398...638	256	69	15	115	30...150	30...270	185	113	179	3/4"	70	140	120	133	345
VG2.205	**d3/4"-Rp3/4"**	331	325	398...518	398...638	256	69	15	125	30...150	30...270	185	113	179	3/4"	70	140	120	133	345
VG2.205	**d1"1/4-Rp1"1/4**	331	325	398...518	398...638	256	69	15	125	30...150	30...270	185	113	188	1"1/4	80	160	145	133	380

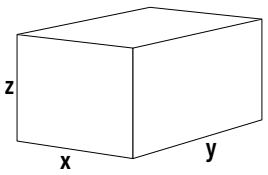
Connecting flange

	Øa (mm)	b (mm)	c	d
VG2.140	120-135	150-185	M8	45°
VG2.205	130-145	160-185	M8	45°



PACKAGING

The burner is delivered in 1 single package containing all components



Burner	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG2.140	400	400	760	25
VG2.205	400	400	760	25

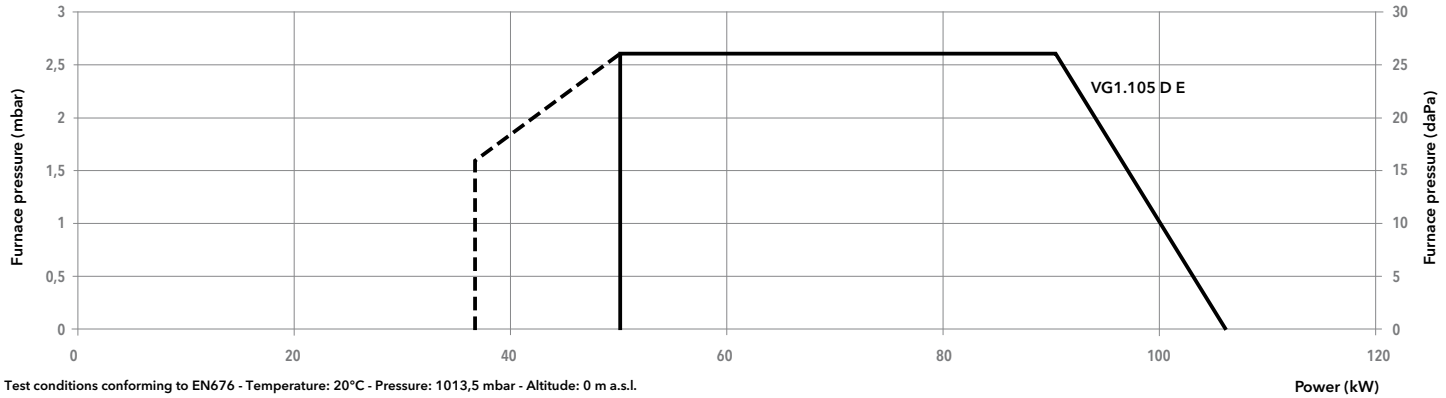
VG1.105 D E

37 ... 105 kW
2 stages (ErP compliant)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³);
  LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** compliant with ErP Directive
- **Protection level:** IP 21

TECHNICAL DATA



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

Model	VG1.105 D	
Operation range	(37) 50 - 105 kW	
Gas pressure	20 - 360 mbar	
Flame detection	Ionization	
Fan motor	230 V - 50 Hz - 85 W	
Electrical consumption (max/min/stand-by)	205 W / 200 W / 3 W	
Acoustic level (LpA)	60,5 dB(A)	
CE certificate	0476 CT 2423	
Head lenght	KN	KL
Complete burner code MB-ZRDLE 407 d3/4"-Rp3/4"	**3836355**	**3836519**

OTHER AVAILABLE VERSIONS

60 60 Hz version

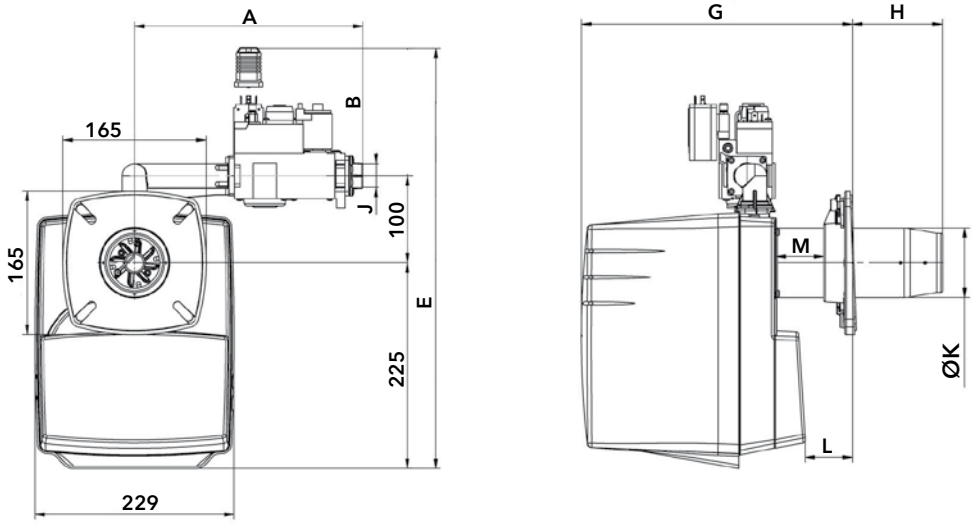
V_{ENT} Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 gas connection flange
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 burner flange with insulation
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

RTC | LOW NOx CLASS 3 | ErP COMPLIANT

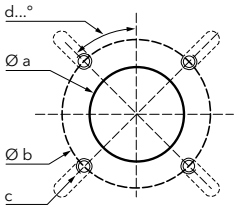
DIMENSIONS (mm)



A	B	E	G		H		J	ØK	L		M
			KN	KL	KN	KL			min	max	
290	310	535	300...355	300...390	70...138	70...228	Rp3/4"	90	15	83	52

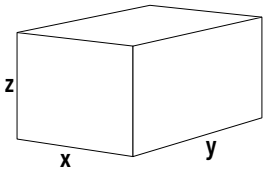
Connecting flange

Øa (mm)	b (mm)	c	d
95-104	150-170	M8	45°



PACKAGING

The burner is delivered in 1 single package containing all components



Dimensions (mm)			Gross weight (kg)
X	Y	Z	
300	260	650	12

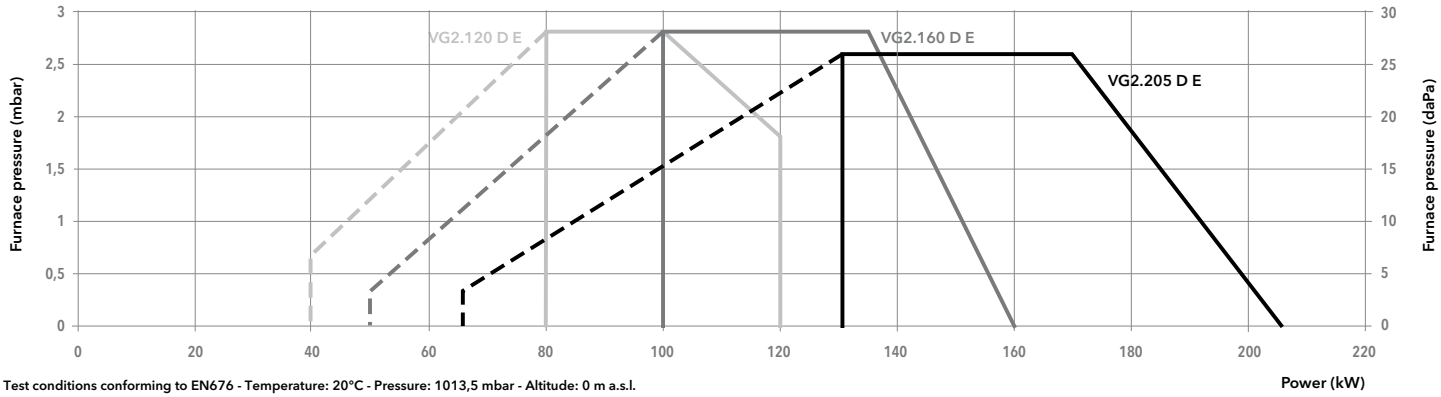
VG2.120 D E, VG2.160 D E, VG2.205 D E

40 ... 210 kW
2 stages (ErP compliant)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** compliant with ErP Directive
- **Protection level:** IP 21

TECHNICAL DATA



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

Model	VG2.120 D E		VG2.160 D E		VG2.205 D E	
Operation range	(40) 80 - 120 kW		(50) 100 - 160 kW		(60) 130 - 205 kW	
Gas pressure	20 - 360 mbar		20 - 360 mbar		20 - 360 mbar	
Control box / flame detection	TCG2... / ionization		TCG2... / ionization		TCG2... / ionization	
Fan motor	230 V - 50 Hz - 100 W		230 V - 50 Hz - 100 W		230 V - 50 Hz - 130 W	
Electrical consumption (max/min/stand-by)	239 W / 358 W / 4 W		285 W / 293 W / 4 W		302 W / 267 W / 4 W	
Acoustic level (LpA)	62 dB(A)		64 dB(A)		65 dB(A)	
CE certificate	0476 CT 2423		0476 CT 2423		0476 CT 2423	
Head lenght	KN	KL	KN	KL	KN	KL
Complete burner code MB-ZRDLE 412 d1"1/4-Rp1"1/4	-	-	-	-	**3836360**	**3836361**
MB-ZRDLE 407 d3/4"-Rp3/4"	**3836356**	**3836357**	**3836358**	**3836359**	**3836362**	**3836363**

OTHER AVAILABLE VERSIONS

60 60 Hz version

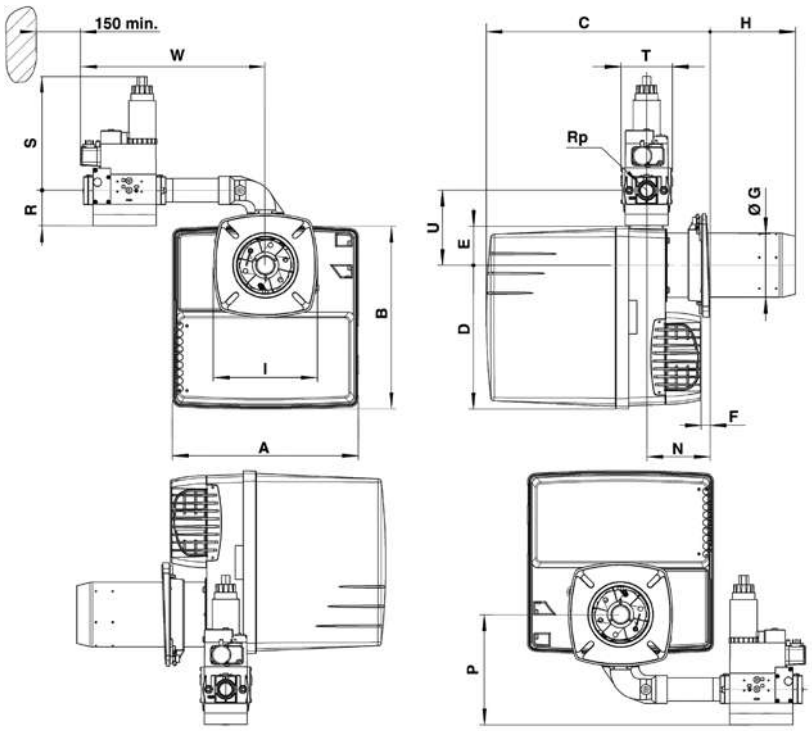
V_{ENT} Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 gas connection flange
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 burner flange with insulation
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

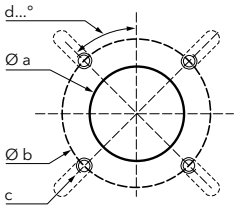
DIMENSIONS (mm)



	Gas train model	A	B	C		D	E	F min	ØG	H		I	N min	P	Rp	R	S	T	U	W
				KN	KL					KN	KL									
VG2.120	**d3/4"-Rp3/4"**	331	325	398…518	398…638	256	69	15	115	30…150	30…270	185	113	179	3/4"	46	210	120	133	330
VG2.160	**d3/4"-Rp3/4"**	331	325	398…518	398…638	256	69	15	115	30…150	30…270	185	113	179	3/4"	46	210	120	133	330
VG2.205	**d3/4"-Rp3/4"**	331	325	398…518	398…638	256	69	15	125	30…150	30…270	185	113	179	3/4"	46	210	120	133	330
	d1"1/4-Rp1"1/4	331	325	398…518	398…638	256	69	15	125	30…150	30…270	185	113	188	1"1/4	55	260	145	133	360

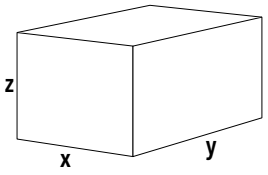
Connecting flange

	Øa (mm)	b (mm)	c	d
VG2.120/160	120-135	150-185	M8	45°
VG2.205	130-145	160-185	M8	45°



PACKAGING

The burner is delivered in 1 single package containing all components



Burner	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG2.120	400	400	760	26
VG2.160	400	400	760	26
VG2.205	400	400	760	26

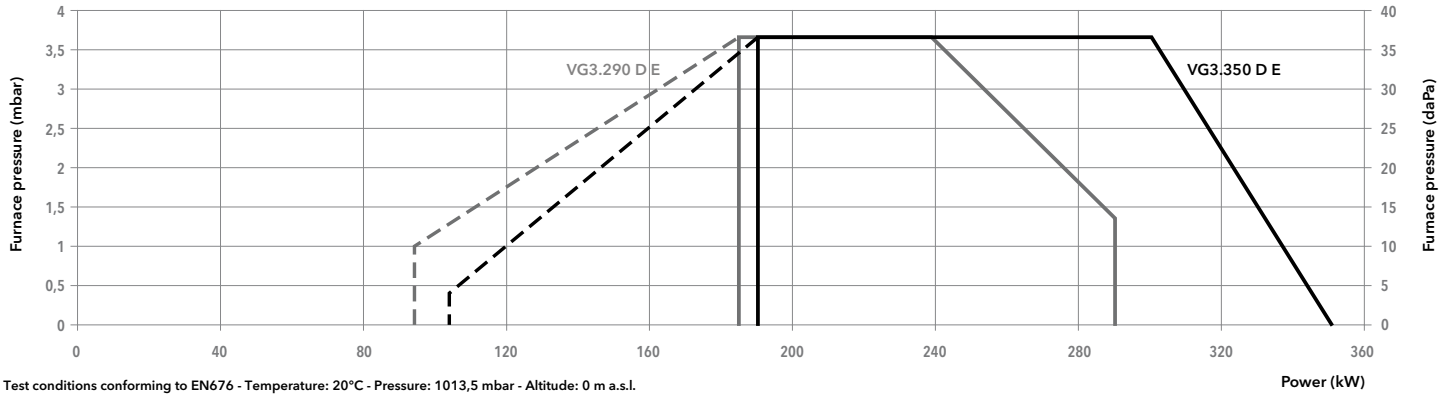
VG3.290 D E, VG3.350 D E

95 ... 350 kW
2 stages (ErP compliant)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** compliant with ErP Directive
- **Protection level:** IP 21

TECHNICAL DATA



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

Model		VG3.290 D E		VG3.350 D E	
Operation range		(95) 185 - 290 kW		(105) 190 - 350 kW	
Gas pressure		20 - 360 mbar		20 - 360 mbar	
Control box / flame detection		TCG2... / ionization		TCG2... / ionization	
Fan motor		230 V - 50 Hz - 250 W		230 V - 50 Hz - 300 W	
Electrical consumption (max/min/stand-by)		465 W / 441 W / 4 W		583 W / 583 W / 4 W	
Acoustic level (LpA)		67 dB(A)		69 dB(A)	
CE certificate		0476 CT 2423		0476 CT 2423	
Head lenght		KN	KL	KN	KL
Complete burner code	MB-ZRDLE 420 d1"1/2-Rp2"	-	-	**3836382**	**3836383**
	MB-ZRDLE 412 d1"1/4-Rp1"1/4	**3836378**	**3836379**	**3836384**	**3836385**
	MB-ZRDLE 407 d3/4"-Rp3/4"	**3836380**	**3836381**	**3836386**	**3836387**

OTHER AVAILABLE VERSIONS

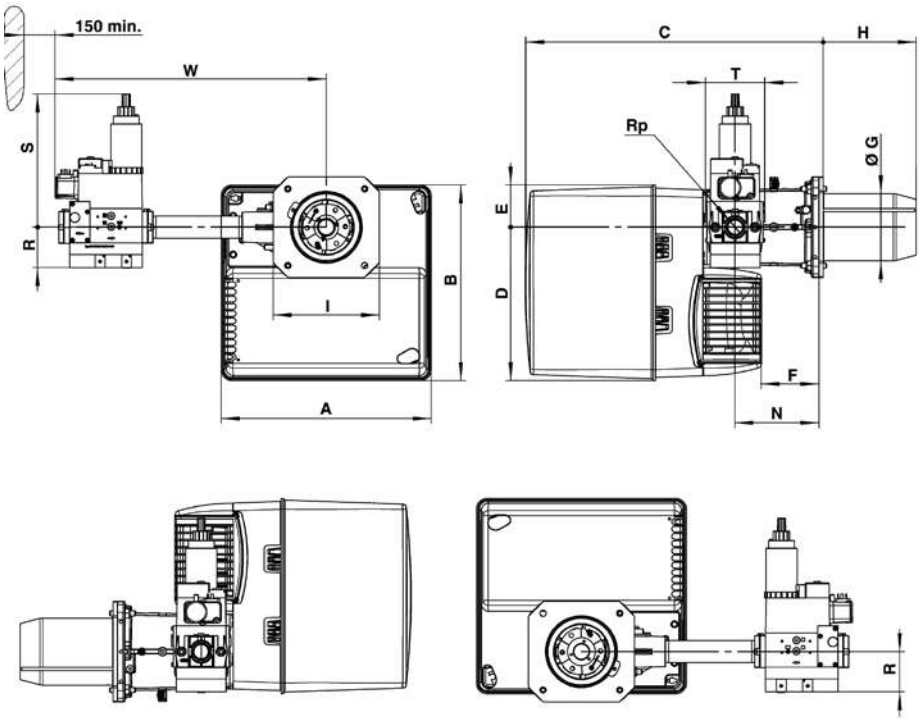
60 60 Hz version
TC Version with tightness control
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

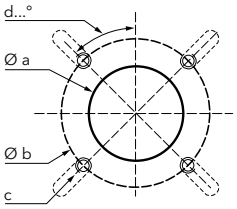
DIMENSIONS (mm)



Gas train model	A	B	C	D	E	F	ØG	H		I	N	Rp	R	S	T	W
								KN	KL							
d1"1/2-Rp2"	406	379	576	297	82	120	130	180	320	195x205	170	2"	80	330	100	603
d1"1/4-Rp1"1/4	406	379	576	297	82	120	130	180	320	195x205	170	1"1/4	55	260	145	526
d3/4"-Rp3/4"	406	379	576	297	82	120	130	180	320	195x205	170	3/4"	46	210	120	479

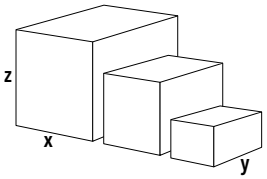
Connecting flange

Øa (mm)	b (mm)	c	d
155-190	175-220	M10	45°



PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Borner body	**VG3.290 D E**	440	400	520	21
	VG3.350 D E	440	400	520	21
Combustion head	**KN**	650	210	260	6
	KL	650	210	260	6
Gas train	**d1"1/2-Rp2"**	600	400	240	14
	d1"1/4-Rp1"1/4	440	320	240	10
	d3/4"-Rp3/4"	440	320	240	7

VG3.290 D E, VG3.350 D E

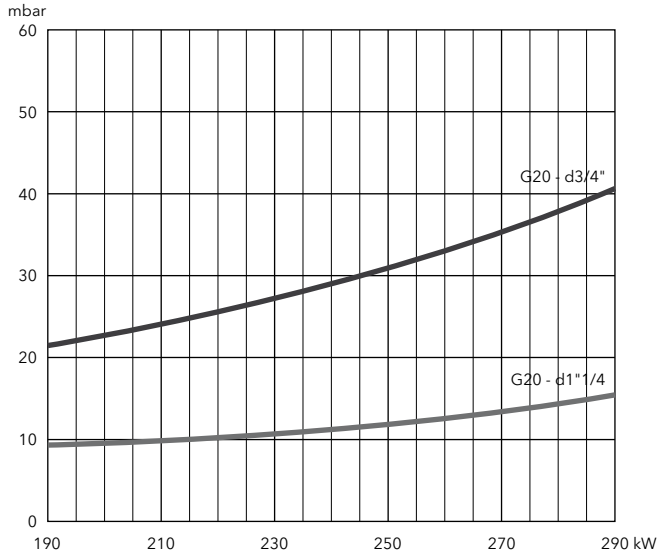
95 ... 350 kW
2 stages (ErP compliant)

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

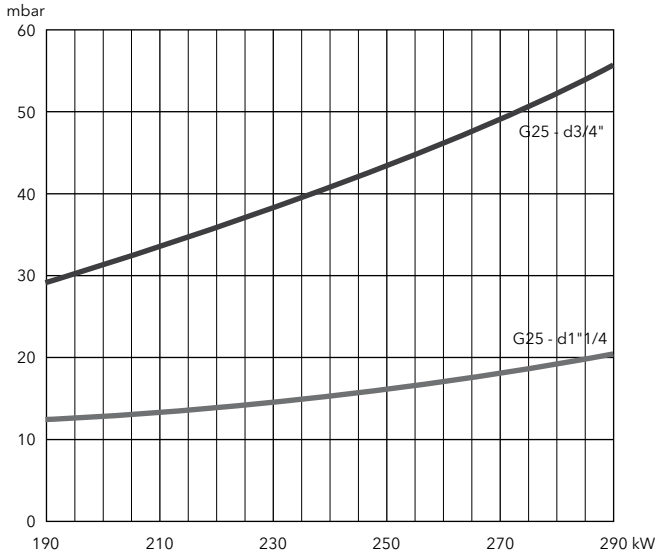
VG3.290 D E

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³		Natural gas G25 Hi = 8,83 kWh/m³		LPG G31 Hi = 25,89 kWh/m³	
	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4
190	22	10	29	12	13	7
210	24	10	33	13	14	7
230	27	11	38	15	15	7
250	31	12	43	16	16	7
270	36	14	49	18	18	8
290	41	15	56	20	21	9

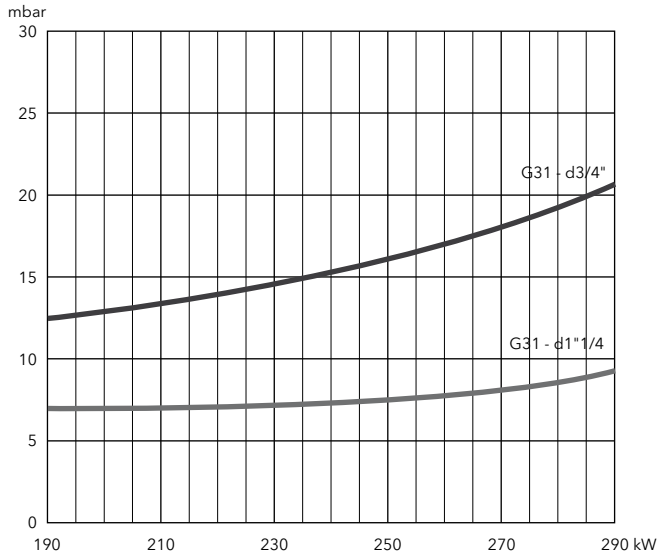
Natural gas G20



Natural gas G25



LPG



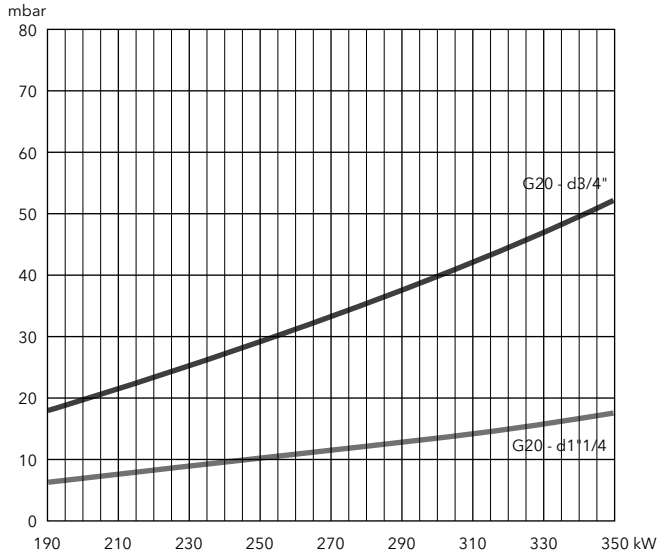
MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

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

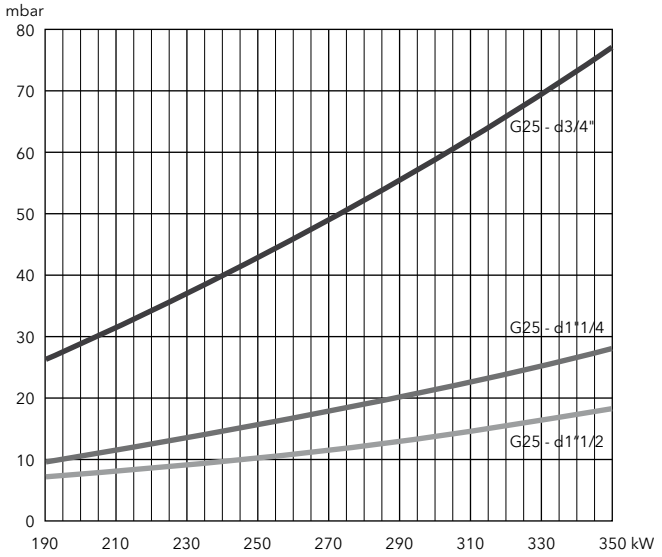
VG3.350 D E

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³		Natural gas G25 Hi = 8,83 kWh/m³			LPG G31 Hi = 25,89 kWh/m³
	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"	d3/4"-Rp3/4"
190	18	7	27	10	8	10
230	25	9	38	14	9	14
270	33	12	49	18	12	18
310	43	14	62	23	14	23
350	53	18	77	28	19	28

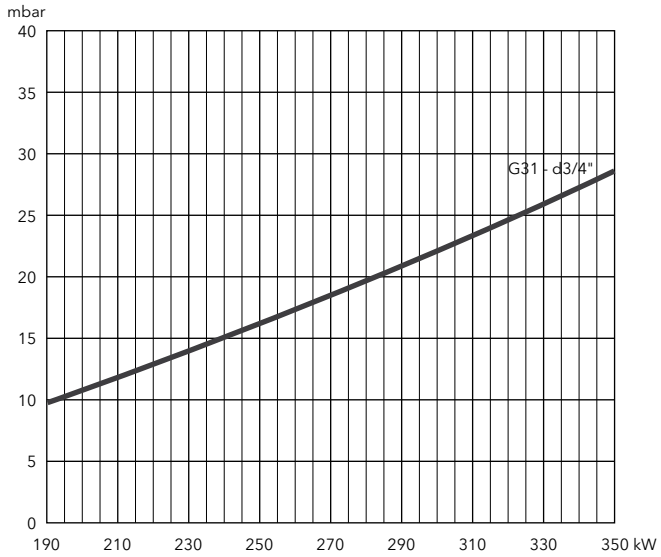
Natural gas G20



Natural gas G25



LPG



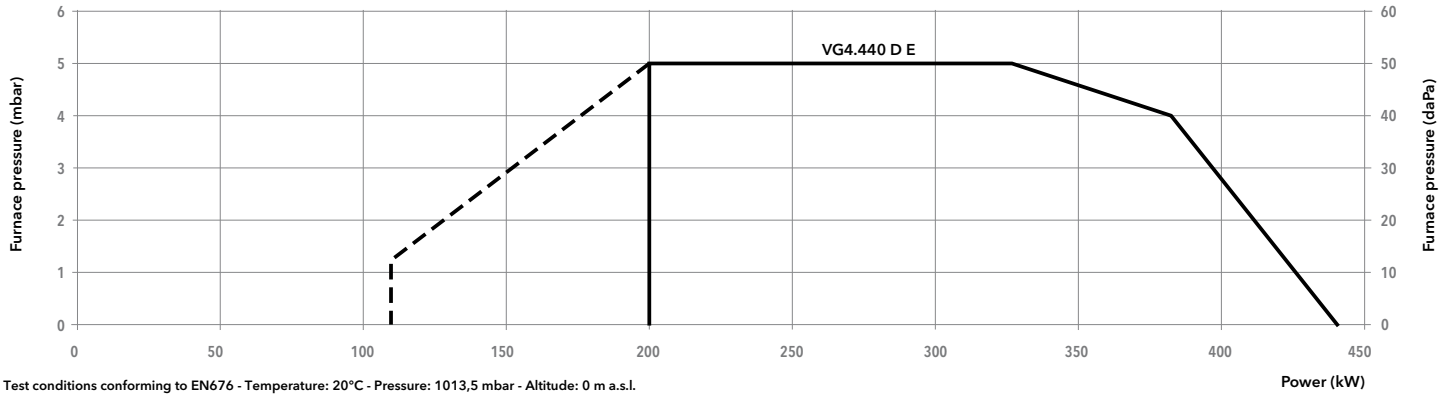
VG4.440 D E

110 ... 440 kW
2 stages (ErP compliant)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** compliant with ErP Directive
- **Protection level:** IP 21

TECHNICAL DATA



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

Model		VG4.440 D E	
Operation range		(110) 200 - 440 kW	
Gas pressure		20 - 360 mbar	
Control box / flame detection		TCG2... / ionization	
Fan motor		230 V - 50 Hz - 420 W	
Electrical consumption (max/min/stand-by)		606 W / 569 W / 4 W	
Acoustic level (LpA)		70 dB(A)	
CE certificate		0476 CT 2423	
Head lenght		KN	KL
Complete burner code	MB-ZRDLE 420 d1"1/2-Rp2"	**3836398**	**3836399**
	MB-ZRDLE 412 d1"1/4-Rp1"1/4	**3836400**	**3836401**
	MB-ZRDLE 407 d3/4"-Rp3/4"	**3836402**	**3836403**

OTHER AVAILABLE VERSIONS

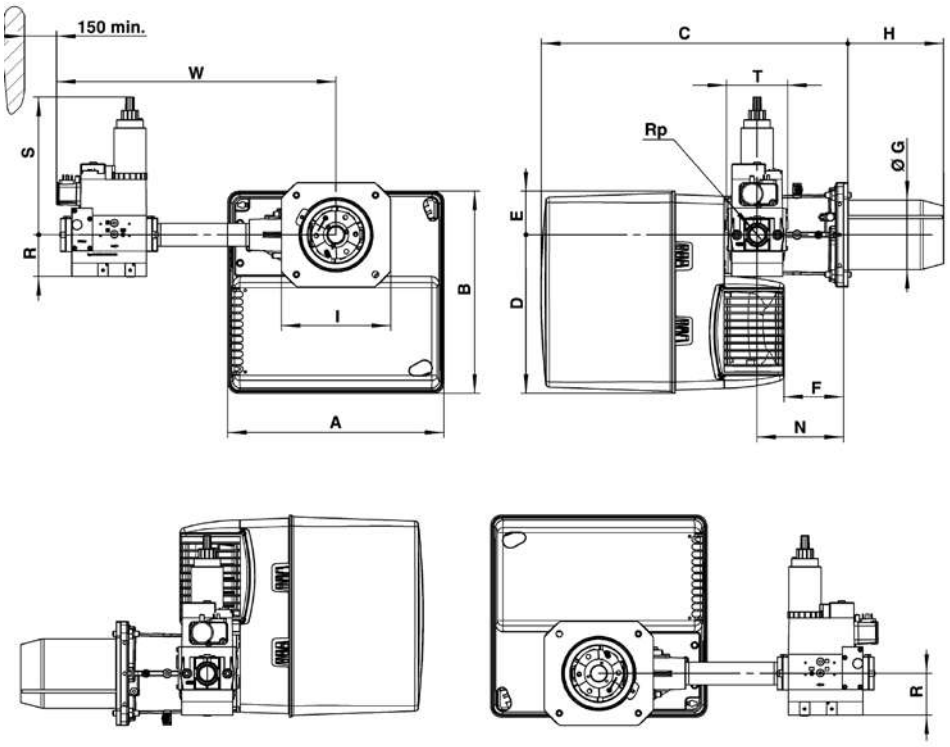
60 60 Hz version
TC Version with tightness control
V$_{Ent}$ Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

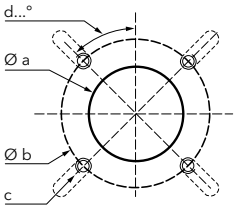
DIMENSIONS (mm)



Gas train model	A	B	C	D	E	F	ØG	H		I	N	Rp	R	S	T	W
								KN	KL							
d1"1/2-Rp2"	465	475	640	377	97	149	157	212	352	245	195	2"	80	330	100	613
d1"1/4-Rp1"1/4	465	475	640	377	97	149	157	212	352	245	195	1"1/4	55	260	145	536
d3/4"-Rp3/4"	465	475	640	377	97	149	157	212	352	245	195	3/4"	46	210	120	489

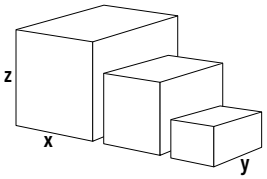
Connecting flange

Øa (mm)	b (mm)	c	d
190-240	200-270	M10	45°



PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	VG4.440 D E	490	490	590	28,7
Combustion head	KN	750	260	295	8,9
	KL	895	260	295	10,1
Gas train	d1"1/2-Rp2"	600	400	240	14
	d1"1/4-Rp1"1/4	440	320	240	10
	d3/4"-Rp3/4"	440	320	240	7

VG4.440 D E

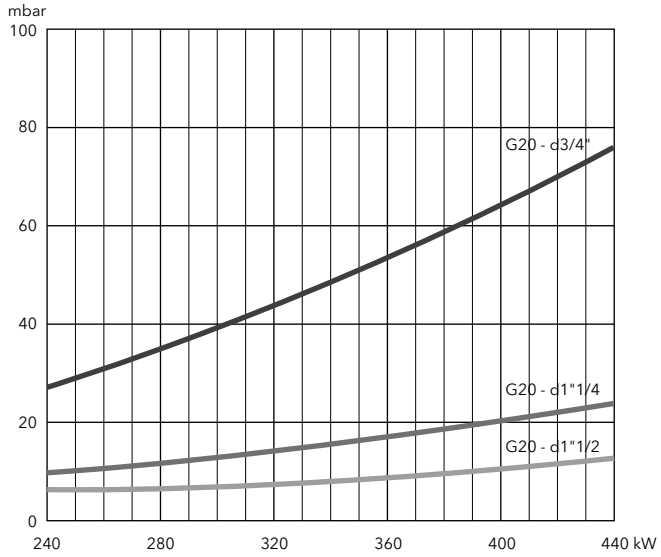
110 ... 440 kW
2 stages (ErP compliant)

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

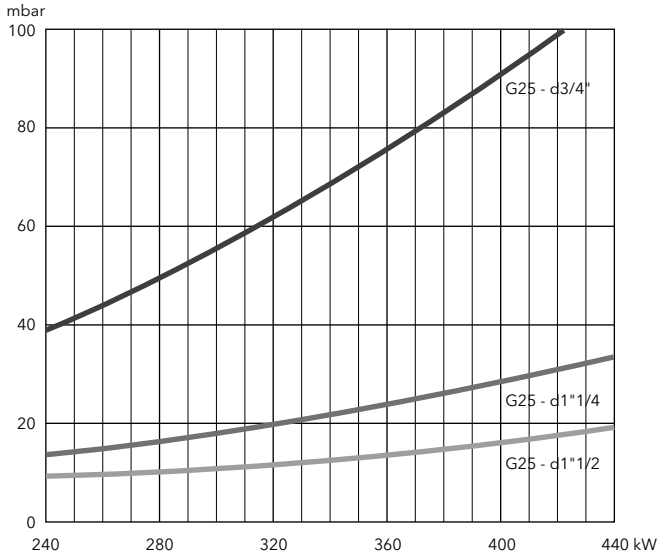
VG4.440 D E

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³			Natural gas G25 Hi = 8,83 kWh/m³		
	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"
240	27	9	6	39	13	9
280	35	12	6	50	16	10
320	43	14	7	62	20	11
360	53	17	9	76	24	14
400	64	20	11	91	29	17
440	76	24	13	107	34	19

Natural gas G20



Natural gas G25

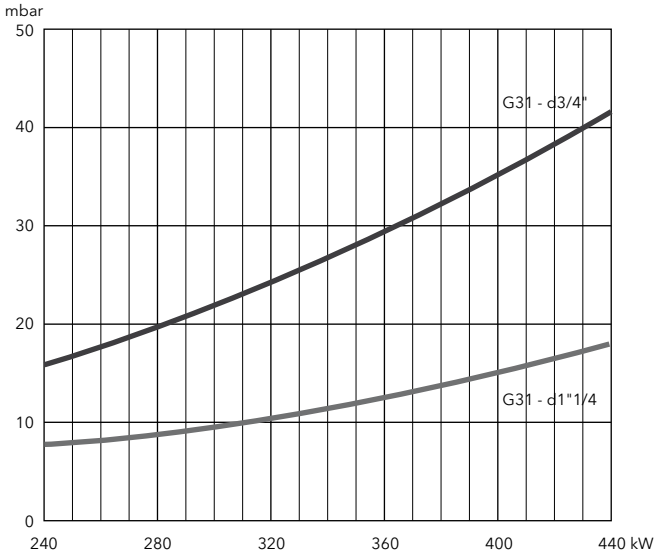


MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

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

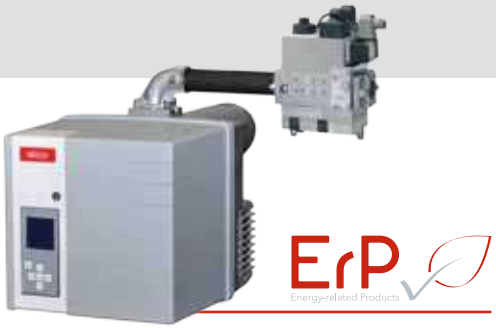
Burner output (kW)	LPG G31 Hi = 25,89 kWh/m³	
	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4
240	16	8
280	20	9
320	24	10
360	29	12
400	35	15
440	42	18

LPG



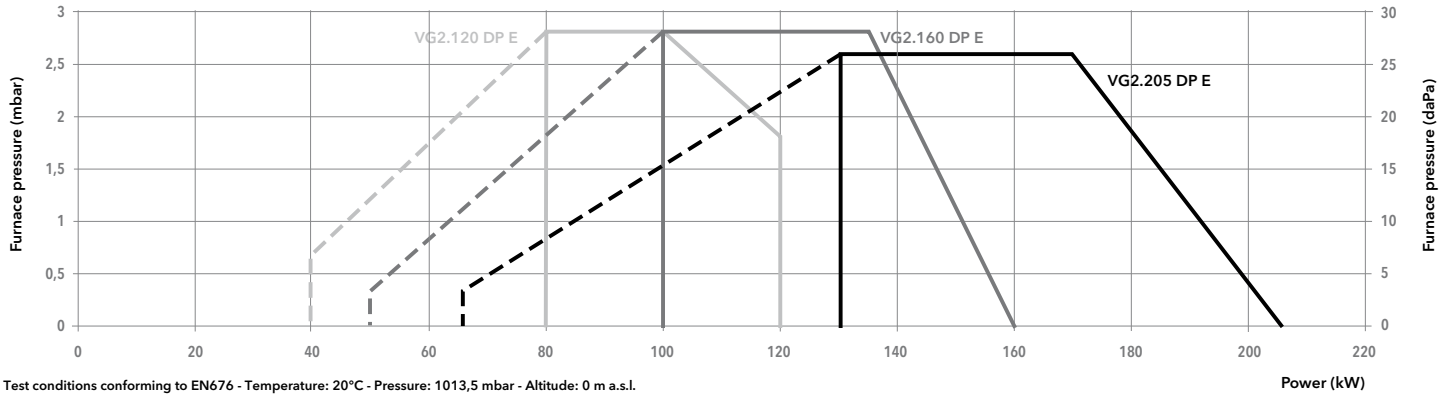
VG2.120 DP E, VG2.160 DP E, VG2.205 DP E

40 ... 205 kW
2 stage progressive/modulating pneumatic (ErP compliant)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** compliant with ErP Directive
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG2.120 DP E		VG2.160 DP E		VG2.205 DP E	
Operation range			(40) 80 - 120 kW		(50) 100 - 160 kW		(65) 130 - 205 kW	
Gas pressure			20 - 100 mbar for d332 gas train; 20 - 300 mbar for d333 gas train		20 - 100 mbar for d345 gas train; 20 - 300 mbar for d347 gas train		20 - 40 mbar for d348 gas train; 40 - 100 for d346, 100 - 300 for d345	
Control box / flame detection			TCG5... / ionization		TCG5... / ionization		TCG5... / ionization	
Fan motor			230 V - 50 Hz - 100 W		230 V - 50 Hz - 100 W		230 V - 50 Hz - 130 W	
Electrical consumption (max/min/stand-by)			239 W / 358 W /4 W		285 W / 293 W / 4 W		302 W / 267 W / 4 W	
Acoustic level (LpA)			62 dB(A)		64 dB(A)		65 dB(A)	
CE certificate			0476 CT 2423		0476 CT 2423		0476 CT 2423	
Head lenght			KN	KL	KN	KL	KN	KL
Complete burner code	MB-VEF 407	d332-3/4"-Rp3/4"	**3836364**	**3836365**	-	-	-	-
	MB-VEF 407	d333-3/4"-Rp3/4"	**3836366**	**3836367**	-	-	-	-
	MB-VEF 407	d345-3/4"-Rp3/4"	-	-	**3836368**	**3836369**	**3836374**	**3836375**
	MB-VEF 407	d346-3/4"-Rp3/4"	-	-	-	-	**3836376**	**3836377**
	MB-VEF 407	d347-3/4"-Rp3/4"	-	-	**3836370**	**3836371**	-	-
	MB-VEF 412	d348-1"1/4-Rp1"1/4	-	-	-	-	**3836372**	**3836373**

OTHER AVAILABLE VERSIONS

60 60 Hz version

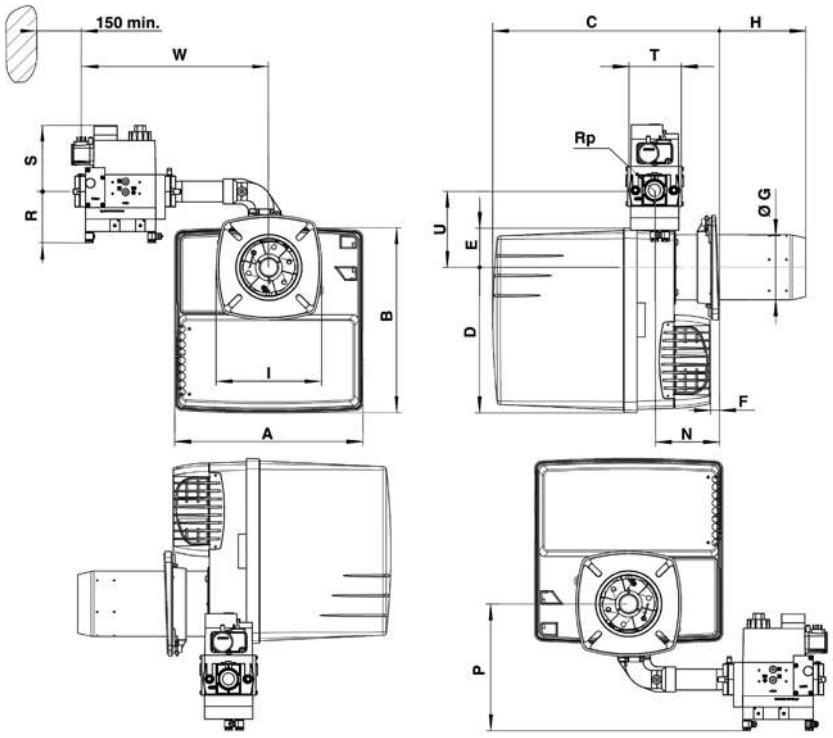
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 gas connection flange
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 burner flange with insulation
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

AGP | MDE2 | RTC | LOW NOx CLASS 3 | ErP COMPLIANT

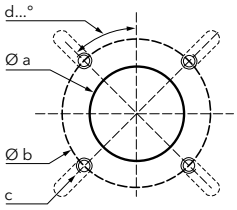
DIMENSIONS (mm)



	Gas train model	A	B	C		D	E	F min	ØG	H		I	N min	P	Rp	R	S	T	U	W
				KN	KL					KN	KL									
VG2.120	**d3/4"-Rp3/4"**	331	325	398…518	398…638	256	69	15	115	30…150	30…270	185	113	179	3/4"	70	160	120	133	345
VG2.160	**d3/4"-Rp3/4"**	331	325	398…518	398…638	256	69	15	115	30…150	30…270	185	113	179	3/4"	70	160	120	133	345
VG2.205	**d3/4"-Rp3/4"**	331	325	398…518	398…638	256	69	15	125	30…150	30…270	185	113	179	3/4"	70	160	120	133	345
	d1"1/4-Rp1"1/4	331	325	398…518	398…638	256	69	15	125	30…150	30…270	185	113	188	1"1/4	80	175	145	133	380

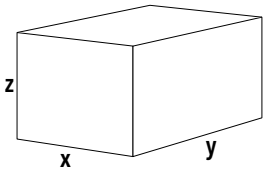
Connecting flange

	Øa (mm)	b (mm)	c	d
VG2.120/160	120-135	150-185	M8	45°
VG2.205	130-145	160-185	M8	45°



PACKAGING

The burner is delivered in 1 single package containing all components



Dimensions (mm)			Gross weight (kg)
X	Y	Z	
400	400	760	26

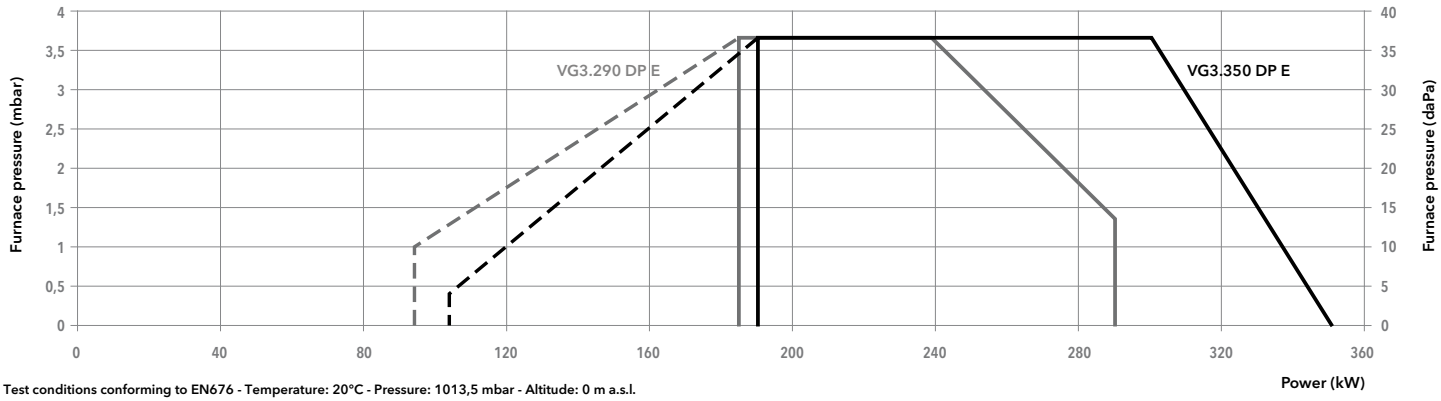
VG3.290 DP E, VG3.350 DP E

95 ... 350 kW
2 stages progressive/modulating pneumatic (ErP compliant)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** compliant with ErP Directive
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 21

TECHNICAL DATA



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

		VG3.290 DP E		VG3.350 DP E	
Operation range		(95) 185 - 290 kW		(105) 190 - 350 kW	
Gas pressure		20 - 360 mbar		20 - 360 mbar	
Control box / flame detection		TCG5... / ionization		TCG5... / ionization	
Fan motor		230 V - 50 Hz - 250 W		230 V - 50 Hz - 300 W	
Electrical consumption (max/min/stand-by)		465 W / 441 W / 4 W		583 W / 583 W / 4 W	
Acoustic level (LpA)		67 dB(A)		69 dB(A)	
CE certificate		0476 CT 2423		0476 CT 2423	
Head lenght		KN	KL	KN	KL
Complete burner code	MB-VEF 420 d1"1/2-Rp2"	-	-	**3836414**	**3836415**
	MB-VEF 412 d1"1/4-Rp1"1/4	**3836410**	**3836411**	**3836416**	**3836417**
	MB-VEF 407 d3/4"-Rp1"	**3836412**	**3836413**	**3836418**	**3836419**

OTHER AVAILABLE VERSIONS

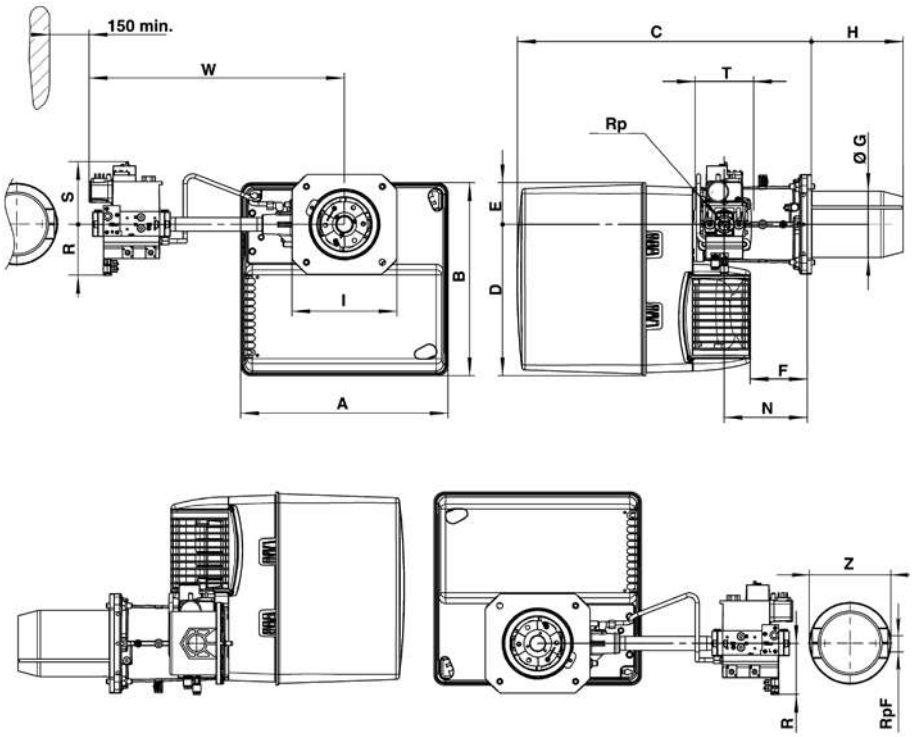
60 60 Hz version
TC Version with tightness control
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

AGP MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

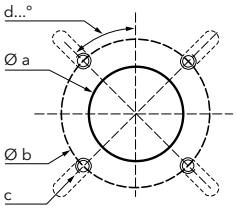
DIMENSIONS (mm)



Gas train model	A	B	C	D	E	F	ØG	H		I	N	Rp	R	S	T	W	RpF	Z
								KN	KL									
d1"1/2-Rp2"	406	379	576	297	82	120	130	180	320	195x205	170	2"	100	185	100	603	-	-
d1"1/4-Rp1"1/4	406	379	576	297	82	120	130	180	320	195x205	170	1"1/4	80	175	145	526	-	-
d3/4"-Rp1"	406	379	576	297	82	120	130	180	320	195x205	170	1"	70	160	120	479	1"	160

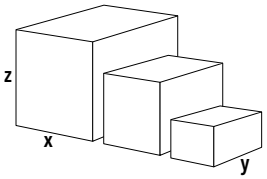
Connecting flange

Øa (mm)	b (mm)	c	d
155-190	175-220	M10	45°



PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Body	VG3.290 DP E	440	400	520	21
	VG3.350 DP E	440	400	520	21
Combustion head	KN	650	210	260	6
	KL	780	210	260	7
Gas train	d1"1/2-Rp2"	670	550	380	12
	d1"1/4-Rp1"1/4	600	400	240	11
	d3/4"-Rp1"	600	400	240	7

VG3.290 DP E, VG3.350 DP E

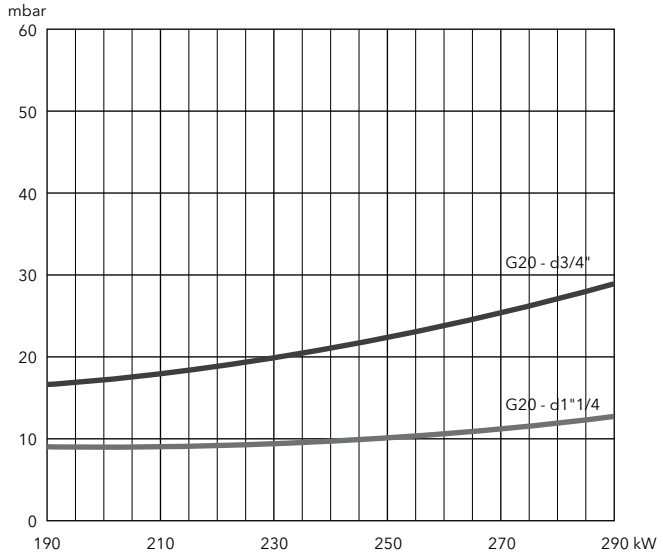
95 ... 350 kW
2 stages progressive/modulating pneumatic (ErP compliant)

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

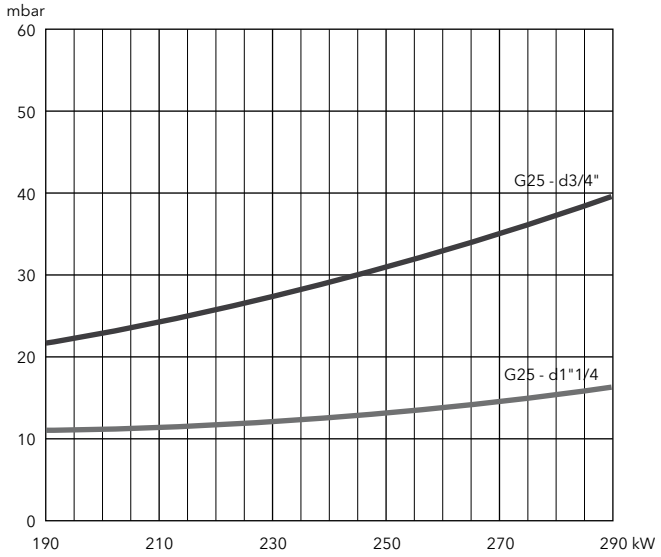
VG3.290 DP E

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³		Natural gas G25 Hi = 8,83 kWh/m³		LPG G31 Hi = 25,89 kWh/m³	
	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d3/4"-Rp1"	d1"1/4-Rp1"1/4
190	17	9	22	11	11	7
210	18	9	24	12	12	7
230	20	9	27	12	12	7
250	22	10	31	13	13	8
270	25	11	35	15	14	8
290	29	13	40	16	16	9

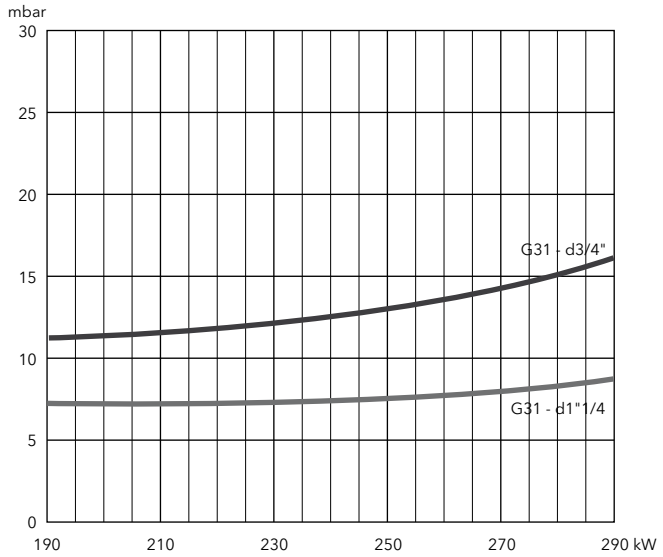
Natural gas G20



Natural gas G25



LPG



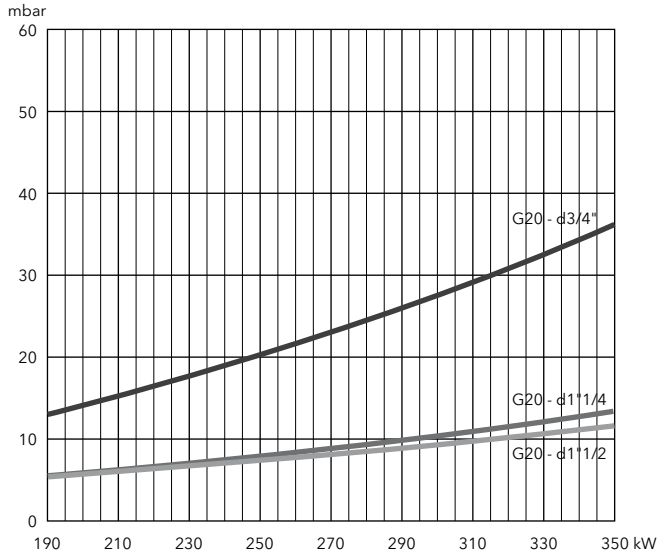
AGP MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

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

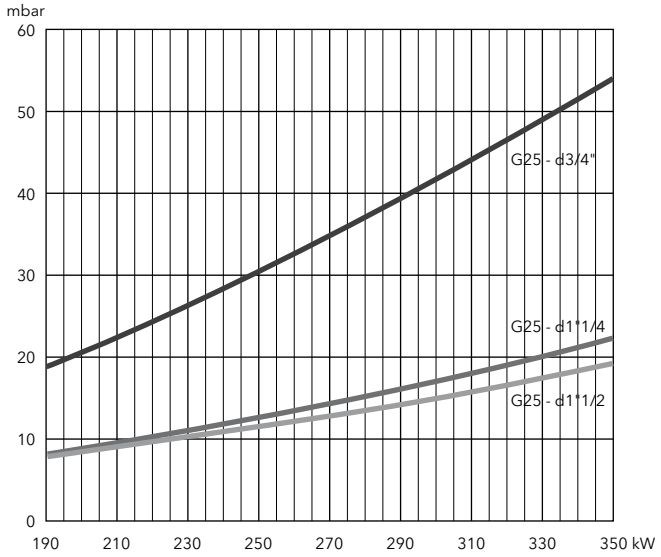
VG3.350 DP E

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³			Natural gas G25 Hi = 8,83 kWh/m³			LPG G31
	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"	d3/4"-Rp1"
190	13	6	6	19	8	8	8
230	17	7	7	26	11	10	12
270	23	9	8	35	15	13	15
310	29	11	10	44	18	16	18
350	36	14	12	54	22	19	22

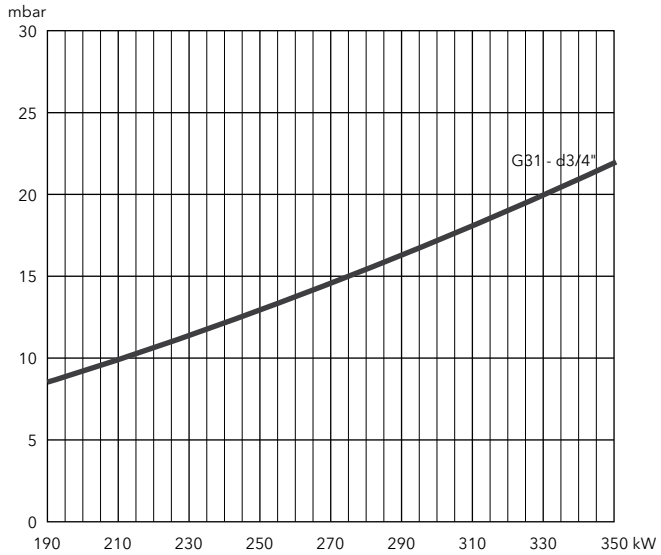
Natural gas G20



Natural gas G25



LPG



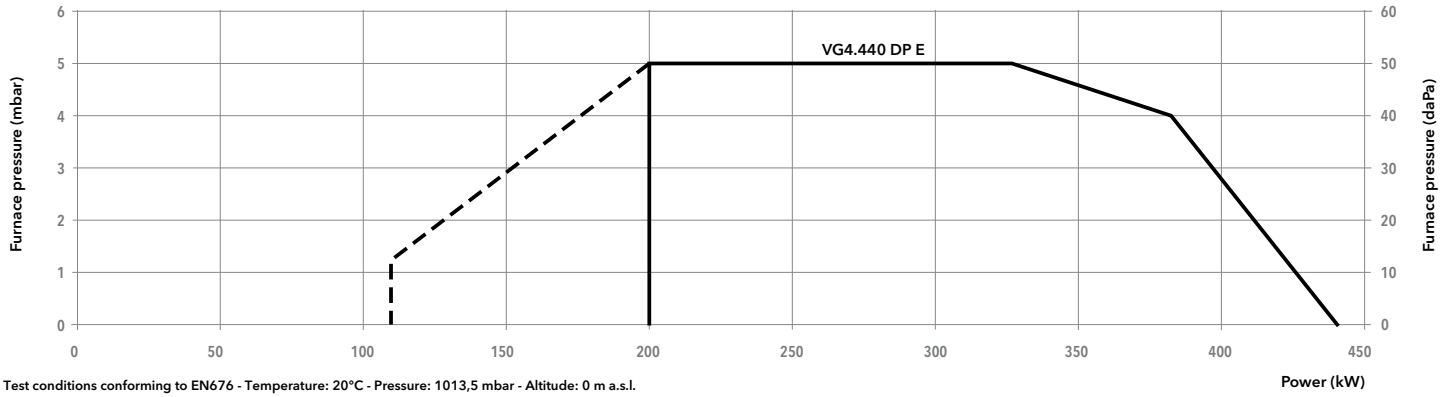
VG4.440 DP E

110 ... 440 kW
2 stage progressive/modulating pneumatic (ErP compliant)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** compliant with ErP Directive
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG4.440 DP E	
Operation range			(110) 200 - 440 kW	
Gas pressure			20 - 360 mbar	
Control box / flame detection			TCG5... / ionization	
Fan motor			230 V - 50 Hz - 420 W	
Electrical consumption (max/min/stand-by)			606 W / 569 W / 4 W	
Acoustic level (LpA)			70 dB(A)	
CE certificate			0476 CT 2423	
Head lenght			KN	KL
Complete burner code	MB-VEF 420	d1"1/2-Rp2"	**3836430**	**3836431**
	MB-VEF 412	d1"1/4-Rp1"1/4	**3836432**	**3836433**
	MB-VEF 407	d3/4"-Rp1"	**3836434**	**3836435**

OTHER AVAILABLE VERSIONS

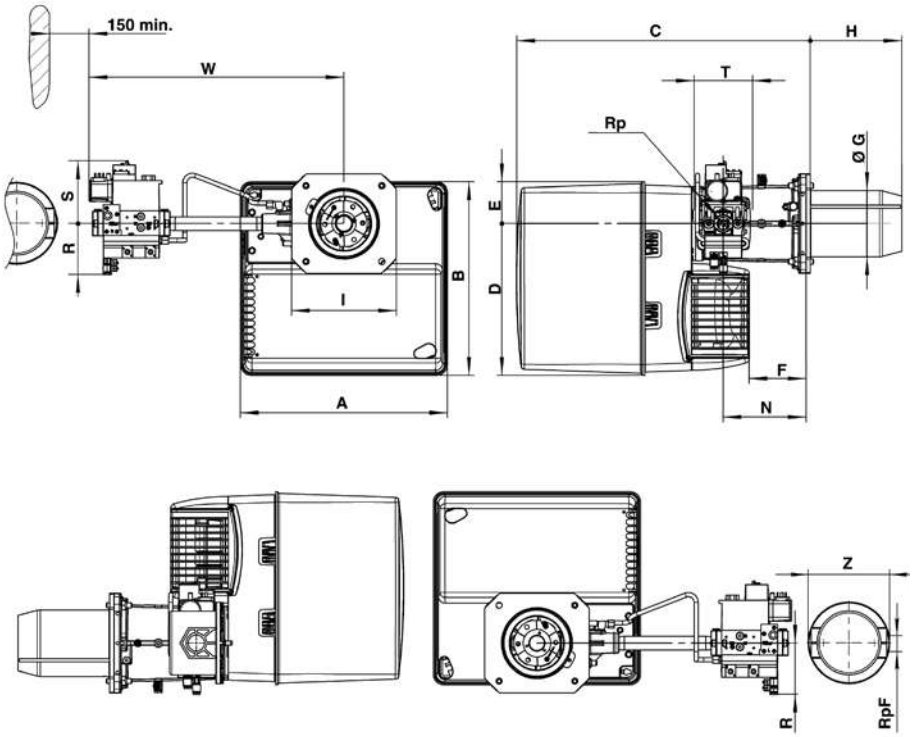
60 60 Hz version
TC Version with tightness control
V$_{ENT}$ Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

AGP MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

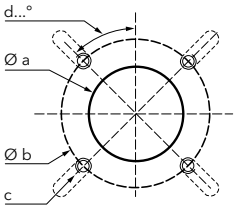
DIMENSIONS (mm)



Gas train model	A	B	C	D	E	F	ØG	H		I	N	Rp	R	S	T	W	RpF	Z
								KN	KL									
d1"1/2-Rp2"	465	475	640	377	97	149	157	212	352	245	195	2"	100	185	100	613	-	-
d1"1/4-Rp1"1/4	465	475	640	377	97	149	157	212	352	245	195	1"1/4	80	175	145	536	-	-
d3/4"-Rp1"	465	475	640	377	97	149	157	212	352	245	195	1"	70	160	120	489	1"	160

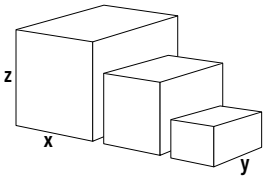
Connecting flange

Øa (mm)	b (mm)	c	d
190-240	200-270	M10	45°



PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VG4.440 DP E**	490	490	590	28,6
Combustion head	**KN**	750	260	295	8,9
	KL	895	260	295	10,1
Gas train	**d1"1/2-Rp2"**	670	550	380	12
	d1"1/4-Rp1"1/4	600	400	240	11
	d3/4"-Rp1"	600	400	240	7

VG4.440 DP E

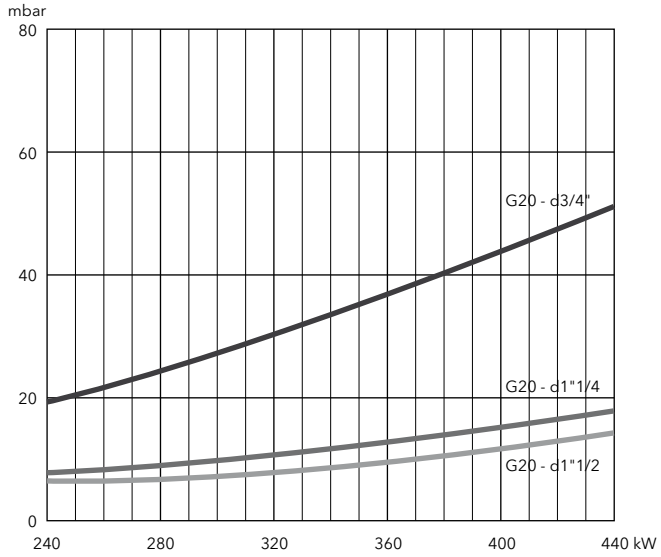
110 ... 440 kW
2 stage progressive/modulating pneumatic (ErP compliant)

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

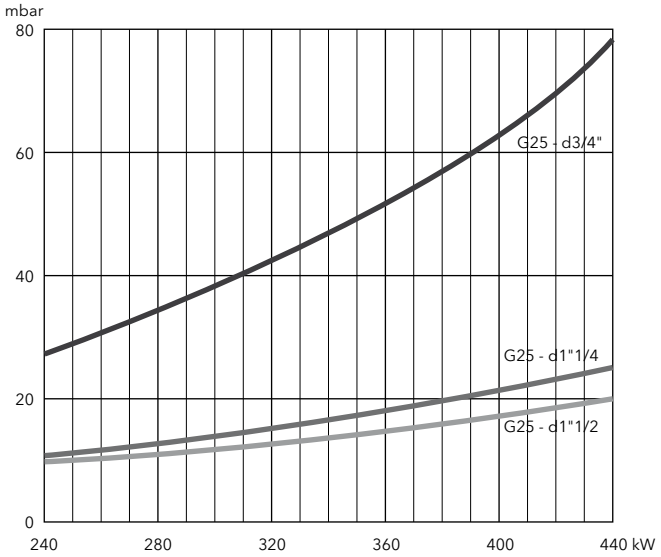
VG4.440 DP E

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³			Natural gas G25 Hi = 8,83 kWh/m³		
	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"
240	19	8	7	27	11	10
280	24	9	8	35	13	11
320	30	11	9	42	15	12
360	37	13	11	51	18	15
400	44	15	13	64	22	17
440	51	18	15	78	25	20

Natural gas G20



Natural gas G25

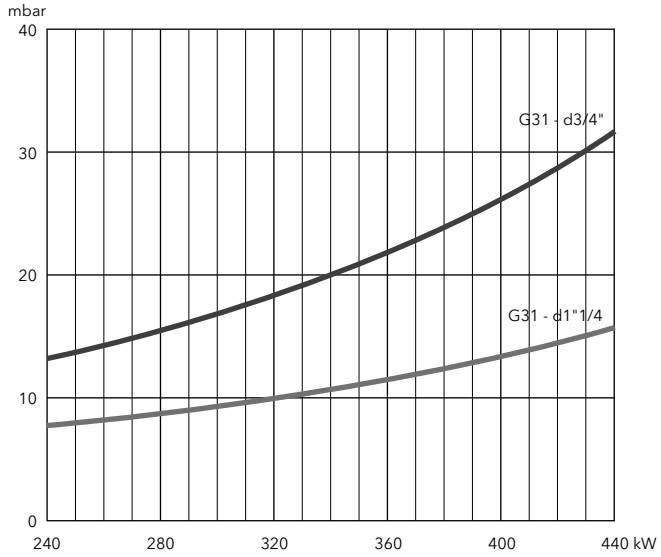


AGP MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

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

Burner output (kW)	LPG G31 Hi = 25,89 kWh/m³	
	d3/4"-Rp1"	d1"1/4-Rp1"1/4
240	13	8
280	16	9
320	18	10
360	22	11
400	26	13
440	32	16

LPG



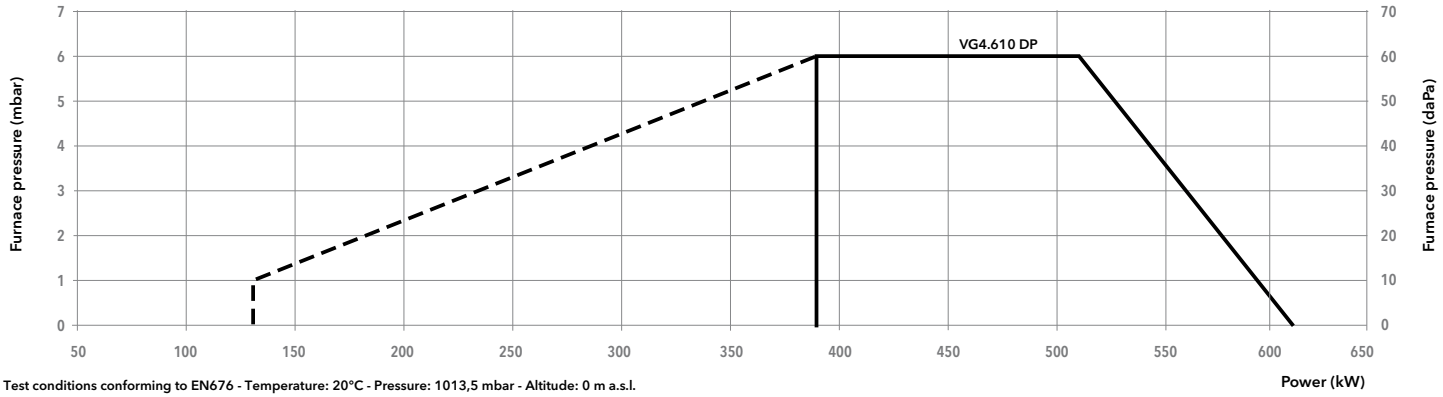
VG4.610 DP

130 ... 610 kW
2 stage progressive/modulating pneumatic (Low NOx class 3)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** Low NOx class 3 (≤80 mg/kWh) according to EN676
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 41

TECHNICAL DATA



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

Model			VG4.610 DP	
Operation range			(130) 390 - 610 kW	
Gas pressure			20 - 300 mbar	
Control box / flame detection			TCG5... / ionization	
Fan motor			230 V - 50 Hz - 750 W	
Electrical consumption			68 + 720 W	
Acoustic level (LpA)			71 dB(A)	
CE certificate			1312 CL 5412	
Head lenght			KN	KL
Complete burner code	MB-VEF 420	d1"1/2-Rp2"	**3833415**	**3833416**
	MB-VEF 412	d1"1/4-Rp1"1/4	**3833417**	**3833418**
	MB-VEF 407	d3/4"-Rp1"	**3833419**	**3833420**

OTHER AVAILABLE VERSIONS

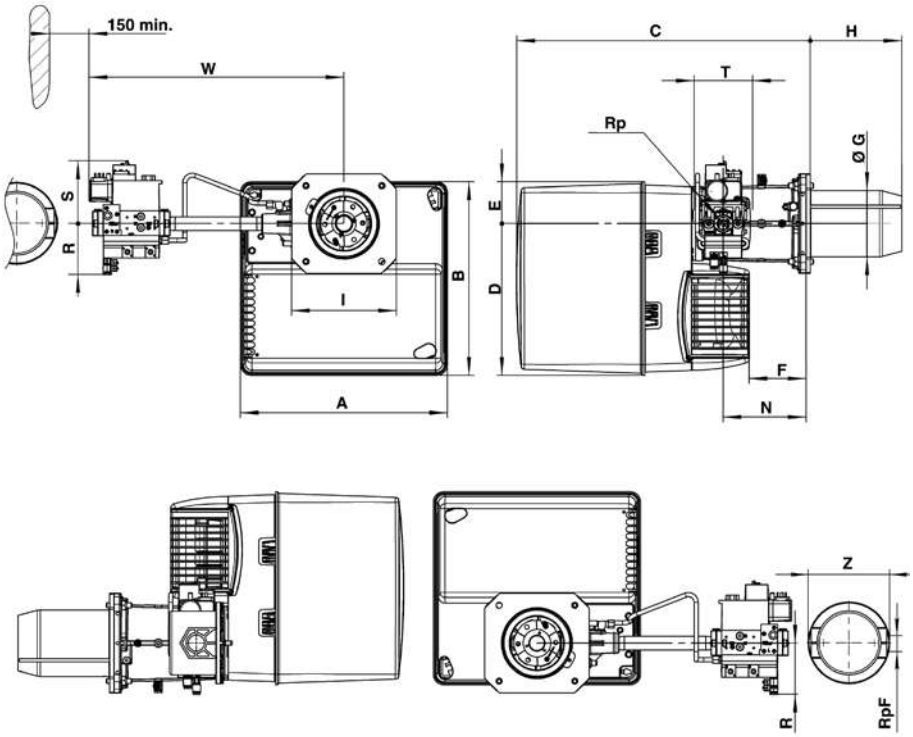
60 60 Hz version
TC Version with tightness control
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

AGP | MDE2 | RTC | LOW NOx CLASS 3

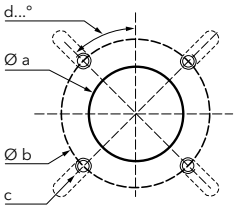
DIMENSIONS (mm)



Gas train model	A	B	C	D	E	F	ØG	H		I	N	Rp	R	S	T	W	RpF	Z
								KN	KL									
d1"1/2-Rp2"	465	475	640	377	97	149	150	220	360	245	195	2"	100	185	100	613	-	-
d1"1/4-Rp1"1/4	465	475	640	377	97	149	150	220	360	245	195	1"1/4	80	175	145	536	-	-
d3/4"-Rp1"	465	475	640	377	97	149	150	220	360	245	195	1"	70	160	120	489	1"	160

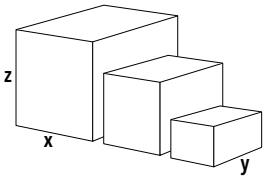
Connecting flange

Øa (mm)	b (mm)	c	d
180-240	200-270	M10	45°



PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	VG4.610 DP	490	490	590	32,7
Combustion head	KN	750	260	295	8,9
	KL	895	260	295	10,1
Gas train	d1"1/2-Rp2"	670	550	380	12
	d1"1/4-Rp1"1/4	600	400	240	11
	d3/4"-Rp1"	600	400	240	7

VG4.610 DP

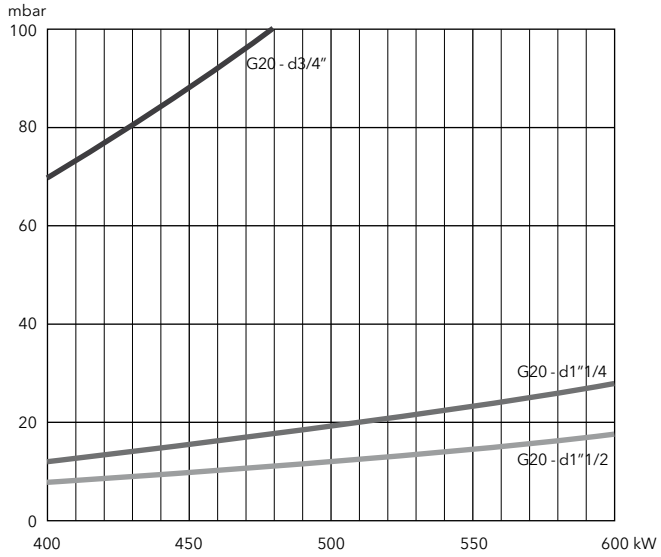
130 ... 610 kW
2 stage progressive/modulating pneumatic (Low NOx class 3)

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

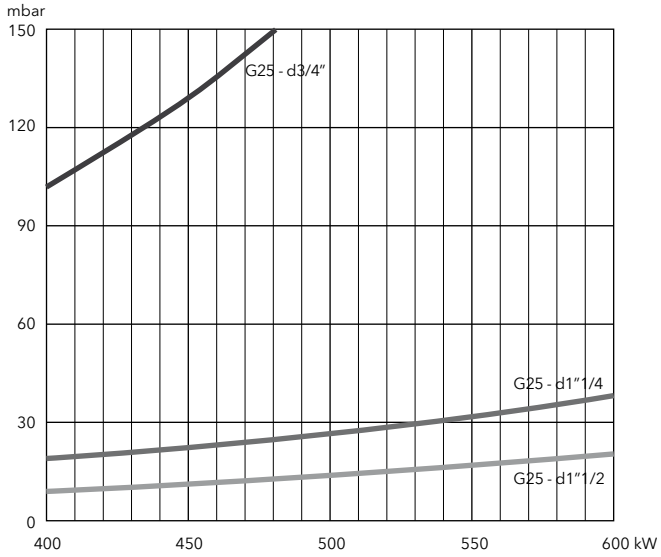
VG4.610 DP

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³			Natural gas G25 Hi = 8,83 kWh/m³		
	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"
350	53	9	6	78	13	7
400	70	12	8	102	17	9
450	88	16	10	129	21	11
500	109	19	12	159	26	14
550	132	23	15	192	32	17
610	162	29	18	236	39	20

Natural gas G20



Natural gas G25

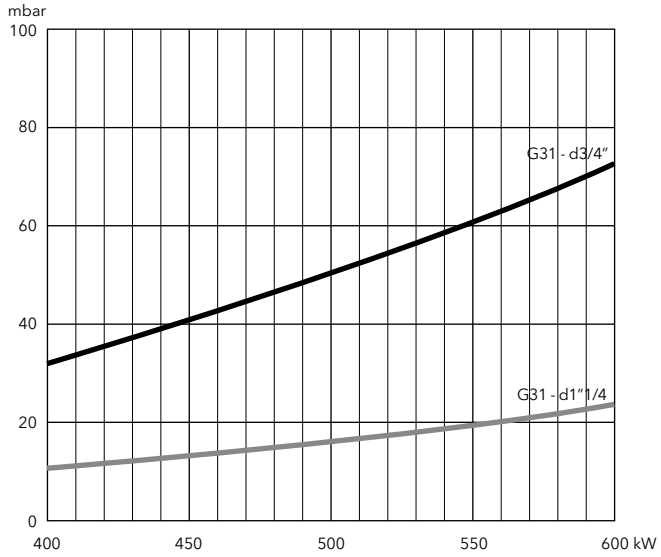


AGP MDE2 RTC LOW NOx CLASS 3

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

Burner output (kW)	LPG G31 Hi = 25,89 kWh/m³	
	d3/4"-Rp1"	d1"1/2-Rp2"
350	25	8
400	32	10
450	41	13
500	50	16
550	61	20
610	75	24

LPG



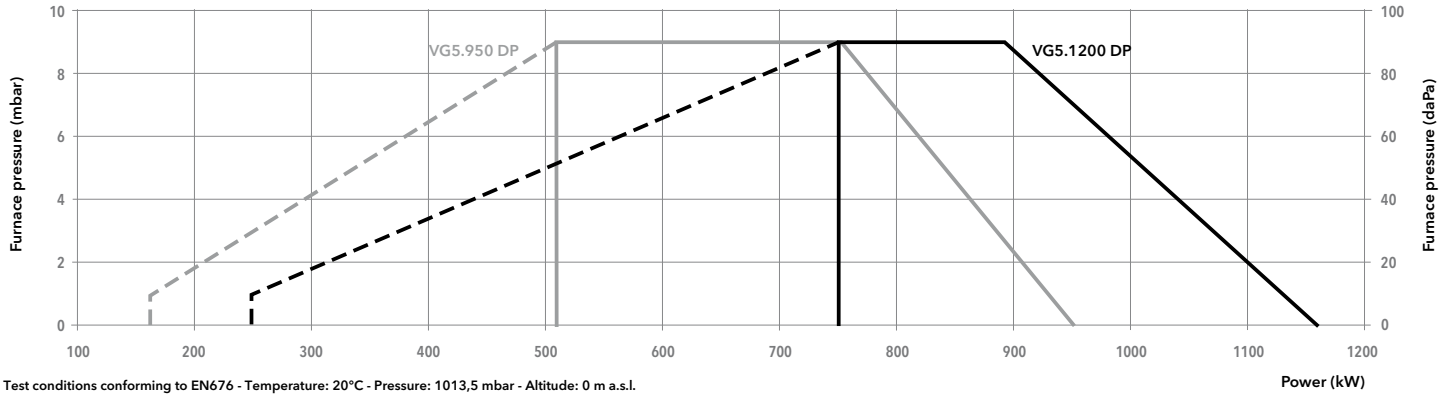
VG5.950 DP, VG5.1200 DP

170 ... 1160 kW
2 stage progressive/modulating pneumatic (Low NOx class 3)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** Low NOx class 3 (≤80 mg/kWh) according to EN676
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG5.950 DP			VG5.1200 DP		
Operation range			(170) 510 - 950 kW			(250) 750 - 1160 kW		
Gas pressure			20 - 300 mbar			20 - 300 mbar		
Control box / flame detection			TCG 5.. / ionization			TCG 5.. / ionization		
Fan motor			230/400 V - 50 Hz - 1,5 kW			230/400 V - 50 Hz - 1,5 kW		
Electrical consumption			65 + 1884 W			67 + 2052 W		
Acoustic level (LpA)			77 dB(A)			77 dB(A)		
CE certificate			1312 CN 5684			1312 CN 5684		
Head lenght			KN	KL	KM	KN	KL	KM
Complete burner code	VGD 40-065	s65-DN65	-	-	-	**3833603**	**3833604**	**3833629**
	VGD 20-5011	s2"-Rp2"	**3833595**	**3833596**	**3833621**	**3833597**	**3833598**	**3833631**
	MB-VEF 420	d1"1/2-Rp2"	**3833585**	**3833586**	**3833623**	**3833589**	**3833590**	**3833633**
	MB-VEF 412	d1"1/4-Rp2"	**3833579**	**3833580**	**3833625**	**3833581**	**3833582**	**3833635**
	MB-VEF 407	d3/4"-Rp1"	**3833583**	**3833584**	**3833627**	-	-	-

OTHER AVAILABLE VERSIONS

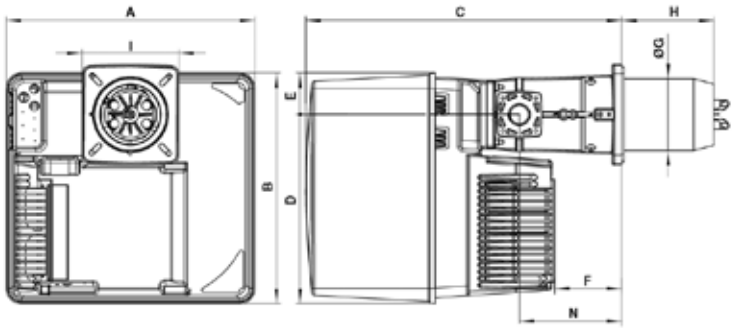
60 60 Hz version
TC Version with tightness control
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

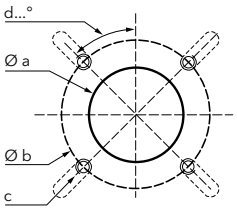
The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

AGP MDE2 RTC LOW NOx CLASS 3

DIMENSIONS (mm)



Connecting flange

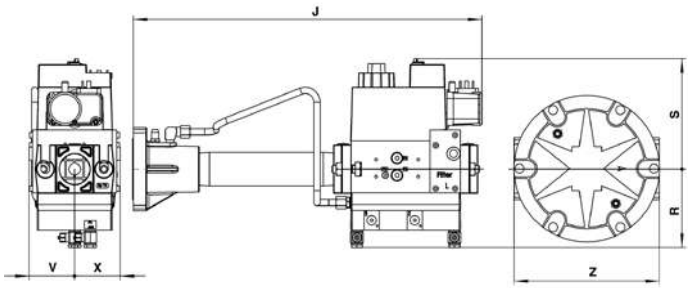


A	B	C	D	E	F	ØG	H			I	K	N
							KN	KM	KL			
581	549	752	450	99	164	170	215	325	435	230x238	89	244

Øa (mm)	b (mm)	c	d
195	220-260	M10	45°

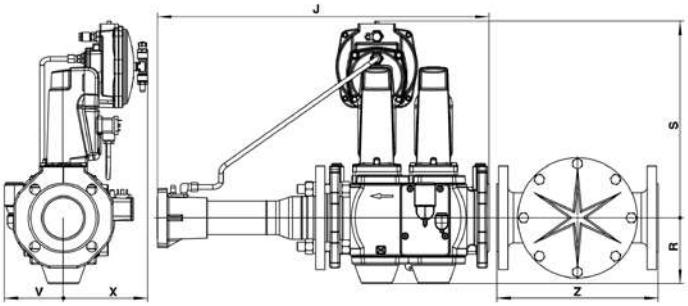
Gas trains

Gas train "d":



Model	J	R	S	V	X	Z
d1"1/2-Rp2"	540	123	190	55	55	-
d1"1/4-Rp2"	450	100	141	58	58	186
d3/4"-Rp1"	420	100	122	55	50	160

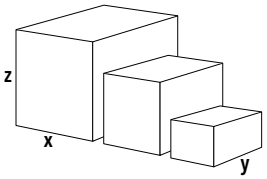
Gas train "s":



Model	J	R	S	V	X	Z
s65-DN65	600	135	360	110	150	290
s2"-Rp2"	612	103	330	110	150	186

PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	VG5.950 DP	800	600	850	53
	VG5.1200 DP	800	600	850	54
Combustion head	KN	780	265	280	12,3
	KL	1010	265	280	14,4
	KM	1010	265	280	13,4
Gas train	s65-DN65	790	600	500	29
	s2"-Rp2"	790	600	500	17,2
	d1"1/2-Rp2"	670	550	380	12
	d1"1/4-Rp2"	600	400	240	12
	d3/4"-Rp1"	600	400	240	7

VG5.950 DP, VG5.1200 DP

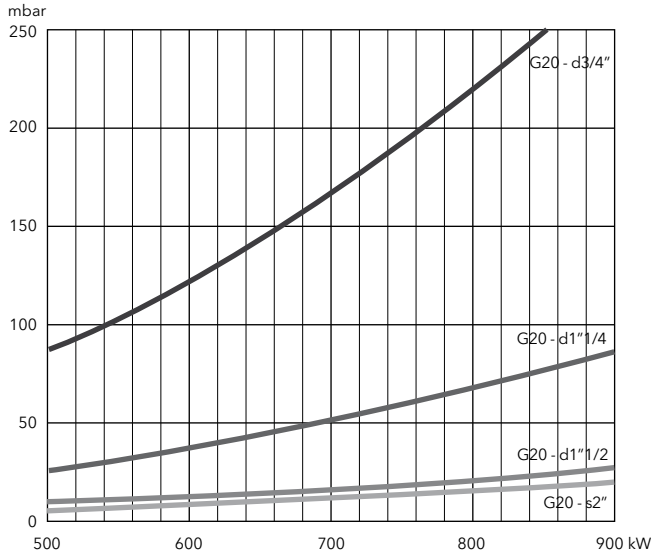
170 ... 1160 kW
2 stage progressive/modulating pneumatic (Low NOx class 3)

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

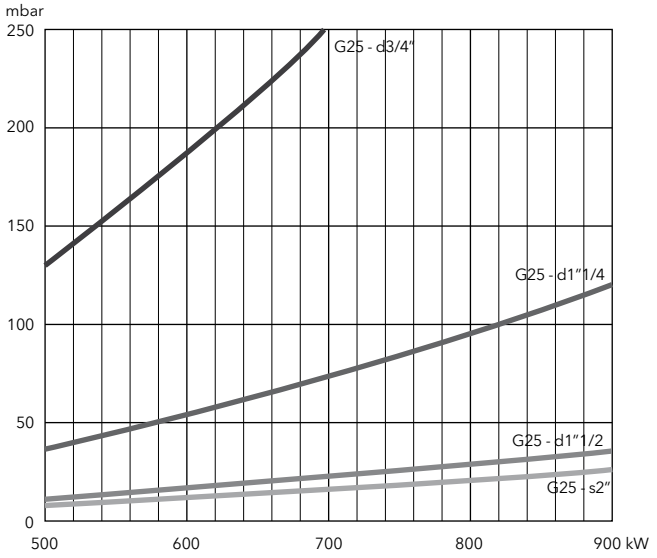
VG5.950 DP

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³				Natural gas G25 Hi = 8,83 kWh/m³				LPG G31 Hi= 25,89 kWh/m³			
	d3/4"-Rp1"	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"	d3/4"-Rp1"	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"	d3/4"-Rp1"	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"
550	104	32	10	7	157	46	13	10	47	16	9	9
600	122	38	11	9	186	54	16	12	56	19	11	11
650	145	45	13	11	219	64	19	14	66	22	13	13
700	168	52	15	12	253	74	22	16	76	25	14	14
750	193	60	18	14	292	85	25	18	88	28	16	16
800	219	68	21	16	-	96	29	21	99	32	19	19
850	248	77	24	18	-	109	33	24	112	37	21	21
900	277	86	27	20	-	122	36	27	126	41	24	24
950	308	95	29	23	-	136	40	30	141	46	27	27

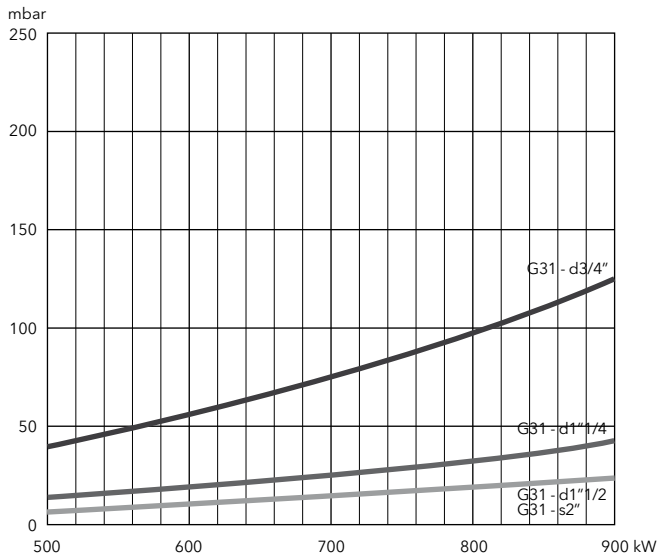
Natural gas G20



Natural gas G25



LPG



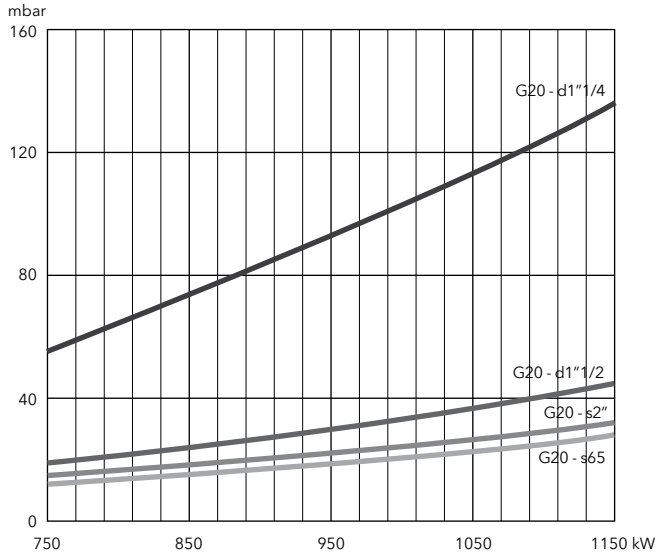
AGP MDE2 RTC LOW NOx CLASS 3

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

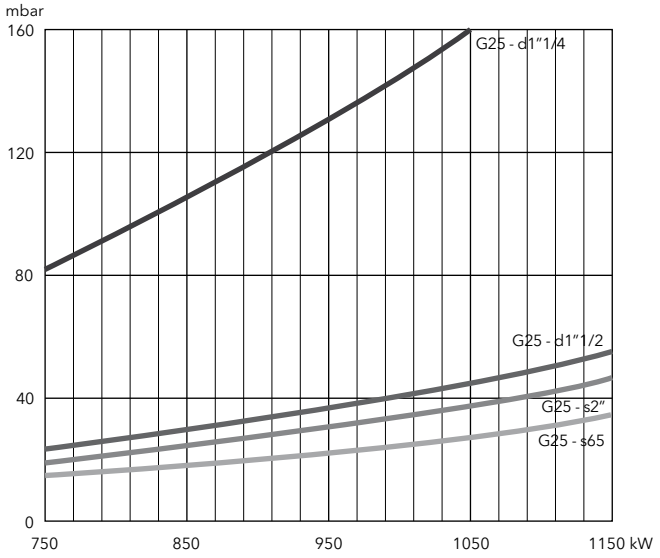
VG5.1200 DP

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³				Natural gas G25 Hi = 8,83 kWh/m³				LPG G31 Hi = 25,89 kWh/m³		
	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"	s65-Rp2"	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"	s65-Rp2"	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"
750	56	18	14	12	82	24	19	14	28	14	14
800	65	21	16	13	92	27	22	16	32	16	16
850	74	24	18	15	105	30	25	18	36	18	18
900	83	27	20	17	118	33	28	20	41	20	20
950	94	30	22	19	131	37	31	23	46	22	22
1000	103	33	25	21	145	42	34	26	51	24	25
1050	113	37	27	23	160	47	38	28	56	27	27
1100	124	40	30	25	175	51	42	31	61	30	30
1150	136	44	33	27	192	55	46	34	67	33	33

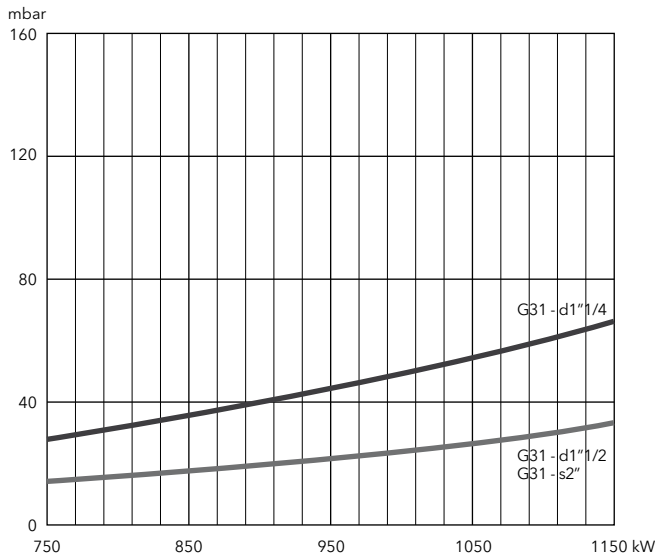
Natural gas G20



Natural gas G25



LPG



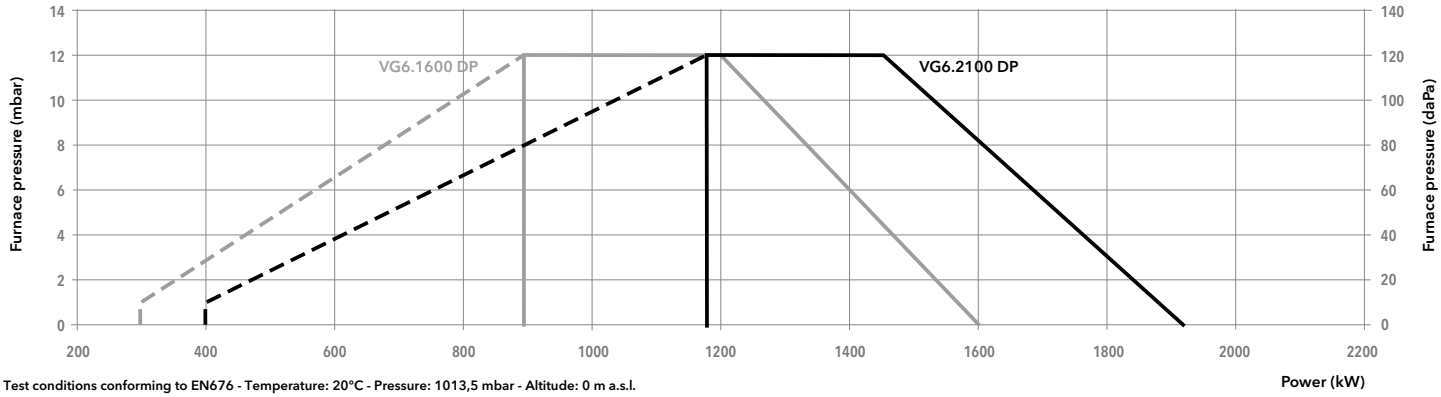
VG6.1600 DP, VG6.2100 DP

300 ... 1900 kW
2 stage progressive/modulating pneumatic (Low NOx class 3)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** Low NOx class 3 (≤80 mg/kWh) according to EN676
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG6.1600 DP /TC			VG6.2100 DP /TC		
Operation range			(300) 890 - 1600 kW			(400) 1180 - 1900 kW		
Gas pressure			20 - 300 mbar			20 - 300 mbar		
Control box / flame detection			TCG 5.. / ionization			TCG 5.. / ionization		
Fan motor			230/400 V - 50 Hz - 2,2 kW			230/400 V - 50 Hz - 2,7 kW		
Electrical consumption			76 + 2325 W			74 + 2622 W		
Acoustic level (LpA)			77,2 dB(A)			79 dB(A)		
CE certificate			1312 CN 5685			1312 CN 5685		
Head lenght			KN	KL	KM	KN	KL	KM
Complete burner code	VGD 40-080	s80-DN80/TC	-	-	-	**3833757**	**3833758**	**3833759**
	VGD 40-065	s65-DN65/TC	**3833745**	**3833746**	**3833747**	**3833760**	**3833761**	**3833762**
	VGD 20-5011	s2"-Rp2"/TC	**3833748**	**3833749**	**3833750**	**3833763**	**3833764**	**3833765**
	MB-VEF 420	d1"1/2-Rp2"/TC	**3833751**	**3833752**	**3833753**	**3833766**	**3833767**	**3833768**
	MB-VEF 412	d1"1/4-Rp2"/TC	**3833754**	**3833755**	**3833756**	**3833769**	**3833770**	**3833771**

OTHER AVAILABLE VERSIONS

60 60 Hz version

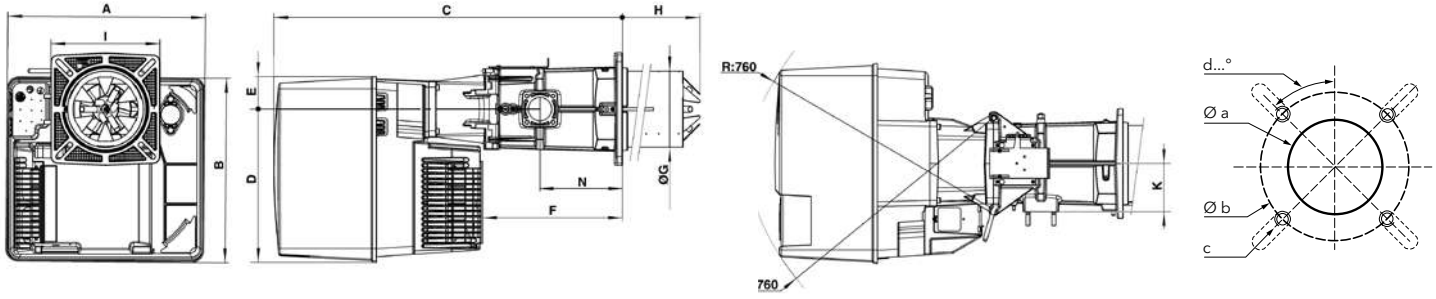
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

AGP MDE2 RTC LOW NOx CLASS 3

DIMENSIONS (mm)

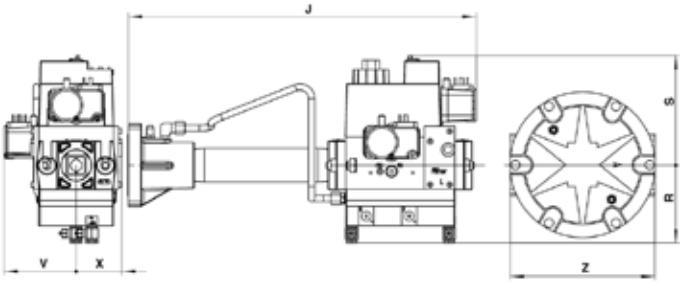


A	B	C	D	E	F	ØG	H			I	K	N
							KN	KM	KL			
592	553	1050	456	97	421	227	360	460	560	326x335	144	247

Øa (mm)	b (mm)	c	d
250	300-400	M12	45°

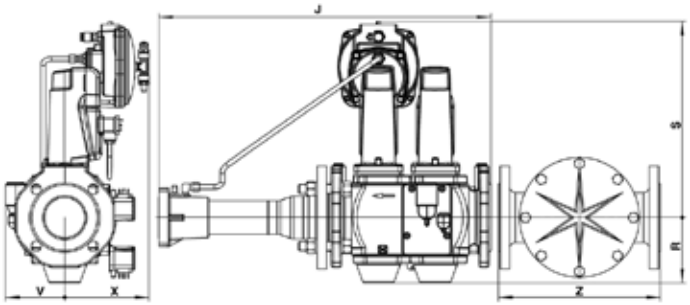
Gas trains

Gas train "d":



Model	J	R	S	V	X	Z
d1"1/2-Rp2"/TC	540	123	190	95	55	-
d1"1/4-Rp2"/TC	450	100	141	95	58	186

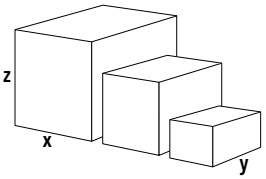
Gas train "s":



Model	J	R	S	V	X	Z
s80-DN80/TC	600	120	350	110	150	320
s65-DN65/TC	600	135	360	110	150	290
s2"-Rp2"/TC	612	103	330	110	150	186

PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	VG6.1600 DP	800	600	850	67,8
	VG6.2100 DP	800	600	850	69,2
Combustion head	KN	1000	380	420	26,7
	KL	1100	380	430	29,4
	KM	1100	380	430	28
Gas train	s80-DN80/TC	790	600	500	39
	s65-DN65/TC	790	600	500	29,4
	s2"-Rp2"/TC	790	600	500	16,5
	d1"1/2-Rp2"/TC	670	550	380	14,3
	d1"1/4-Rp2"/TC	670	550	380	13

VG6.1600 DP, VG6.2100 DP

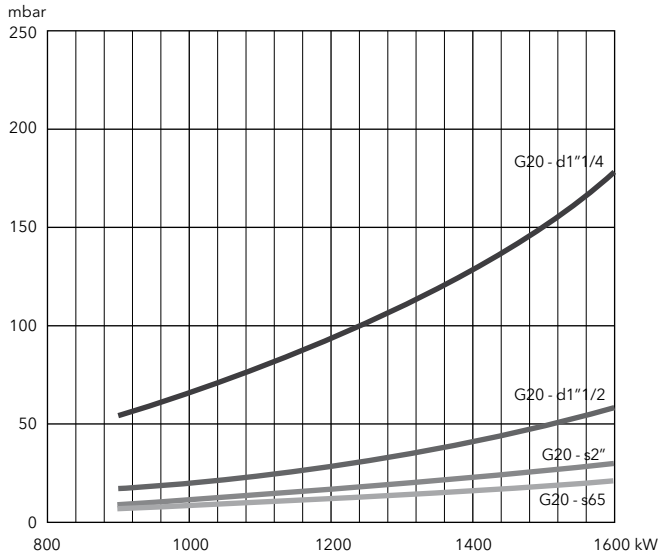
300 ... 1900 kW
2 stage progressive/modulating pneumatic (Low NOx class 3)

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

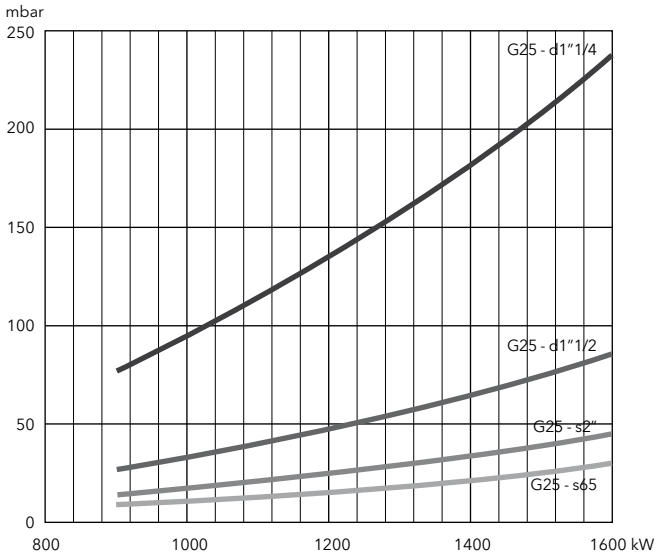
VG6.1600 DP

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³				Natural gas G25 Hi = 8,83 kWh/m³				LPG G31 Hi = 25,89 kWh/m³		
	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"	s65-DN65	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"	s65-DN65	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"
900	53	18	9	7	77	27	14	9	20	8	6
1000	66	23	12	8	93	33	17	12	24	10	7
1100	80	28	14	10	113	40	21	14	29	12	9
1200	95	33	17	12	136	48	25	17	35	15	10
1300	112	39	20	14	158	57	29	20	41	17	12
1400	129	45	23	16	182	66	34	23	47	20	14
1500	148	51	26	19	209	76	39	27	54	23	16
1600	168	58	30	21	238	86	45	30	62	26	19

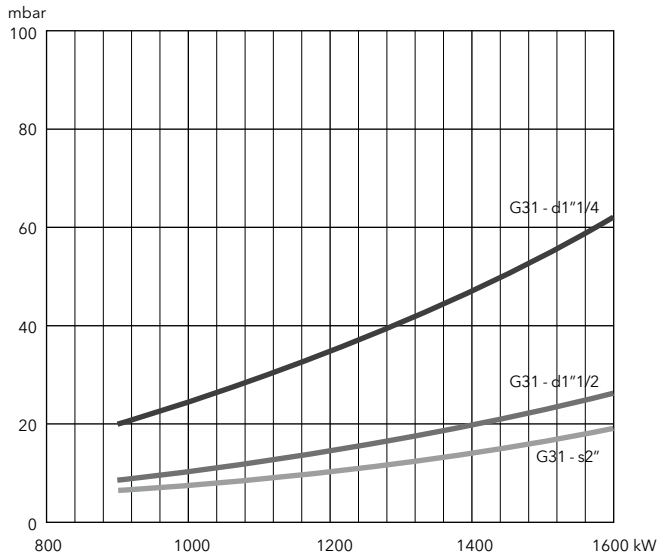
Natural gas G20



Natural gas G25



LPG



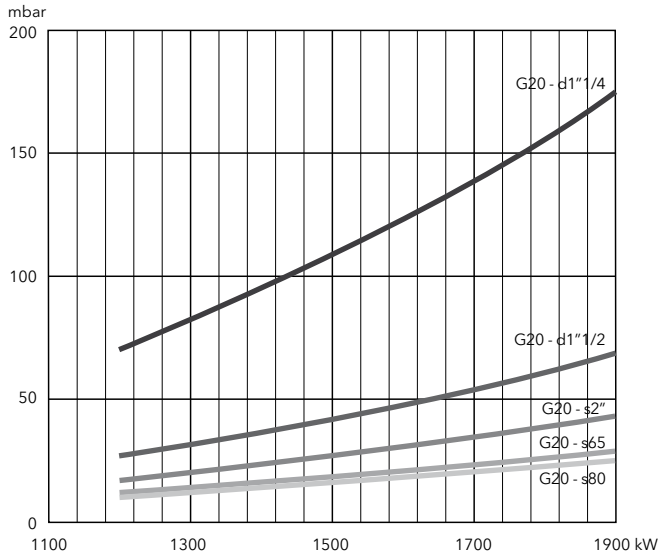
AGP MDE2 RTC LOW NOx CLASS 3

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

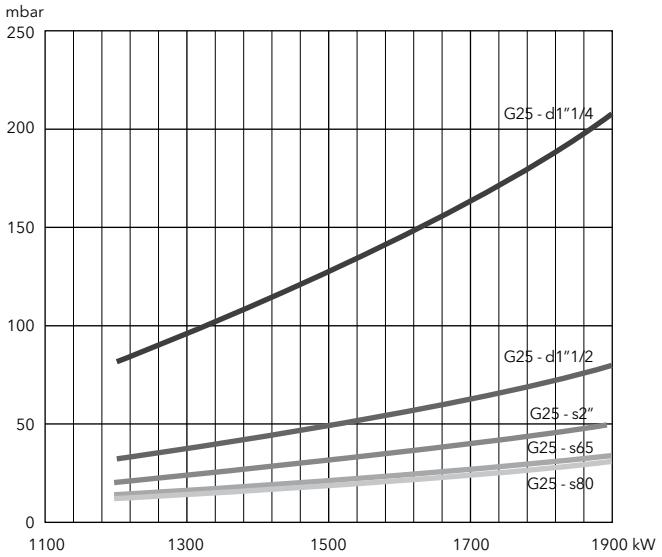
VG6.2100 DP

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³					Natural gas G25 Hi = 8,83 kWh/m³					LPG G31 Hi= 25,89 kWh/m³		
	d1"1/4-Rp2	d1"1/2-Rp2	s2"-Rp2"	s65-DN65	s80-DN80	d1"1/4-Rp2	d1"1/2-Rp2	s2"-Rp2"	s65-DN65	s80-DN80	d1"1/4-Rp2	d1"1/2-Rp2	s2"-Rp2"
1200	70	28	17	12	10	81	32	20	14	12	39	13	8
1300	82	32	20	14	12	95	38	24	16	14	46	15	10
1400	95	37	24	16	14	110	44	28	19	16	53	17	11
1500	109	43	27	18	16	128	50	32	21	19	61	20	13
1600	124	49	31	21	18	144	57	36	24	21	69	23	15
1700	140	55	35	24	21	163	64	40	27	24	78	26	17
1800	157	61	39	26	23	183	71	45	30	27	87	29	19
1900	175	69	43	29	25	204	79	50	34	31	97	32	21

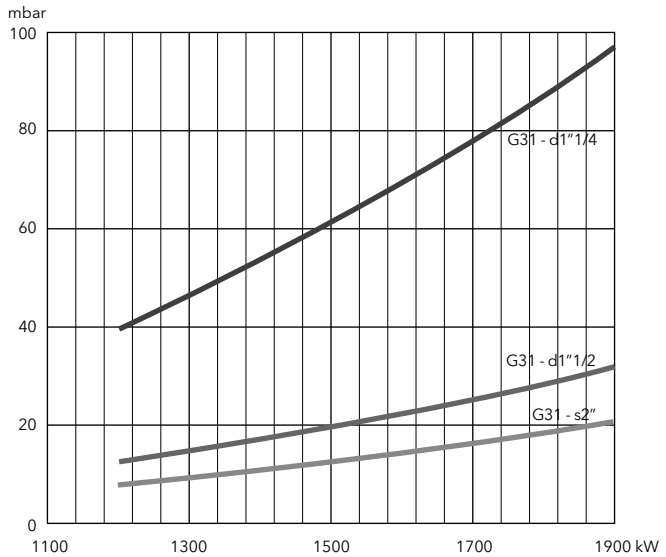
Natural gas G20



Natural gas G25



LPG



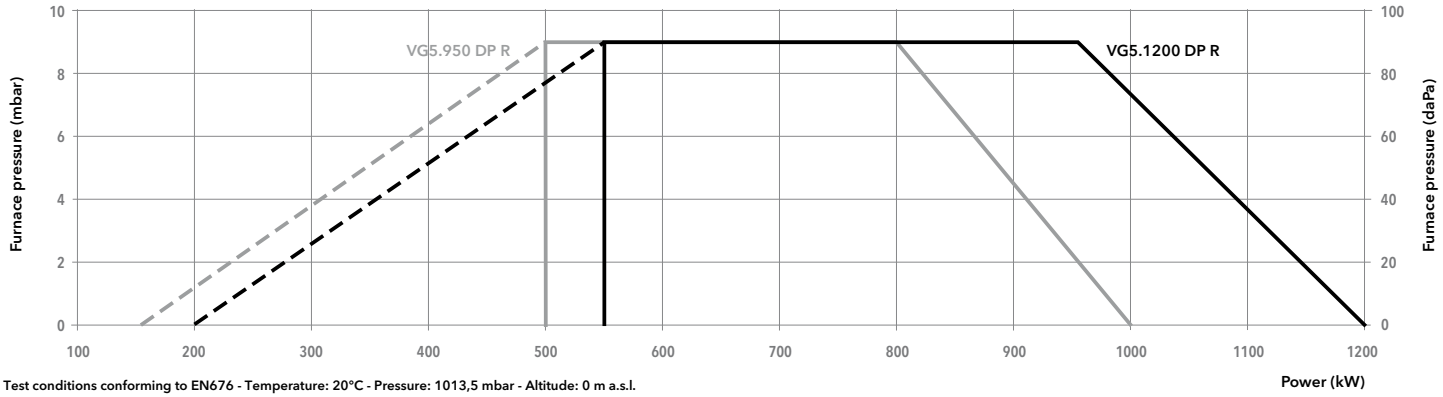
VG5.950 DP R, VG5.1200 DP R

150 ... 1200 kW
2 stage progressive/modulating pneumatic



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** Low NOx class 2 (≤120 mg/kWh) according to EN676
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG5.950 DP R			VG5.1200 DP R		
Operation range			(150) 500 - 1000 kW			(200) 550 - 1200 kW		
Gas pressure			20 - 500 mbar			20 - 500 mbar		
Control box / flame detection			TCG 5.. / ionization			TCG 5.. / ionization		
Fan motor			230/400 V - 50 Hz - 1,5 kW			230/400 V - 50 Hz - 1,5 kW		
Electrical consumption			100 + 2200 W			100 + 2300 W		
Acoustic level (LpA)			77 dB(A)			77 dB(A)		
CE certificate			0085 CQ 0570			0085 CQ 0570		
Head lenght			KN	KL	KM	KN	KL	KM
Complete burner code	VGD 40-065	s65-DN65	-	-	-	**3835377**	**3835378**	**3835379**
	VGD 20-5011	s2"-Rp2"	**3835357**	**3835366**	**3835367**	**3835380**	**3835381**	**3835382**
	MB-VEF 420	d1"1/2-Rp2"	**3835368**	**3835369**	**3835370**	**3835383**	**3835384**	**3835385**
	MB-VEF 412	d1"1/4-Rp2"	**3835371**	**3835372**	**3835373**	**3835386**	**3835387**	**3835388**
	MB-VEF 407	d3/4"-Rp1"	**3835374**	**3835375**	**3835376**	-	-	-

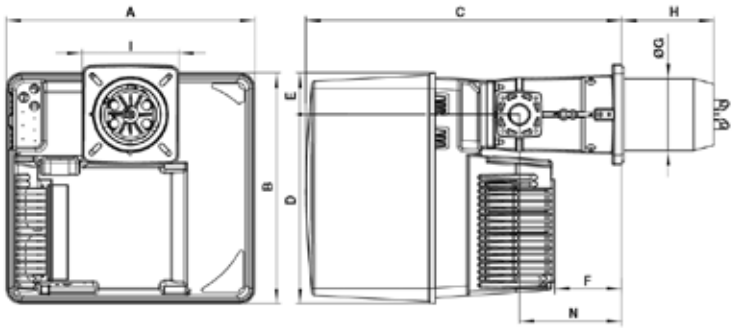
OTHER AVAILABLE VERSIONS

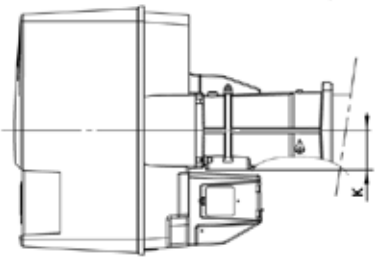
60 60 Hz version
TC Version with tightness control
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

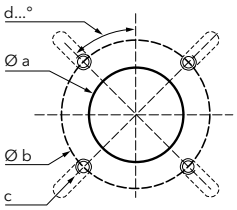
The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

DIMENSIONS (mm)





Connecting flange

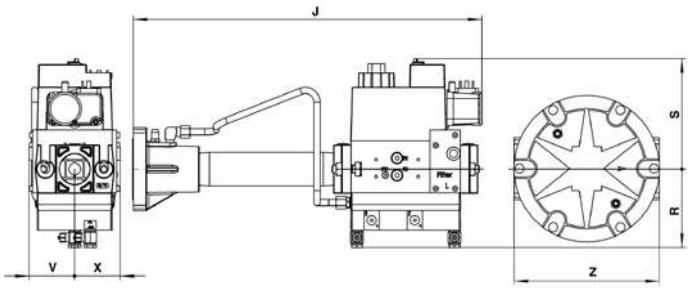


A	B	C	D	E	F	ØG	H			I	K	N
							KN	KM	KL			
581	549	752	450	99	164	170	215	325	435	230x238	89	244

Øa (mm)	b (mm)	c	d
195	220-260	M10	45°

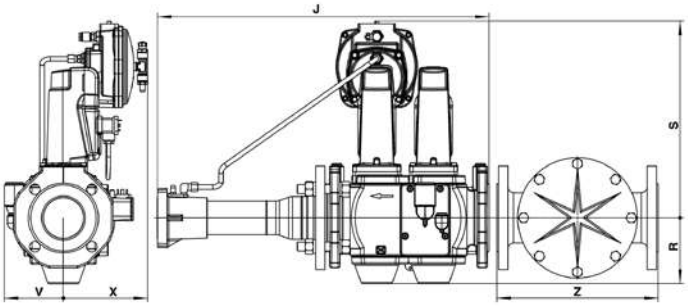
Gas trains

Gas train "d":



Model	J	R	S	V	X	Z
d1"1/2-Rp2"	540	123	190	55	55	-
d1"1/4-Rp2"	450	100	141	58	58	186
d3/4"-Rp1"	420	100	122	55	50	160

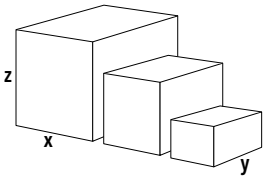
Gas train "s":



Model	J	R	S	V	X	Z
s65-DN65	600	135	360	110	150	290
s2"-Rp2"	612	103	330	110	150	186

PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	VG5.950 DP R	800	600	850	55
	VG5.1200 DP R	800	600	850	56
Combustion head	KN	780	265	280	12,3
	KL	1010	265	280	14,4
	KM	1010	265	280	13,4
Gas train	s65-DN65	670	530	380	29
	s2"-Rp2"	670	530	380	17,2
	d1"1/2-Rp2"	400	570	200	12
	d1"1/4-Rp2"	590	390	180	12
	d3/4"-Rp1"	590	390	180	7

VG5.950 DP R, VG5.1200 DP R

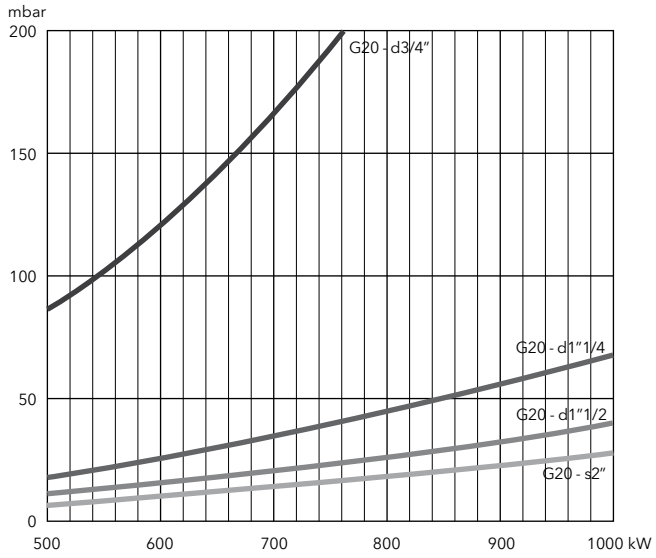
150 ... 1200 kW
2 stage progressive/modulating pneumatic

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

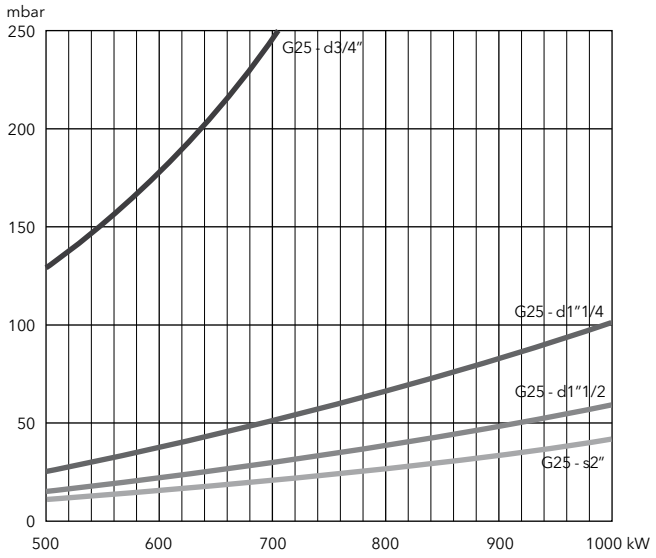
VG5.950 DP R

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³				Natural gas G25 Hi = 8,83 kWh/m³				LPG G31 Hi= 25,89 kWh/m³			
	d3/4"-Rp1"	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"	d3/4"-Rp1"	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"	d3/4"-Rp1"	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"
500	87	18	11	7	129	26	15	11	40	11	8	7
600	120	24	14	10	179	36	21	15	55	15	11	9
700	167	34	20	14	248	51	30	21	77	21	15	13
800	214	43	25	18	-	65	38	27	98	27	19	16
900	-	56	33	23	-	83	48	34	126	35	25	21
1000	-	68	40	28	-	101	59	42	153	42	30	26

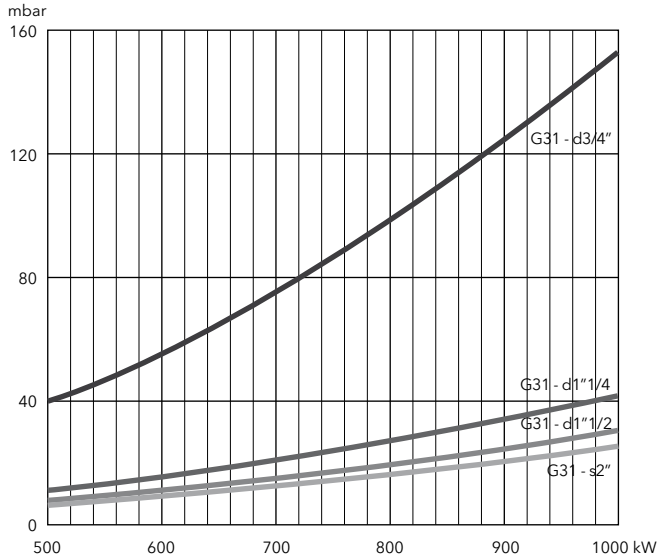
Natural gas G20



Natural gas G25



LPG

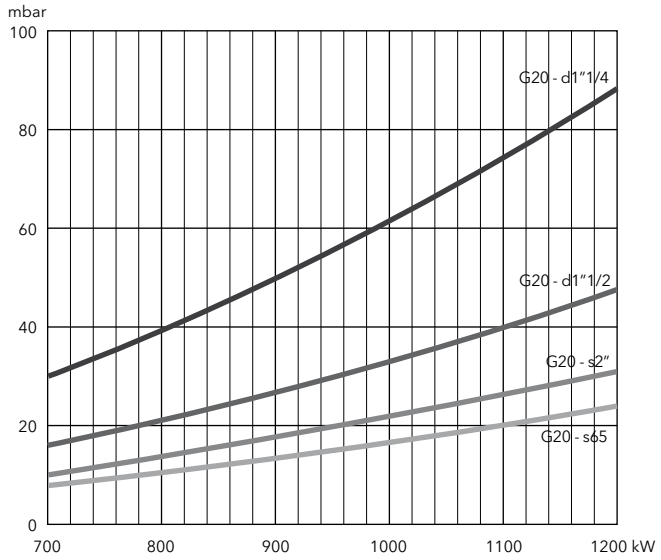


PRESSURE LOSS [BURNER HEAD + GAS TRAIN] (mbar)

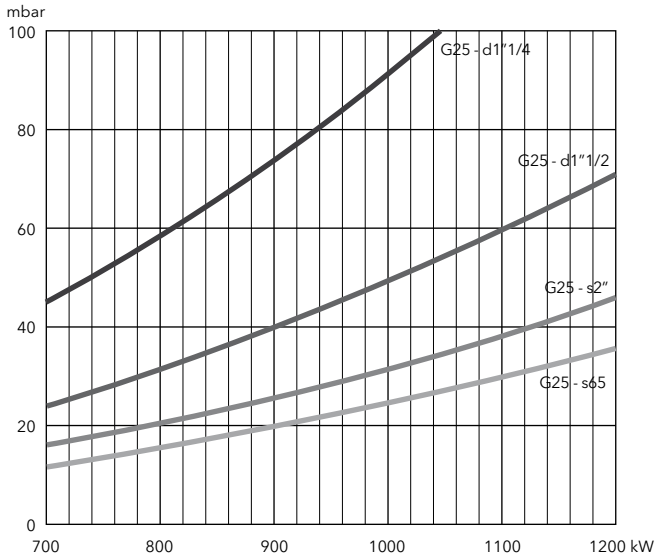
VG5.1200 DP R

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³				Natural gas G25 Hi = 8,83 kWh/m³				LPG G31 Hi = 25,89 kWh/m³		
	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"	s65-Rp2"	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"	s65-Rp2"	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"
700	30	16	10	8	45	24	16	12	16	10	8
800	39	21	14	10	58	32	20	16	21	13	10
900	50	27	18	13	74	40	26	20	26	17	13
1000	61	33	21	16	91	49	32	25	33	21	16
1100	74	40	26	20	110	60	39	30	40	26	19
1200	88	48	31	24	132	71	46	35	47	30	23

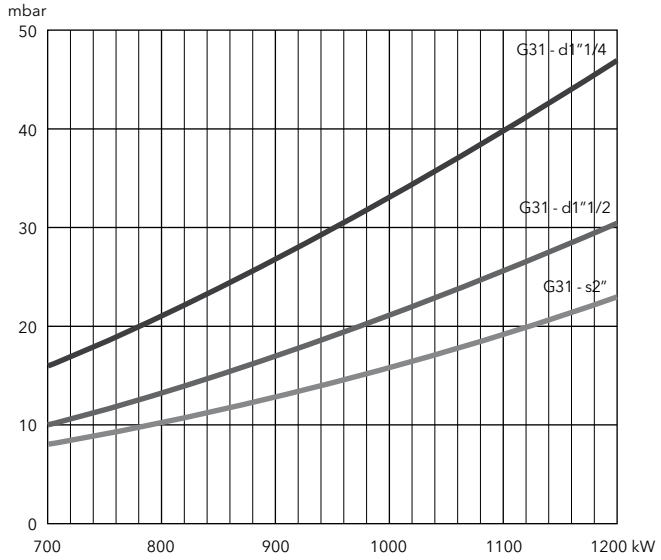
Natural gas G20



Natural gas G25



LPG



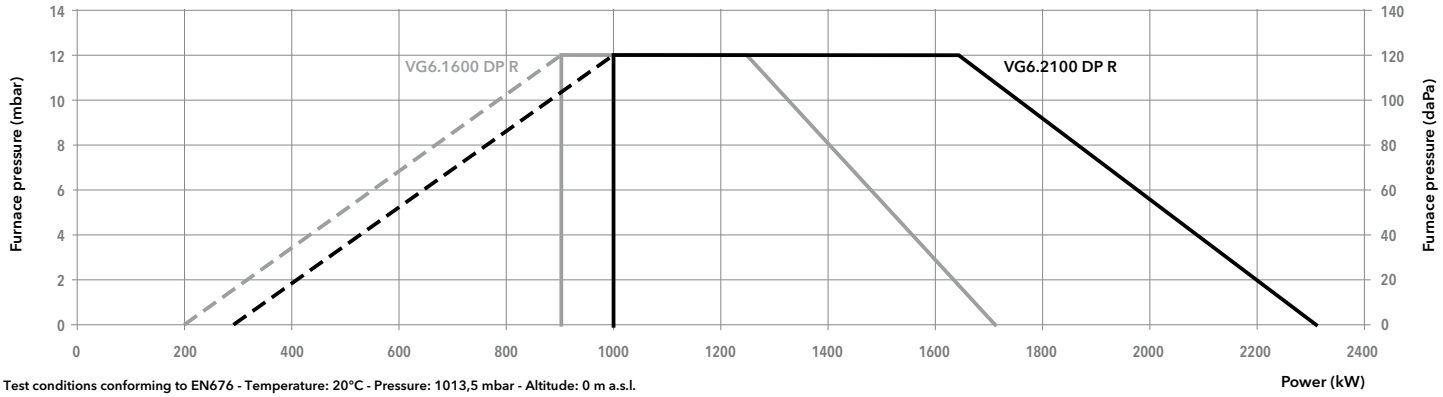
VG6.1600 DP R, VG6.2100 DP R

200 ... 2300 kW
2 stage progressive/modulating pneumatic



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** Low NOx class 2 (≤120 mg/kWh) according to EN676
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG6.1600 DP R /TC			VG6.2100 DP R /TC		
Operation range			(200) 900 - 1700 kW			(300) 1000- 2300 kW		
Gas pressure			20 - 500 mbar			20 - 500 mbar		
Control box / flame detection			TCG 5.. / ionization			TCG 5.. / ionization		
Fan motor			230/400 V - 50 Hz - 2,2 kW			230/400 V - 50 Hz - 2,7 kW		
Electrical consumption			100 + 2500 W			100 + 3500 W		
Acoustic level (LpA)			77 dB(A)			79 dB(A)		
CE certificate			0085 CQ 0570			0085 CQ 0570		
Head lenght			KN	KL	KM	KN	KL	KM
Complete burner code	VGD 40-080	s80-DN80/TC	-	-	-	**3835911**	**3835910**	**3835909**
	VGD 40-065	s65-DN65/TC	**3834801**	**3834802**	**3834803**	**3834813**	**3834814**	**3834815**
	VGD 20-5011	s2"-Rp2"/TC	**3834804**	**3834805**	**3834806**	**3834816**	**3834817**	**3834818**
	MB-VEF 420	d1"1/2-Rp2"/TC	**3834807**	**3834808**	**3834809**	**3834819**	**3834820**	**3834821**
	MB-VEF 412	d1"1/4-Rp2"/TC	**3834810**	**3834811**	**3834812**	**3834822**	**3834823**	**3834824**

OTHER AVAILABLE VERSIONS

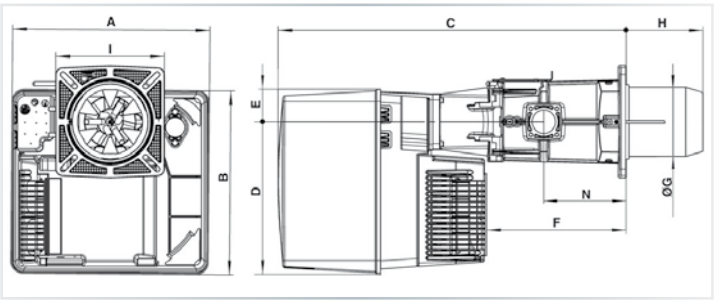
60 60 Hz version

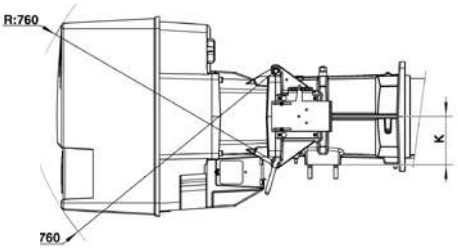
VENT Versions for continuous ventilation and post-ventilation

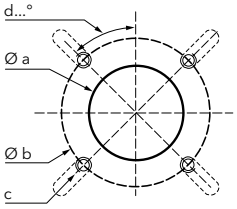
SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

DIMENSIONS (mm)





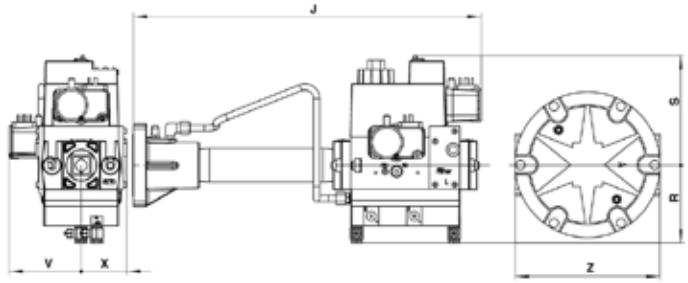


A	B	C	D	E	F	ØG	H			I	K	N
							KN	KM	KL			
592	553	1050	456	97	421	227	270	370	470	326x335	144	247

Øa (mm)	b (mm)	c	d
250	300-400	M12	45°

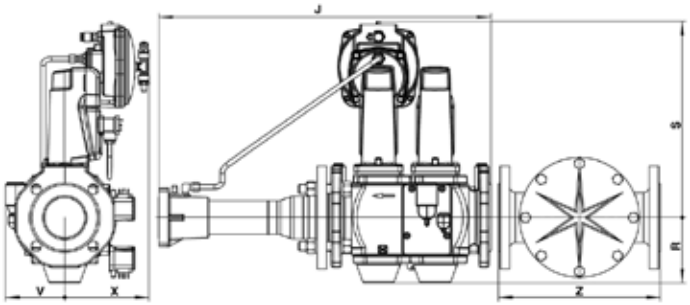
Gas trains

Gas train "d":



Model	J	R	S	V	X	Z
d1"1/2-Rp2"/TC	540	123	190	95	55	-
d1"1/4-Rp2"/TC	450	100	141	95	58	186

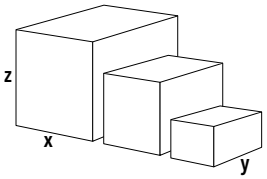
Gas train "s":



Model	J	R	S	V	X	Z
s80-DN80/TC	600	120	350	110	150	320
s65-DN65/TC	600	135	360	110	150	290
s2"-Rp2"/TC	612	103	330	110	150	186

PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	VG6.1600 DP R	800	600	850	67,8
	VG6.2100 DP R	800	600	850	69,2
Combustion head	KN	1000	380	420	26,7
	KL	1100	380	430	29,4
	KM	1100	380	430	28
Gas train	s80-DN80/TC	670	530	380	39
	s65-DN65/TC	670	530	380	29,4
	s2"-Rp2"/TC	670	530	380	16,5
	d1"1/2-Rp2"/TC	400	570	200	14,3
	d1"1/4-Rp2"/TC	590	390	180	13

VG6.1600 DP R, VG6.2100 DP R

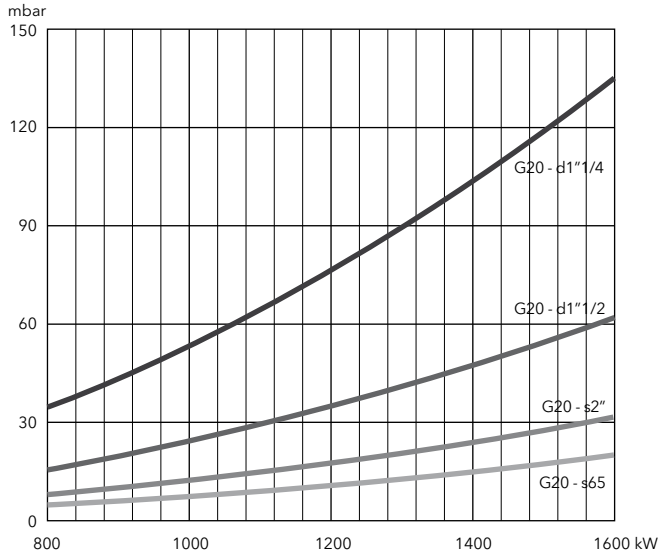
200 ... 2300 kW
2 stage progressive/modulating pneumatic

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

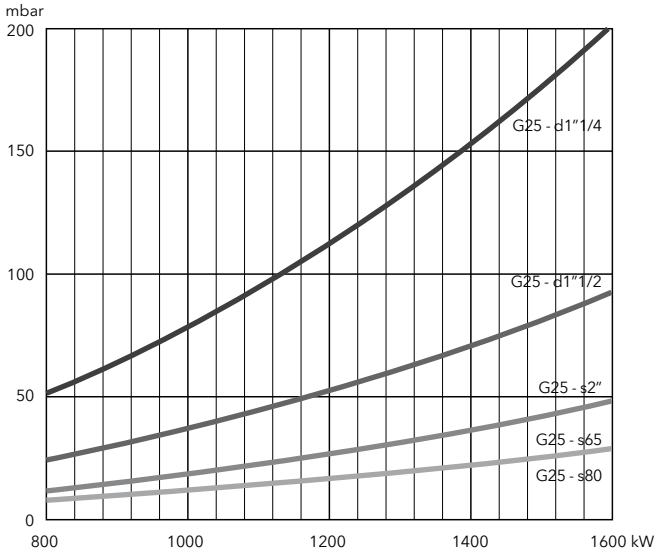
VG6.1600 DP R

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³				Natural gas G25 Hi = 8,83 kWh/m³				LPG G31 Hi = 25,89 kWh/m³			
	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"	s65-DN65	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"	s65-DN65	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"	s65-DN65
800	34	16	8	5	52	24	12	8	16	8	5	4
1000	52	24	12	8	78	36	18	12	24	12	8	6
1200	76	35	18	11	113	53	27	17	35	18	11	8
1400	103	48	24	15	153	71	37	22	47	24	15	11
1600	135	62	32	20	202	93	48	29	62	32	19	14

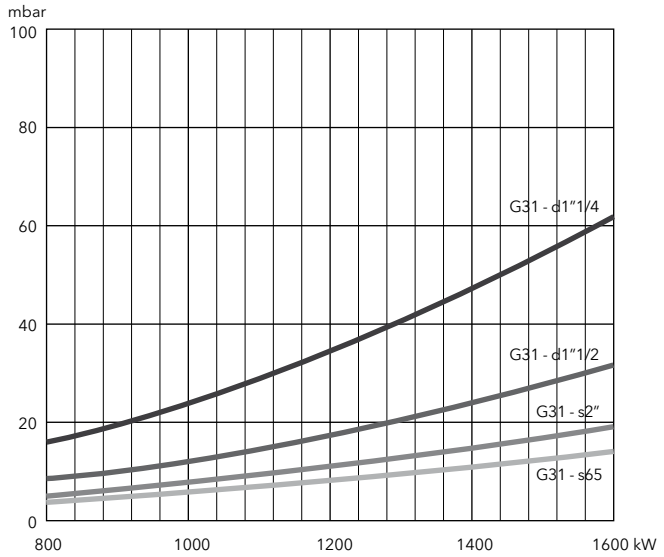
Natural gas G20



Natural gas G25



LPG

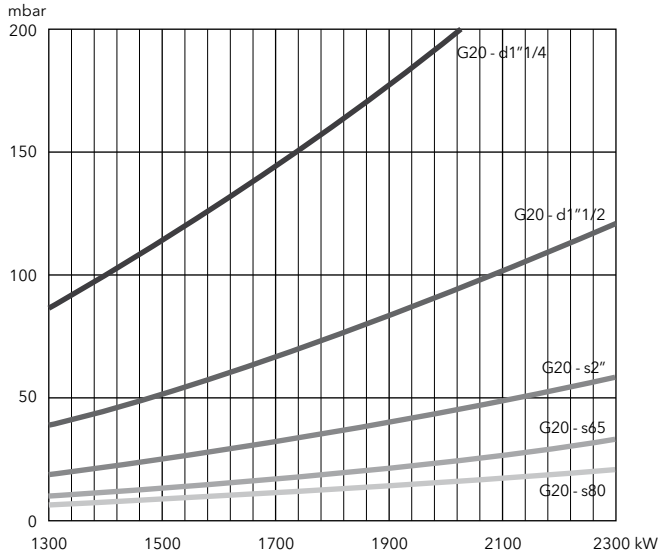


PRESSURE LOSS [BURNER HEAD + GAS TRAIN] (mbar)

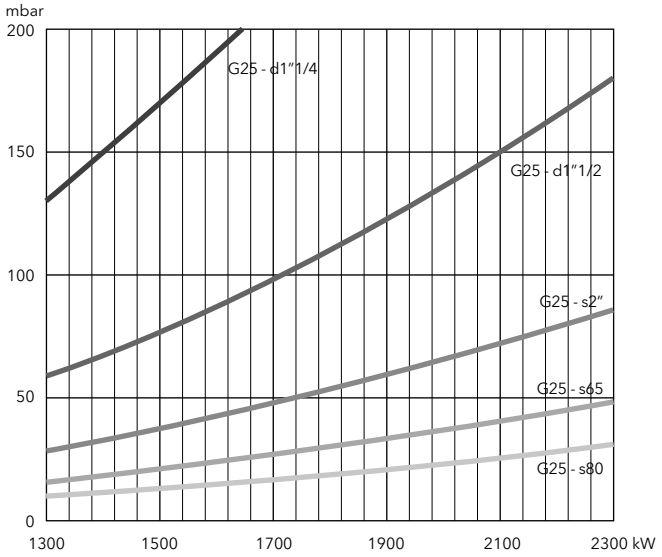
VG6.2100 DP R

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³					Natural gas G25 Hi = 8,83 kWh/m³					LPG G31 Hi= 25,89 kWh/m³		
	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"	s65-DN65	s80-DN80	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"	s65-DN65	s80-DN80	d1"1/4-Rp2"	d1"1/2-Rp2"	s2"-Rp2"
1300	87	39	19	10	7	130	58	28	16	10	38	18	10
1500	114	51	25	14	9	170	76	37	21	13	50	24	13
1700	147	66	32	18	11	220	98	48	27	17	65	31	17
1900	184	83	40	22	14	274	123	60	34	21	81	38	21
2100	225	101	49	27	17	336	151	73	41	26	99	47	26
2300	269	121	58	33	21	402	180	87	49	31	119	56	30

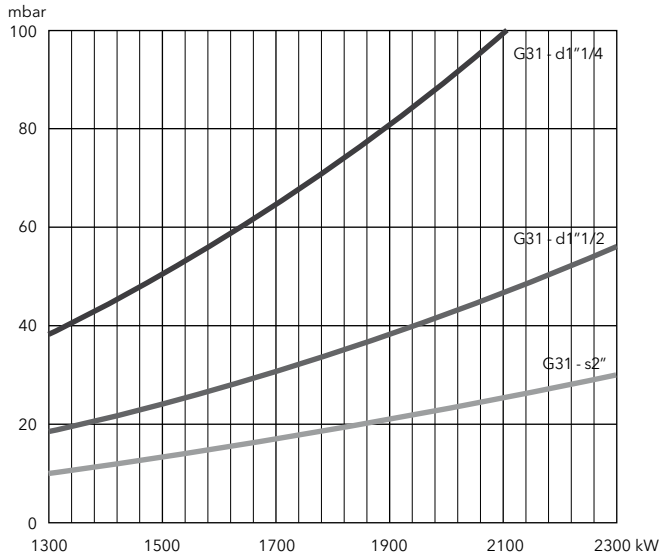
Natural gas G20



Natural gas G25

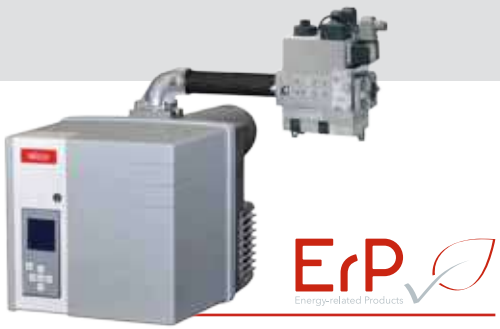


LPG



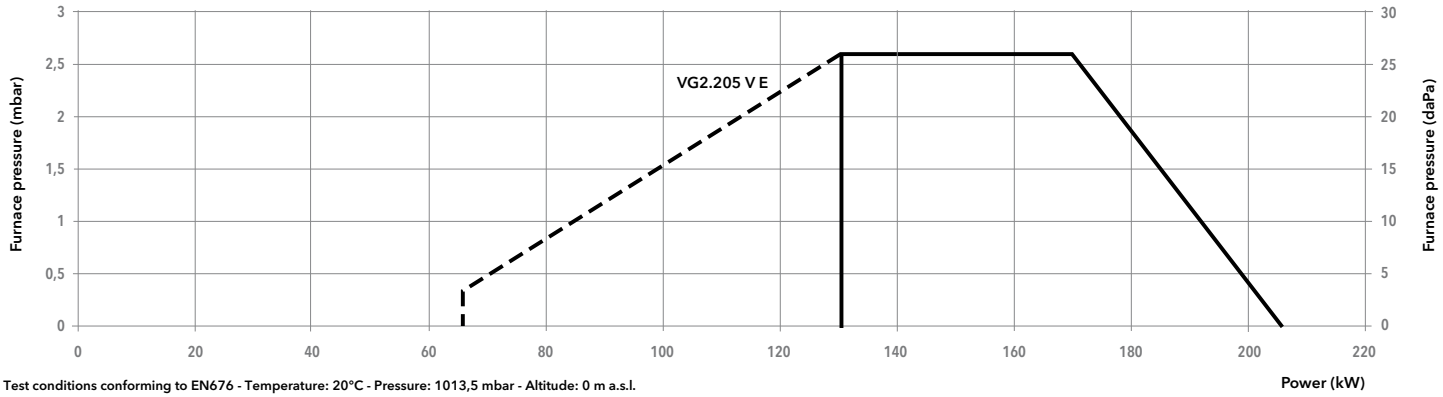
VG2.205 V E

65 ... 205 kW
2 stage progressive/modulating pneumatic + fan speed control (ErP compliant)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions: compl**iant with ErP Directive
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG2.205 V E	
Operation range			(65) 130 - 205 kW	
Gas pressure			20 - 40 mbar for MB-VEF 412; 40 - 100 mbar for d345; 100 - 360 mbar for d346	
Control box / flame detection			TCG5... / ionization	
Fan motor			230 V - 50 Hz - 130 W	
Electrical consumption (max/min/stand-by)			302 W / 267 W / 4 W	
Acoustic level (LpA)			65 dB(A)	
CE certificate			0476 CT 2423	
Head lenght			KN	KL
Complete burner code	MB-VEF 412	d1"1/4-Rp1"1/4	**3836436**	**3836437**
	MB-VEF 407	d345-3/4"-Rp3/4"	**3836438**	**3836439**
	MB-VEF 407	d346-3/4"-Rp3/4"	**3836440**	**3836441**

OTHER AVAILABLE VERSIONS

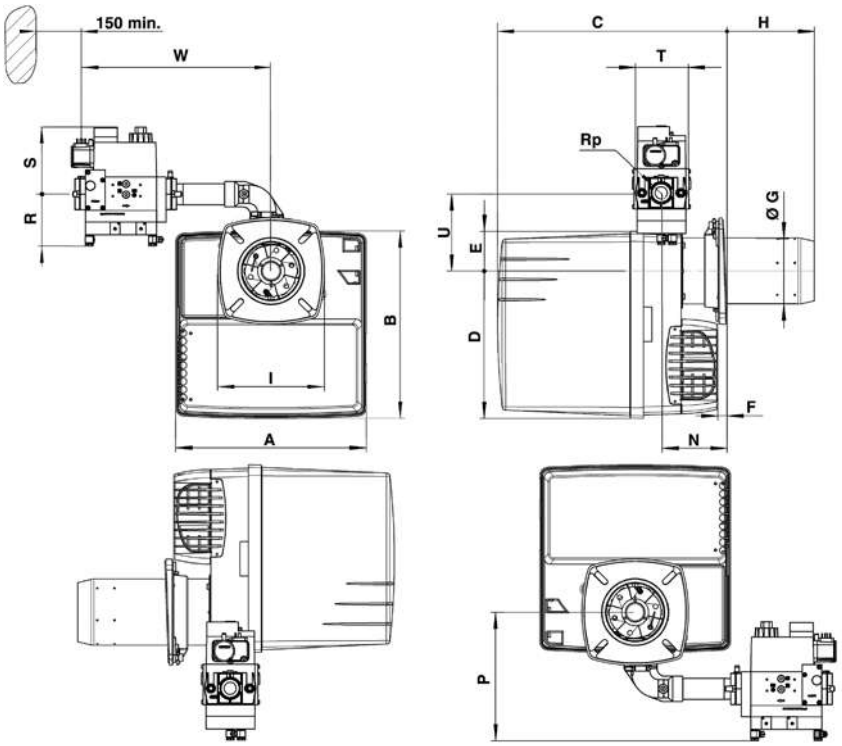
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 gas connection flange
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 burner flange with insulation
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

Variatron | MDE2 | RTC | LOW NOx CLASS 3 | ErP COMPLIANT

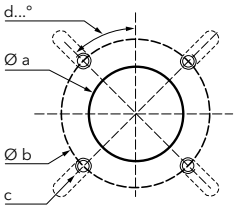
DIMENSIONS (mm)



Gas train model	A	B	C		D	E	F min	ØG	H		I	N min	P	Rp	R	S	T	U	W
			KN	KL					KN	KL									
d1"1/4-Rp1"1/4	331	325	398...518	398...638	256	69	15	125	30...150	30...270	185	113	188	1"1/4	80	175	145	133	380
d3/4"-Rp3/4"	331	325	398...518	398...638	256	69	15	125	30...150	30...270	185	113	179	3/4"	70	160	120	133	345

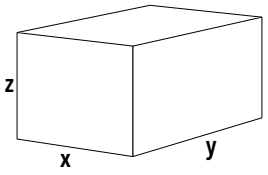
Connecting flange

Øa (mm)	b (mm)	c	d
130-145	160-185	M8	45°



PACKAGING

The burner is delivered in 1 single package containing all components



Dimensions (mm)			Gross weight (kg)
X	Y	Z	
400	400	760	26

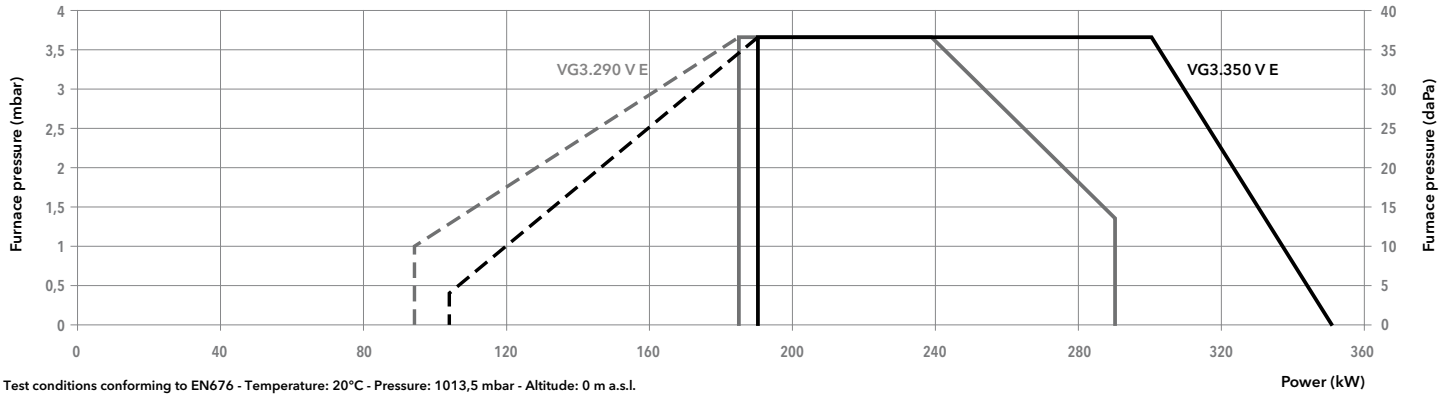
VG3.290 V E, VG3.350 V E

95 ... 350 kW
2 stage progressive/modulating pneumatic + fan speed control (ErP compliant)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** compliant with ErP Directive
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG3.290 V E		VG3.350 V E	
Operation range			(95) 185 - 290 kW		(105) 190 - 350 kW	
Gas pressure			20 - 360 mbar		20 - 360 mbar	
Control box / flame detection			TCG5... / ionization		TCG5... / ionization	
Fan motor			230 V - 50 Hz - 250 W		230 V - 50 Hz - 300 W	
Electrical consumption (max/min/stand-by)			465 W / 441 W / 4 W		583 W / 583 W / 4 W	
Acoustic level (LpA)			67 dB(A)		69 dB(A)	
CE certificate			0476 CT 2423		0476 CT 2423	
Head lenght			KN	KL	KN	KL
Complete burner code	MB-VEF 420	d1"1/2-Rp2"	-	-	**3836446**	**3836447**
	MB-VEF 412	d1"1/4-Rp1"1/4	**3836442**	**3836443**	**3836448**	**3836449**
	MB-VEF 407	d3/4"-Rp1"	**3836444**	**3836445**	**3836450**	**3836451**

OTHER AVAILABLE VERSIONS

TC Version with tightness control

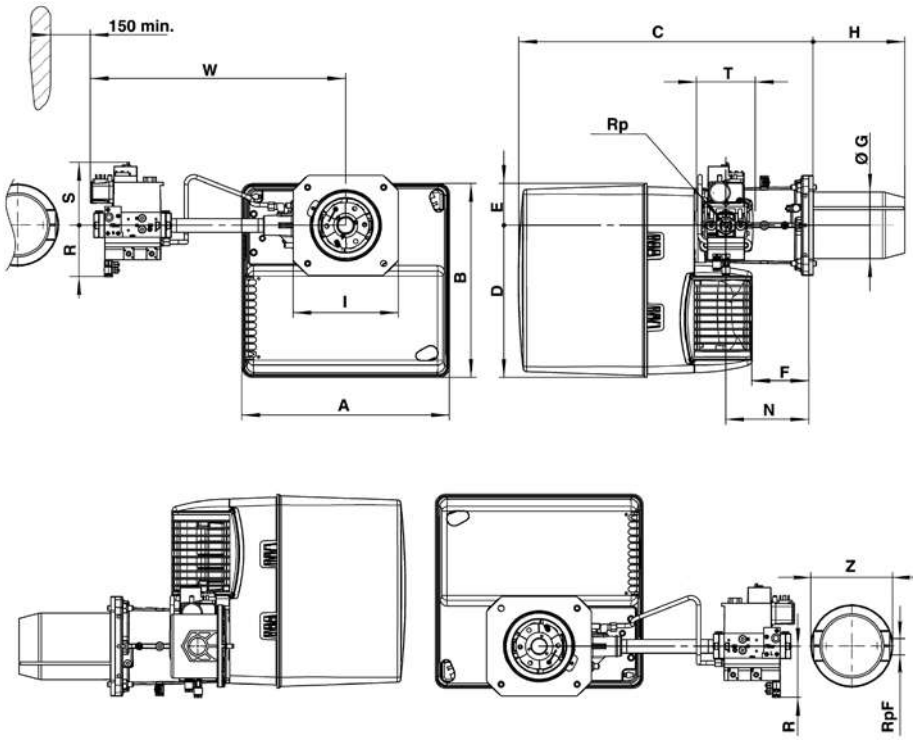
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

Variatron | MDE2 | RTC | LOW NOx CLASS 3 | ErP COMPLIANT

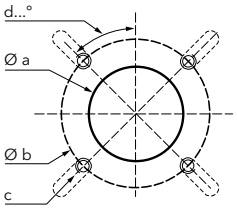
DIMENSIONS (mm)



Gas train model	A	B	C	D	E	F	ØG	H		I	N	Rp	R	S	T	W	RpF	Z
								KN	KL									
d1"1/2-Rp2"	406	379	576	297	82	120	130	180	320	195x205	170	2"	100	185	100	603	-	-
d1"1/4-Rp1"1/4	406	379	576	297	82	120	130	180	320	195x205	170	1"1/4	80	175	145	526	-	-
d3/4"-Rp1"	406	379	576	297	82	120	130	180	320	195x205	170	1"	70	160	120	479	1"	160

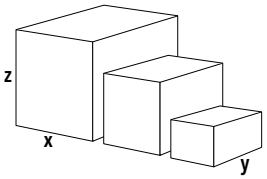
Connecting flange

Øa (mm)	b (mm)	c	d
155-190	175-220	M10	45°



PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VG3.290 V E**	440	400	520	21
	VG3.350 V E	440	400	520	22
Combustion head	**KN**	650	210	260	6
	KL	780	210	260	7
Gas train	**d1"1/2-Rp2"**	670	550	380	12
	d1"1/4-Rp1"1/4	600	400	240	11
	d3/4"-Rp1"	600	400	240	7

VG3.290 V E, VG3.350 V E

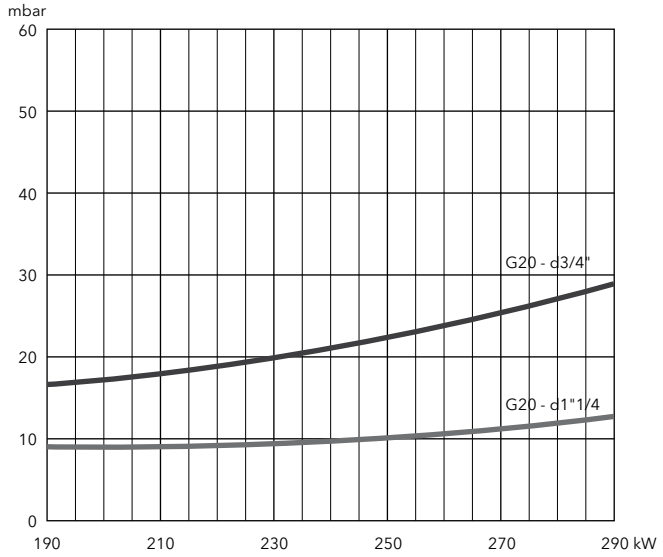
95 ... 350 kW
2 stage progressive/modulating pneumatic + fan speed control (ErP compliant)

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

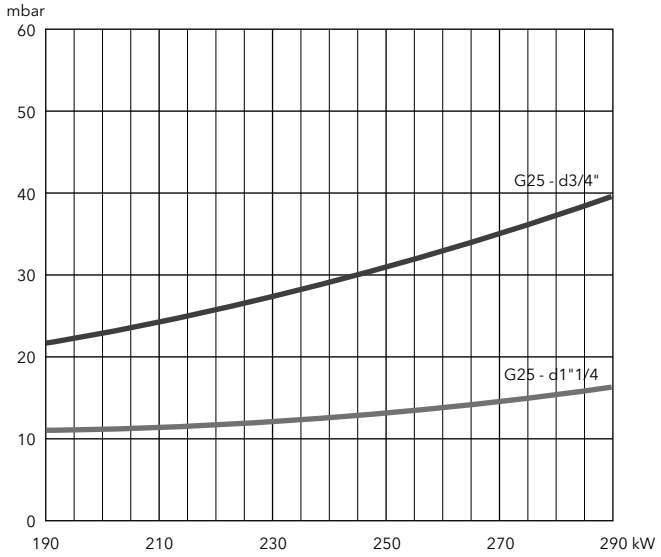
VG3.290 V E

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³		Natural gas G25 Hi = 8,83 kWh/m³		LPG G31 Hi = 25,89 kWh/m³	
	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d3/4"-Rp1"	d1"1/4-Rp1"1/4
190	17	9	22	11	11	7
210	18	9	24	12	12	7
230	20	9	27	12	12	7
250	22	10	31	13	13	8
270	25	11	35	15	14	8
290	29	13	40	16	16	9

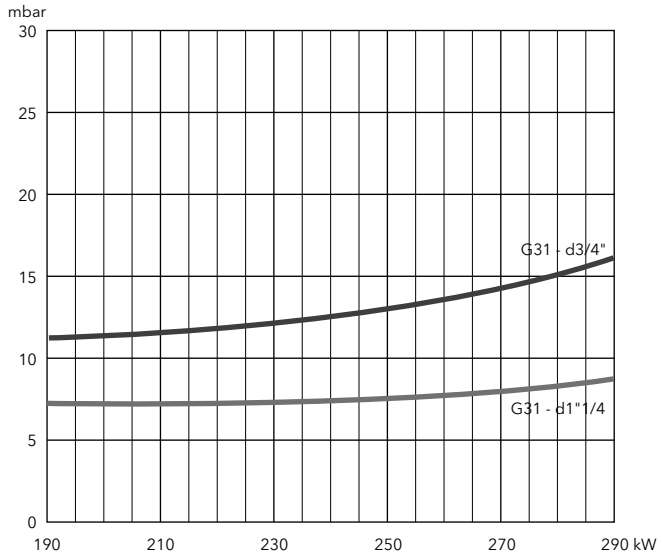
Natural gas G20



Natural gas G25



LPG



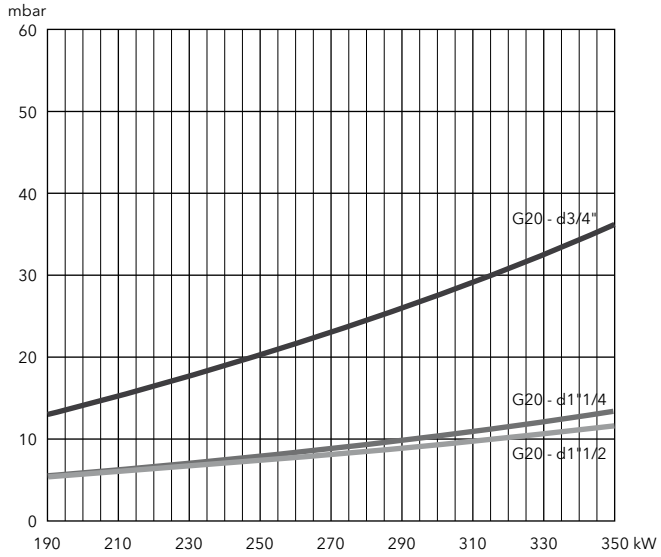
Variatron MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

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

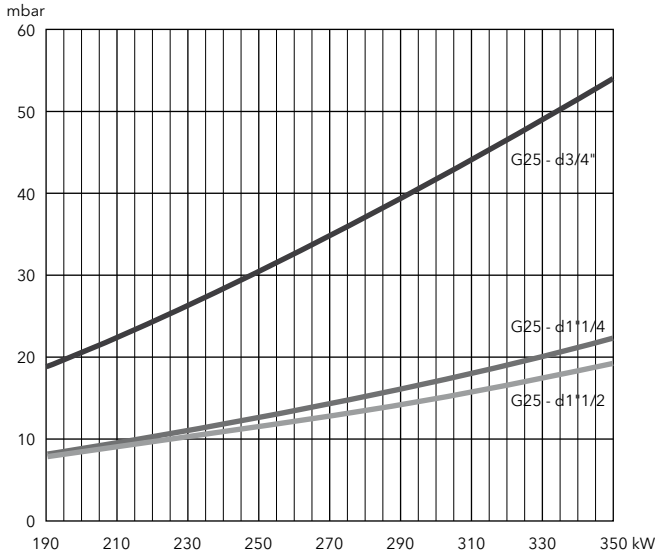
VG3.350 V E

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³			Natural gas G25 Hi = 8,83 kWh/m³			LPG G31
	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"	d3/4"-Rp1"
190	13	6	6	19	8	8	8
230	17	7	7	26	11	10	12
270	23	9	8	35	15	13	15
310	29	11	10	44	18	16	18
350	36	14	12	54	22	19	22

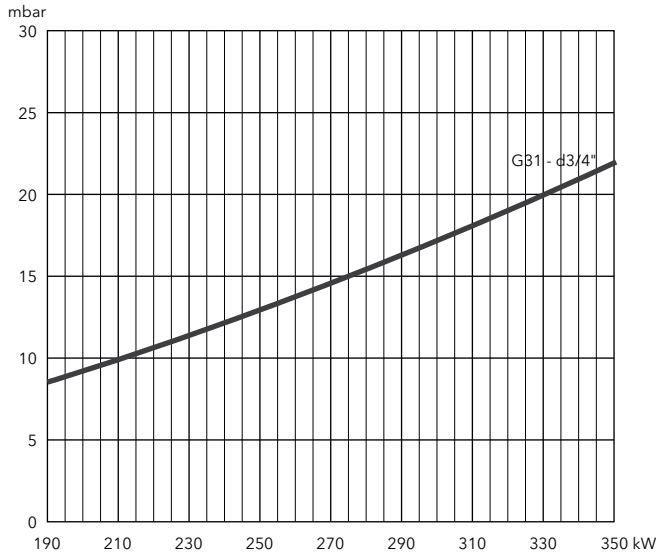
Natural gas G20



Natural gas G25



LPG



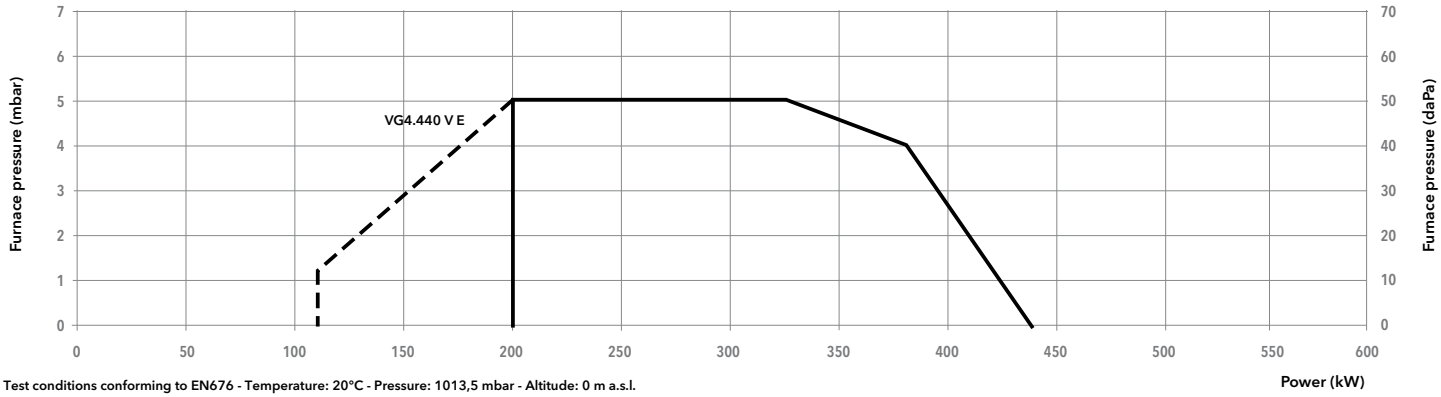
VG4.440 V E

110 ... 440 kW
2 stage progressive/modulating pneumatic + fan speed control (ErP compliant)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** compliant with ErP Directive
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG4.440 V E	
Operation range			(110) 200 - 440 kW	
Gas pressure			20 - 360 mbar	
Control box / flame detection			TCG5... / ionization	
Fan motor			230 V - 50 Hz - 420 W	
Electrical consumption (max/min/stand-by)			606 W / 569 W / 4 W	
Acoustic level (LpA)			70 dB(A)	
CE certificate			0476 CT 2423	
Head lenght			KN	KL
Complete burner code	MB-VEF 420	d1"1/2-Rp2"	**3836452**	**3836453**
	MB-VEF 412	d1"1/4-Rp1"1/4	**3836454**	**3836455**
	MB-VEF 407	d3/4"-Rp1"	**3836456**	**3836457**

OTHER AVAILABLE VERSIONS

TC Version with tightness control

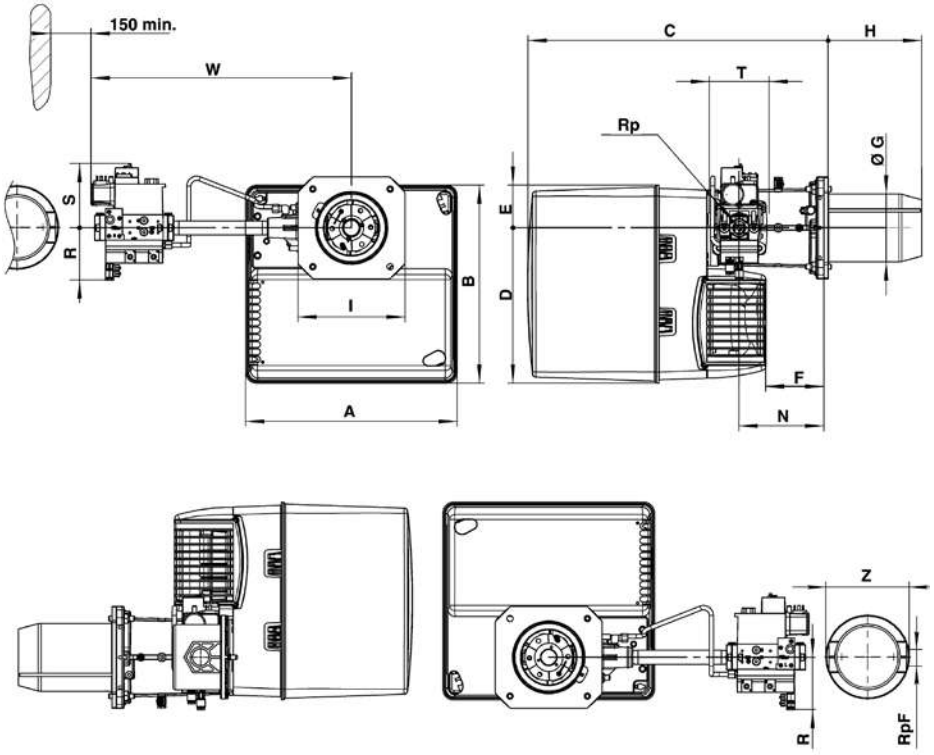
V_{ENT} Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

Variatron | MDE2 | RTC | LOW NOx CLASS 3 | ErP COMPLIANT

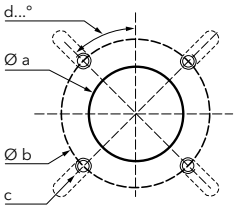
DIMENSIONS (mm)



Gas train model	A	B	C	D	E	F	ØG	H		I	N	Rp	R	S	T	W	RpF	Z
								KN	KL									
d1"1/2-Rp2"	465	475	640	377	97	149	157	212	352	245	195	2"	100	185	150	536	-	-
d1"1/4-Rp1"1/4	465	475	640	377	97	149	157	212	352	245	195	1"1/4	80	175	151	489	-	-
d3/4"-Rp1"	465	475	640	377	97	149	157	212	352	245	195	1"	70	160	132	489	1"	160

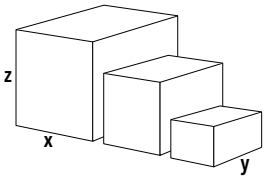
Connecting flange

Øa (mm)	b (mm)	c	d
190-240	200-270	M10	45°



PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	VG4.440 V E	490	490	590	28,6
Combustion head	KN	750	260	295	8,9
	KL	895	260	295	10,1
Gas train	d1"1/2-Rp2"	670	550	380	12
	d1"1/4-Rp1"1/4	600	400	240	11
	d3/4"-Rp1"	600	400	240	7

VG4.440 V E

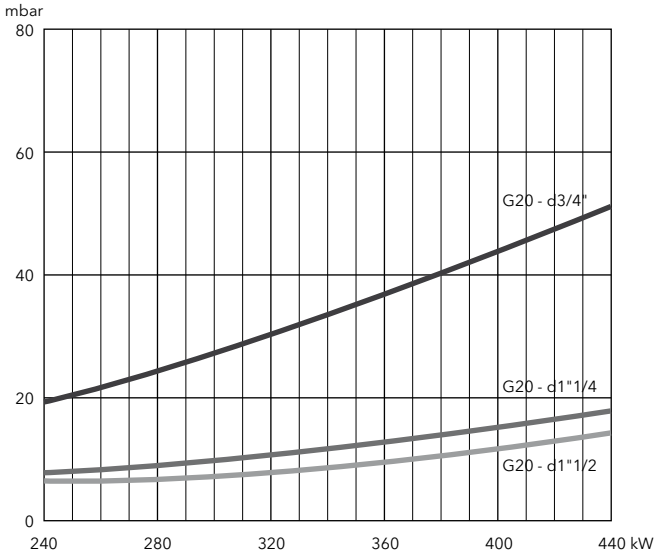
110 ... 440 kW
2 stage progressive/modulating pneumatic + fan speed control (ErP compliant)

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

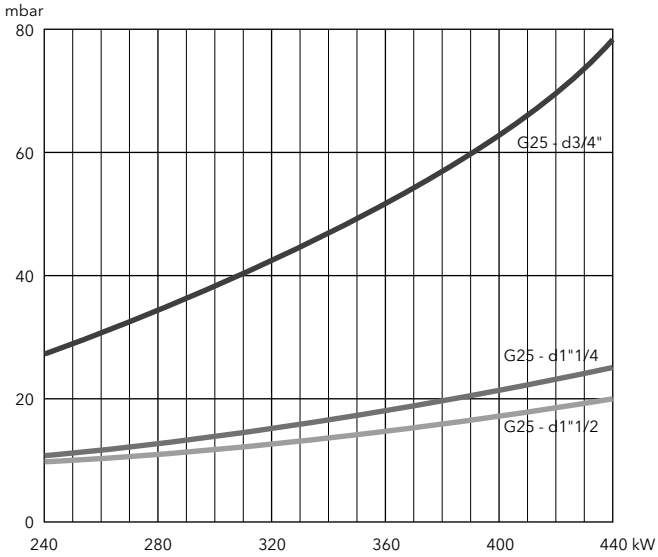
VG4.440 V E

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³			Natural gas G25 Hi = 8,83 kWh/m³		
	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"
240	19	8	7	27	11	10
280	24	9	8	35	13	11
320	30	11	9	42	15	12
360	37	13	11	51	18	15
400	44	15	13	64	22	17
440	51	18	15	78	25	20

Natural gas G20



Natural gas G25

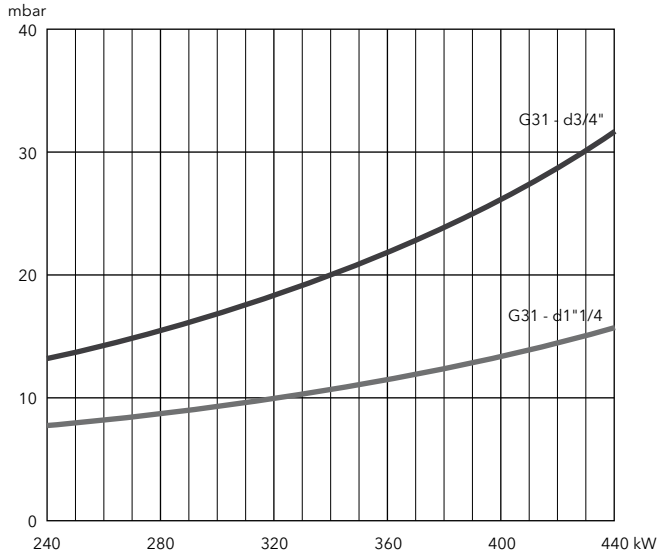


Variatron MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

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

Burner output (kW)	LPG G31 Hi = 25,89 kWh/m³	
	d3/4"-Rp1"	d1"1/4-Rp1"1/4
240	13	8
280	16	9
320	18	10
360	22	11
400	26	13
440	32	16

LPG



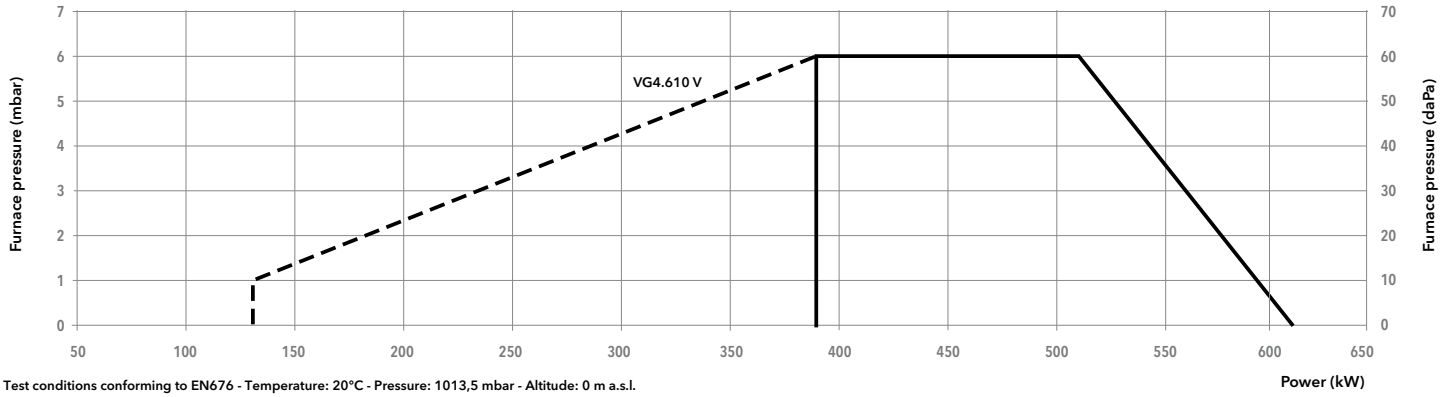
VG4.610 V

130 ... 610 kW
2 stage progressive/modulating pneumatic + fan speed control (Low NOx class 3)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** Low NOx class 3 (≤80 mg/kWh) according to EN676
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 41

TECHNICAL DATA



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

Model			VG4.610 V	
Operation range			(130) 390 - 610 kW	
Gas pressure			20 - 300 mbar	
Control box / flame detection			TCG5... / ionization	
Fan motor			230 V - 50 Hz - 750 W	
Electrical consumption			68 + 720 W	
Acoustic level (LpA)			71 dB(A)	
CE certificate			1312 CL 5412	
Head lenght			KN	KL
Complete burner code	MB-VEF 420	d1"1/2-Rp2"	**3833875**	**3833876**
	MB-VEF 412	d1"1/4-Rp1"1/4	**3833879**	**3833880**
	MB-VEF 407	d3/4"-Rp1"	**3833883**	**3833884**

OTHER AVAILABLE VERSIONS

TC Version with tightness control

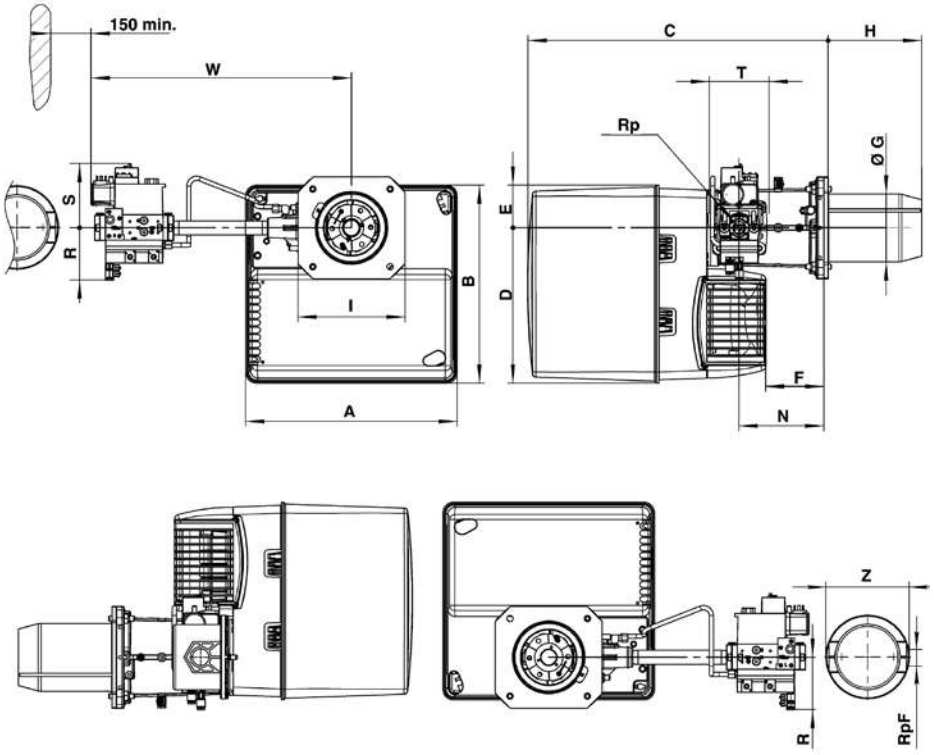
V_{ENT} Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

Variatron | MDE2 | RTC | LOW NOx CLASS 3

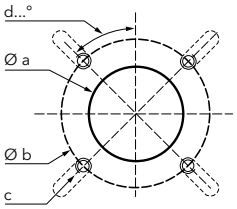
DIMENSIONS (mm)



Gas train model	A	B	C	D	E	F	ØG	H		I	N	Rp	R	S	T	W	RpF	Z
								KN	KL									
d1"1/2-Rp2"	465	475	640	377	97	149	150	220	360	245	195	2"	100	185	100	613	-	-
d1"1/4-Rp1"1/4	465	475	640	377	97	149	150	220	360	245	195	1"1/4	80	175	145	536	-	-
d3/4"-Rp1"	465	475	640	377	97	149	150	220	360	245	195	1"	70	160	120	489	1"	160

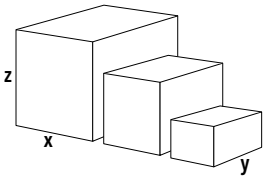
Connecting flange

Øa (mm)	b (mm)	c	d
180-240	200-270	M10	45°



PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	VG4.610 V	490	490	590	28,6
Combustion head	KN	750	260	295	8,9
	KL	895	260	295	10,1
Gas train	d1"1/2-Rp2"	670	550	380	12
	d1"1/4-Rp1"1/4	600	400	240	11
	d3/4"-Rp1"	600	400	240	7

VG4.610 V

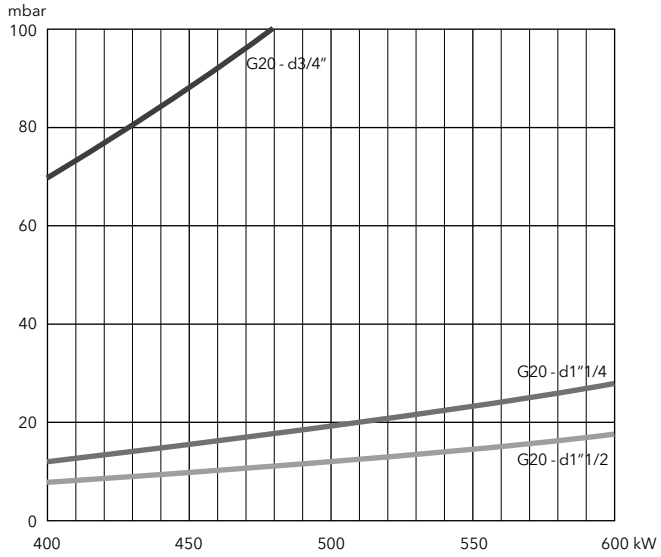
130 ... 610 kW
2 stage progressive/modulating pneumatic + fan speed control (Low NOx class 3)

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

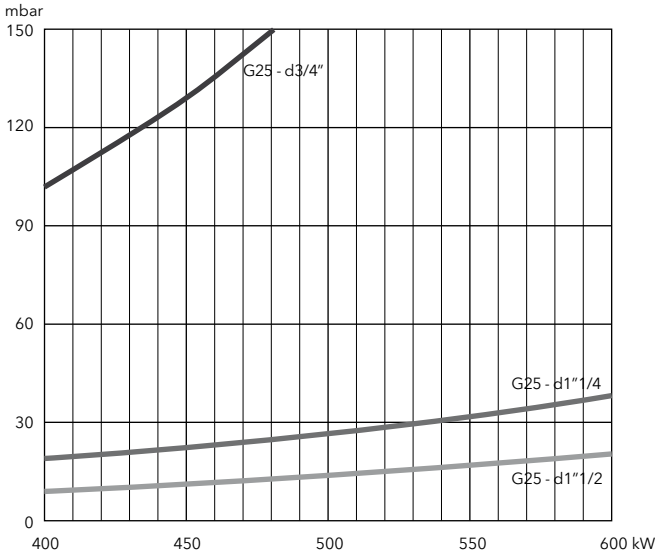
VG4.610 V

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³			Natural gas G25 Hi = 8,83 kWh/m³		
	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"
350	53	9	6	78	13	7
400	70	12	8	102	17	9
450	88	16	10	129	21	11
500	109	19	12	159	26	14
550	132	23	15	192	32	17
610	162	29	18	236	39	20

Natural gas G20



Natural gas G25

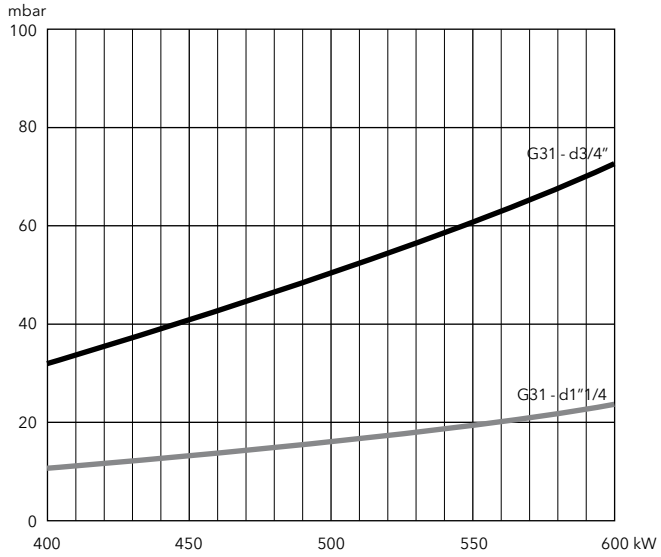


Variatron MDE2 RTC LOW NOx CLASS 3

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

Burner output (kW)	LPG G31 Hi = 25,89 kWh/m³	
	d3/4"-Rp1"	d1"1/4-Rp1"1/4
240	25	8
280	32	10
320	41	13
360	50	16
400	61	20
440	75	24

LPG



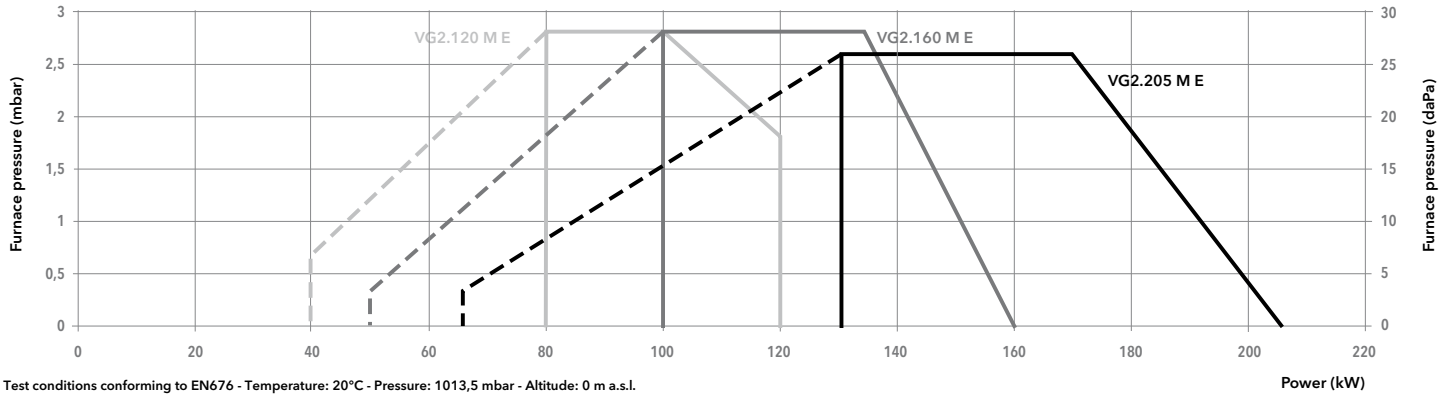
VG2.120 M E, VG2.160 M E, VG2.205 M E

40 ... 205 kW
2 stage progressive/modulating electronic (ErP compliant)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** compliant with ErP Directive
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180); integrated tightness control
- **Protection level:** IP 21

TECHNICAL DATA



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

Model	VG2.120 M E /TC		VG2.160 M E /TC		VG2.205 M E /TC	
Operation range	(40) 80 - 120 kW		(50) 100 - 160 kW		(65) 130 - 205 kW	
Gas pressure	20 - 360 mbar		20 - 360 mbar		20 - 360 mbar	
Control box / flame detection	BT3... / ionization		BT3... / ionization		BT3... / ionization	
Fan motor	230 V - 50 Hz - 100 W		230 V - 50 Hz - 100 W		230 V - 50 Hz - 130 W	
Electrical consumption (max/min/stand-by)	239 W / 358 W / 4 W		285 W / 293 W / 4 W		302 W / 267 W / 4 W	
Acoustic level (LpA)	62 dB(A)		64 dB(A)		65 dB(A)	
CE certificate	0476 CT 2423		0476 CT 2423		0476 CT 2423	
Head lenght	KN	KL	KN	KL	KN	KL
Complete burner code MBC300 d3/4"-Rp3/4"/TC	**3836480**	**3836481**	**3836482**	**3836483**	**3836484**	**3836485**

OTHER AVAILABLE VERSIONS

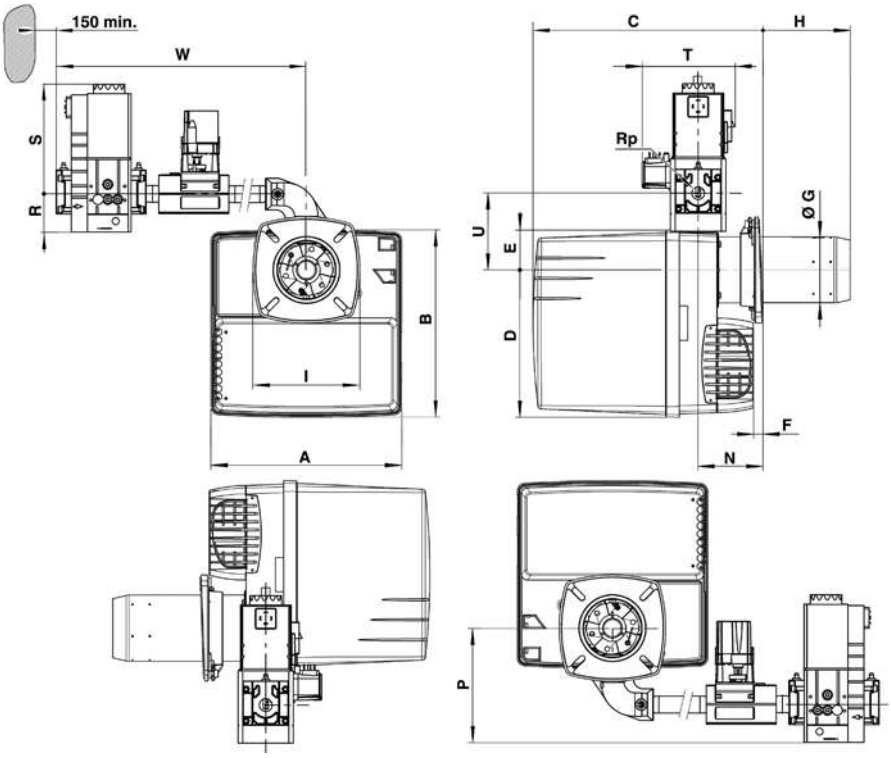
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 gas connection flange
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 burner flange with insulation
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

GEM MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

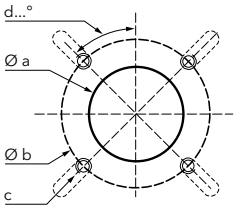
DIMENSIONS (mm)



	A	B	C		D	E	F min	ØG	H		I	N min	P	Rp	R	S	T	U	W
			KN	KL					KN	KL									
VG2.120/160	331	325	398...518	398...638	256	69	15	115	30...150	30...270	185	113	193	3/4"	60	173	146	133	455
VG2.205	331	325	398...518	398...638	256	69	15	125	30...150	30...270	185	113	193	3/4"	60	173	146	133	455

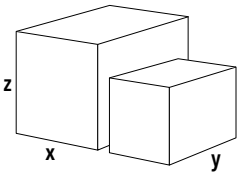
Connecting flange

	Øa (mm)	b (mm)	c	d
VG2.120/160	120-135	150-185	M8	45°
VG2.205	130-145	160-185	M8	45°



PACKAGING

The burner is delivered in 2 packages containing:
- burner housing and combustion head;
- gas train and filter.



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VG2.120 M E**	400	440	520	25
	VG2.160 M E	400	440	520	25
	VG2.205 M E	400	440	520	25
Gas train	**d3/4"-Rp3/4"/TC**	540	670	380	12

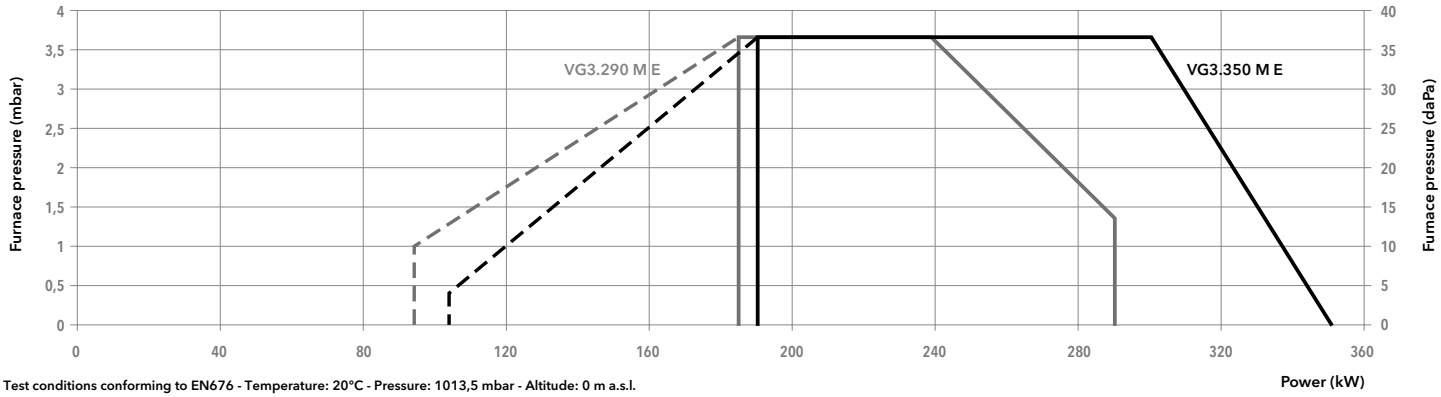
VG3.290 M E, VG3.350 M E

95 ... 350 kW
2 stage progressive/modulating electronic (ErP compliant)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** compliant with ErP Directive
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180); integrated tightness control
- **Protection level:** IP 21

TECHNICAL DATA



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

Model		VG3.290 M E /TC		VG3.350 M E /TC	
Operation range		(95) 185 - 290 kW		(105) 190 - 350 kW	
Gas pressure		20 - 360 mbar		20 - 360 mbar	
Control box / flame detection		BT3... / ionization		BT3... / ionization	
Fan motor		230 V - 50 Hz - 250 W		230 V - 50 Hz - 300 W	
Electrical consumption (max/min/stand-by)		465 W / 441 W / 4 W		583 W / 583 W / 4 W	
Acoustic level (LpA)		67 dB(A)		69 dB(A)	
CE certificate		0476 CT 2423		0476 CT 2423	
Head lenght		KN	KL	KN	KL
Complete burner code	MBC700 d1"1/2-Rp1"1/2/TC	-	-	**3836488**	**3836489**
	MBC300 d3/4"-Rp1"1/4/TC	**3836486**	**3836487**	**3836490**	**3836491**

OTHER AVAILABLE VERSIONS

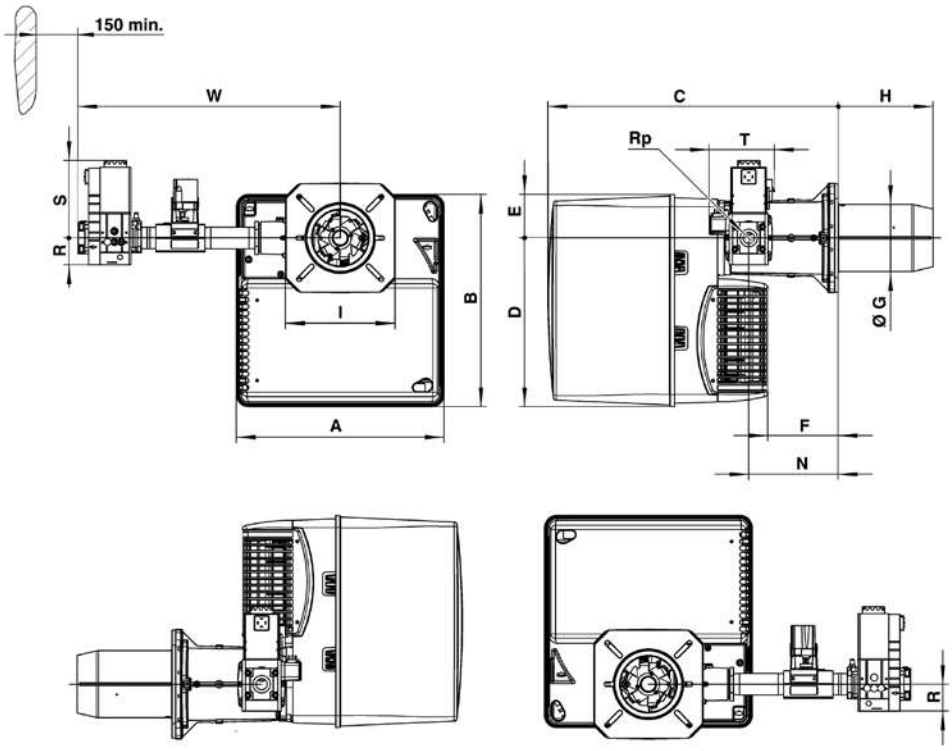
Vent Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

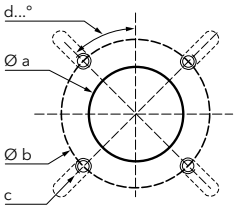
GEM MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

DIMENSIONS (mm)



Gas train model	A	B	C	D	E	F	ØG	H		I	N	Rp	R	S	T	W
								KN	KL							
d1"1/2-Rp1"1/2/TC	406	379	576	297	82	120	130	180	320	195x205	170	1"1/2	80	185	160	638
d3/4"-Rp1"1/4/TC	406	379	576	297	82	120	130	180	320	195x205	170	1"1/4	60	173	146	577

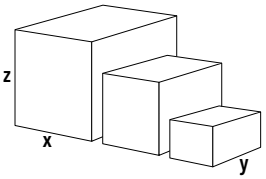
Connecting flange



Øa (mm)	b (mm)	c	d
155-190	175-220	M10	45°

PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VG3.290 M E**	440	400	520	21
	VG3.350 M E	440	400	520	22
Combustion head	**KN**	650	210	260	6
	KL	780	210	260	7
Gas train	**d1"1/2-Rp1"1/2/TC**	670	540	380	12
	d3/4"-Rp1"1/4/TC	670	540	380	12

VG3.290 M E, VG3.350 M E

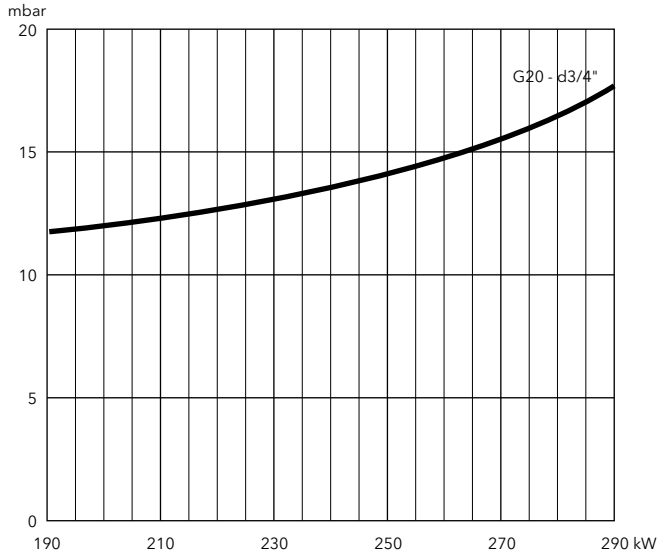
95 ... 350 kW
2 stage progressive/modulating electronic (ErP compliant)

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

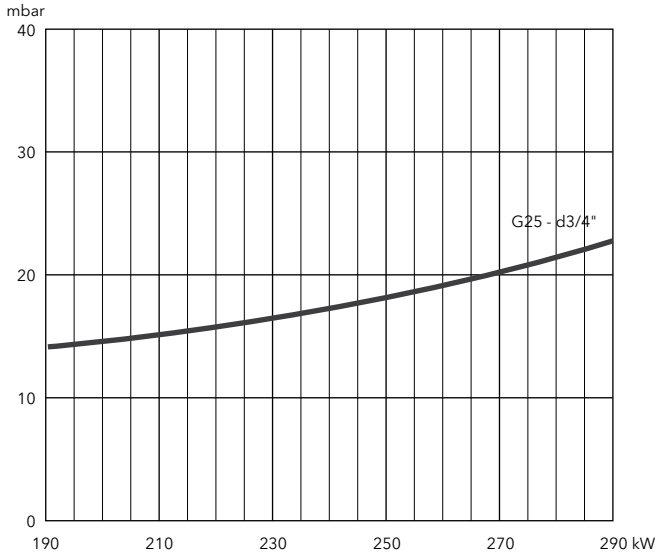
VG3.290 M E

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³	Natural gas G25 Hi = 8,83 kWh/m³	LPG G31 Hi = 25,89 kWh/m³
	d3/4"-Rp1"1/4	d3/4"-Rp1"1/4	d3/4"-Rp1"1/4
190	12	14	10
210	12	15	10
230	13	16	10
250	14	18	10
270	16	20	11
290	18	23	12

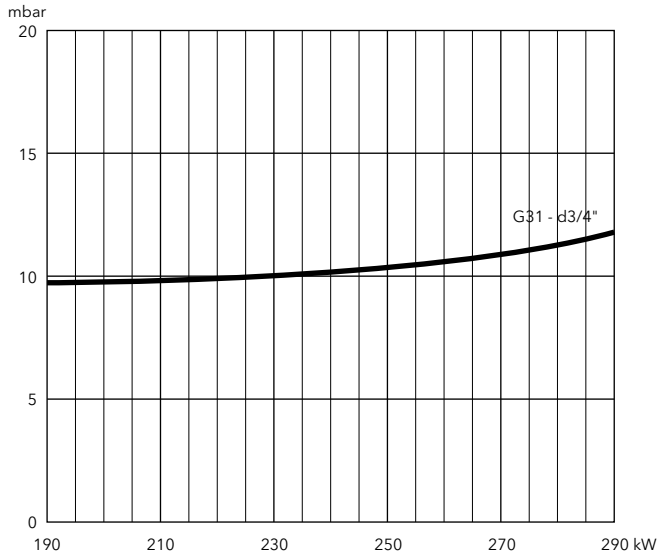
Natural gas G20



Natural gas G25



LPG



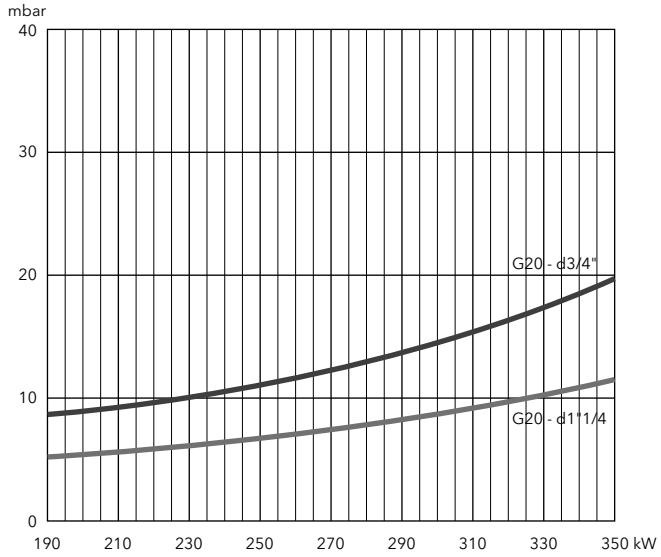
GEM MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

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

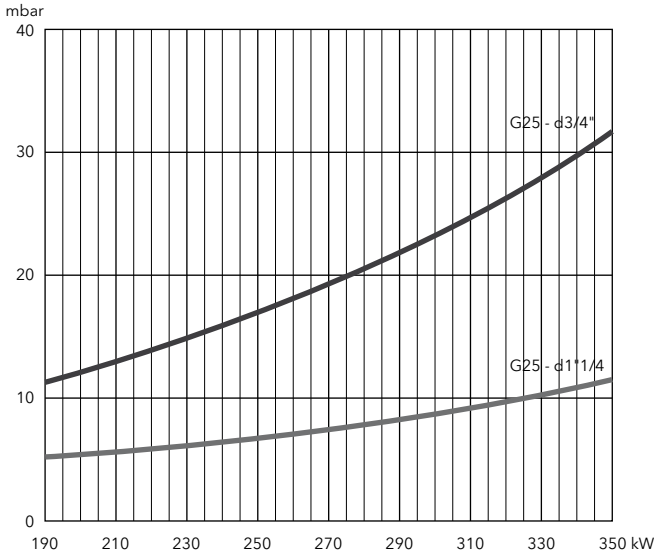
VG3.350 M E

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³		Natural gas G25 Hi = 8,83 kWh/m³		LPG G31 Hi = 25,89 kWh/m³	
	d3/4"-Rp1"1/4	d1"1/2-Rp1"1/2	d3/4"-Rp1"1/4	d1"1/2-Rp1"1/2	d3/4"-Rp1"1/4	d1"1/2-Rp1"1/2
190	9	5	11	5	7	6
230	10	6	15	6	8	7
270	12	7	19	7	11	8
310	15	9	25	9	13	10
350	20	11	32	12	16	12

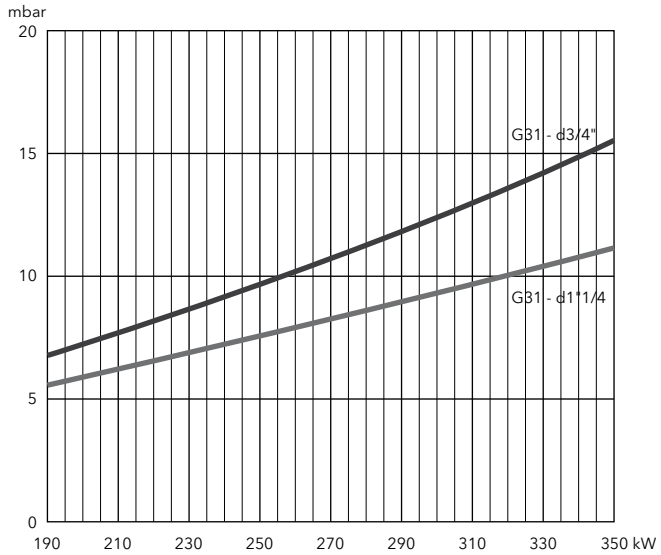
Natural gas G20



Natural gas G25



LPG



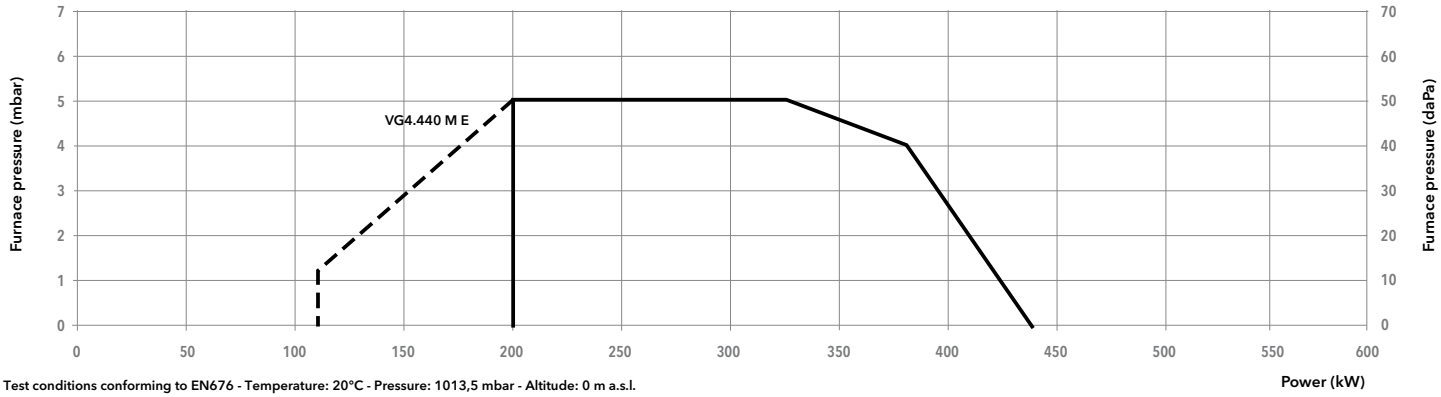
VG4.440 M E

110 ... 440 kW
2 stage progressive/modulating electronic (ErP compliant)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** compliant with ErP Directive
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180); integrated tightness control
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG4.440 M E /TC	
Operation range			(110) 200 - 440	
Gas pressure			20 - 360 mbar	
Control box / flame detection			BT3... / ionization	
Fan motor			230 V - 50 Hz - 420 W	
Electrical consumption			606 W / 569 W / 4 W	
Acoustic level (LpA)			70 dB(A)	
CE certificate			0476 CT 2423	
Head lenght			KN	KL
Complete burner code	MBC700	d1"1/2-Rp1"1/2/TC	**3836492**	**3836494**
	MBC300	d3/4"-Rp1"1/4/TC	**3836493**	**3836495**

OTHER AVAILABLE VERSIONS

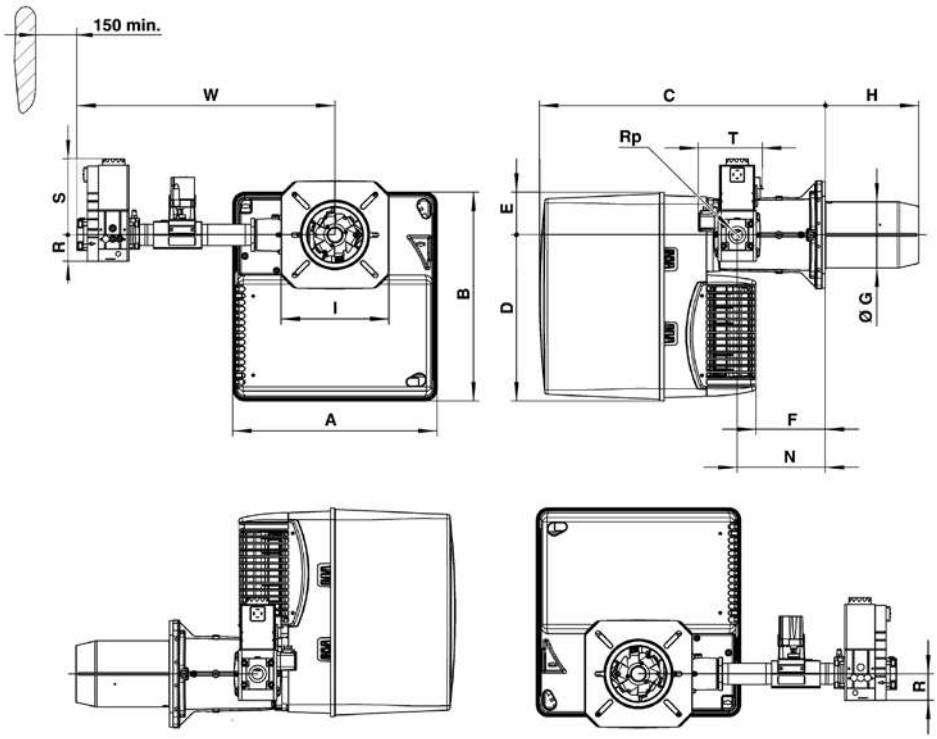
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

GEM MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

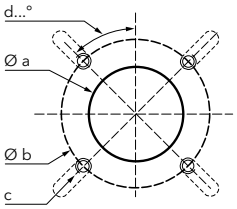
DIMENSIONS (mm)



Gas train model	A	B	C	D	E	F	ØG	H		I	N	Rp	R	S	T	W
								KN	KL							
d1"1/2-Rp1"1/2/TC	465	475	640	377	97	149	157	212	352	245	195	1"1/2	80	185	160	649
d3/4"-Rp1"1/4/TC	465	475	640	377	97	149	157	212	352	245	195	1"1/4	60	173	146	587

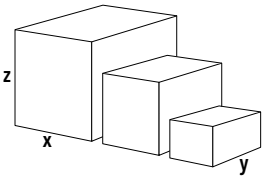
Connecting flange

Øa (mm)	b (mm)	c	d
190-240	200-270	M10	45°



PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VG4.440 M E**	490	490	590	28,6
Combustion head	**KN**	750	260	295	8,9
	KL	895	260	295	10,1
Gas train	**d1"1/2-Rp1"1/2/TC**	670	540	380	12
	d3/4"-Rp1"1/4/TC	670	540	380	12

VG4.440 M E

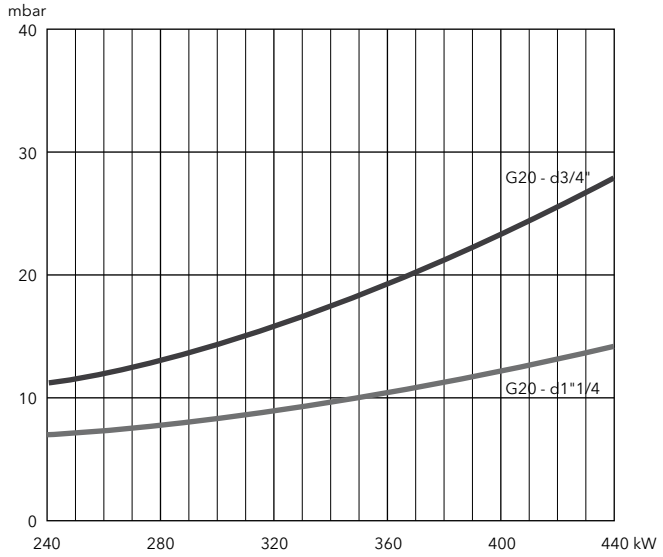
110 ... 440 kW
2 stage progressive/modulating electronic (ErP compliant)

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

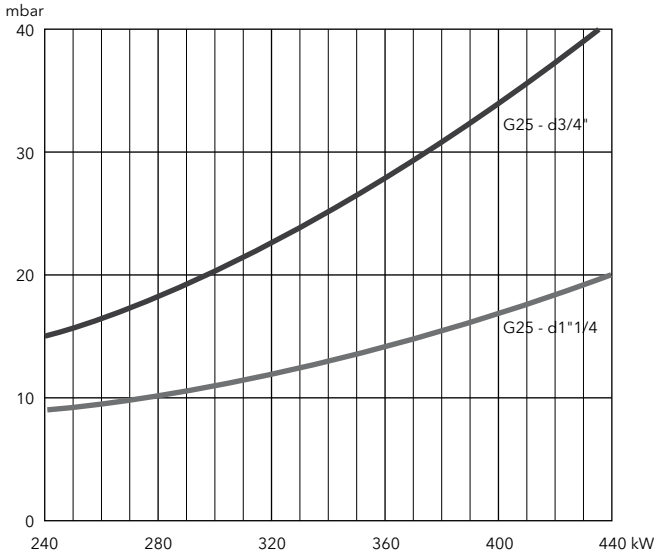
VG4.440 M E

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³		Natural gas G25 Hi = 8,83 kWh/m³	
	d3/4"-Rp1"1/4	d1"1/2-Rp1"1/2	d3/4"-Rp1"1/4	d1"1/2-Rp1"1/2
240	11	7	15	9
280	13	8	18	10
320	16	9	22	12
360	19	10	28	14
400	23	12	34	17
440	28	14	41	20

Natural gas G20



Natural gas G25

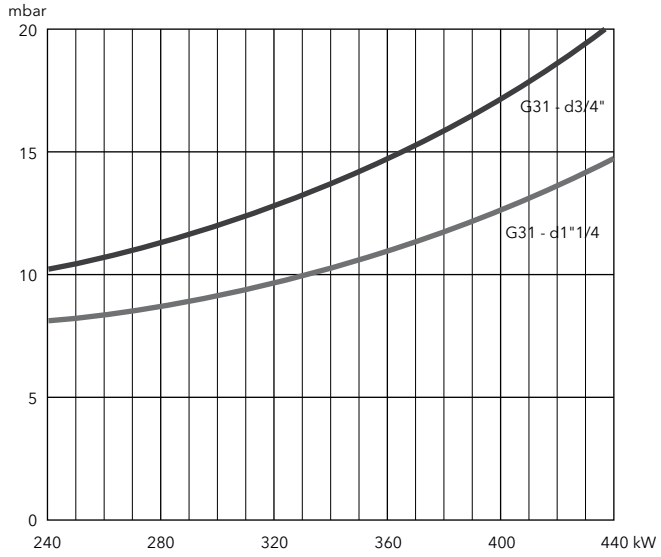


GEM MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

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

Burner output (kW)	LPG G31 Hi = 25,89 kWh/m³	
	d3/4"-Rp1"1/4	d1"1/2-Rp1"1/2
240	10	8
280	11	9
320	13	9
360	15	11
400	17	13
440	20	15

LPG



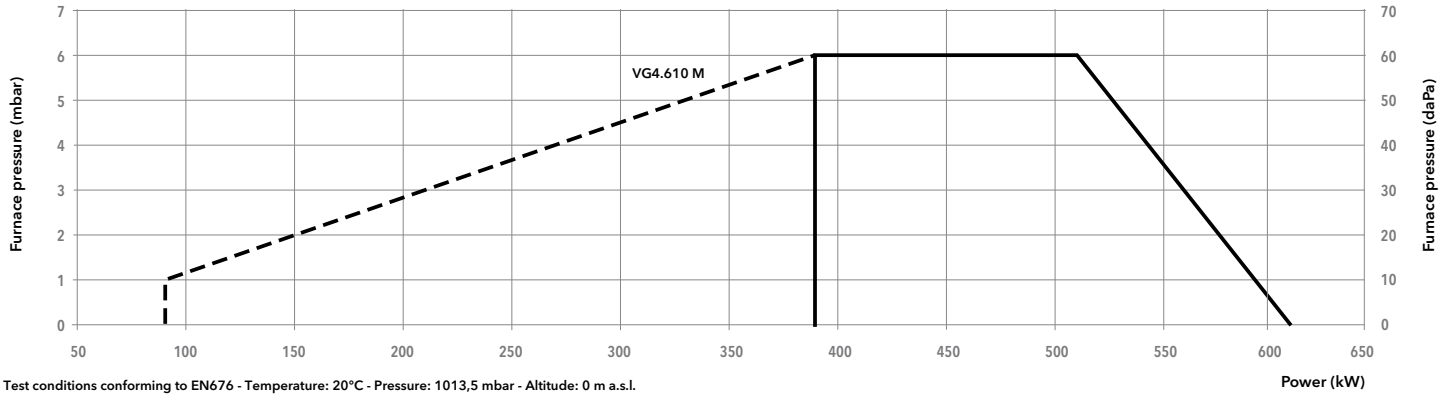
VG4.610 M

90 ... 610 kW
2 stage progressive/modulating electronic (Low NOx class 3)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** Low NOx class 3 (≤80 mg/kWh) according to EN676
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180); integrated tightness control
- **Protection level:** IP 41

TECHNICAL DATA



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

Model		VG4.610 M /TC	
Operation range		(90) 390 - 610 kW	
Gas pressure		20 - 300 mbar	
Control box / flame detection		BT3... / ionization	
Fan motor		230 V - 50 Hz - 750 W	
Electrical consumption		760 W	
Acoustic level (LpA)		71 dB(A)	
CE certificate		0085 CN 0192	
Head lenght		KN	KL
Complete burner code	MBC700 d1"1/2-Rp1"1/2/TC	**3833786**	**3833787**
	MBC300 d3/4"-Rp1"1/4/TC	**3833784**	**3833785**

OTHER AVAILABLE VERSIONS

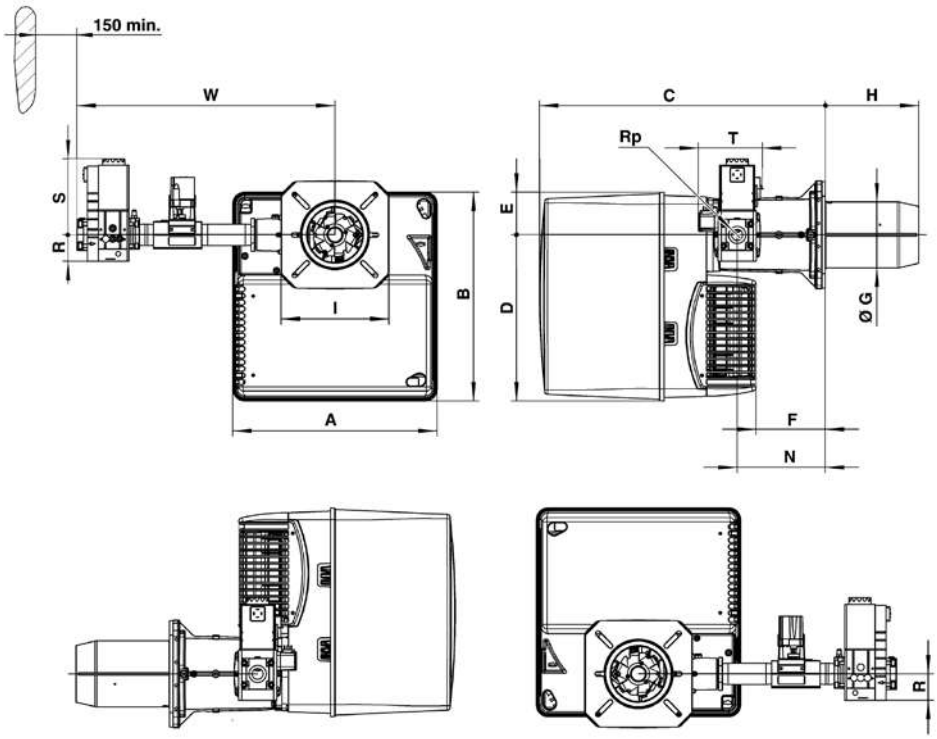
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

GEM | MDE2 | RTC | LOW NOx CLASS 3

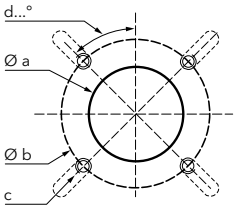
DIMENSIONS (mm)



Gas train model	A	B	C	D	E	F	ØG	H		I	N	Rp	R	S	T	W
								KN	KL							
d1"1/2-Rp1"1/2/TC	465	475	640	377	97	149	150	220	360	245	195	1"1/2	80	185	160	649
d3/4"-Rp1"1/4/TC	465	475	640	377	97	149	150	220	360	245	195	1"1/4	60	173	146	587

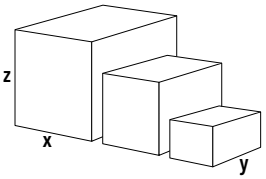
Connecting flange

Øa (mm)	b (mm)	c	d
180-240	200-270	M10	45°



PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VG4.610 M**	490	490	590	32,7
Combustion head	**KN**	750	260	295	8,9
	KL	895	260	295	10,1
Gas train	**d1"1/2-Rp1"1/2/TC**	670	540	380	12
	d3/4"-Rp1"1/4/TC	670	540	380	12

VG4.610 M

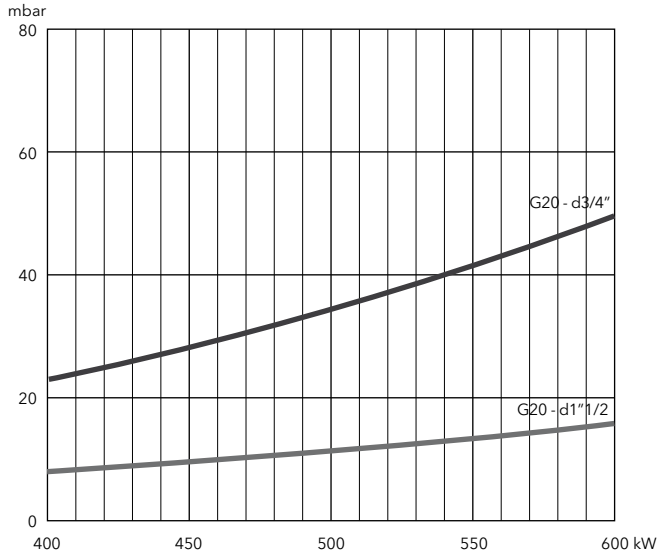
90 ... 610 kW
2 stage progressive/modulating electronic (Low NOx class 3)

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

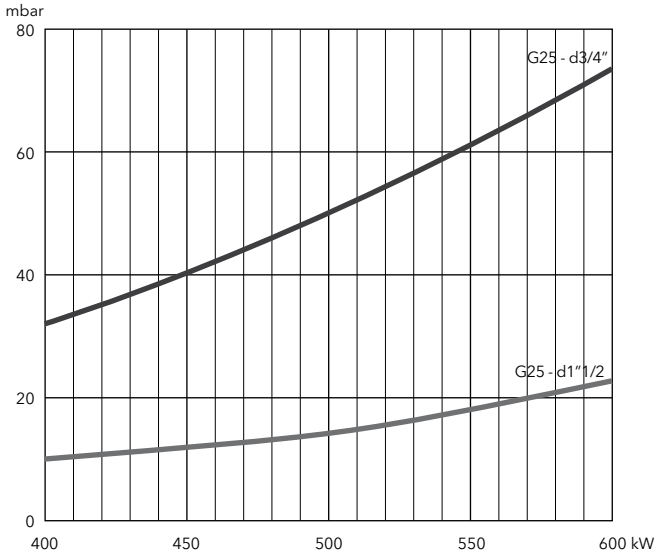
VG4.610 M

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³		Natural gas G25 Hi = 8,83 kWh/m³	
	d3/4"-Rp1"1/4	d1"1/2-Rp1"1/2	d3/4"-Rp1"1/4	d1"1/2-Rp1"1/2
400	23	8	32	10
450	29	10	40	12
500	35	12	50	15
550	42	14	61	18
600	50	16	73	22

Natural gas G20



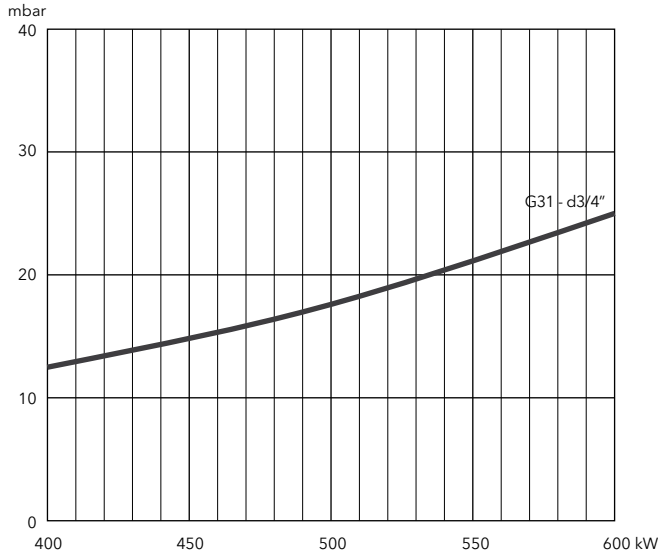
Natural gas G25



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

Burner output (kW)	Natural gas G25 Hi = 8,83 kWh/m³
	d3/4"-Rp1"1/4
400	13
450	15
500	18
550	21
600	25

LPG



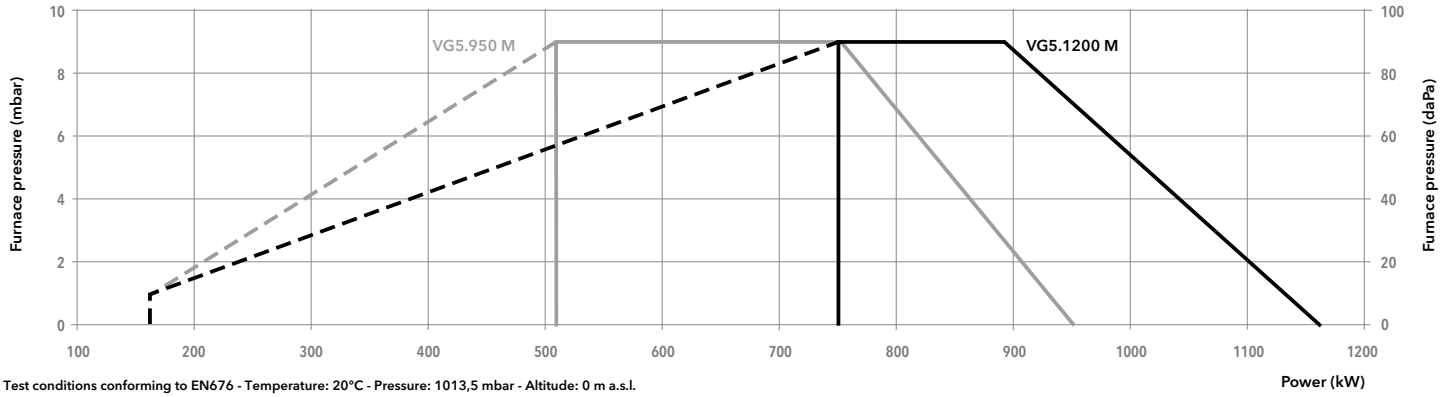
VG5.950 M, VG5.1200 M

160 ... 1160 kW
2 stage progressive/modulating electronic (Low NOx class 3)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** Low NOx class 3 (≤80 mg/kWh) according to EN676
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG5.950 M /TC			VG5.1200 M /TC		
Operation range			(160) 510 - 950 kW			(160) 750 - 1160 kW		
Gas pressure			20 - 300 mbar			20 - 300 mbar		
Control box / flame detection			BT3... / ionization			BT3... / ionization		
Fan motor			230/400 V - 50 Hz - 1,5 kW			230/400 V - 50 Hz - 1,5 kW		
Electrical consumption			55 + 1750 W			55 + 2100 W		
Acoustic level (LpA)			77 dB(A)			77 dB(A)		
CE certificate			0085 CN 0192			0085 CN 0192		
Head lenght			KN	KL	KM	KN	KL	KM
Complete burner code	VGD40-065	s65-DN65/TC	**3833999**	**3834000**	**3834001**	**3834005**	**3834006**	**3834007**
	MBC1900	d65-DN65/TC	**3833996**	**3833997**	**3833998**	**3834002**	**3834003**	**3834004**
	MBC1200	d2"-Rp2"/TC	**3833803**	**3833804**	**3833805**	**3833809**	**3833810**	**3833811**
	MBC700	d1"1/2-Rp2"/TC	**3833800**	**3833801**	**3833802**	**3833806**	**3833807**	**3833808**
	MBC300	d3/4"-Rp1"1/4/TC	**3834099**	**3834100**	**3834101**	**3834102**	**3834103**	**3834104**

OTHER AVAILABLE VERSIONS

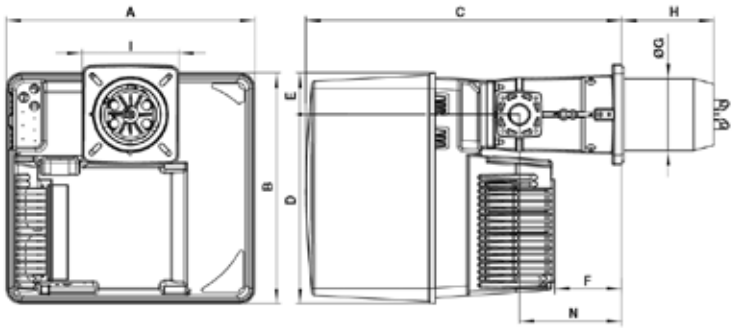
VENT Versions for continuous ventilation and post-ventilation

PED PED version for continuous operation

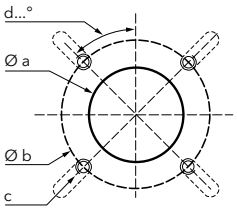
SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

DIMENSIONS (mm)



Connecting flange

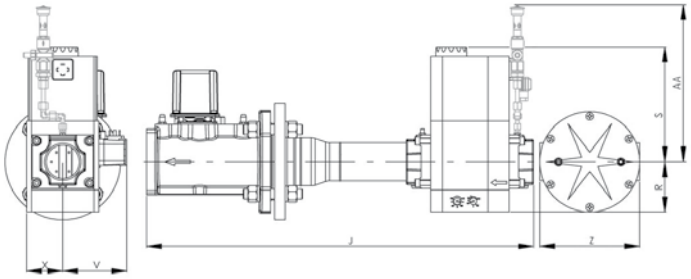


A	B	C	D	E	F	ØG	H			I	K	N
							KN	KM	KL			
581	549	752	450	99	164	170	215	325	435	230x238	89	244

Øa (mm)	b (mm)	c	d
195	220-260	M10	45°

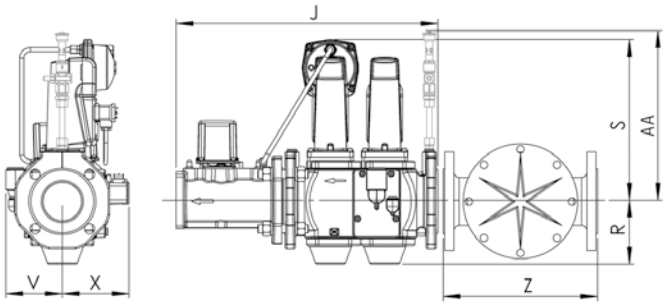
Gas trains

Gas train "d":



Model	J	R	S	V	X	Z	AA*
d65-DN65	490	183	245	110	98	290	385
d2"-Rp2"	700	96	330	125	81	-	385
d1"1/2-Rp2"	622	80	185	102	57	-	320
d3/4"-Rp1"1/4	460	60	173	88	58	-	320

Gas train "s":

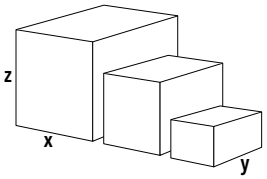


Model	J	R	S	V	X	Z	AA*
s65-DN65	490	118	300	106	126	290	365

***: for PED configuration**

PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VG5.950 M**	800	600	850	56
	VG5.1200 M	800	600	850	56
Combustion head	**KN**	780	265	280	12,3
	KL	1010	265	280	14,4
	KM	1010	265	280	13,4
Gas train	**s65-DN65/TC**	670	550	380	29
	d65-DN65/TC	670	550	380	33
	d2"-Rp2"/TC	670	550	380	22
	d1"1/2-Rp2"/TC	670	550	380	21
	d3/4"-Rp1"1/4/TC	670	550	380	12

VG5.950 M, VG5.1200 M

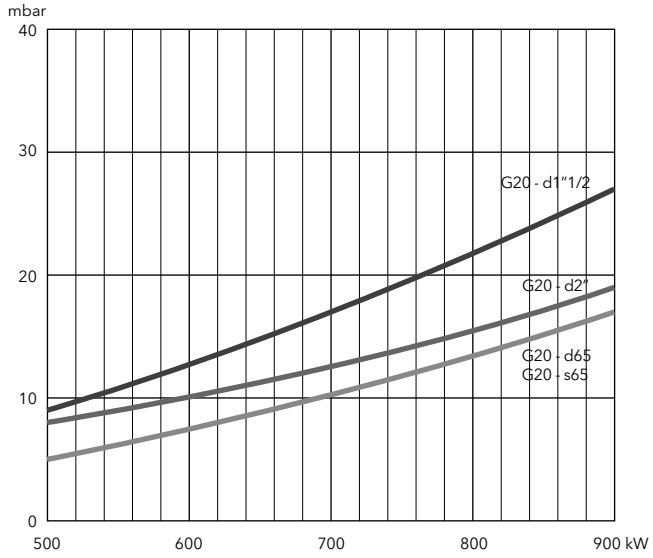
160 ... 1160 kW
2 stage progressive/modulating electronic (Low NOx class 3)

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

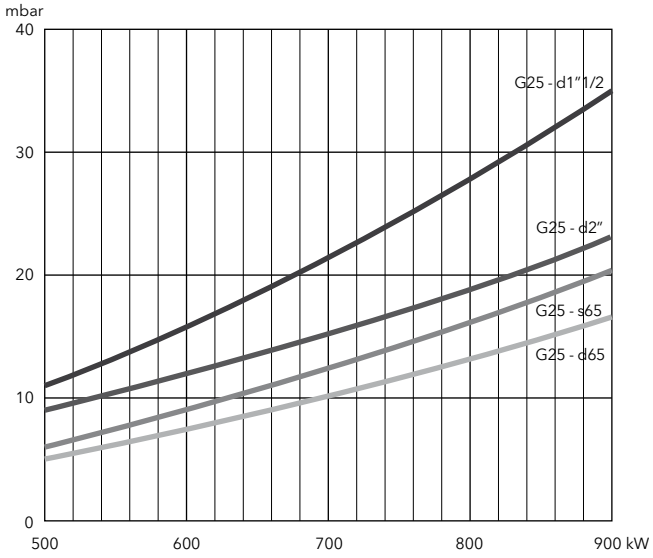
VG5.950 M

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³					Natural gas G25 Hi = 8,83 kWh/m³					LPG G31
	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	S65-DN65	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"
500	31	9	8	5	5	37	11	9	5	6	6
600	43	13	10	8	8	53	16	12	7	9	8
700	58	17	13	10	10	73	21	15	10	12	10
800	76	22	16	13	13	96	28	19	13	16	13
900	97	27	19	17	17	124	35	23	17	20	16

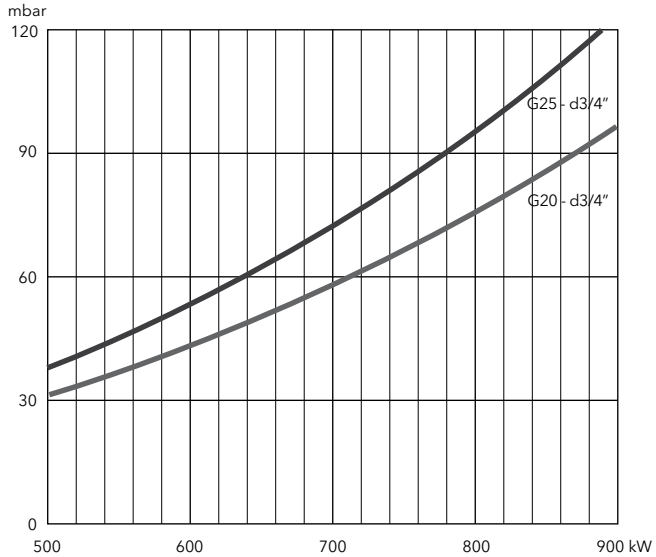
Natural gas G20



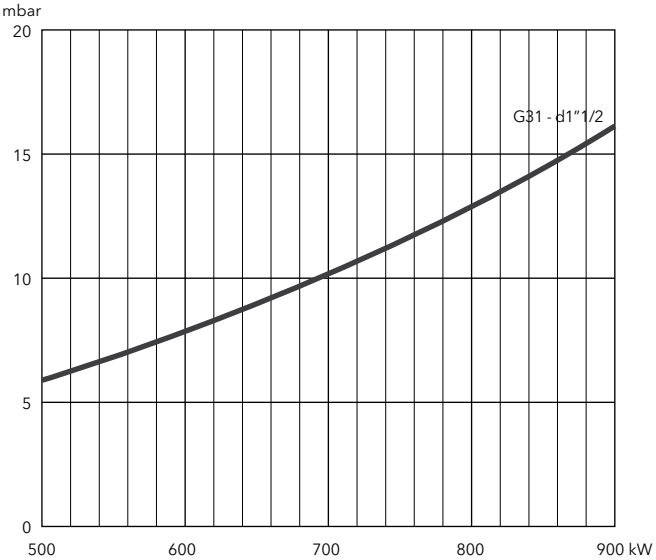
Natural gas G25



Natural gas G20, G25



LPG



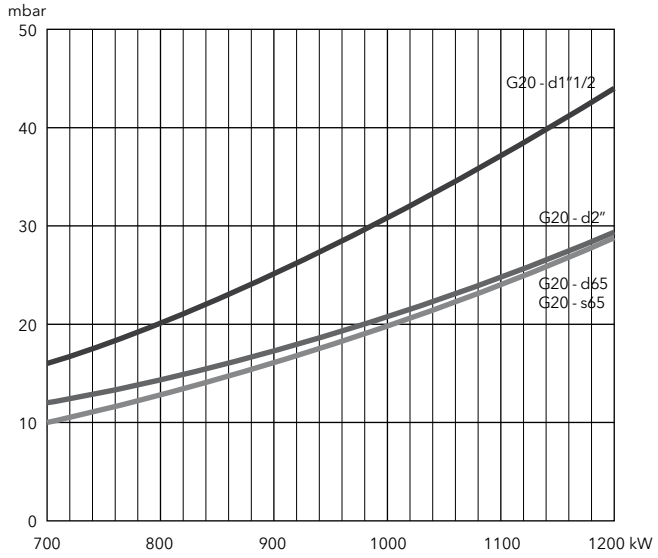
GEM MDE2 RTC LOW NOx CLASS 3

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

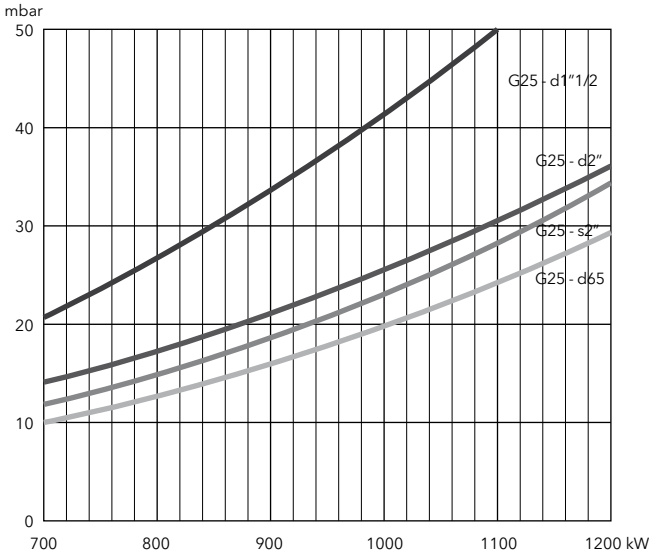
VG5.1200 M

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³					Natural gas G25 Hi = 8,83 kWh/m³					LPG G31
	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"
700	40	16	12	10	10	60	21	14	10	12	10
800	53	20	14	13	13	79	27	17	13	15	12
900	68	25	17	16	16	100	34	21	16	19	15
1000	84	31	21	20	20	126	42	26	20	24	18
1100	103	37	25	24	24	154	50	31	24	29	22
1200	123	44	29	29	29	186	59	36	29	34	26

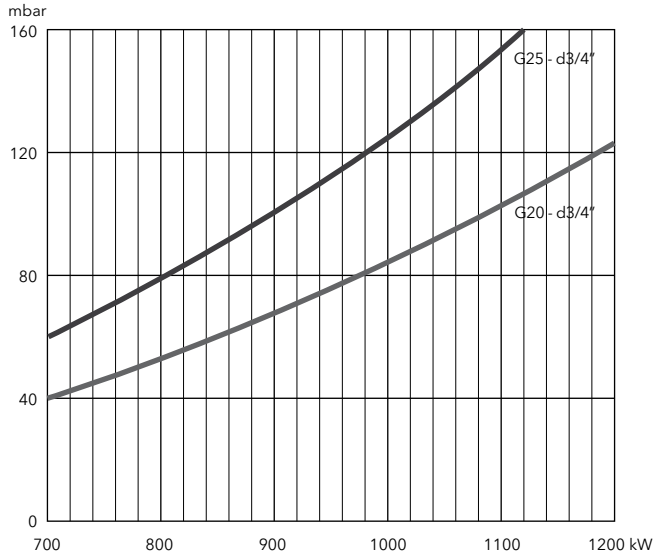
Natural gas G20



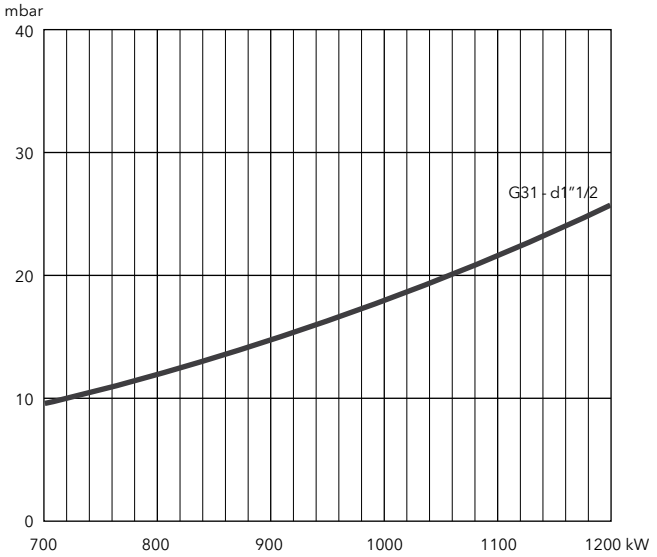
Natural gas G25



Natural gas G20, G25



LPG



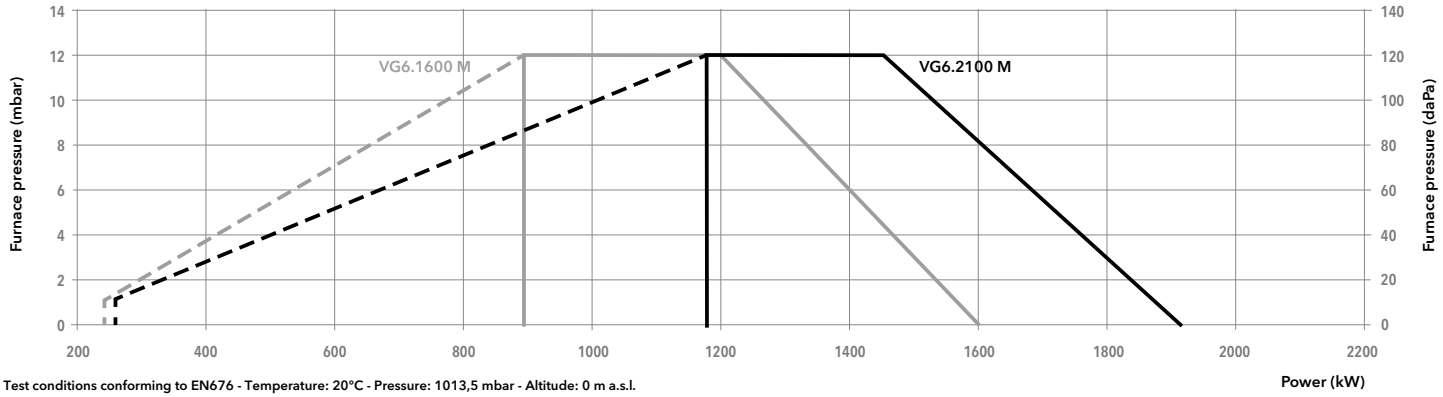
VG6.1600 M, VG6.2100 M

240 ... 1900 kW
2 stage progressive/modulating electronic (Low NOx class 3)



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** Low NOx class 3 (≤80 mg/kWh) according to EN676
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG6.1600 M /TC			VG6.2100 M /TC		
Operation range			(240) 890 - 1600 kW			(260) 1180 - 1900 kW		
Gas pressure			20 - 300 mbar			20 - 300 mbar		
Control box / flame detection			BT3... / ionization			BT3... / ionization		
Fan motor			230/400 V - 50 Hz - 2,2 kW			230/400 V - 50 Hz - 2,7 kW		
Electrical consumption			55 + 2600 W			55 + 3400 W		
Acoustic level (LpA)			77,2 dB(A)			79 dB(A)		
CE certificate			0085 CN 0192			0085 CN 0192		
Head lenght			KN	KL	KM	KN	KL	KM
Complete burner code	VGD 40-065	s65-DN65/TC	**3833938**	**3833939**	**3833940**	**3833934**	**3833933**	**3833930**
	MBC1900	d65-DN65/TC	**3833836**	**3833837**	**3833838**	**3833845**	**3833846**	**3833847**
	MBC1200	d2"-Rp2"/TC	**3833833**	**3833834**	**3833835**	**3833842**	**3833843**	**3833844**
	MBC700	d1"1/2-Rp2"/TC	**3833830**	**3833831**	**3833832**	**3833839**	**3833840**	**3833841**

OTHER AVAILABLE VERSIONS

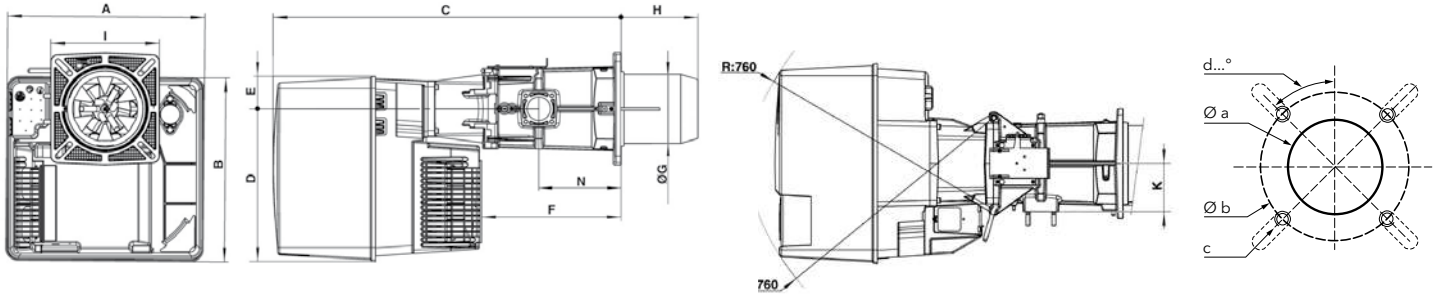
VENT Versions for continuous ventilation and post-ventilation

PED PED version for continuous operation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

DIMENSIONS (mm)

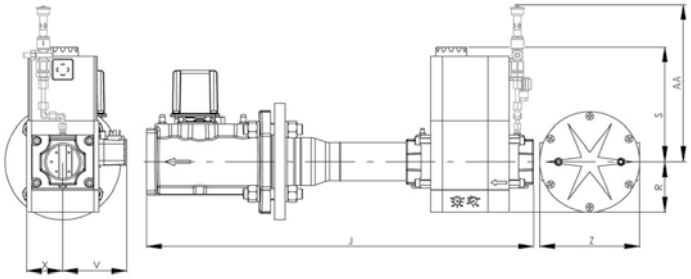


A	B	C	D	E	F	ØG	H			I	K	N
							KN	KM	KL			
592	553	1050	456	97	421	227	360	460	560	326x335	144	247

Øa (mm)	b (mm)	c	d
250	300-400	M12	45°

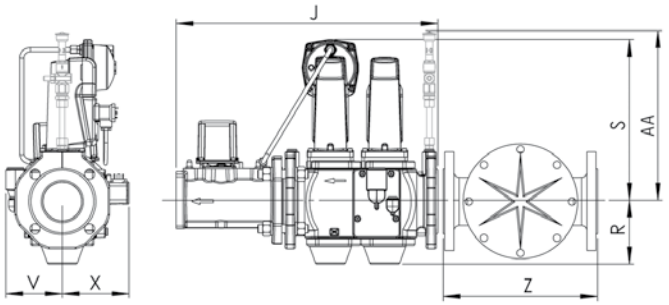
Gas trains

Gas train "d":



Model	J	R	S	V	X	Z	AA*
d65-DN65	490	183	245	110	98	290	385
d2"-Rp2"	700	96	330	125	81	-	385
d1"1/2-Rp2"	622	80	185	102	57	-	320

Gas train "s":

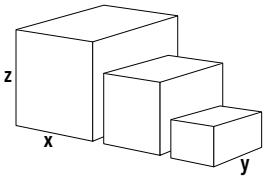


Model	J	R	S	V	X	Z	AA*
s65-DN65	490	118	300	106	126	290	365

***: for PED configuration**

PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VG6.1600 M**	800	600	850	56
	VG6.2100 M	800	600	850	56
Combustion head	**KN**	1000	380	420	26,7
	KL	1100	380	430	29,4
	KM	1100	380	430	28
Gas train	**s65-DN65/TC**	790	600	500	29,4
	d65-DN65/TC	670	550	380	33
	d2"-Rp2"/TC	670	550	380	22
	d1"1/2-Rp2"/TC	670	550	380	21

VG6.1600 M, VG6.2100 M

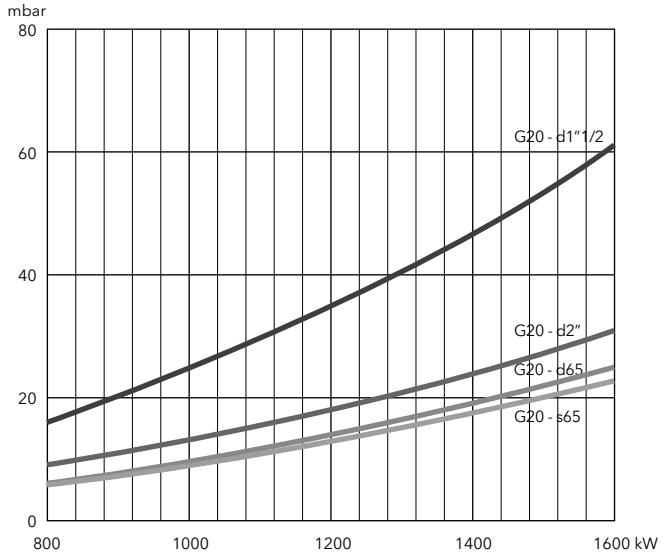
240 ... 1900 kW
2 stage progressive/modulating electronic (Low NOx class 3)

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

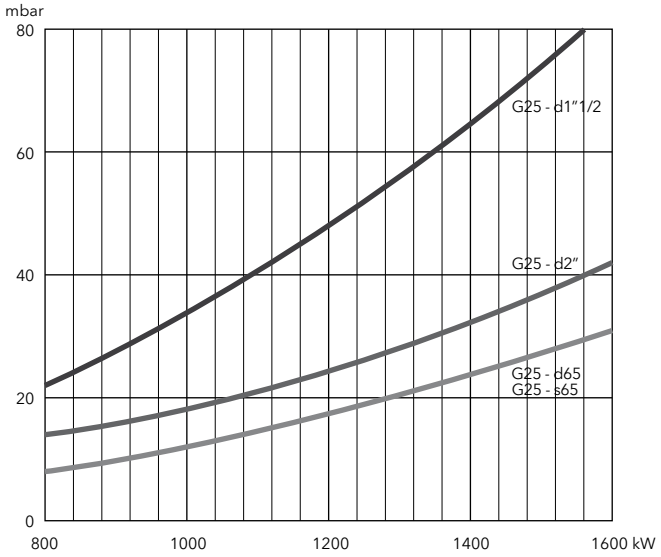
VG6.1600 M

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³				Natural gas G25 Hi = 8,83 kWh/m³				LPG G31 Hi = 25,89 kWh/m³
	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"
800	16	9	6	6	22	12	8	8	8
1000	25	13	10	9	34	18	12	12	12
1200	35	18	14	13	48	24	18	18	17
1400	47	24	19	18	64	32	24	24	22
1600	61	31	25	23	83	42	31	31	29

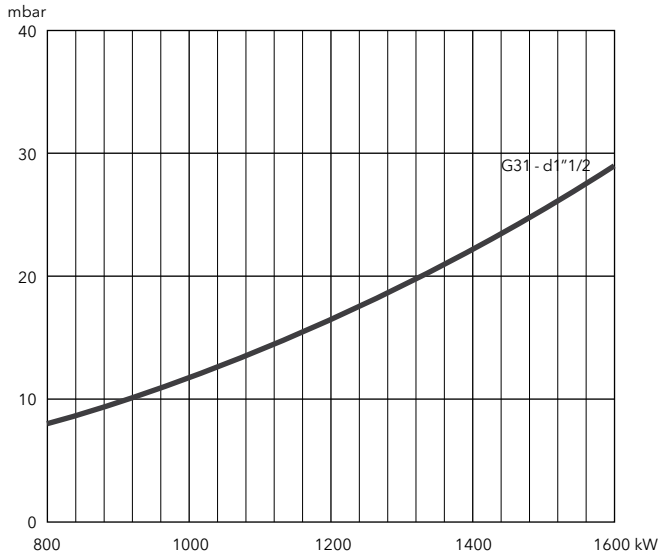
Natural gas G20



Natural gas G25



LPG



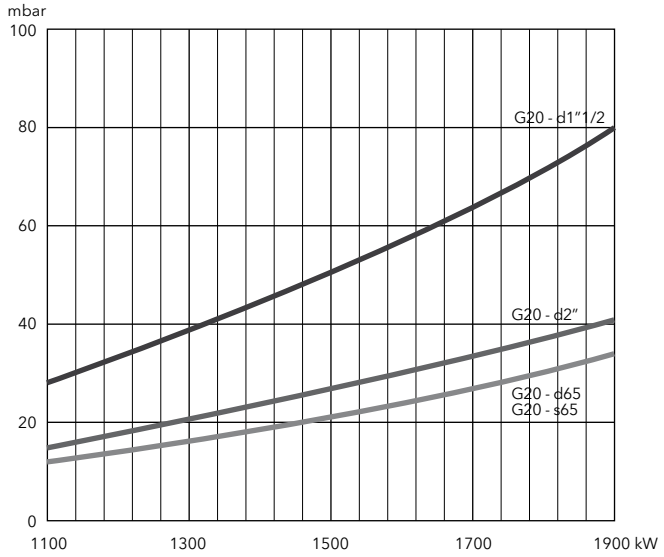
GEM MDE2 RTC LOW NOx CLASS 3

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

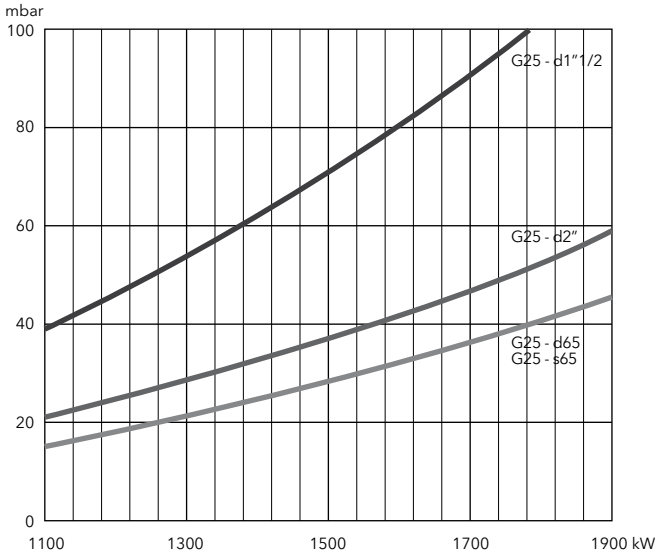
VG6.2100 M

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³				Natural gas G25 Hi = 8,83 kWh/m³				LPG G31 Hi = 25,89 kWh/m³	
	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d2"-Rp2"
1100	28	15	12	11	39	21	15	15	13	9
1300	39	21	16	16	54	29	21	22	18	11
1500	51	27	21	21	71	37	28	29	23	14
1700	64	34	27	27	91	47	36	37	29	17
1900	80	41	34	34	114	59	45	46	36	20

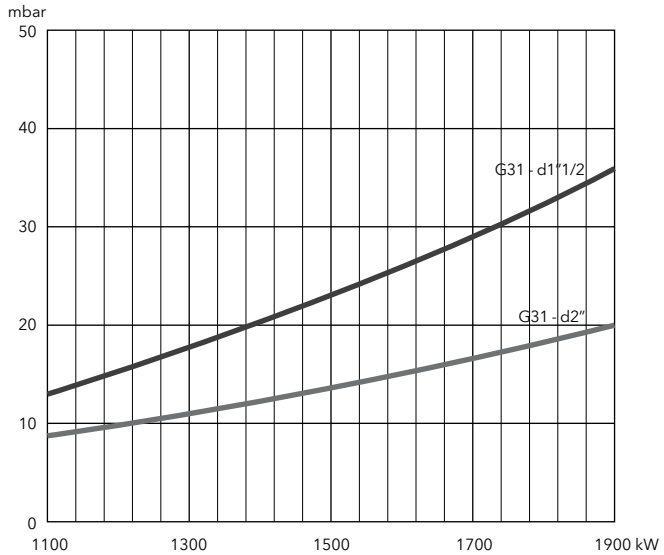
Natural gas G20



Natural gas G25



LPG



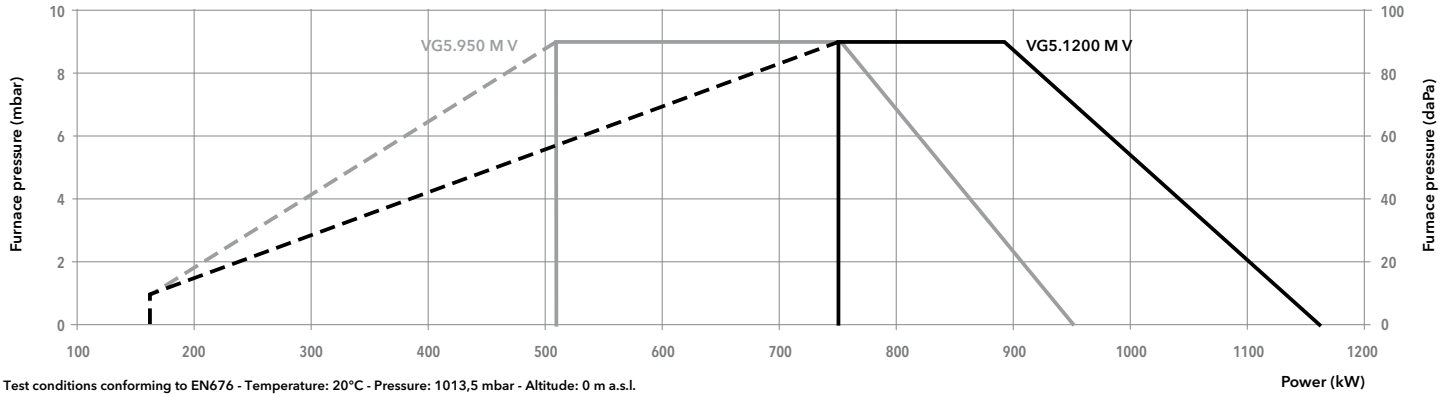
VG5.950 M V, VG5.1200 M V

160 ... 1160 kW
2 stage progressive/modulating electronic (Low NOx class 3) + fan speed control



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** Low NOx class 3 (≤80 mg/kWh) according to EN676
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG5.950 M V /TC			VG5.1200 M V /TC		
Operation range			(160) 510 - 950 kW			(160) 750 - 1160 kW		
Gas pressure			20 - 300 mbar			20 - 300 mbar		
Control box / flame detection			BT3... / ionization			BT3... / ionization		
Fan motor			230/400 V - 50 Hz - 1,5 kW			230/400 V - 50 Hz - 1,5 kW		
Electrical consumption			55 + 1750 W			55 + 2100 W		
Acoustic level (LpA)			77 dB(A)			77 dB(A)		
CE certificate			0085 CN 0192			0085 CN 0192		
Head lenght			KN	KL	KM	KN	KL	KM
Complete burner code	VGD40-065	s65-DN65/TC	**3835235**	**3835245**	**3835255**	**3835240**	**3835250**	**3835260**
	MBC1900	d65-DN65/TC	**3835236**	**3835246**	**3835256**	**3835241**	**3835251**	**3835261**
	MBC1200	d2"-Rp2"/TC	**3835237**	**3835247**	**3835257**	**3835242**	**3835252**	**3835262**
	MBC700	d1"1/2-Rp2"/TC	**3835238**	**3835248**	**3835258**	**3835243**	**3835253**	**3835263**
	MBC300	d3/4"-Rp1"1/4/TC	**3835239**	**3835249**	**3835259**	**3835244**	**3835254**	**3835264**

OTHER AVAILABLE VERSIONS

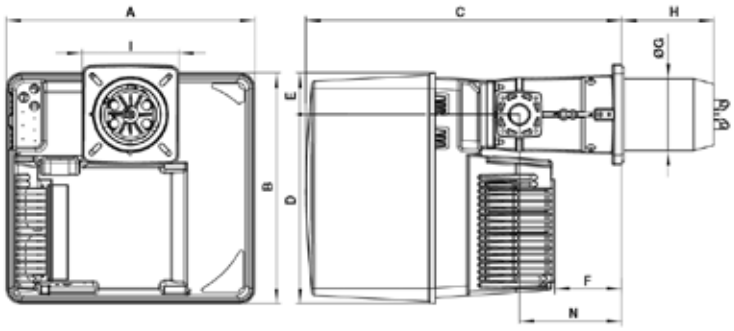
VENT Versions for continuous ventilation and post-ventilation

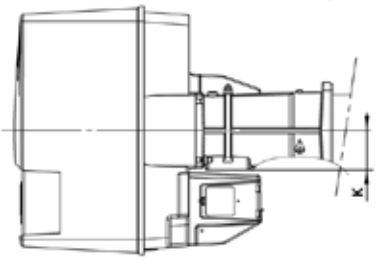
PED PED version for continuous operation

SCOPE OF SUPPLY

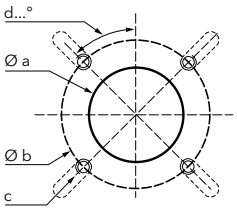
The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

DIMENSIONS (mm)





Connecting flange

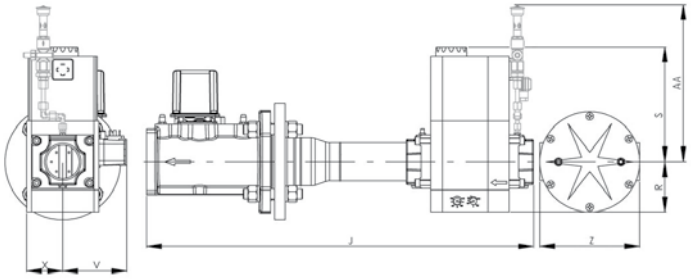


A	B	C	D	E	F	ØG	H			I	K	N
							KN	KM	KL			
581	549	752	450	99	164	170	215	325	435	230x238	89	244

Øa (mm)	b (mm)	c	d
195	220-260	M10	45°

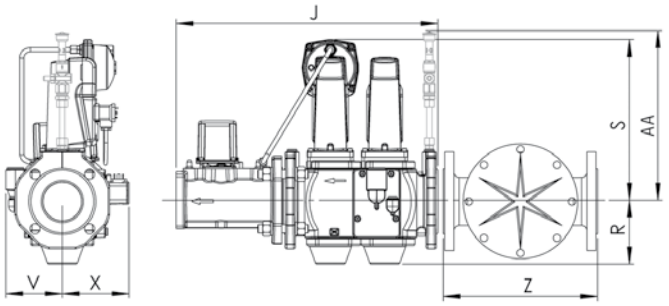
Gas trains

Gas train "d":



Model	J	R	S	V	X	Z	AA*
d65-DN65	490	183	245	110	98	290	385
d2"-Rp2"	700	96	330	125	81	-	385
d1"1/2-Rp2"	622	80	185	102	57	-	320
d3/4"-Rp1"1/4	460	60	173	88	58	-	320

Gas train "s":

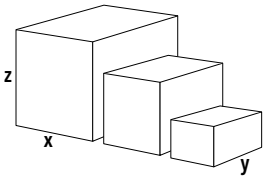


Model	J	R	S	V	X	Z	AA*
s65-DN65	490	118	300	106	126	290	365

***: for PED configuration**

PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VG5.950 M V**	800	600	850	56
	VG5.1200 M V	800	600	850	56
Combustion head	**KN**	780	265	280	12,3
	KL	1010	265	280	14,4
	KM	1010	265	280	13,4
Gas train	**s65-DN65/TC**	670	550	380	29
	d65-DN65/TC	670	550	380	33
	d2"-Rp2"/TC	670	550	380	22
	d1"1/2-Rp2"/TC	670	550	380	21
	d3/4"-Rp1"1/4/TC	590	290	180	12

VG5.950 M V, VG5.1200 M V

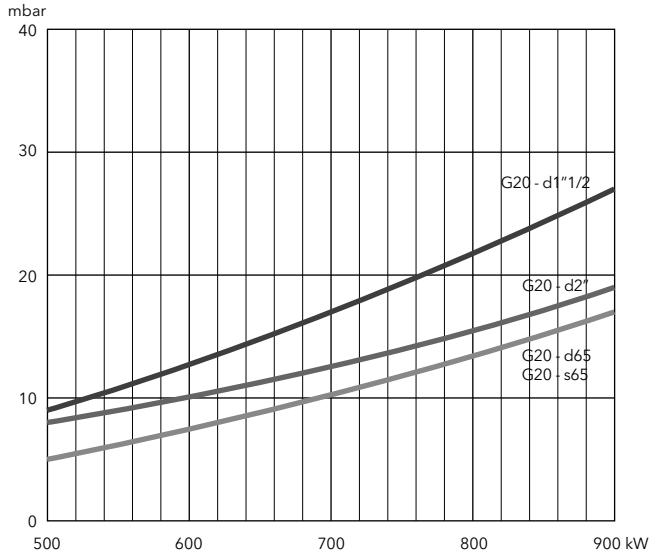
160 ... 1160 kW
2 stage progressive/modulating electronic (Low NOx class 3) + fan speed control

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

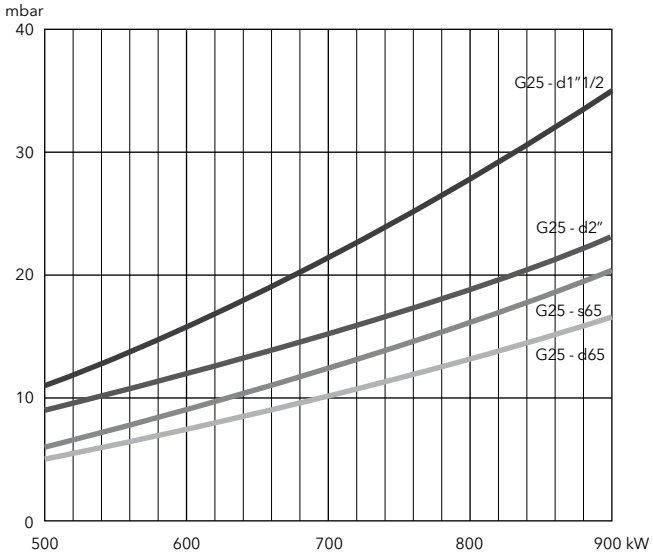
VG5.950 M V

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³					Natural gas G25 Hi = 8,83 kWh/m³					LPG G31
	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	S65-DN65	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"
500	31	9	8	5	5	37	11	9	5	6	6
600	43	13	10	8	8	53	16	12	7	9	8
700	58	17	13	10	10	73	21	15	10	12	10
800	76	22	16	13	13	96	28	19	13	16	13
900	97	27	19	17	17	124	35	23	17	20	16

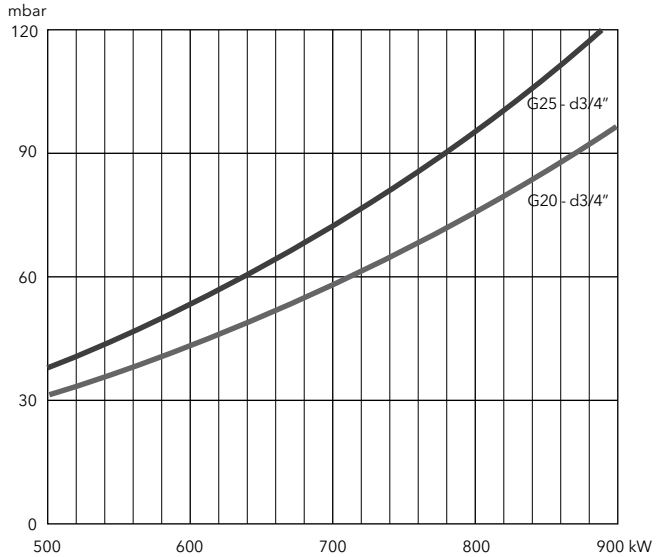
Natural gas G20



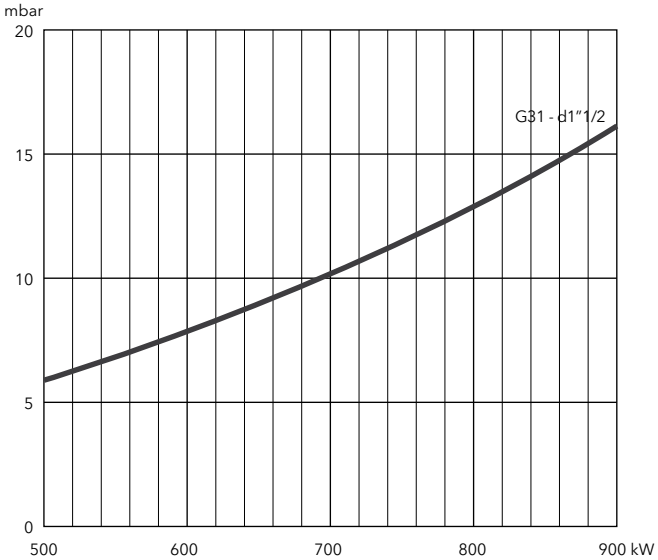
Natural gas G25



Natural gas G20, G25



LPG



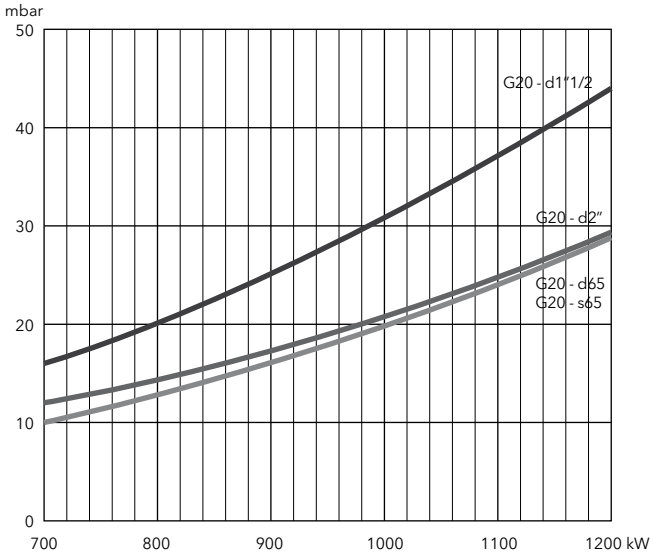
GEM | Variatron | MDE2 | RTC | LOW NOx CLASS 3

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

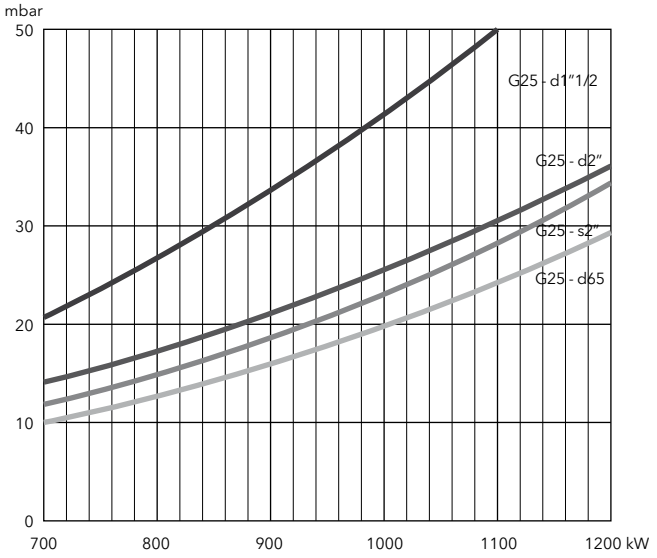
VG5.1200 M V

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³					Natural gas G25 Hi = 8,83 kWh/m³					LPG G31
	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"
700	40	16	12	10	10	60	21	14	10	12	10
800	53	20	14	13	13	79	27	17	13	15	12
900	68	25	17	16	16	100	34	21	16	19	15
1000	84	31	21	20	20	126	42	26	20	24	18
1100	103	37	25	24	24	154	50	31	24	29	22
1200	123	44	29	29	29	186	59	36	29	34	26

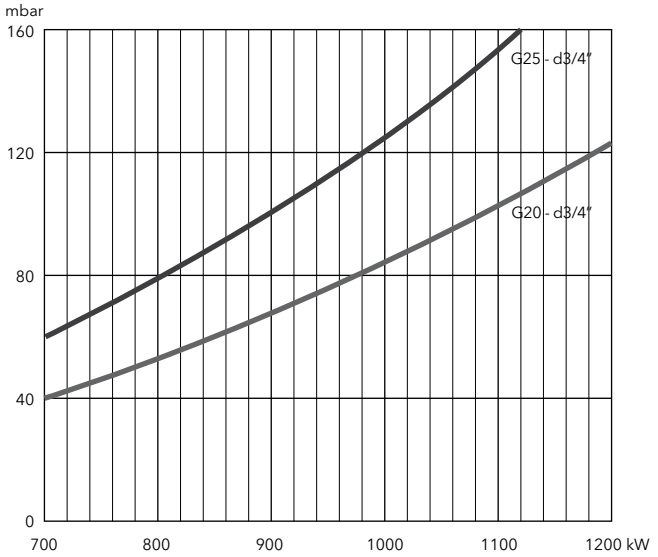
Natural gas G20



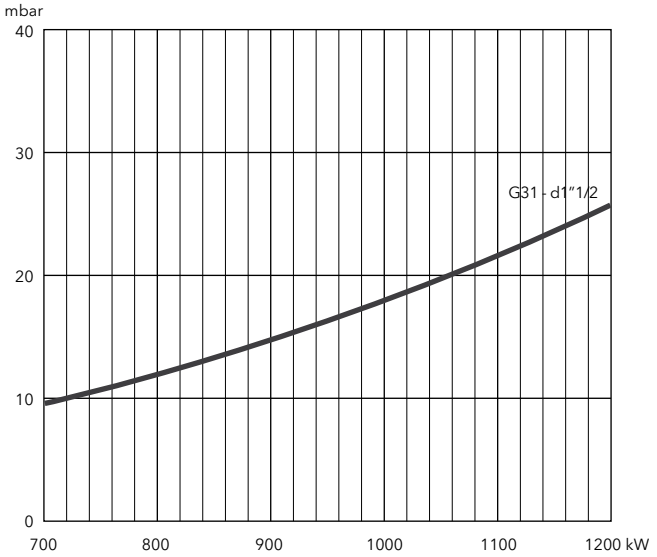
Natural gas G25



Natural gas G20, G25



LPG



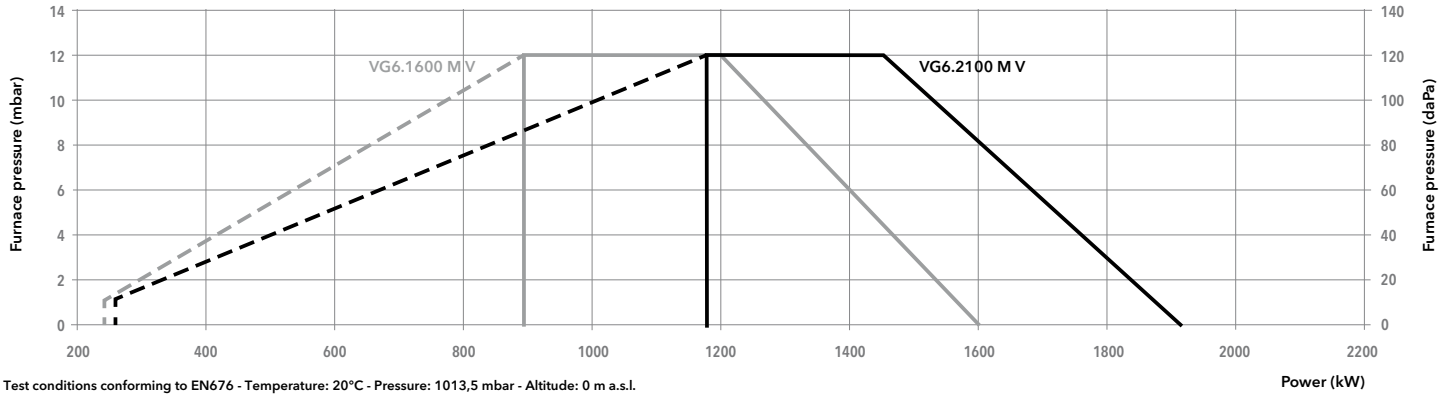
VG6.1600 M V, VG6.2100 M V

240 ... 1900 kW
2 stage progressive/modulating electronic (Low NOx class 3) + fan speed control



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** Low NOx class 3 (≤80 mg/kWh) according to EN676
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG6.1600 M V /TC			VG6.2100 M V /TC		
Operation range			(240) 890 - 1600 kW			(260) 1180 - 1900 kW		
Gas pressure			20 - 300 mbar			20 - 300 mbar		
Control box / flame detection			BT3... / ionization			BT3... / ionization		
Fan motor			230/400 V - 50 Hz - 2,2 kW			230/400 V - 50 Hz - 2,7 kW		
Electrical consumption			55 + 2600 W			55 + 3400 W		
Acoustic level (LpA)			77,2 dB(A)			79 dB(A)		
CE certificate			0085 CN 0192			0085 CN 0192		
Head lenght			KN	KL	KM	KN	KL	KM
Complete burner code	VGD 40-065	s65-DN65/TC	**3835265**	**3835273**	**3835281**	**3835269**	**3835277**	**3835285**
	MBC1900	d65-DN65/TC	**3835266**	**3835274**	**3835282**	**3835270**	**3835278**	**3835286**
	MBC1200	d2"-Rp2"/TC	**3835267**	**3835275**	**3835283**	**3835271**	**3835279**	**3835287**
	MBC700	d1"1/2-Rp2"/TC	**3835268**	**3835276**	**3835284**	**3835272**	**3835280**	**3835288**

OTHER AVAILABLE VERSIONS

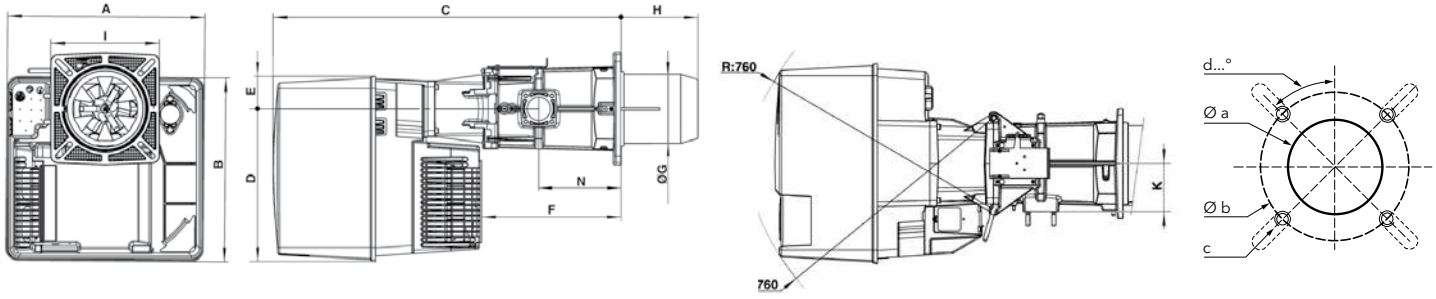
VENT Versions for continuous ventilation and post-ventilation

PED PED version for continuous operation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

DIMENSIONS (mm)

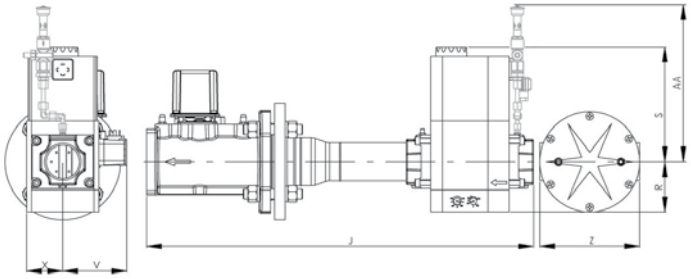


A	B	C	D	E	F	ØG	H			I	K	N
							KN	KM	KL			
592	553	1050	456	97	421	227	360	460	560	326x335	144	247

Øa (mm)	b (mm)	c	d
250	300-400	M12	45°

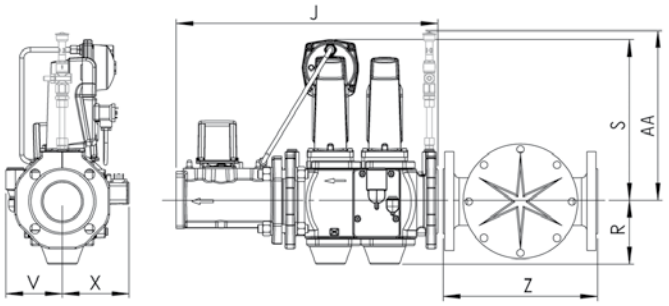
Gas trains

Gas train "d":



Model	J	R	S	V	X	Z	AA*
d65-DN65	490	183	245	110	98	290	385
d2"-Rp2"	700	96	330	125	81	-	385
d1"1/2-Rp2"	622	80	185	102	57	-	320

Gas train "s":

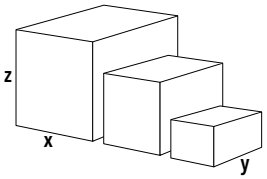


Model	J	R	S	V	X	Z	AA*
s65-DN65	490	118	300	106	126	290	365

***: for PED configuration**

PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VG6.1600 M V**	800	600	850	56
	VG6.2100 M V	800	600	850	56
Combustion head	**KN**	1000	380	420	26,7
	KL	1100	380	430	29,4
	KM	1100	380	430	28
Gas train	**s65-DN65/TC**	670	550	380	29,4
	d65-DN65/TC	670	550	380	33
	d2"-Rp2"/TC	670	550	380	22
	d1"1/2-Rp2"/TC	670	550	380	21

VG6.1600 M V, VG6.2100 M V

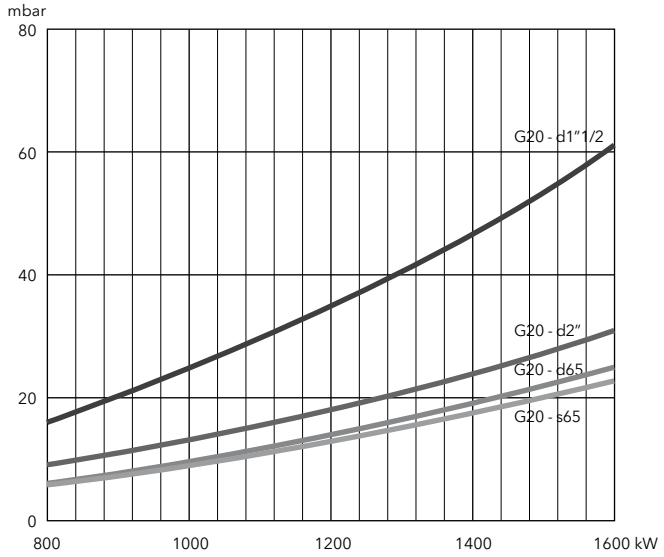
240 ... 1900 kW
2 stage progressive/modulating electronic (Low NOx class 3) + fan speed control

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

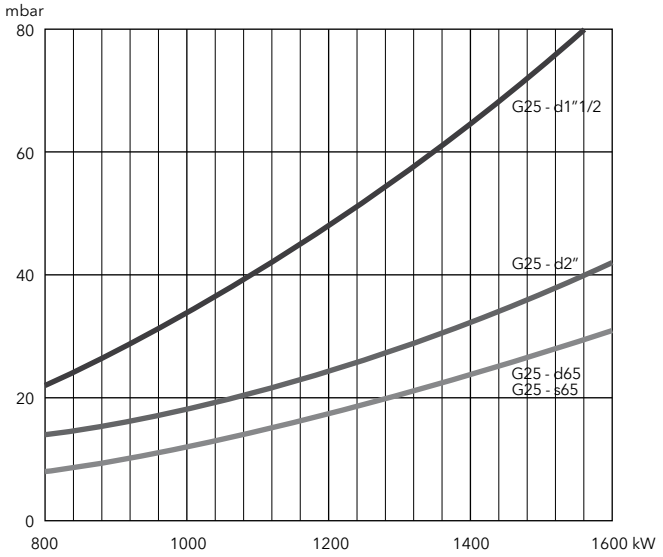
VG6.1600 M V

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³				Natural gas G25 Hi = 8,83 kWh/m³				LPG G31 Hi = 25,89 kWh/m³
	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"
800	16	9	6	6	22	12	8	8	8
1000	25	13	10	9	34	18	12	12	12
1200	35	18	14	13	48	24	18	18	17
1400	47	24	19	18	64	32	24	24	22
1600	61	31	25	23	83	42	31	31	29

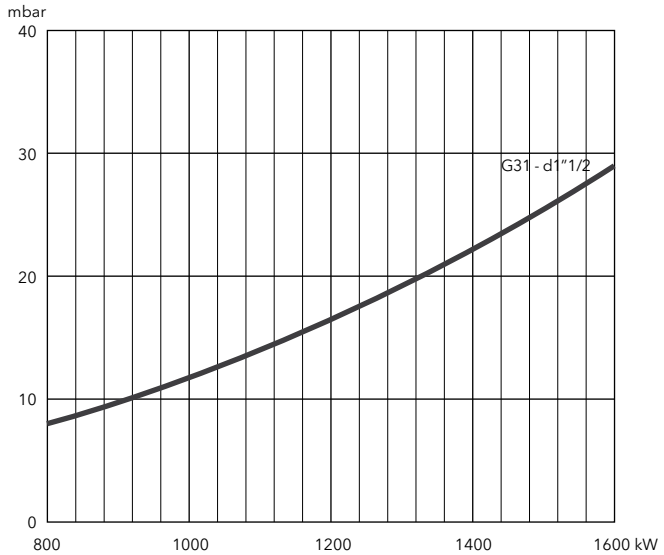
Natural gas G20



Natural gas G25



LPG

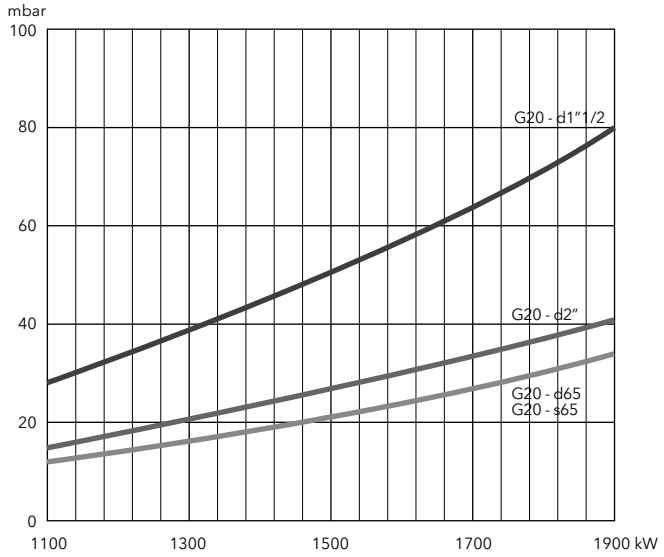


PRESSURE LOSS [BURNER HEAD + GAS TRAIN] (mbar)

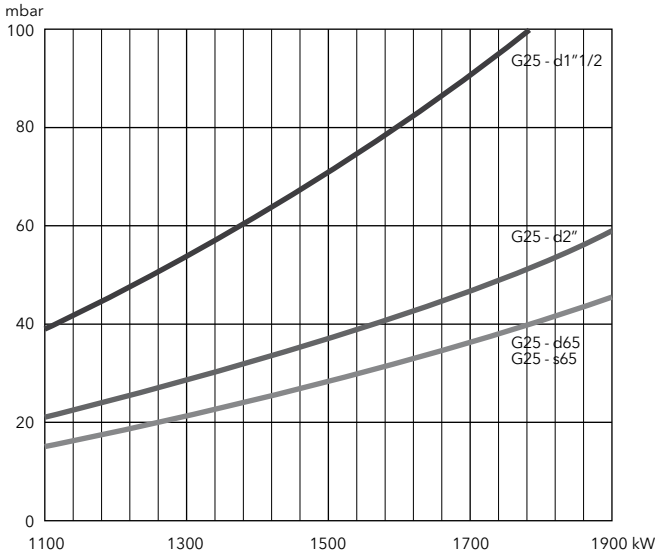
VG6.2100 M V

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³				Natural gas G25 Hi = 8,83 kWh/m³				LPG G31 Hi = 25,89 kWh/m³	
	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d2"-Rp2"
1100	28	15	12	11	39	21	15	15	13	9
1300	39	21	16	16	54	29	21	22	18	11
1500	51	27	21	21	71	37	28	29	23	14
1700	64	34	27	27	91	47	36	37	29	17
1900	80	41	34	34	114	59	45	46	36	20

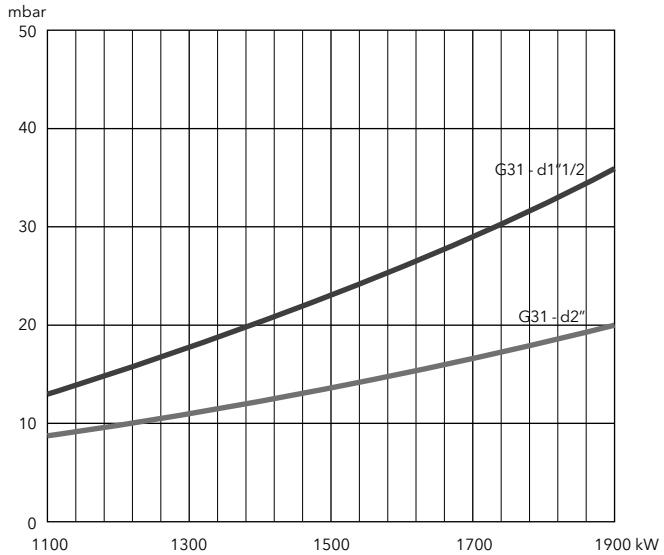
Natural gas G20



Natural gas G25



LPG



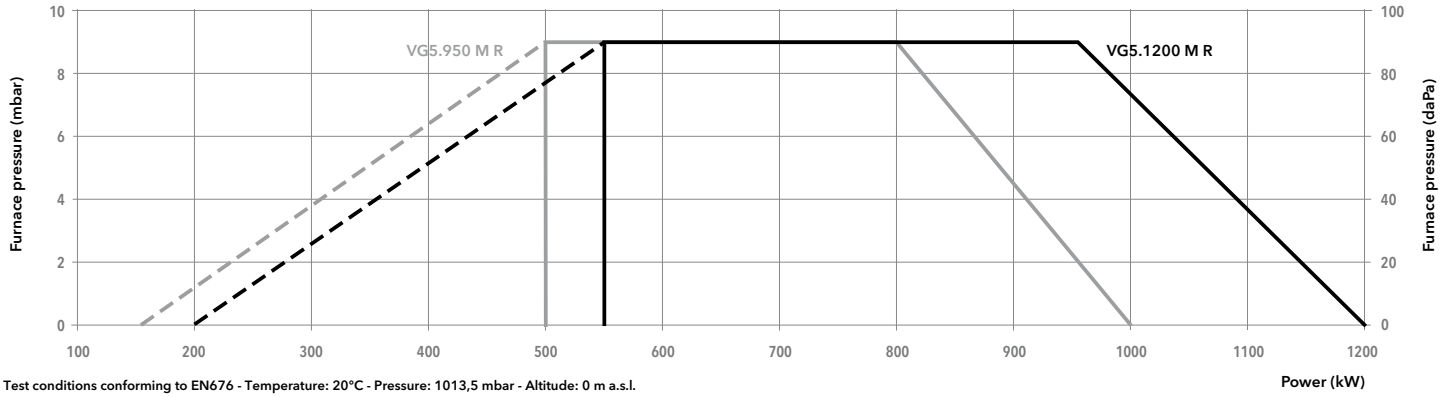
VG5.950 M R, VG5.1200 M R

150 ... 1200 kW
2 stage progressive/modulating electronic



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** Low NOx class 2 (≤120 mg/kWh) according to EN676
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG5.950 M R /TC			VG5.1200 M R /TC		
Operation range			(150) 500 - 1000 kW			(200) 550 - 1200 kW		
Gas pressure			50 - 500 mbar			50 - 500 mbar		
Control box / flame detection			BT3... / ionization			BT3... / ionization		
Fan motor			230/400 V - 50 Hz - 1,5 kW			230/400 V - 50 Hz - 1,5 kW		
Electrical consumption			100 + 2200 W			100 + 2300 W		
Acoustic level (LpA)			77 dB(A)			77 dB(A)		
CE certificate			0085 CQ 0570			0085 CQ 0570		
Head lenght			KN	KL	KM	KN	KL	KM
Complete burner code	VGD 40-065	s65-DN65/TC	**3835413**	**3835414**	**3835415**	**3835428**	**3835429**	**3835430**
	MBC1900	d65-DN65/TC	**3835416**	**3835417**	**3835418**	**3835431**	**3835432**	**3835433**
	MBC1200	d2"-Rp2"/TC	**3835419**	**3835420**	**3835421**	**3835434**	**3835435**	**3835436**
	MBC700	d1"1/2-Rp2"/TC	**3835422**	**3835423**	**3835424**	**3835437**	**3835438**	**3835439**
	MBC300	d3/4"-Rp1"1/4/TC	**3835425**	**3835426**	**3835427**	**3835440**	**3835441**	**3835442**

OTHER AVAILABLE VERSIONS

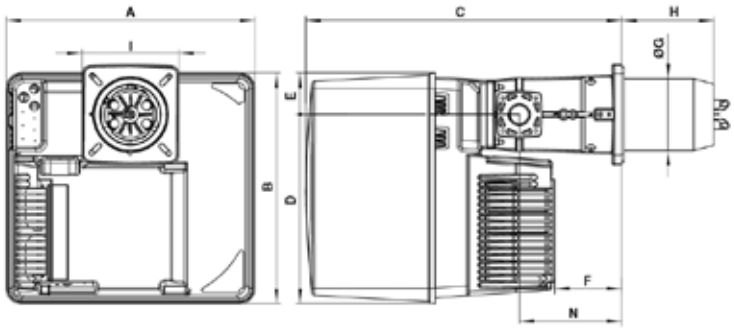
VENT Versions for continuous ventilation and post-ventilation

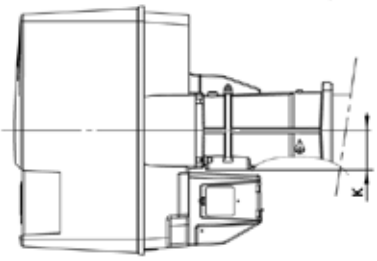
PED PED version for continuous operation

SCOPE OF SUPPLY

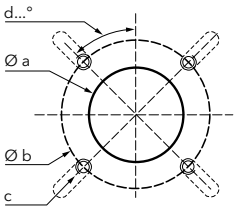
The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

DIMENSIONS (mm)





Connecting flange

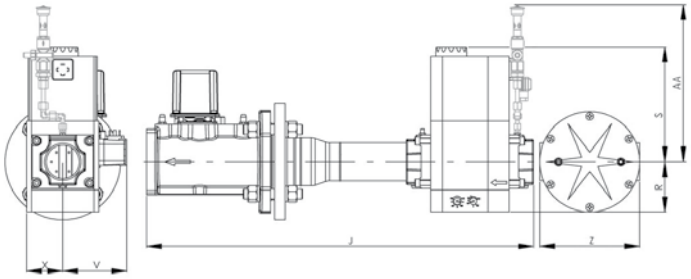


A	B	C	D	E	F	ØG	H			I	K	N
							KN	KM	KL			
581	549	752	450	99	164	170	215	325	435	230x238	89	244

Øa (mm)	b (mm)	c	d
195	220-260	M10	45°

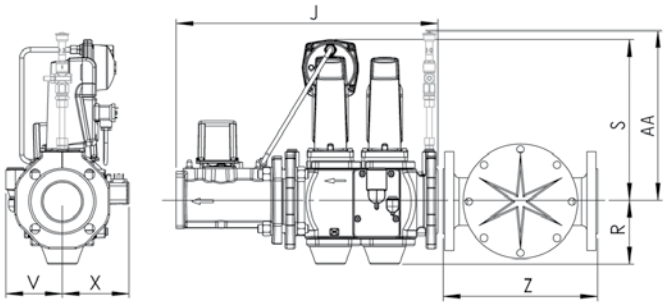
Gas trains

Gas train "d":



Model	J	R	S	V	X	Z	AA*
d65-DN65	490	183	245	110	98	290	385
d2"-Rp2"	700	96	330	125	81	-	385
d1"1/2-Rp2"	622	80	185	102	57	-	320
d3/4"-Rp1"1/4	460	60	173	88	58	-	320

Gas train "s":

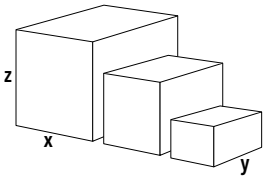


Model	J	R	S	V	X	Z	AA*
s65-DN65	490	118	300	106	126	290	365

***: for PED configuration**

PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VG5.950 M R**	800	600	850	53
	VG5.1200 M R	800	600	850	54
Combustion head	**KN**	780	265	280	12,3
	KL	1010	265	280	14,4
	KM	1010	265	280	13,4
Gas train	**s65-DN65/TC**	670	550	380	29
	d65-DN65/TC	670	550	380	17,2
	d2"-Rp2"/TC	670	550	380	12
	d1"1/2-Rp2"/TC	670	550	380	12
	d3/4"-Rp1"1/4/TC	590	390	180	7

VG5.950 M R, VG5.1200 M R

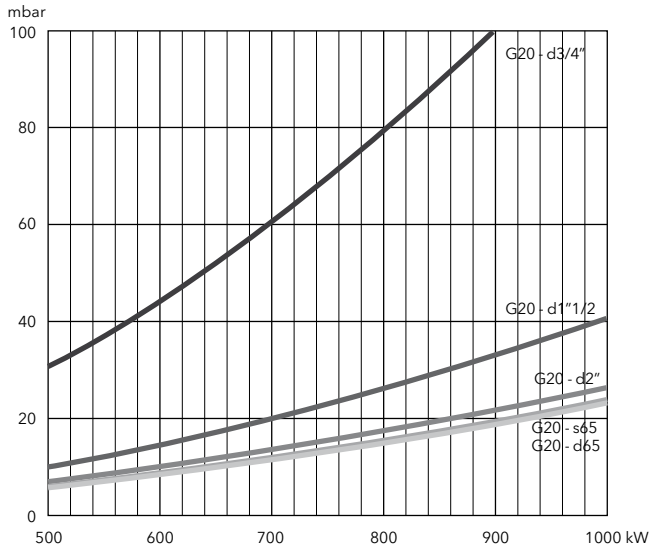
150 ... 1200 kW
2 stage progressive/modulating electronic

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

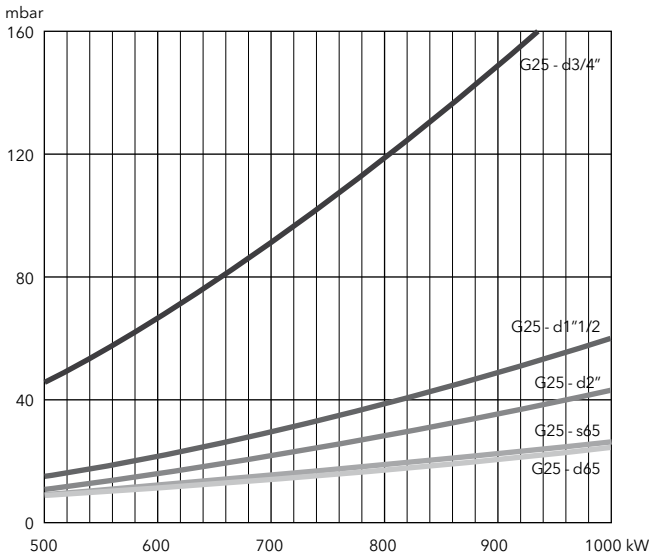
VG5.950 M R

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³					Natural gas G25 Hi = 8,83 kWh/m³					LPG G31	
	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d3/4-Rp1"1/4
500	31	10	7	6	6	46	15	11	9	9	17	8
600	45	15	9	9	9	67	22	16	12	13	24	11
700	61	20	13	12	12	91	30	22	17	18	32	15
800	79	26	17	15	15	118	39	28	22	23	42	20
900	124	33	21	19	19	149	49	35	28	29	53	25
1000	-	40	26	24	24	185	60	43	34	36	66	31

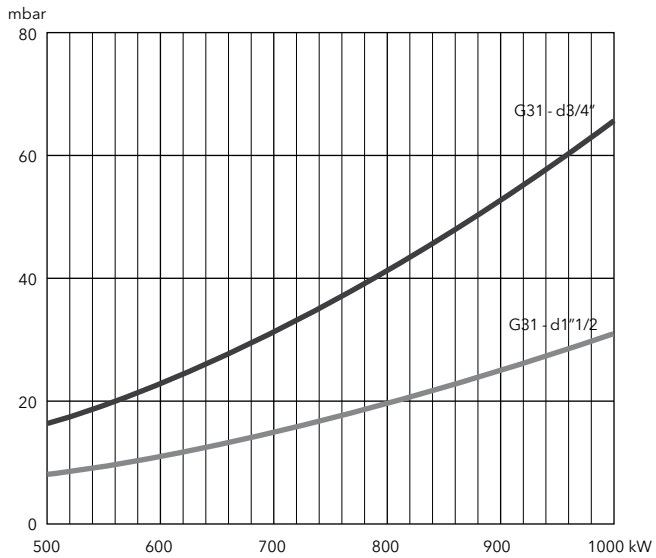
Natural gas G20



Natural gas G25



LPG

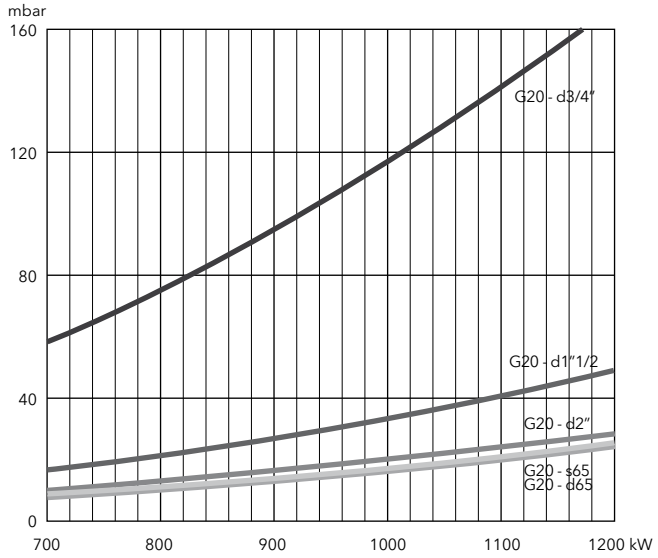


PRESSURE LOSS [BURNER HEAD + GAS TRAIN] (mbar)

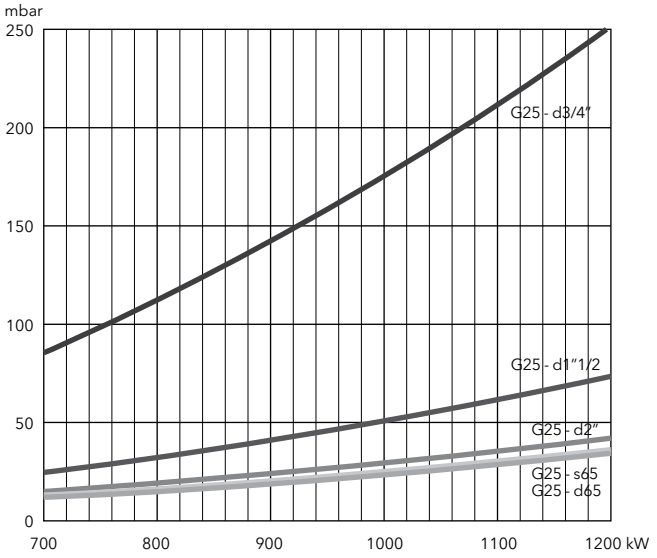
VG5.1200 M R

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³					Natural gas G25 Hi = 8,83 kWh/m³					LPG G31
	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"
700	58	17	10	8	9	86	25	14	12	13	10
800	75	22	13	10	11	112	32	19	16	17	14
900	95	27	16	13	14	142	41	24	20	21	17
1000	117	34	20	16	17	175	51	29	24	26	21
1100	142	41	24	20	21	213	62	36	30	32	26
1200	169	49	28	24	25	252	73	42	35	37	31

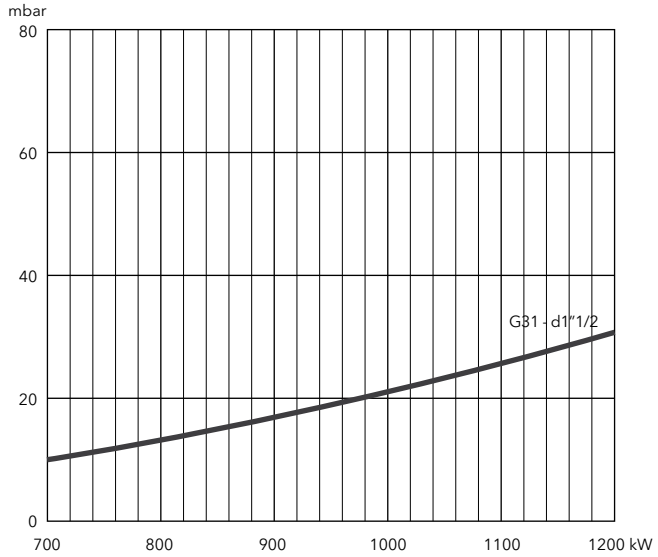
Natural gas G20



Natural gas G25



LPG



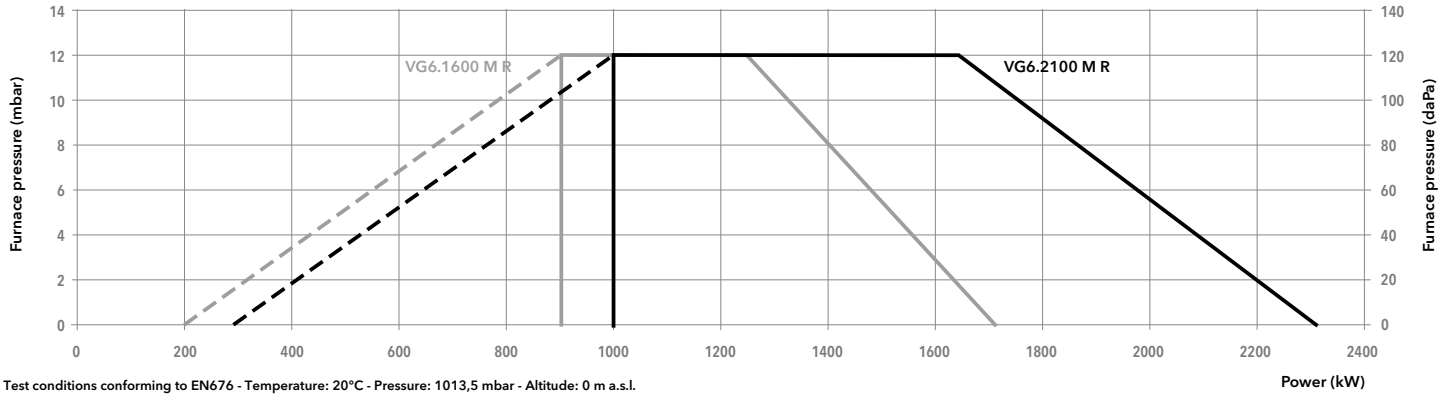
VG6.1600 M R, VG6.2100 M R

200 ... 2300 kW
2 stage progressive/modulating electronic



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** Low NOx class 2 (≤120 mg/kWh) according to EN676
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG6.1600 M R /TC			VG6.2100 M R /TC		
Operation range			(200) 900 - 1700 kW			(300) 1000- 2300 kW		
Gas pressure			50 - 500 mbar			50 - 500 mbar		
Control box / flame detection			BT3... / ionization			BT3... / ionization		
Fan motor			230/400 V - 50 Hz - 2,2 kW			230/400 V - 50 Hz - 2,7 kW		
Electrical consumption			100 + 2500 W			100 + 3500 W		
Acoustic level (LpA)			77 dB(A)			79 dB(A)		
CE certificate			0085 CQ 0570			0085 CQ 0570		
Head lenght			KN	KL	KM	KN	KL	KM
Complete burner code	VGD 40-065	s65-DN65/TC	**3834834**	**3834835**	**3834836**	**3834846**	**3834847**	**3834848**
	MBC1900	d65-DN65/TC	**3834831**	**3834832**	**3834833**	**3834843**	**3834844**	**3834845**
	MBC1200	d2"-Rp2"/TC	**3834828**	**3834829**	**3834830**	**3834840**	**3834841**	**3834842**
	MBC700	d1"1/2-Rp2"/TC	**3834825**	**3834826**	**3834827**	**3834837**	**3834838**	**3834839**

OTHER AVAILABLE VERSIONS

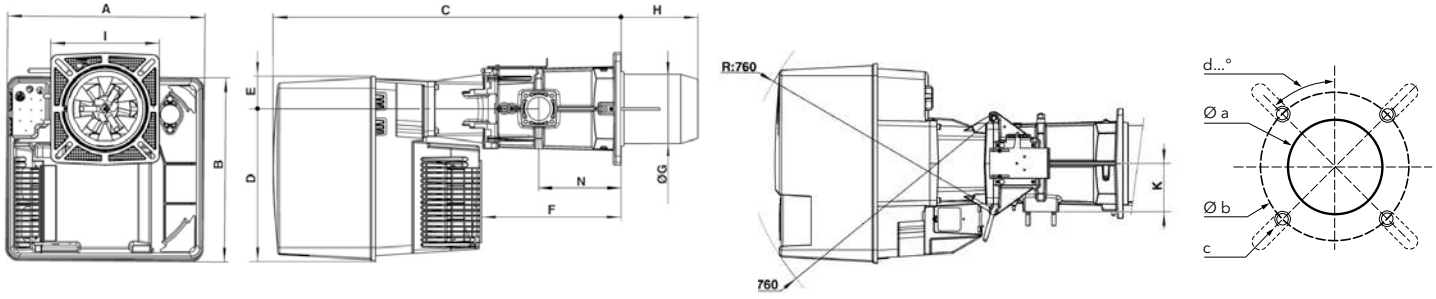
VENT Versions for continuous ventilation and post-ventilation

PED PED version for continuous operation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

DIMENSIONS (mm)

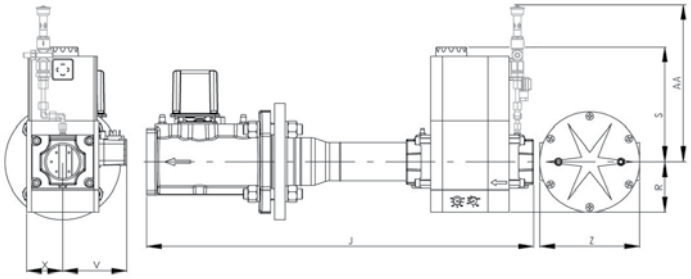


A	B	C	D	E	F	ØG	H			I	K	N
							KN	KM	KL			
592	553	1050	456	97	421	227	270	370	470	326x335	144	247

Øa (mm)	b (mm)	c	d
250	300-400	M12	45°

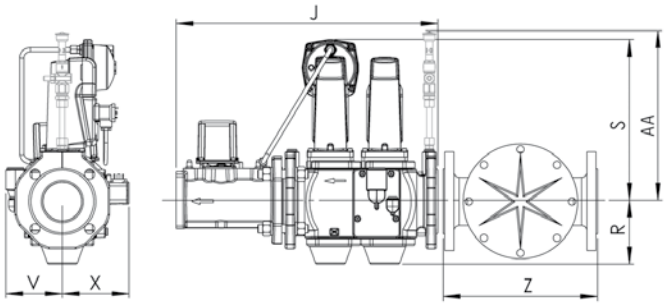
Gas trains

Gas train "d":



Model	J	R	S	V	X	Z	AA*
d65-DN65	490	183	245	110	98	290	385
d2"-Rp2"	700	96	330	125	81	-	385
d1"1/2-Rp2"	622	80	185	102	57	-	320

Gas train "s":

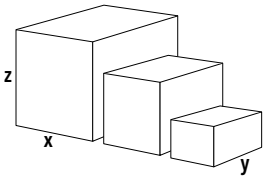


Model	J	R	S	V	X	Z	AA*
s65-DN65	490	118	300	106	126	290	365

***: for PED configuration**

PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VG6.1600 M R**	800	600	850	67,8
	VG6.2100 M R	800	600	850	69,2
Combustion head	**KN**	1000	380	420	26,7
	KL	1100	380	430	29,4
	KM	1100	380	430	28
Gas train	**s65-DN65/TC**	670	550	380	29,4
	d65-DN65/TC	670	550	380	33
	d2"-Rp2"/TC	670	550	380	16,5
	d1"1/2-Rp2"/TC	670	550	380	14,3

VG6.1600 M R, VG6.2100 M R

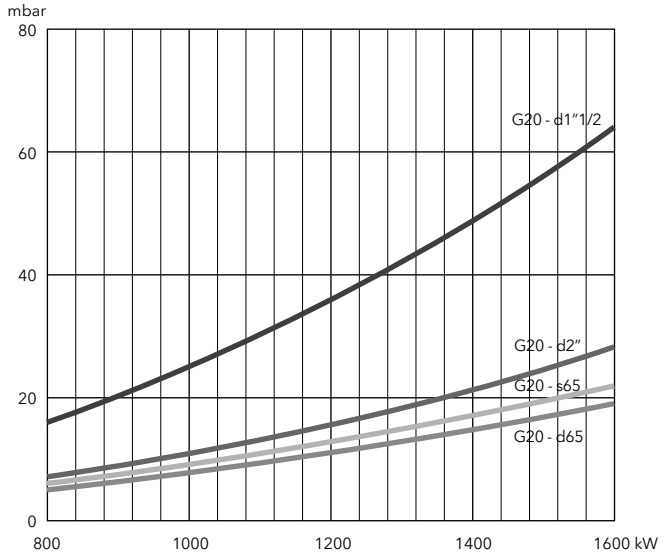
200 ... 2300 kW
2 stage progressive/modulating electronic

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

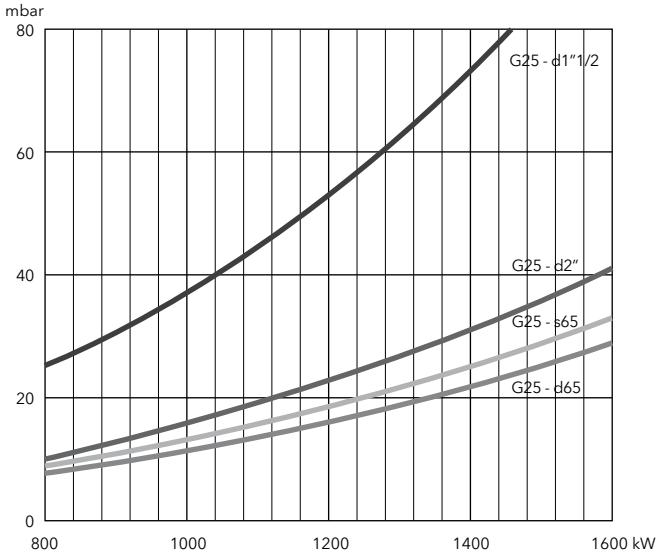
VG6.1600 M R

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³				Natural gas G25 Hi = 8,83 kWh/m³				LPG G31
	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"
800	17	7	5	6	25	10	8	9	5
1000	25	11	8	9	37	16	11	13	7
1200	36	16	11	13	54	23	16	19	10
1400	49	21	15	17	73	32	22	25	13
1600	64	28	19	22	96	41	29	33	17

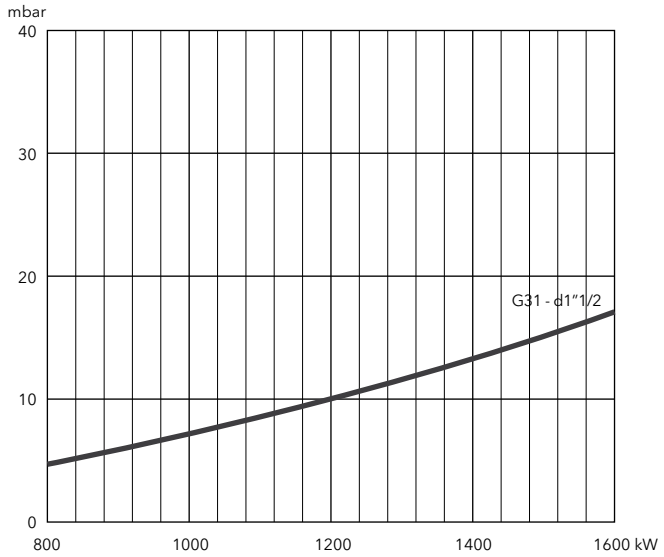
Natural gas G20



Natural gas G25



LPG

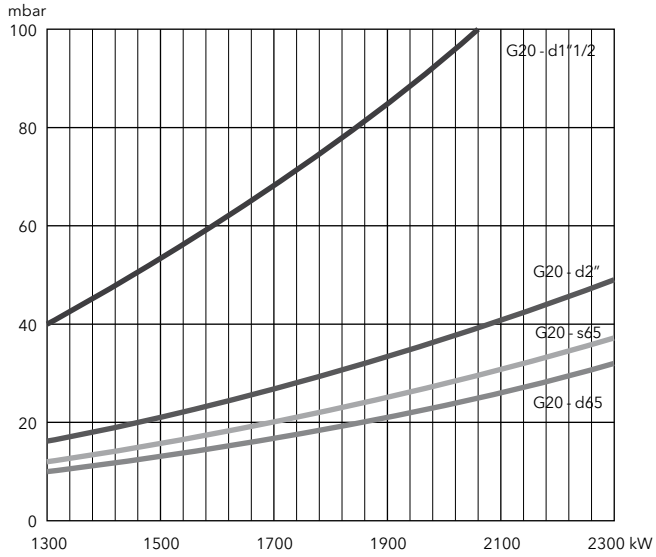


PRESSURE LOSS [BURNER HEAD + GAS TRAIN] (mbar)

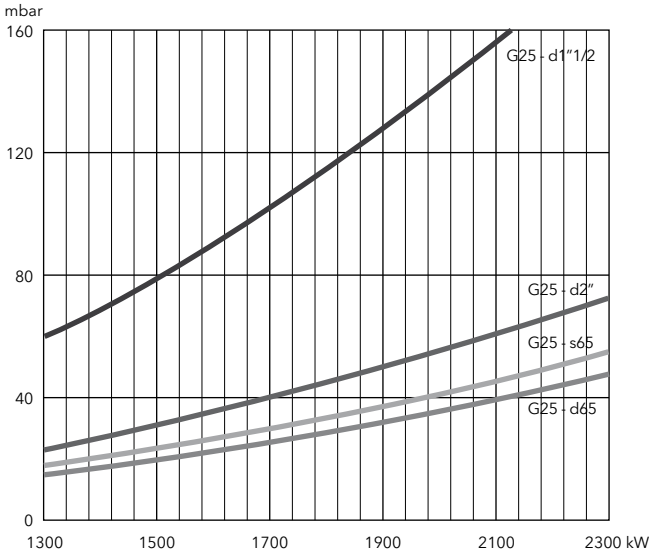
VG6.2100 M R

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³				Natural gas G25 Hi = 8,83 kWh/m³				LPG G31 Hi = 25,89 kWh/m³	
	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d2"-Rp2"
1300	40	16	10	12	60	24	15	18	19	9
1500	53	21	13	16	78	31	20	24	25	11
1700	68	27	17	20	102	40	26	30	32	14
1900	85	34	22	26	127	50	32	38	40	18
2100	104	41	27	31	156	61	40	46	48	22
2300	125	49	32	37	186	73	48	56	58	27

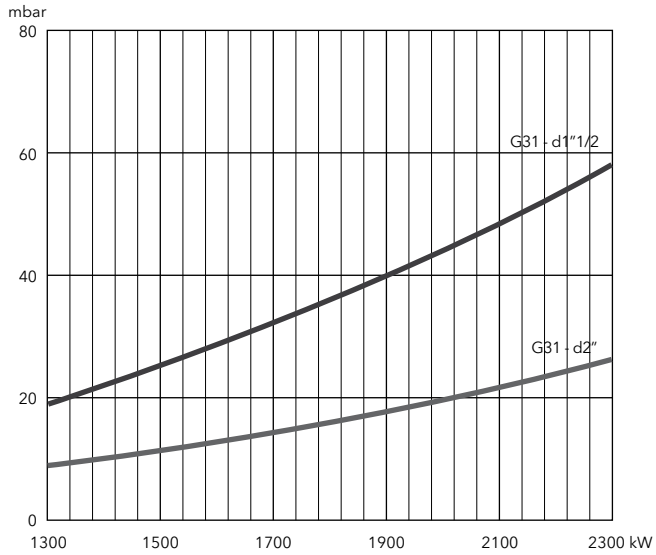
Natural gas G20



Natural gas G25



LPG



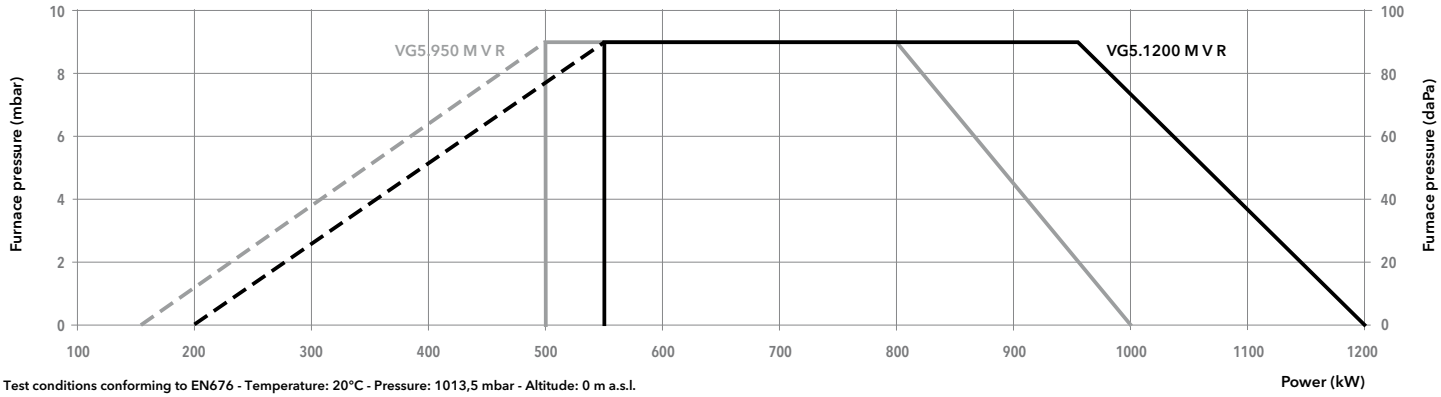
VG5.950 M V R, VG5.1200 M V R

150 ... 1200 kW
2 stage progressive/modulating electronic + fan speed control



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** Low NOx class 2 (≤120 mg/kWh) according to EN676
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG5.950 M V R /TC			VG5.1200 M V R /TC		
Operation range			(150) 500 - 1000 kW			(200) 550 - 1200 kW		
Gas pressure			50 - 500 mbar			50 - 500 mbar		
Control box / flame detection			BT3... / ionization			BT3... / ionization		
Fan motor			230/400 V - 50 Hz - 1,5 kW			230/400 V - 50 Hz - 1,5 kW		
Electrical consumption			100 + 2200 W			100 + 2300 W		
Acoustic level (LpA)			77 dB(A)			77 dB(A)		
CE certificate			0085 CQ 0570			0085 CQ 0570		
Head lenght			KN	KL	KM	KN	KL	KM
Complete burner code	VGD 40-065	s65-DN65/TC	**3835443**	**3835444**	**3835445**	**3835458**	**3835459**	**3835460**
	MBC1900	d65-DN65/TC	**3835446**	**3835447**	**3835448**	**3835461**	**3835462**	**3835463**
	MBC1200	d2"-Rp2"/TC	**3835449**	**3835450**	**3835451**	**3835464**	**3835465**	**3835466**
	MBC700	d1"1/2-Rp2"/TC	**3835452**	**3835453**	**3835454**	**3835467**	**3835468**	**3835469**
	MBC300	d3/4"-Rp1"1/4/TC	**3835455**	**3835456**	**3835457**	**3835470**	**3835471**	**3835472**

OTHER AVAILABLE VERSIONS

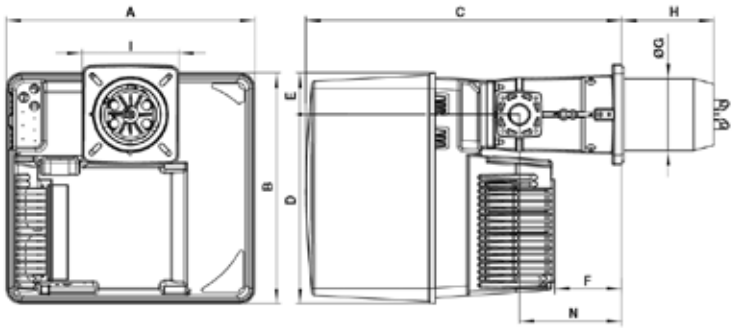
VENT Versions for continuous ventilation and post-ventilation

PED PED version for continuous operation

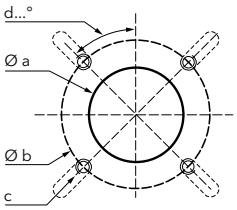
SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

DIMENSIONS (mm)



Connecting flange

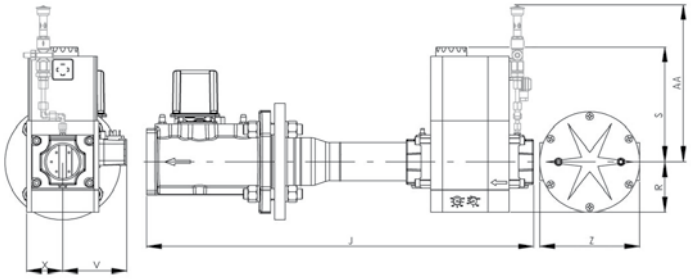


A	B	C	D	E	F	ØG	H			I	K	N
							KN	KM	KL			
581	549	752	450	99	164	170	215	325	435	230x238	89	244

Øa (mm)	b (mm)	c	d
195	220-260	M10	45°

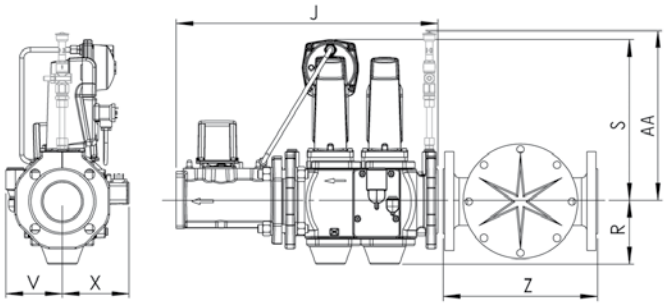
Gas trains

Gas train "d":



Model	J	R	S	V	X	Z	AA*
d65-DN65	490	183	245	110	98	290	385
d2"-Rp2"	700	96	330	125	81	-	385
d1"1/2-Rp2"	622	80	185	102	57	-	320
d3/4"-Rp1"1/4	460	60	173	88	58	-	320

Gas train "s":

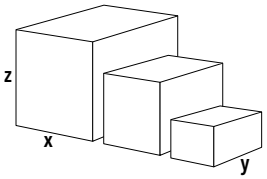


Model	J	R	S	V	X	Z	AA*
s65-DN65	490	118	300	106	126	290	365

***: for PED configuration**

PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VG5.950 M V R**	800	600	850	53
	VG5.1200 M V R	800	600	850	54
Combustion head	**KN**	780	265	280	12,3
	KL	1010	265	280	14,4
	KM	1010	265	280	13,4
Gas train	**s65-DN65/TC**	670	550	380	29
	d65-DN65/TC	670	550	380	17,2
	d2"-Rp2"/TC	670	550	380	12
	d1"1/2-Rp2"/TC	670	550	380	12
	d3/4"-Rp1"1/4/TC	590	390	180	7

VG5.950 M V R, VG5.1200 M V R

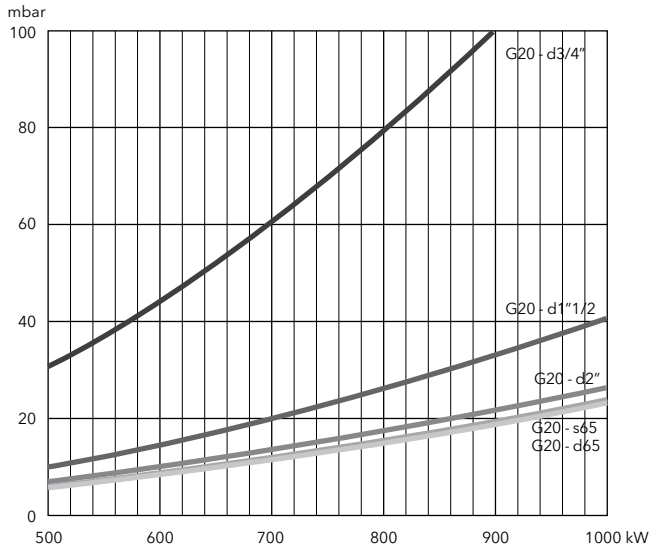
150 ... 1200 kW
2 stage progressive/modulating electronic + fan speed control

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

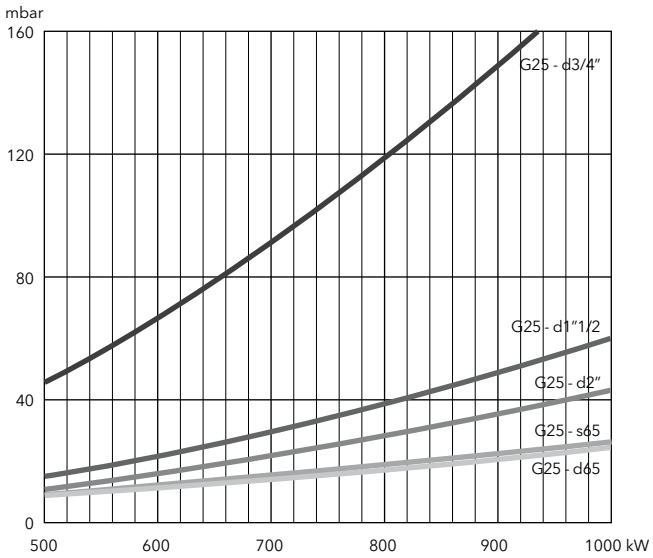
VG5.950 M V R

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³					Natural gas G25 Hi = 8,83 kWh/m³					LPG G31	
	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d3/4-Rp1"1/4
500	31	10	7	6	6	46	15	11	9	9	17	8
600	45	15	9	9	9	67	22	16	12	13	24	11
700	61	20	13	12	12	91	30	22	17	18	32	15
800	79	26	17	15	15	118	39	28	22	23	42	20
900	124	33	21	19	19	149	49	35	28	29	53	25
1000	-	40	26	24	24	185	60	43	34	36	66	31

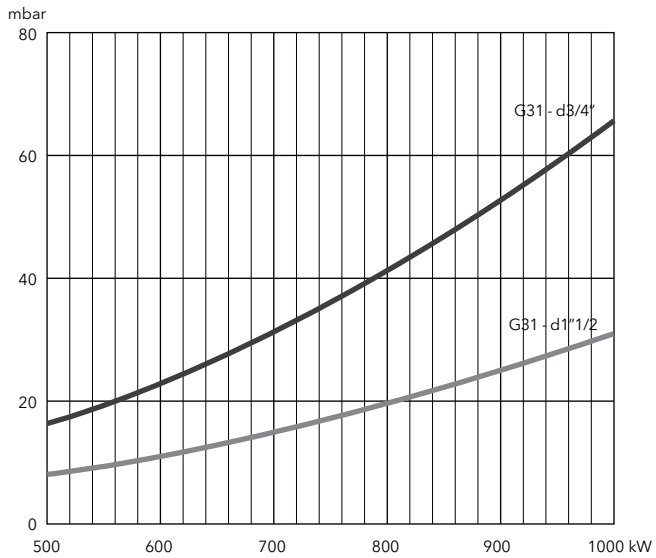
Natural gas G20



Natural gas G25



LPG

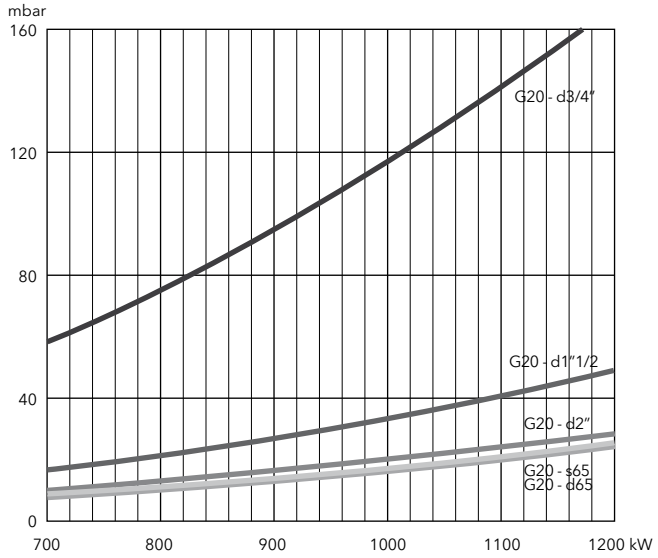


PRESSURE LOSS [BURNER HEAD + GAS TRAIN] (mbar)

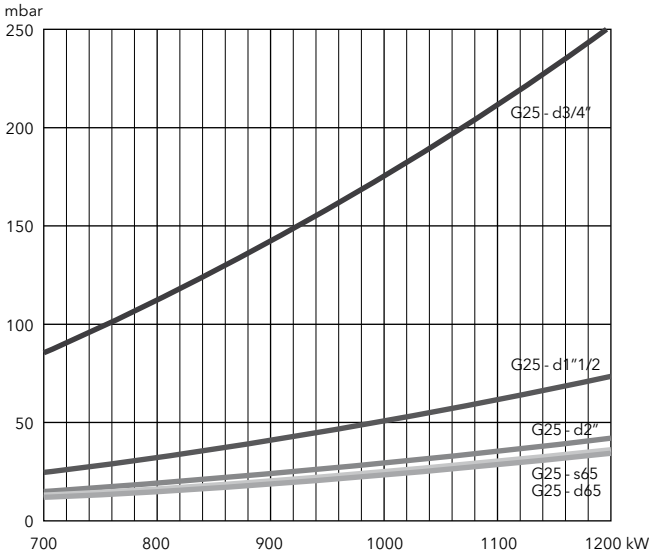
VG5.1200 M V R

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³					Natural gas G25 Hi = 8,83 kWh/m³					LPG G31
	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"
700	58	17	10	8	9	86	25	14	12	13	10
800	75	22	13	10	11	112	32	19	16	17	14
900	95	27	16	13	14	142	41	24	20	21	17
1000	117	34	20	16	17	175	51	29	24	26	21
1100	142	41	24	20	21	213	62	36	30	32	26
1200	169	49	28	24	25	252	73	42	35	37	31

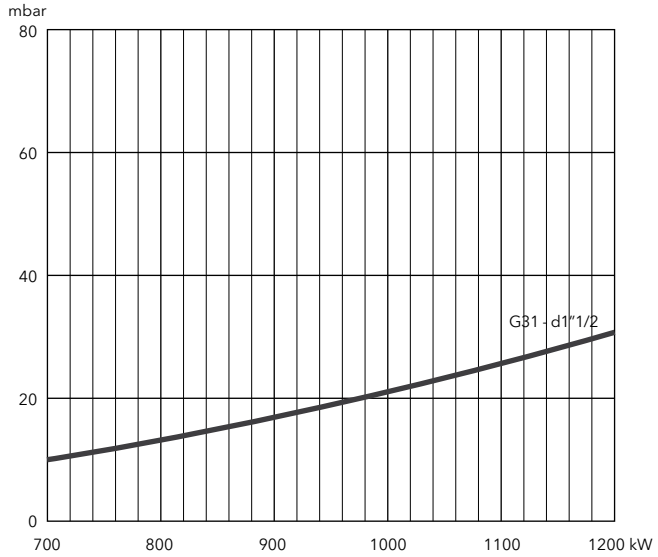
Natural gas G20



Natural gas G25



LPG



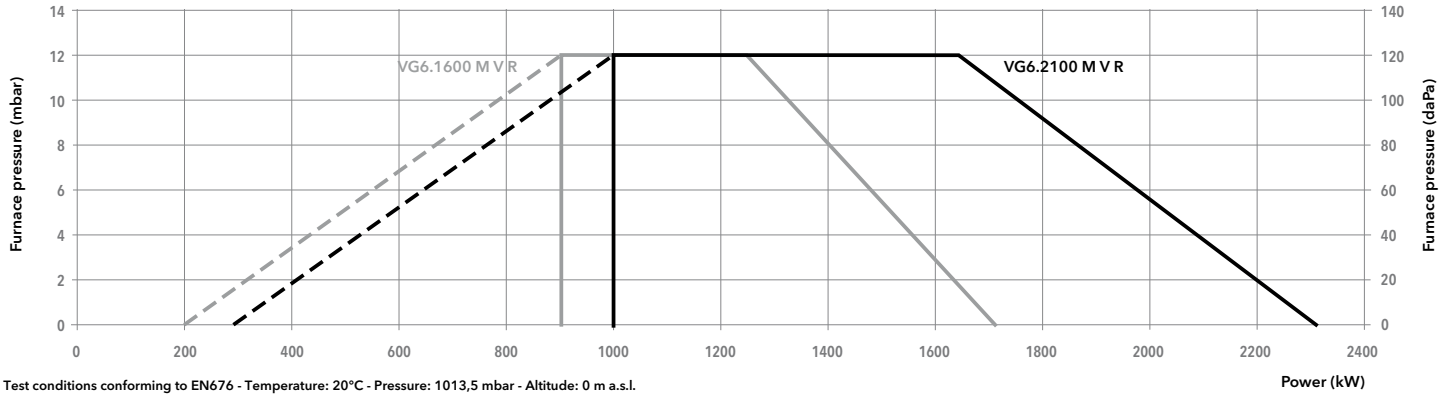
VG6.1600 M V R, VG6.2100 M V R

200 ... 2300 kW
2 stage progressive/modulating electronic + fan speed control



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); LPG (G31, H_u = 25,89 kWh/m³)
- **Emissions:** Low NOx class 2 (≤120 mg/kWh) according to EN676
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180)
- **Protection level:** IP 21

TECHNICAL DATA



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

Model			VG6.1600 M V R /TC			VG6.2100 M V R /TC		
Operation range			(200) 900 - 1700 kW			(300) 1000 - 2300 kW		
Gas pressure			50 - 500 mbar			50 - 500 mbar		
Control box / flame detection			BT3... / ionization			BT3... / ionization		
Fan motor			230/400 V - 50 Hz - 2,2 kW			230/400 V - 50 Hz - 2,7 kW		
Electrical consumption			100 + 2500 W			100 + 3500 W		
Acoustic level (LpA)			77 dB(A)			79 dB(A)		
CE certificate			0085 CQ 0570			0085 CQ 0570		
Head lenght			KN	KM	KL	KN	KM	KL
Complete burner code	VGD 40-065	s65-DN65/TC	**3835473**	**3835475**	**3835474**	**3835485**	**3835487**	**3835486**
	MBC1900	d65-DN65/TC	**3835476**	**3835478**	**3835477**	**3835488**	**3835490**	**3835489**
	MBC1200	d2"-Rp2"/TC	**3835479**	**3835481**	**3835480**	**3835491**	**3835493**	**3835492**
	MBC700	d1"1/2-Rp2"/TC	**3835482**	**3835484**	**3835483**	**3835494**	**3835496**	**3835495**

OTHER AVAILABLE VERSIONS

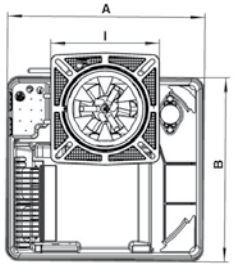
VENT Versions for continuous ventilation and post-ventilation

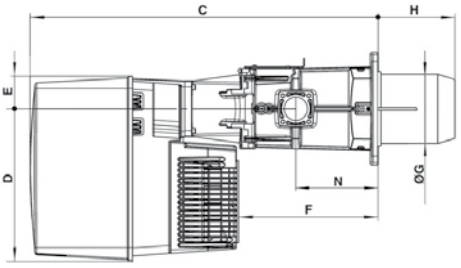
PED PED version for continuous operation

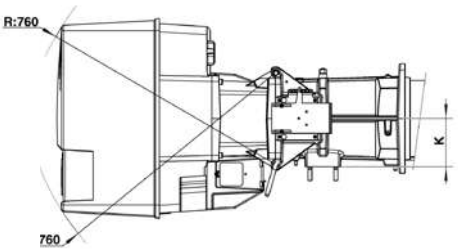
SCOPE OF SUPPLY

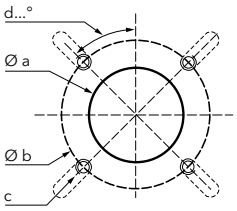
The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

DIMENSIONS (mm)







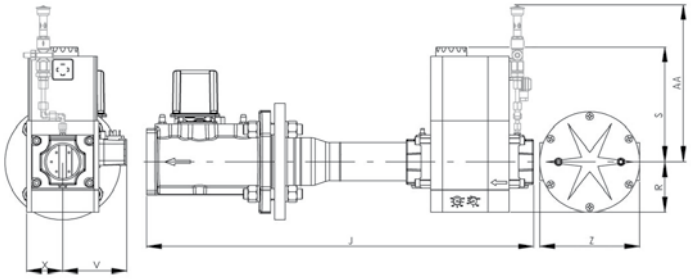


A	B	C	D	E	F	ØG	H			I	K	N
							KN	KM	KL			
592	553	1050	456	97	421	227	270	370	470	326x335	144	247

Øa (mm)	b (mm)	c	d
250	300-400	M12	45°

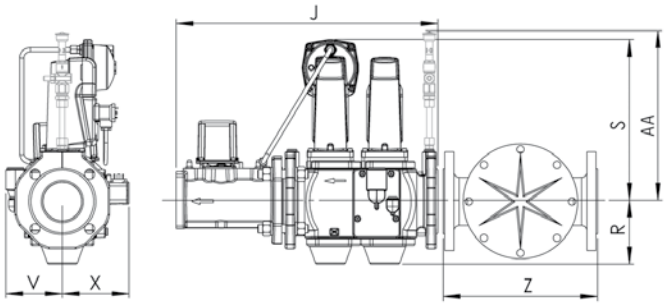
Gas trains

Gas train "d":



Model	J	R	S	V	X	Z	AA*
d65-DN65	490	183	245	110	98	290	385
d2"-Rp2"	700	96	330	125	81	-	385
d1"1/2-Rp2"	622	80	185	102	57	-	320

Gas train "s":

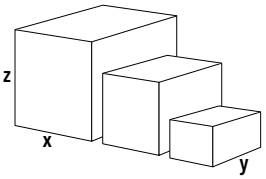


Model	J	R	S	V	X	Z	AA*
s65-DN65	490	118	300	106	126	290	365

***: for PED configuration**

PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VG6.1600 M V R**	800	600	850	67,8
	VG6.2100 M V R	800	600	850	69,2
Combustion head	**KN**	1000	380	420	26,7
	KL	1100	380	430	29,4
	KM	1100	380	430	28
Gas train	**s65-DN65/TC**	670	550	380	29,4
	d65-DN65/TC	670	550	380	33
	d2"-Rp2"/TC	670	550	380	16,5
	d1"1/2-Rp2"/TC	670	550	380	14,3

VG6.1600 M V R, VG6.2100 M V R

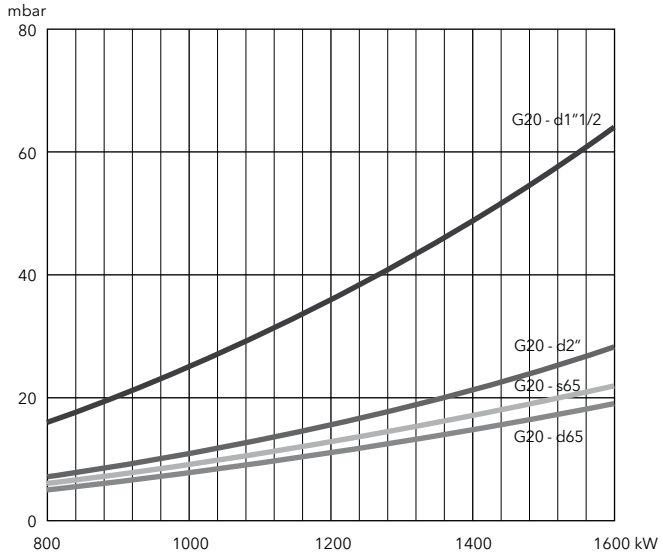
200 ... 2300 kW
2 stage progressive/modulating electronic + fan speed control

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

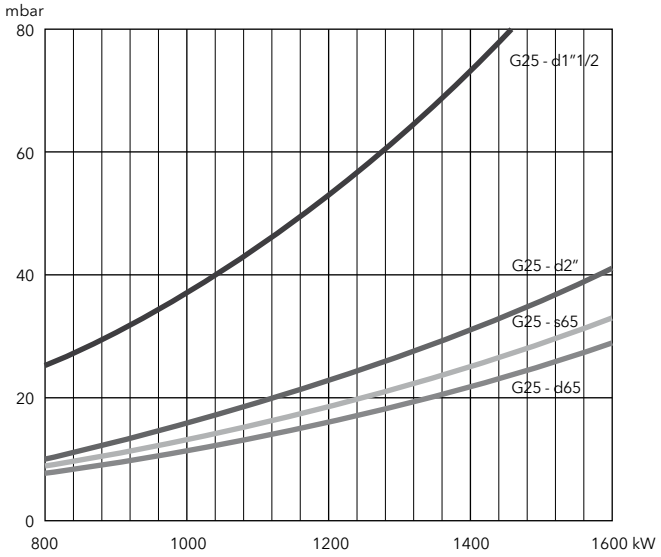
VG6.1600 M V R

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³				Natural gas G25 Hi = 8,83 kWh/m³				LPG G31
	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"
800	17	7	5	6	25	10	8	9	5
1000	25	11	8	9	37	16	11	13	7
1200	36	16	11	13	54	23	16	19	10
1400	49	21	15	17	73	32	22	25	13
1600	64	28	19	22	96	41	29	33	17

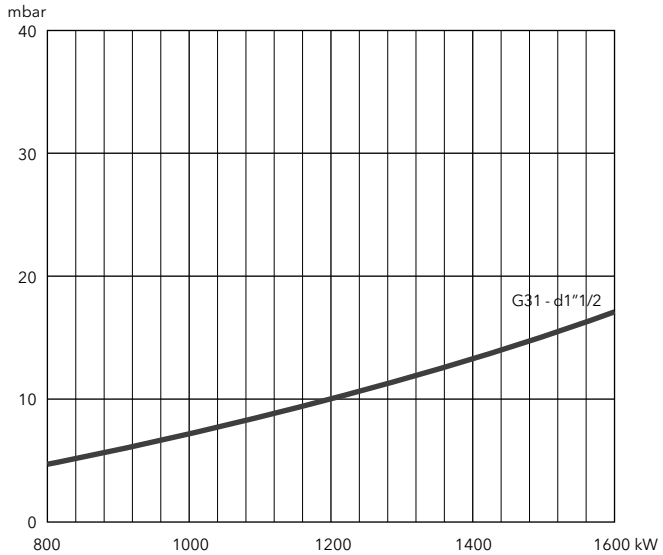
Natural gas G20



Natural gas G25



LPG

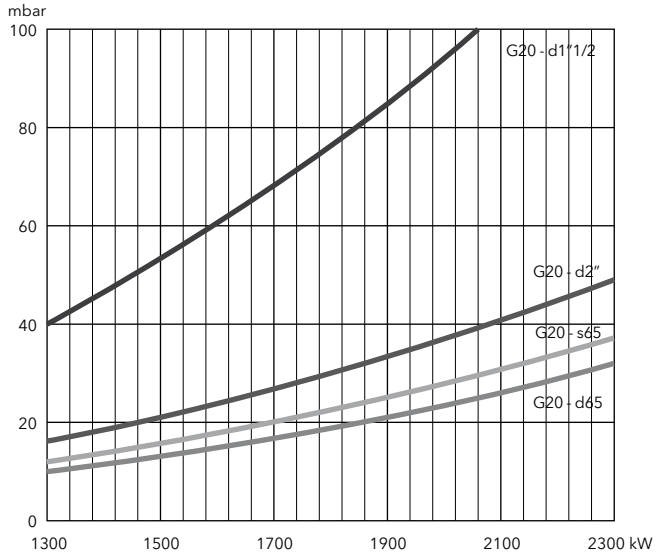


PRESSURE LOSS [BURNER HEAD + GAS TRAIN] (mbar)

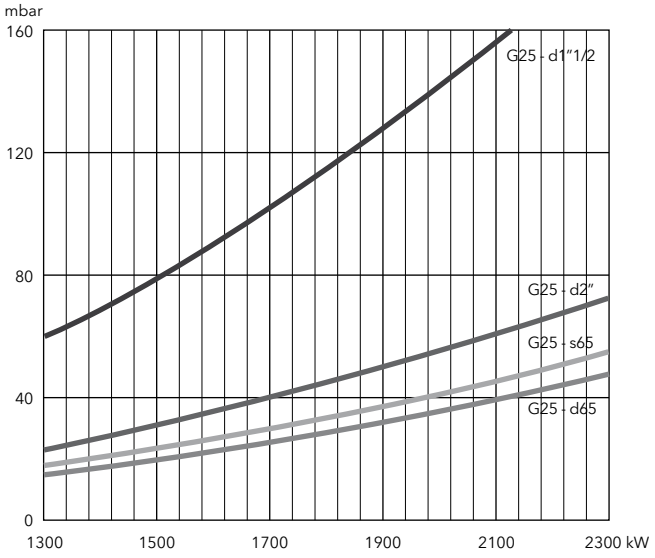
VG6.2100 M V R

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³				Natural gas G25 Hi = 8,83 kWh/m³				LPG G31 Hi = 25,89 kWh/m³	
	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d2"-Rp2"
1300	40	16	10	12	60	24	15	18	19	9
1500	53	21	13	16	78	31	20	24	25	11
1700	68	27	17	20	102	40	26	30	32	14
1900	85	34	22	26	127	50	32	38	40	18
2100	104	41	27	31	156	61	40	46	48	22
2300	125	49	32	37	186	73	48	56	58	27

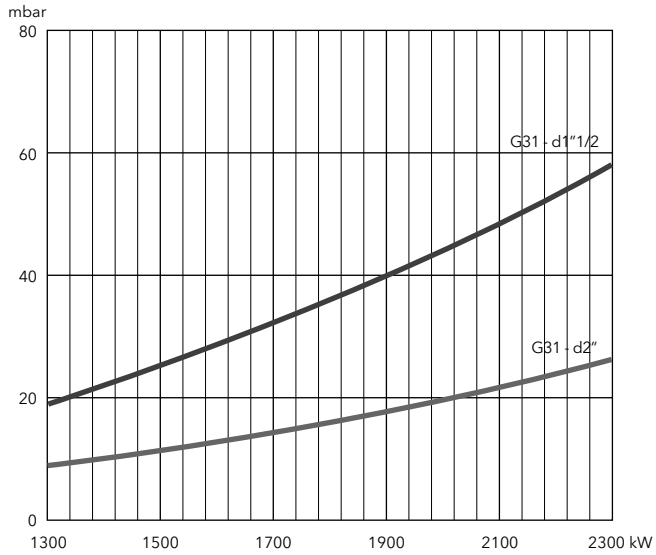
Natural gas G20



Natural gas G25



LPG



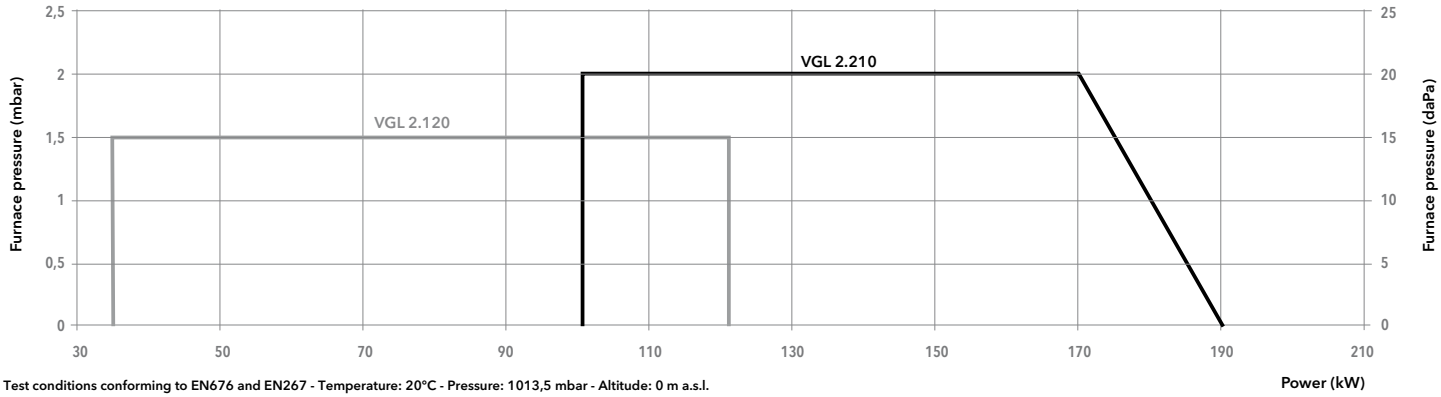
VGL2.120, VGL2.210

35 ... 190 kW
1 stage in gas / 1 stage in light oil



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³);
  light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** Low NOx class 2 in gas (≤120 mg/kWh) according to EN676
  Low NOx class 2 in light oil (≤185 mg/kWh) according to EN267
- **Protection level:** IP 21

TECHNICAL DATA



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

Model	VGL2.120	VGL2.210
Operation range	35 - 120 kW	100 - 190 kW
Gas pressure	20 - 300 mbar	20 - 300 mbar
Control box / flame detection	TCG 1... / IRD 1020	TCG 1... / IRD 1020
Fan motor	230 V - 50 Hz - 160 W	230 V - 50 Hz - 130 W
Nozzle	1,85 US gal/h 45°S	2,75 US gal/h 45°B
Electrical consumption	186 W	246 W
Acoustic level (LpA)	62 dB(A)	65,2 dB(A)
CE certificate	1312 BU 5219	1312 BU 5219
Head lenght	KL	KL
Complete burner MB-DLE 407 d3/4"-Rp3/4"	**3833494**	**3833495**

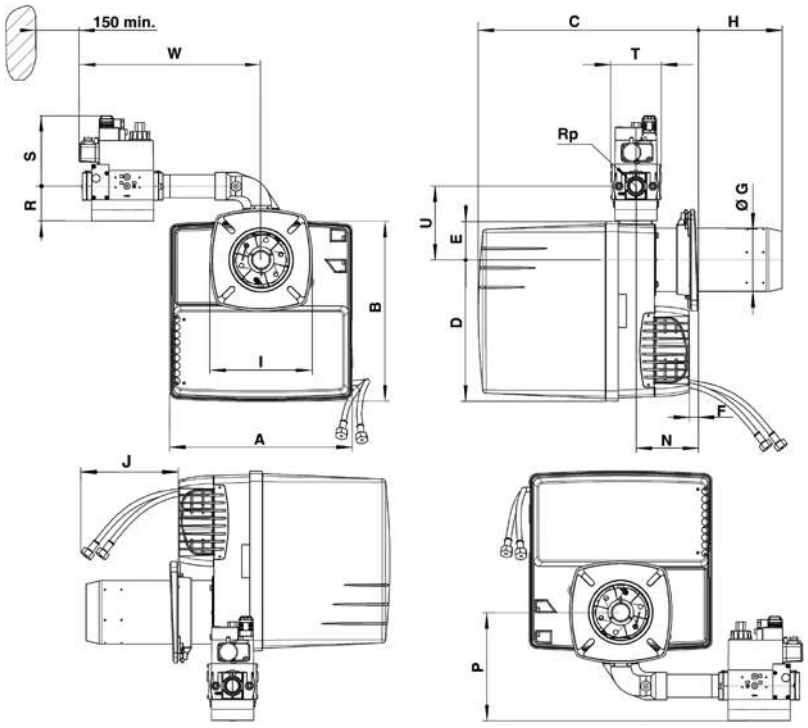
OTHER AVAILABLE VERSIONS

VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 gas connection flange
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 burner flange with insulation
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

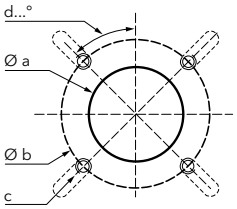
DIMENSIONS (mm)



A	B	C KL	D	E	F min	ØG	H KL	I	J	N min	P	Rp	R	S	T	U	W
331	325	398...638	256	69	15	115	30...270	185	700	113	115	3/4"	46	140	120	133	330

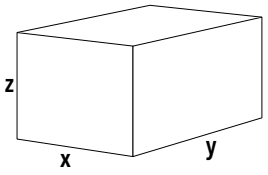
Connecting flange

Øa (mm)	b (mm)	c	d
130-140	172-184	M8	45°



PACKAGING

The burner is delivered in 1 single package containing all components



Burner	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VGL2.120	400	400	770	23
VGL2.210	400	400	770	24

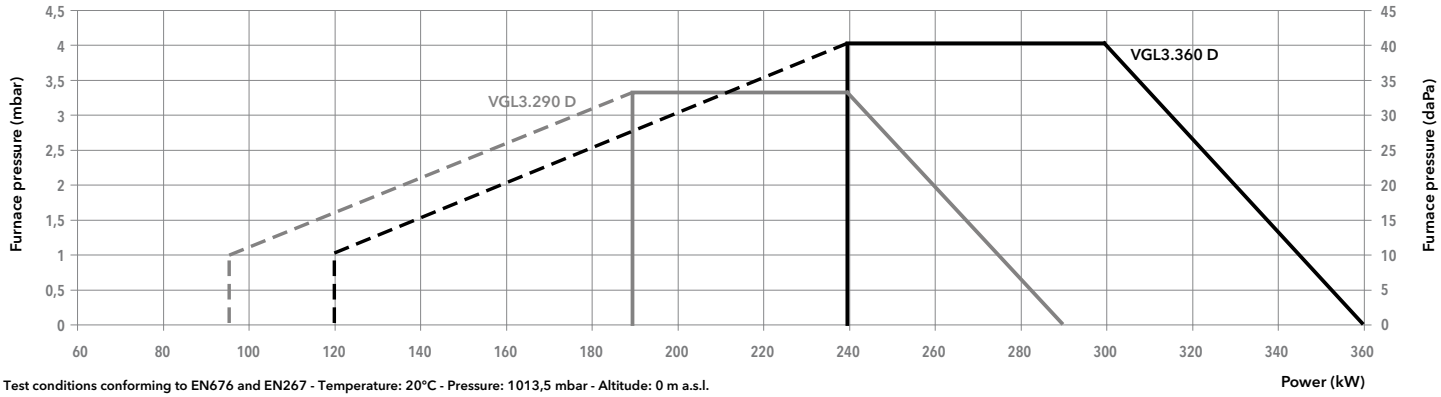
VGL3.290 D, VGL3.360 D

95 ... 360 kW
2 stages in gas (Low NOx class 3) / 2 stages in light oil



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³);
  light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** Low NOx class 3 in gas (≤80 mg/kWh) according to EN676
  Low NOx class 2 in light oil (≤185 mg/kWh) according to EN267
- **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.

Model		VGL3.290 D		VGL3.360 D	
Operation range		(95) 190 - 290 kW		(120) 240 - 360 kW	
Gas pressure		20 - 300 mbar		20 - 300 mbar	
Control box / flame detection		TCG2... / ionization		TCG2... / ionization	
Fan motor		230 V - 50 Hz - 300 W		230 V - 50 Hz - 300 W	
Electrical consumption		512 W		512 W	
Acoustic level (LpA)		67 dB(A)		69 dB(A)	
CE certificate		0085 CP 0304		0085 CP 0304	
Head lenght		KN	KL	KN	KL
Complete burner code	MB-ZRDLE 420 d1"1/2-Rp2"	-	-	**3834467**	**3834468**
	MB-ZRDLE 412 d1"1/4-Rp1"1/4	**3834461**	**3834462**	**3834465**	**3834466**
	MB-ZRDLE 407 d3/4"-Rp3/4"	**3834459**	**3834460**	**3834463**	**3834464**

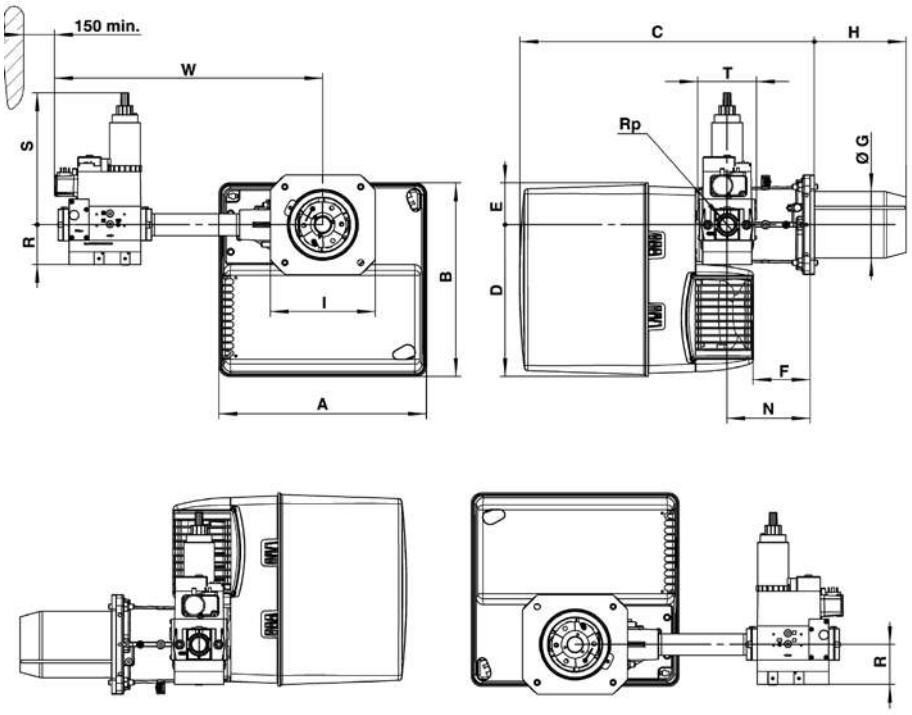
OTHER AVAILABLE VERSIONS

VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

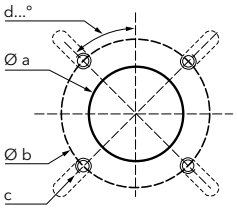
DIMENSIONS (mm)



Gas train model	A	B	C	D	E	F	ØG	H		I	N	Rp	R	S	T	W
								KN	KL							
d1"1/2-Rp2"	406	379	576	297	82	120	130	180	320	195x205	170	2"	80	330	100	603
d1"1/4-Rp1"1/4	406	379	576	297	82	120	130	180	320	195x205	170	1"1/4	55	260	145	526
d3/4"-Rp3/4"	406	379	576	297	82	120	130	180	320	195x205	170	3/4"	46	210	120	479

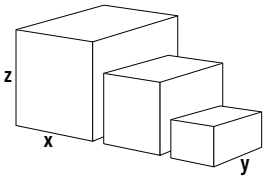
Connecting flange

Øa (mm)	b (mm)	c	d
155-190	175-220	M10	45°



PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VGL3.290 D**	440	400	520	21
	VGL3.360 D	440	400	520	22
Combustion head	**KN**	650	210	260	6
	KL	780	210	260	7
Gas train	**d1"1/2-Rp2"**	600	400	240	14
	d1"1/4-Rp1"1/4	440	320	240	10
	d3/4"-Rp3/4"	440	320	240	7

VGL3.290 D, VGL3.360 D

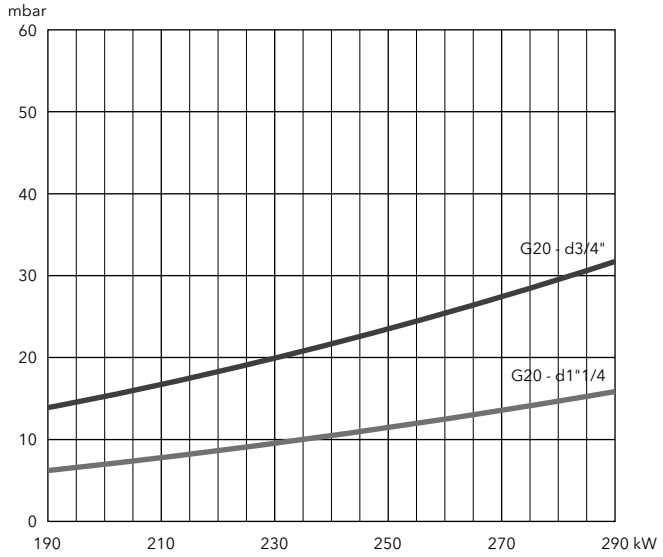
95 ... 360 kW
2 stages in gas (Low NOx class 3) / 2 stages in light oil

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

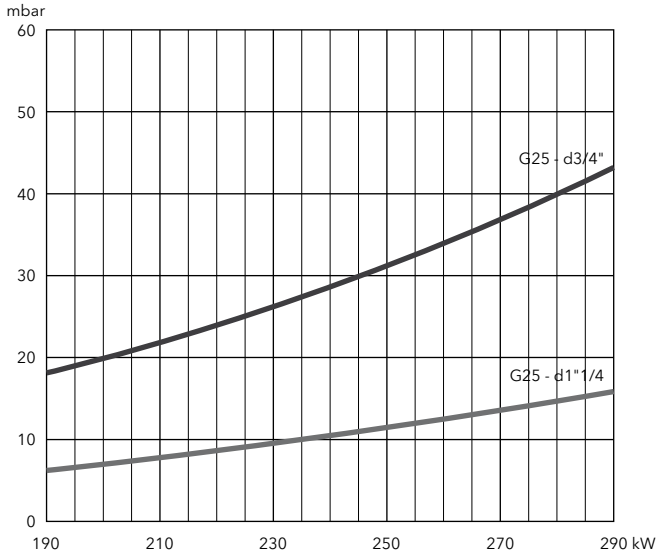
VGL3.290 D

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³		Natural gas G25 Hi = 8,83 kWh/m³	
	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4
190	14	6	18	6
210	17	8	22	8
230	20	10	26	10
250	23	11	31	11
270	27	13	37	13
290	32	16	43	16

Natural gas G20



Natural gas G25

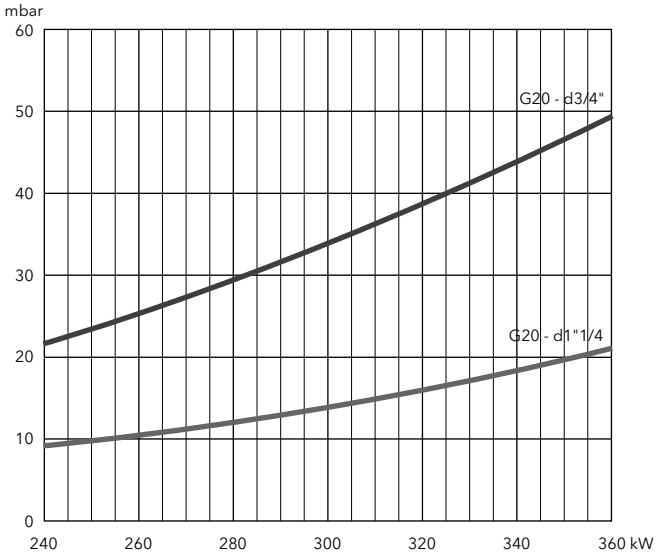


PRESSURE LOSS [BURNER HEAD + GAS TRAIN] (mbar)

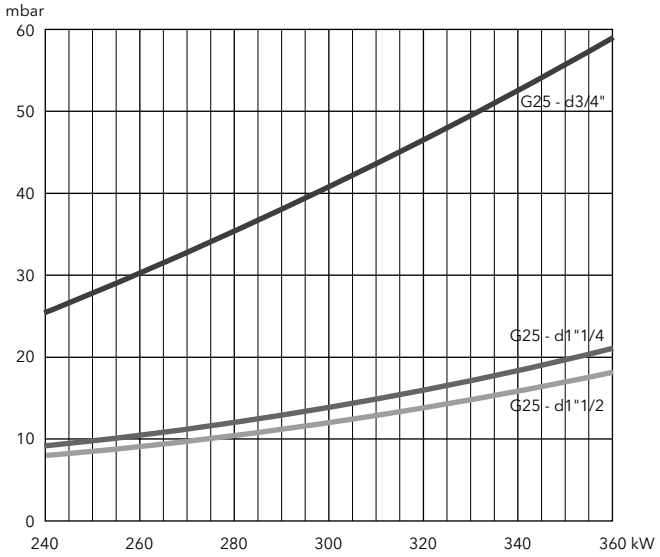
VGL3.360 D

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³		Natural gas G25 Hi = 8,83 kWh/m³		
	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"
240	22	9	25	9	8
280	29	12	35	12	11
320	38	16	46	16	14
360	49	21	59	21	18

Natural gas G20



Natural gas G25



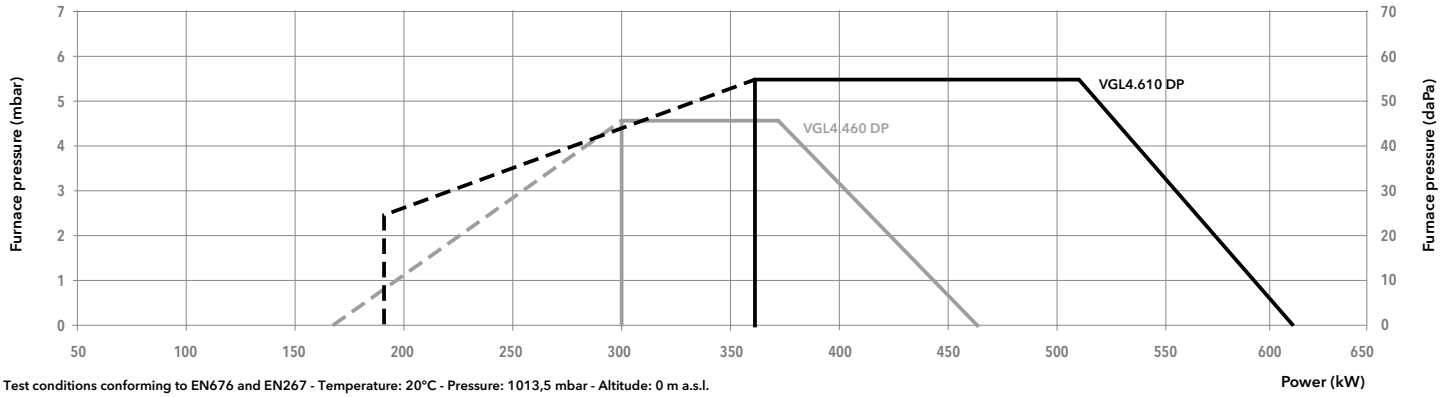
VGL4.460 DP, VGL4.610 DP

168 ... 610 kW
2 stages progressive/modulating pneumatic in gas (Low NOx class 3) / 2 stages in oil



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** Low NOx class 3 in gas (≤80 mg/kWh) according to EN676 Low NOx class 2 in light oil (≤185 mg/kWh) according to EN267
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180) in gas and two stages 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.

Model		VGL4.460 DP		VGL4.610 DP	
Operation range		(168) 300 - 460 kW		(190) 360 - 610 kW	
Gas pressure		20 - 300 mbar		20 - 300 mbar	
Control box / flame detection		TCG5... / ionization		TCG5... / ionization	
Fan motor		230 V - 50 Hz - 420 W		230 V - 50 Hz - 750 W	
Electrical consumption		68 + 522 W		68 + 720 W	
Acoustic level (LpA)		70 dB(A)		71 dB(A)	
CE certificate		0085 CP 0304		0085 CP 0304	
Head lenght		KN	KL	KN	KL
Complete burner code	MB-VEF 420 d1"1/2-Rp2"	**3834576**	**3834577**	**3834582**	**3834583**
	MB-VEF 412 d1"1/4-Rp1"1/4	**3834574**	**3834575**	**3834580**	**3834581**
	MB-VEF 407 d3/4"-Rp1"	**3834572**	**3834573**	**3834578**	**3834579**

OTHER AVAILABLE VERSIONS

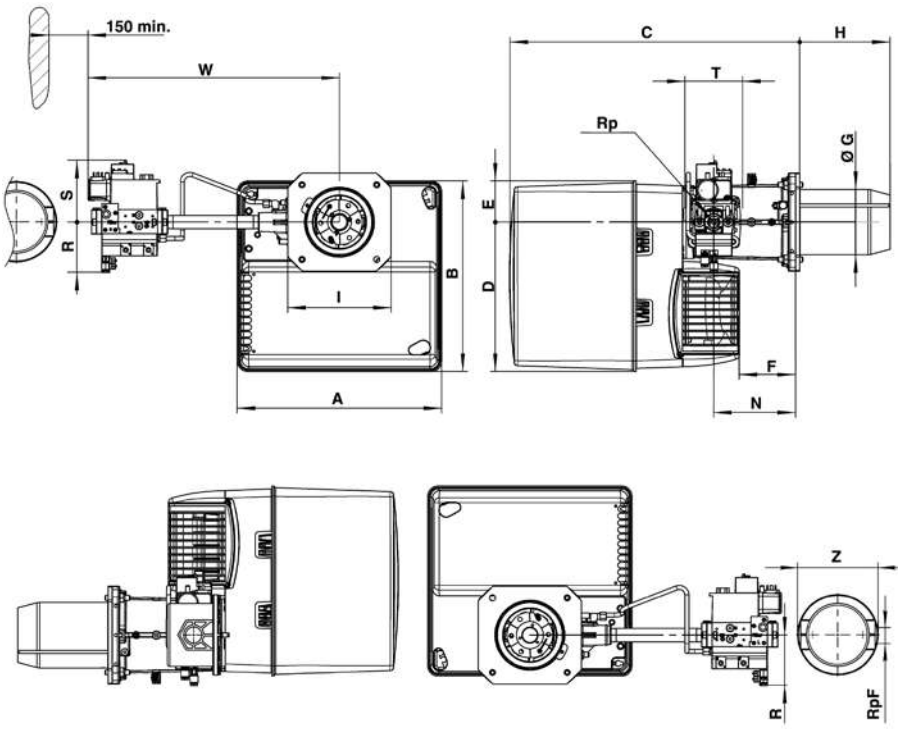
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

AGP | MDE2 | RTC | LOW NOx CLASS 3

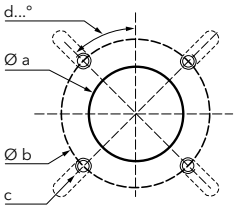
DIMENSIONS (mm)



Gas train model	A	B	C	D	E	F	Ø G	H		I	N	Rp	R	S	T	W	RpF	Z
								KN	KL									
d1"1/2-Rp2"	465	475	640	377	97	149	150	220	360	245	195	2"	100	185	100	613	-	-
d1"1/4-Rp1"1/4	465	475	640	377	97	149	150	220	360	245	195	1"1/4	80	175	145	536	-	-
d3/4"-Rp1"	465	475	640	377	97	149	150	220	360	245	195	1"	70	160	120	489	1"	160

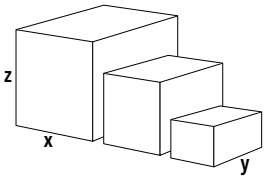
Connecting flange

Øa (mm)	b (mm)	c	d
180-240	200-270	M10	45°



PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VGL4.460 DP**	490	490	590	28,6
	VGL4.610 DP	490	490	590	32,7
Combustion head	**KN**	750	260	295	8,9
	KL	895	260	295	10,1
Gas train	**d1"1/2-Rp2"**	670	550	380	12
	d1"1/4-Rp1"1/4	600	400	240	11
	d3/4"-Rp1"	600	400	240	7

VGL4.460 DP, VGL4.610 DP

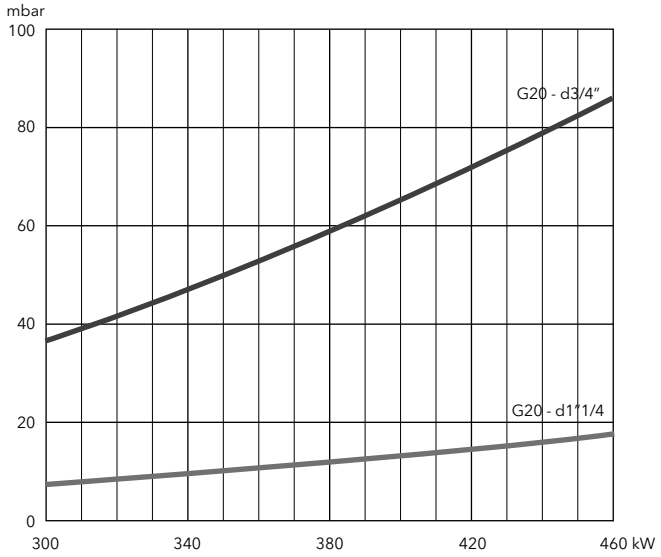
168 ... 610 kW
2 stages progressive/modulating pneumatic in gas (Low NOx class 3) / 2 stages in oil

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

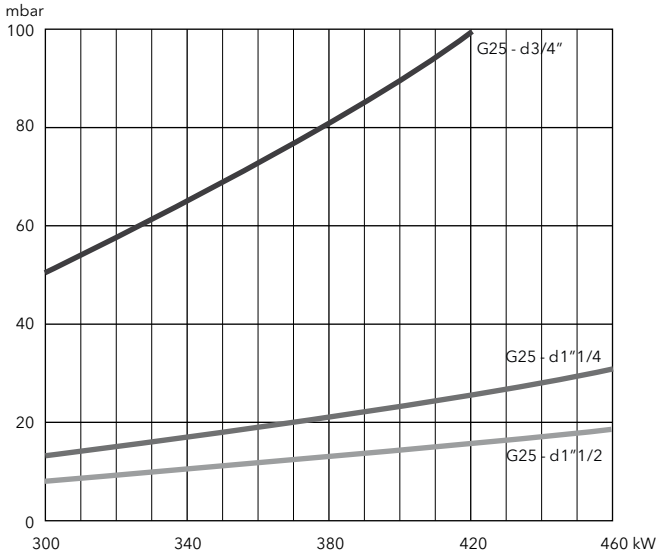
VGL4.460 DP

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³		Natural gas G25 Hi = 8,83 kWh/m³		
	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"
300	37	7	50	13	8
340	47	10	65	17	10
380	59	12	81	21	13
420	72	15	99	26	15
460	86	18	118	31	19

Natural gas G20



Natural gas G25



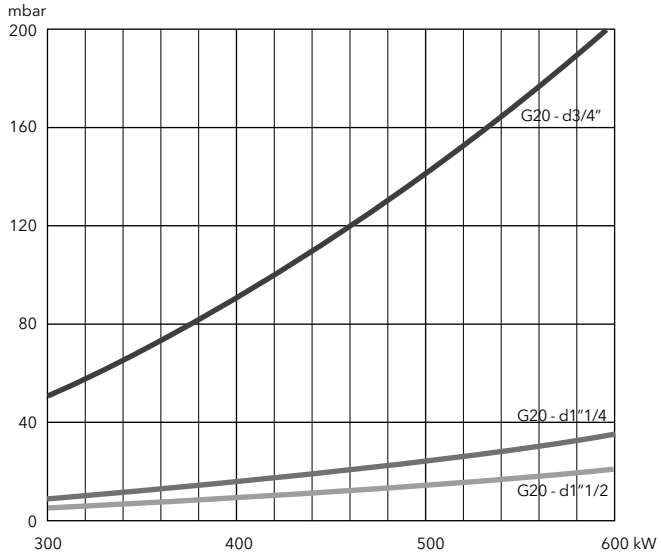
AGP MDE2 RTC LOW NOx CLASS 3

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

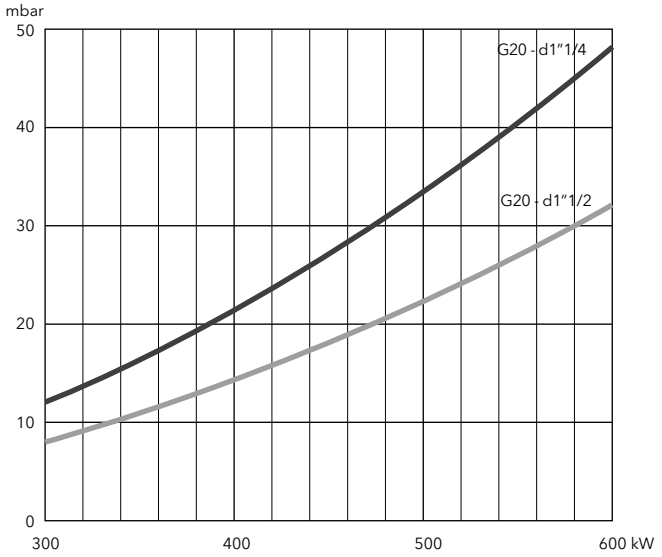
VGL4.610 DP

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³			Natural gas G25 Hi = 8,83 kWh/m³	
	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"
300	51	9	5	12	8
400	91	16	9	21	14
500	142	24	15	33	22
600	204	35	21	48	32

Natural gas G20



Natural gas G25



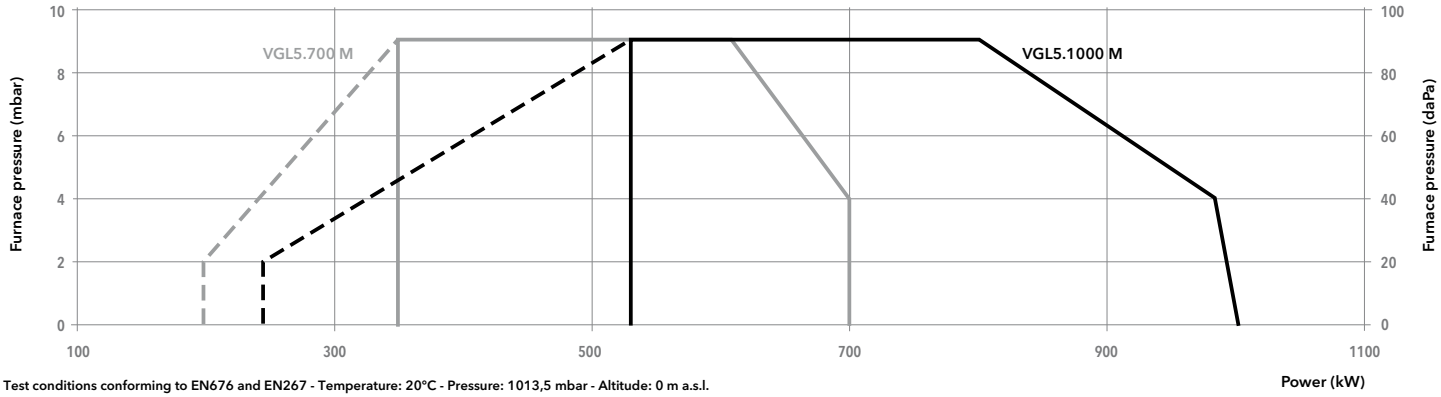
VGL5.700 M, VGL5.1000 M

200 ... 1000 kW
2 stages progressive/modulating electronic in gas (Low NOx Class 3) / 3 stages in oil



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** Low NOx class 3 in gas (≤80 mg/kWh) according to EN676 Low NOx class 2 in light oil (≤185 mg/kWh) according to EN267
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180) in gas and three stages 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.

Model			VGL5.700 M /TC			VGL5.1000 M /TC		
Operation range			(200) 350 - 700 kW			(240) 530 - 1000 kW		
Gas pressure			20 - 300 mbar			20 - 300 mbar		
Control box / flame detection			BT3... / QRA 2			BT3... / QRA 2		
Fan motor			230/400 V - 50 Hz - 1,1 kW			230/400 V - 50 Hz - 1,5 kW		
Nozzle			4,5 US gal/h 45°B / 5 US gal/h 45°B			5 US gal/h 45°B / 8,5 US gal/h 45°B		
Electrical consumption			2000 W			2200 W		
Acoustic level (LpA)			78 dB(A)			81 dB(A)		
CE certificate			1312 AQ 924			1312 AQ 925		
Head lenght			KN	KL	KM	KN	KL	KM
Complete burner code	VGD 40-065	s65-DN65	-	-	-	**3836654**	**3836656**	**3836655**
	MBC1900	d65-DN65	-	-	-	**3836657**	**3836659**	**3836658**
	MBC1200	d2"-Rp2"	**3836645**	**3836647**	**3836646**	**3836660**	**3836662**	**3836661**
	MBC700	d1"1/2-Rp2"	**3836648**	**3836650**	**3836649**	**3836663**	**3836665**	**3836664**
	MBC300	d3/4"-Rp1"1/4	**3836651**	**3836653**	**3836652**	**3836666**	**3836668**	**3836667**

OTHER AVAILABLE VERSIONS

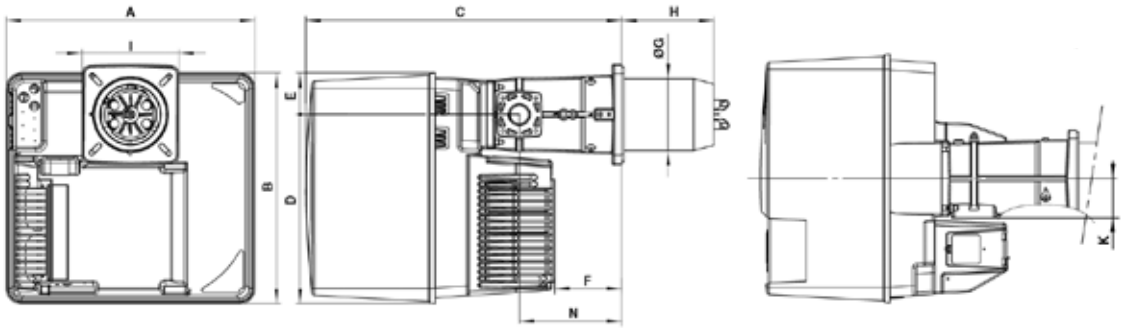
Vent Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

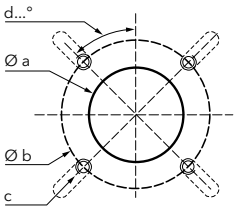
The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

AGP MDE2 RTC LOW NOx CLASS 3

DIMENSIONS (mm)



Connecting flange

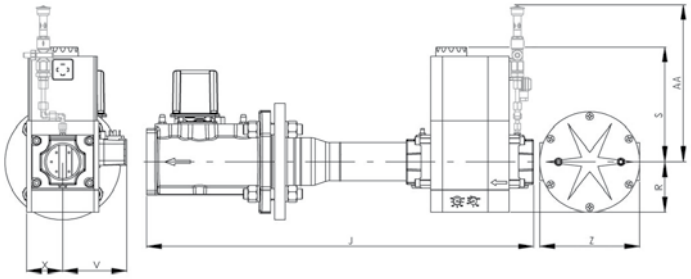


A	B	C	D	E	F	ØG	H			I	K	N
							KN	KM	KL			
581	549	752	450	99	164	170	215	325	435	230x238	89	244

Øa (mm)	b (mm)	c	d
195	220-260	M10	45°

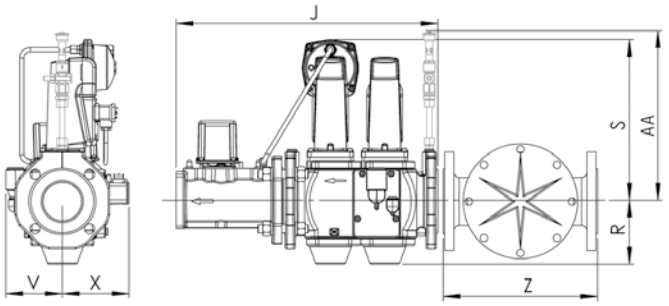
Gas trains

Gas train "d":



Model	J	R	S	V	X	Z	AA*
d65-DN65	490	183	245	110	98	290	385
d2"-Rp2"	700	96	330	125	81	-	385
d1"1/2-Rp2"	622	80	185	102	57	-	320
d3/4"-Rp1"1/4	460	60	173	88	58	-	320

Gas train "s":

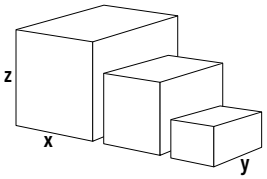


Model	J	R	S	V	X	Z	AA*
s65-DN65	490	118	300	106	126	290	365

***: for PED configuration**

PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VG5.700 M**	800	600	850	70
	VG5.1000 M	800	600	850	70
Combustion head	**KN**	780	265	280	13
	KL	1010	265	280	16
	KM	1010	265	280	15
Gas train	**s65-DN65/TC**	670	530	380	26
	d65-DN65/TC	670	530	380	17
	d2"-Rp2"/TC	670	530	380	12
	d1"1/2-Rp2"/TC	670	530	380	12
	d3/4"-Rp1"1/4/TC	600	400	240	7

VGL5.700 M, VGL5.1000 M

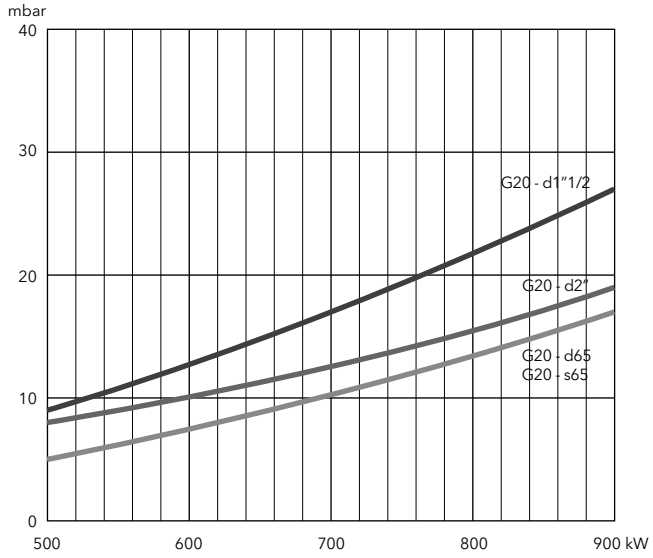
200 ... 1000 kW
2 stages progressive/modulating electronic in gas (Low NOx Class 3) / 3 stages in oil

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

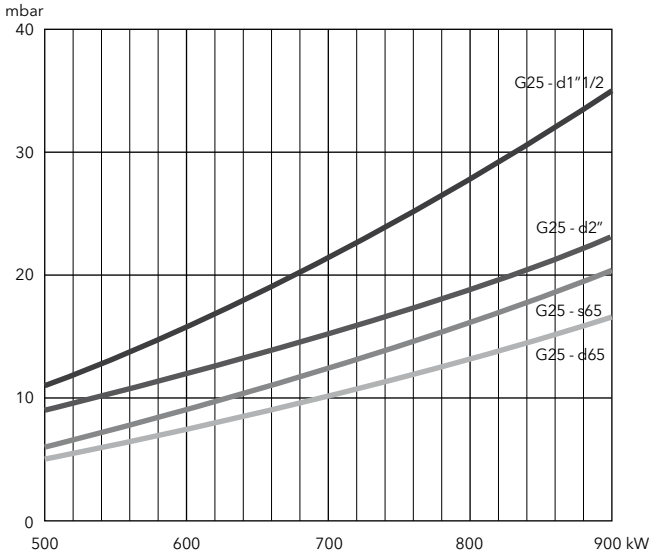
VGL5.700 M

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³					Natural gas G25 Hi = 8,83 kWh/m³					LPG G31
	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	S65-DN65	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"
500	31	9	8	5	5	37	11	9	5	6	6
600	43	13	10	8	8	53	16	12	7	9	8
700	58	17	13	10	10	73	21	15	10	12	10
800	76	22	16	13	13	96	28	19	13	16	13
900	97	27	19	17	17	124	35	23	17	20	16

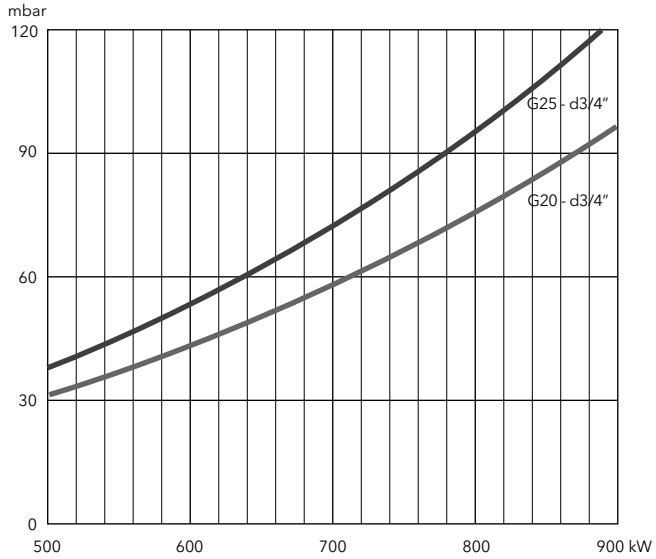
Natural gas G20



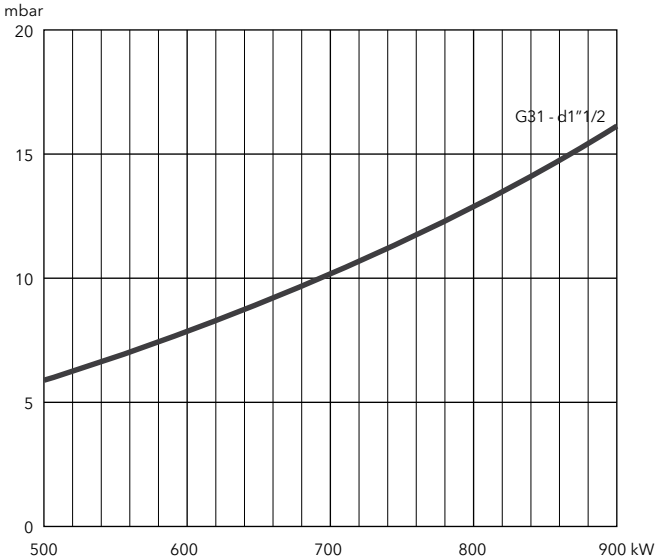
Natural gas G25



Natural gas G20, G25



LPG



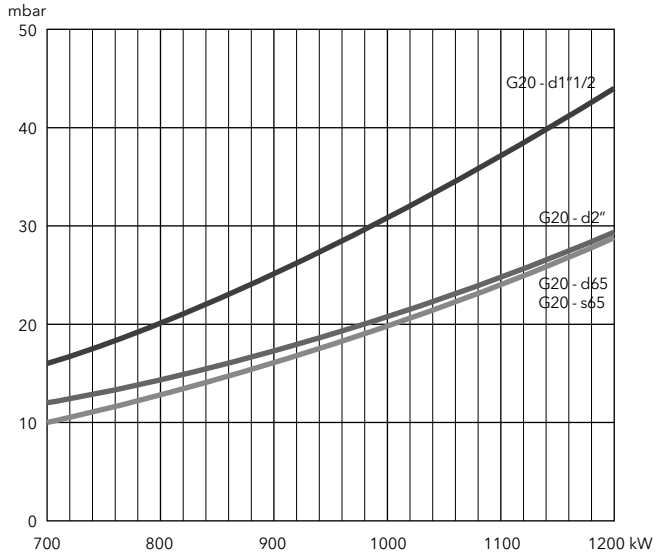
AGP MDE2 RTC LOW NOx CLASS 3

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

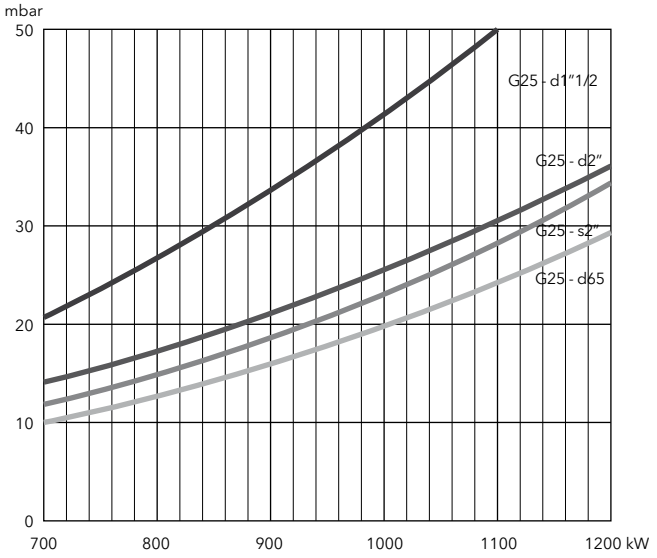
VGL5.1000 M

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³					Natural gas G25 Hi = 8,83 kWh/m³					LPG G31
	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"
700	40	16	12	10	10	60	21	14	10	12	10
800	53	20	14	13	13	79	27	17	13	15	12
900	68	25	17	16	16	100	34	21	16	19	15
1000	84	31	21	20	20	126	42	26	20	24	18
1100	103	37	25	24	24	154	50	31	24	29	22
1200	123	44	29	29	29	186	59	36	29	34	26

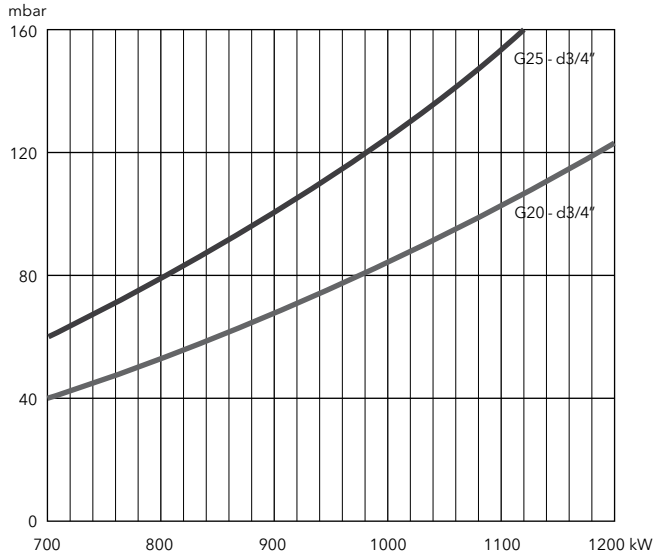
Natural gas G20



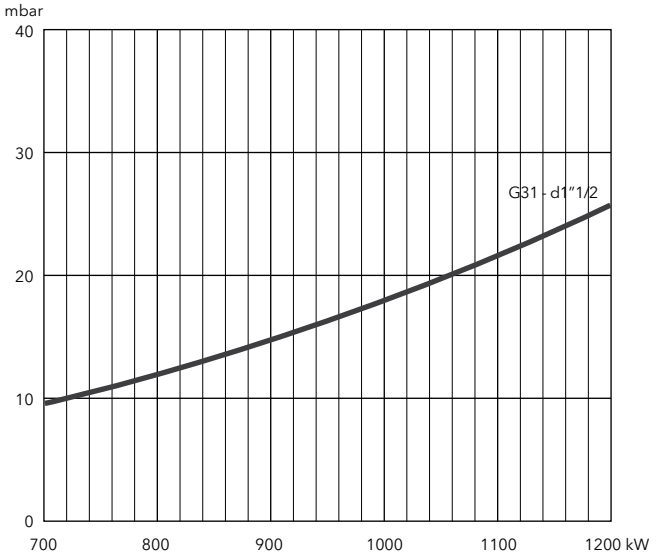
Natural gas G25



Natural gas G20, G25



LPG



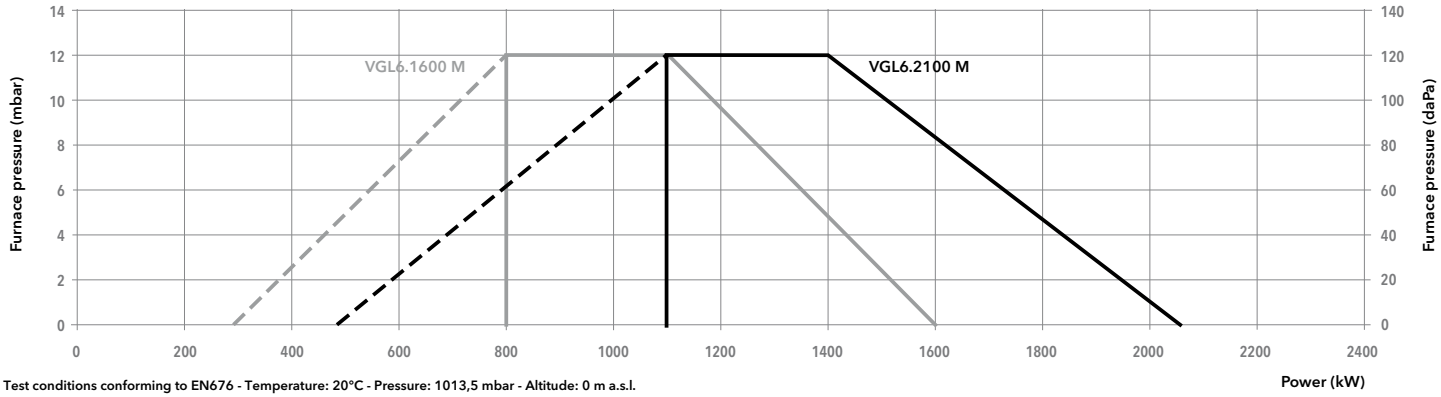
VGL6.1600 M, VGL6.2100 M

300 ... 2050 kW
2 stage progressive/modulating electronic (Low NOx class 3) / 3 stages in oil



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** Low NOx class 3 in gas (≤80 mg/kWh) according to EN676 Low NOx class 2 in light oil (≤185 mg/kWh) according to EN267
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180) in gas and three stages in light oil
- **Protection level:** IP 41

TECHNICAL DATA



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

Model			VGL6.1600 M /TC			VGL6.2100 M /TC		
Operation range			(300) 800 - 1600 kW			(480) 1100 - 2050 kW		
Gas pressure			20 - 300 mbar			20 - 300 mbar		
Control box / flame detection			BT3... / QRA 2			BT3... / QRA 2		
Fan motor			230/400 V - 50 Hz - 2,2 kW			230/400 V - 50 Hz - 2,7 kW		
Electrical consumption			2800 W			3400 W		
Acoustic level (LpA)			77,2 dB(A)			79 dB(A)		
CE certificate			1312 BM 3427			1312 BM 3428		
Head lenght			KN	KL	KM	KN	KL	KM
Complete burner code	VGD 40-065	s65-DN65/TC	**3836669**	**3836671**	**3836670**	**3836681**	**3836683**	**3836682**
	MBC1900	d65-DN65/TC	**3836672**	**3836674**	**3836673**	**3836684**	**3836686**	**3836685**
	MBC1200	d2"-Rp2"/TC	**3836675**	**3836677**	**3836676**	**3836687**	**3836689**	**3836688**
	MBC700	d1"1/2-Rp2"/TC	**3836678**	**3836680**	**3836679**	**3836690**	**3836692**	**3836691**

OTHER AVAILABLE VERSIONS

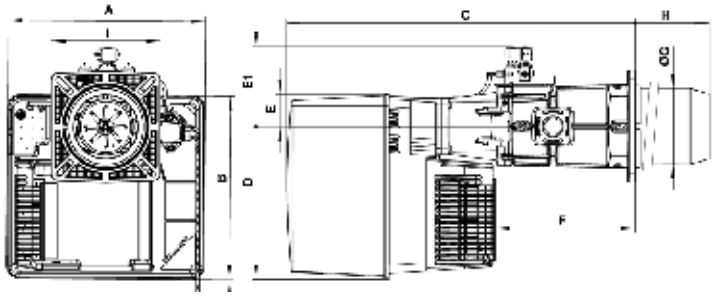
VENT Versions for continuous ventilation and post-ventilation

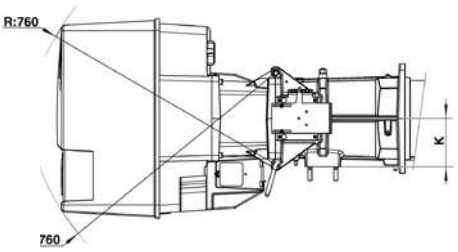
SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

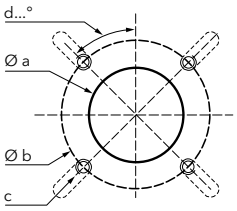
AGP | MDE2 | RTC | LOW NOx CLASS 3

DIMENSIONS (mm)





Connecting flange

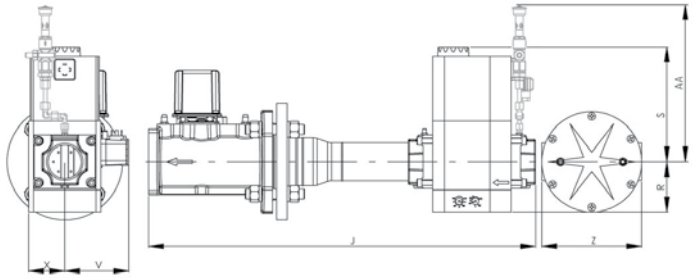


A	B	C	D	E	E1	F	ØG	H			I	K	N
								KN	KM	KL			
592	553	1050	456	97	239	421	227	270	370	470	326x335	144	247

Øa (mm)	b (mm)	c	d
250	300-400	M12	45°

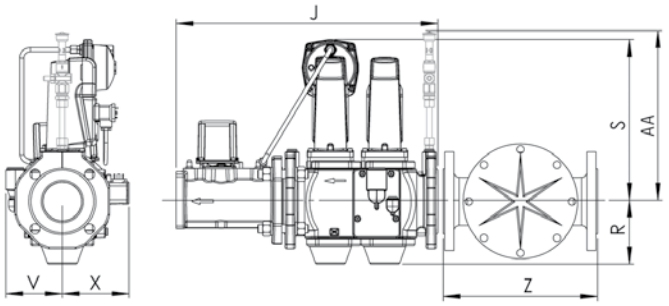
Gas trains

Gas train "d":



Model	J	R	S	V	X	Z	AA*
d65-DN65	490	183	245	110	98	290	385
d2"-Rp2"	700	96	330	125	81	-	385
d1"1/2-Rp2"	622	80	185	102	57	-	320

Gas train "s":

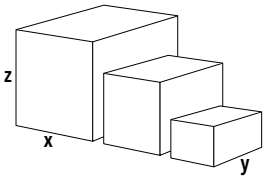


Model	J	R	S	V	X	Z	AA*
s65-DN65	490	118	300	106	126	290	365

***: for PED configuration**

PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VGL6.1600 M**	1200	800	1440	140
	VGL6.2100 M	1200	800	1440	140
Combustion head	**KN**	800	380	240	28
	KL	1000	380	420	30
	KM	1000	380	420	31
Gas train	**s65-DN65/TC**	790	600	500	29,4
	d65-DN65/TC	670	550	380	33
	d2"-Rp2"/TC	670	550	380	22
	d1"1/2-Rp2"/TC	670	550	380	21

VGL6.1600 M, VGL6.2100 M

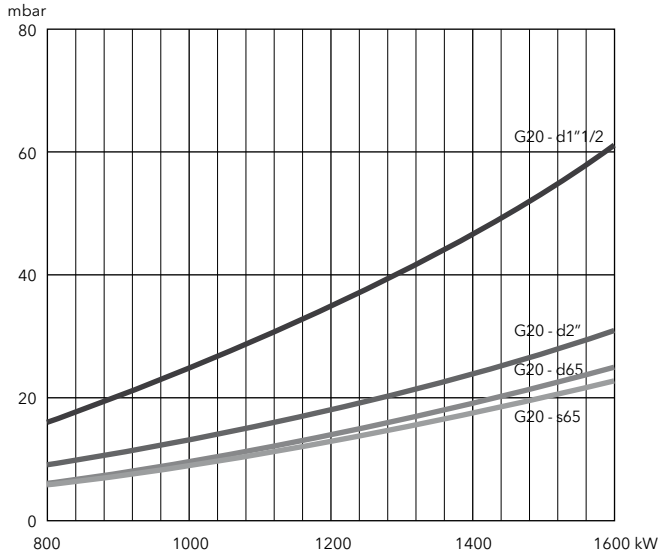
300 ... 2050 kW
2 stage progressive/modulating electronic (Low NOx Class 3) / 3 stages in oil

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

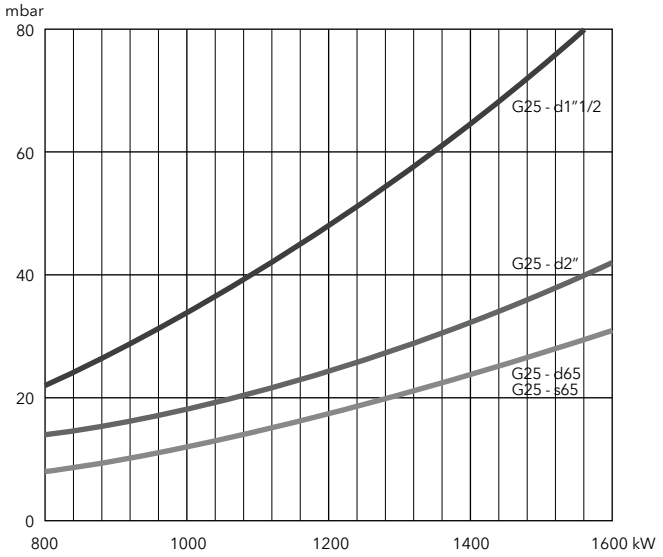
VGL6.1600 M

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³				Natural gas G25 Hi = 8,83 kWh/m³				LPG G31 Hi = 25,89 kWh/m³
	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"
800	16	9	6	6	22	12	8	8	8
1000	25	13	10	9	34	18	12	12	12
1200	35	18	14	13	48	24	18	18	17
1400	47	24	19	18	64	32	24	24	22
1600	61	31	25	23	83	42	31	31	29

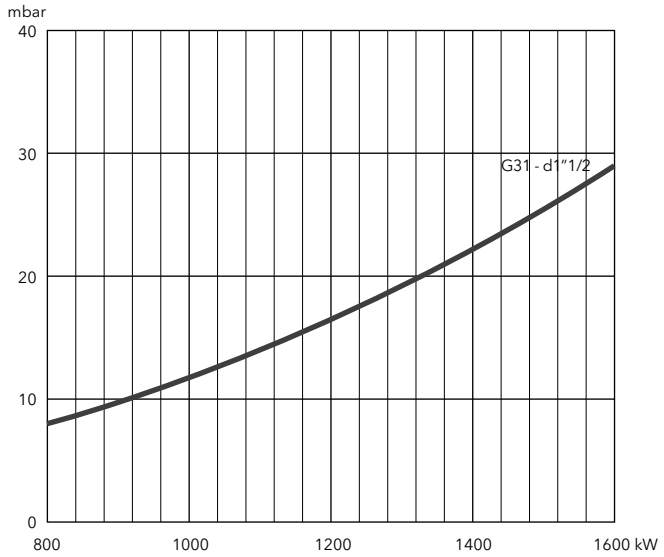
Natural gas G20



Natural gas G25



LPG



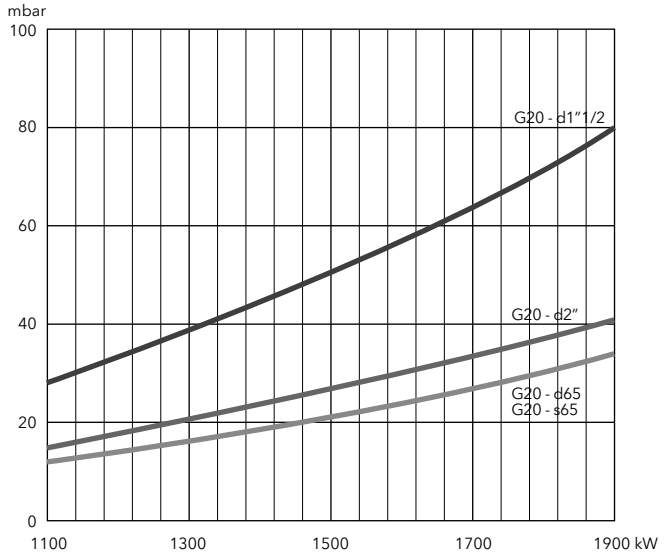
AGP MDE2 RTC LOW NOx CLASS 3

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

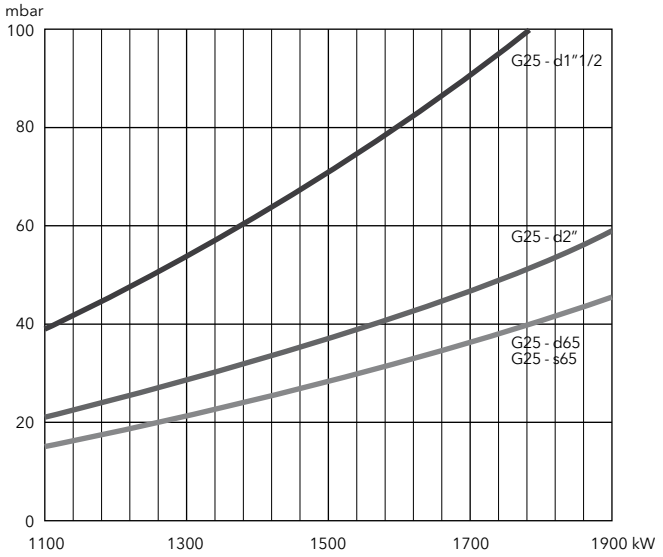
VGL6.2100 M

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³				Natural gas G25 Hi = 8,83 kWh/m³				LPG G31 Hi = 25,89 kWh/m³	
	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d2"-Rp2"
1100	28	15	12	11	39	21	15	15	13	9
1300	39	21	16	16	54	29	21	22	18	11
1500	51	27	21	21	71	37	28	29	23	14
1700	64	34	27	27	91	47	36	37	29	17
1900	80	41	34	34	114	59	45	46	36	20

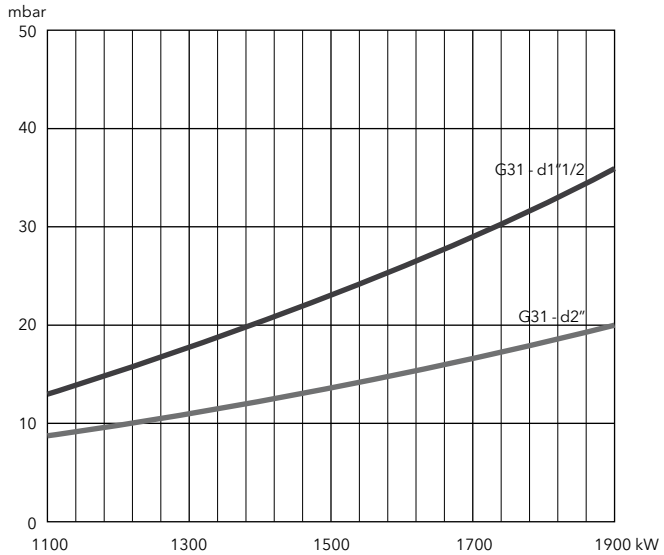
Natural gas G20



Natural gas G25



LPG



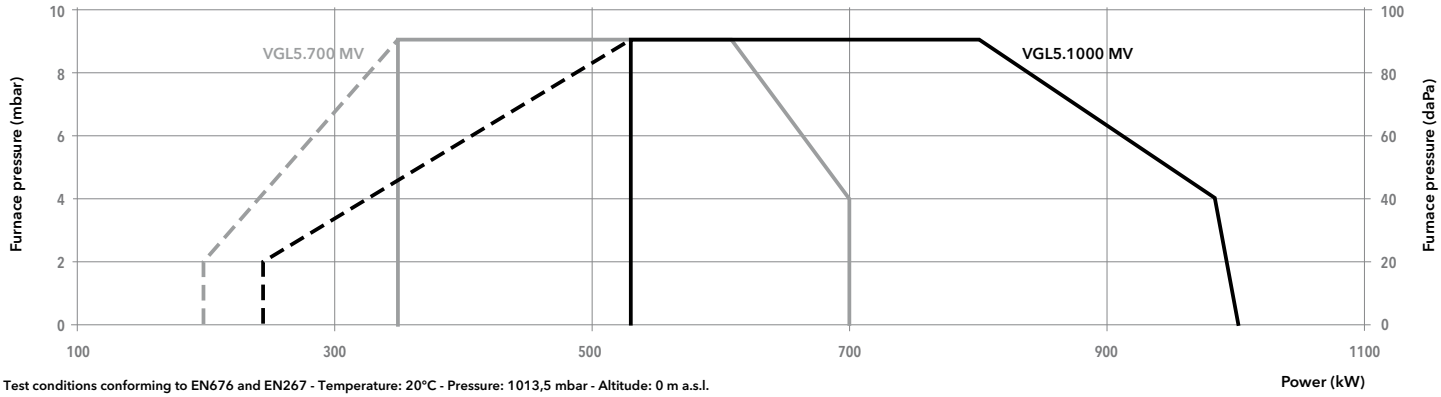
VGL5.700 M V, VGL5.1000 M V

200 ... 1000 kW
2 stages progressive/modulating electronic in gas (Low NOx Class 3) / 3 stages in oil + fan speed control



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** Low NOx class 3 in gas (≤80 mg/kWh) according to EN676 Low NOx class 2 in light oil (≤185 mg/kWh) according to EN267
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180) in gas and three stages 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.

Model			VGL5.700 M V /TC			VGL5.1000 M V /TC		
Operation range			(200) 350 - 700 kW			(240) 530 - 1000 kW		
Gas pressure			20 - 300 mbar			20 - 300 mbar		
Control box / flame detection			BT3... / QRA 2			BT3... / QRA 2		
Fan motor			230/400 V - 50 Hz - 1,1 kW			230/400 V - 50 Hz - 1,5 kW		
Nozzle			4,5 US gal/h 45°B / 5 US gal/h 45°B			5 US gal/h 45°B / 8,5 US gal/h 45°B		
Electrical consumption			2000 W			2200 W		
Acoustic level (LpA)			78 dB(A)			81 dB(A)		
CE certificate			1312 AQ 924			1312 AQ 925		
Head lenght			KN	KL	KM	KN	KL	KM
Complete burner code	VGD 40-065	s65-DN65	-	-	-	**3836702**	**3836704**	**3836703**
	MBC1900	d65-DN65	-	-	-	**3836705**	**3836707**	**3836706**
	MBC1200	d2"-Rp2"	**3836693**	**3836695**	**3836694**	**3836708**	**3836710**	**3836709**
	MBC700	d1"1/2-Rp2"	**3836696**	**3836698**	**3836697**	**3836711**	**3836713**	**3836712**
	MBC300	d3/4"-Rp1"1/4	**3836699**	**3836701**	**3836700**	**3836714**	**3836716**	**3836715**

OTHER AVAILABLE VERSIONS

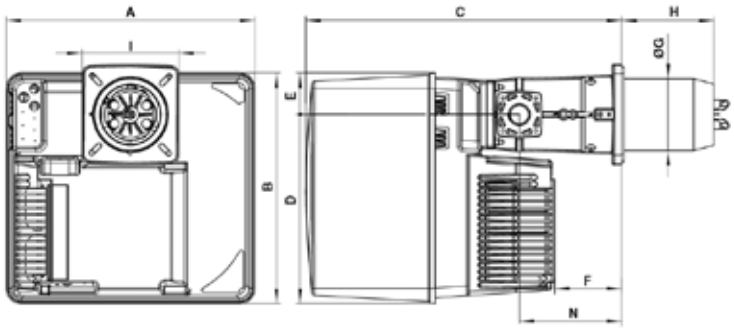
Vent Versions for continuous ventilation and post-ventilation

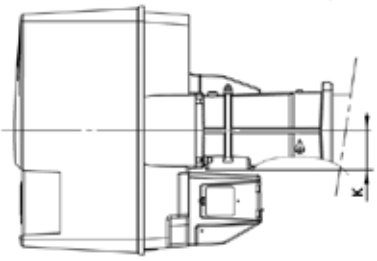
SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

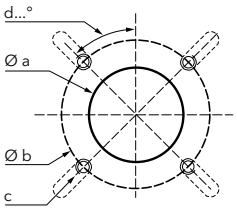
AGP | MDE2 | RTC | LOW NOx CLASS 3

DIMENSIONS (mm)





Connecting flange

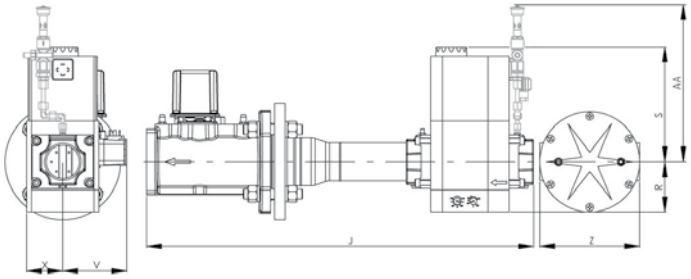


A	B	C	D	E	F	ØG	H			I	K	N
							KN	KM	KL			
581	549	752	450	99	164	170	215	325	435	230x238	89	244

Øa (mm)	b (mm)	c	d
195	220-260	M10	45°

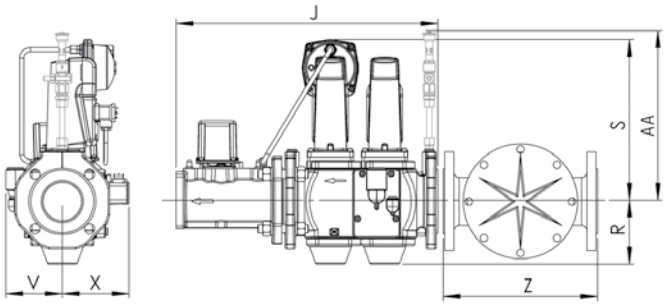
Gas trains

Gas train "d":



Model	J	R	S	V	X	Z	AA*
d65-DN65	490	183	245	110	98	290	385
d2"-Rp2"	700	96	330	125	81	-	385
d1"1/2-Rp2"	622	80	185	102	57	-	320
d3/4"-Rp1"1/4	460	60	173	88	58	-	320

Gas train "s":

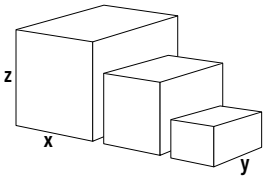


Model	J	R	S	V	X	Z	AA*
s65-DN65	490	118	300	106	126	290	365

***: for PED configuration**

PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VGL5.700 M V**	800	600	850	70
	VGL5.1000 M V	800	600	850	70
Combustion head	**KN**	780	265	280	13
	KL	1010	265	280	16
	KM	1010	265	280	15
Gas train	**s65-DN65/TC**	670	530	380	26
	d65-DN65/TC	670	530	380	17
	d2"-Rp2"/TC	670	530	380	12
	d1"1/2-Rp2"/TC	670	530	380	12
	d3/4"-Rp1"1/4/TC	600	400	240	7

VGL5.700 M V, VGL5.1000 M V

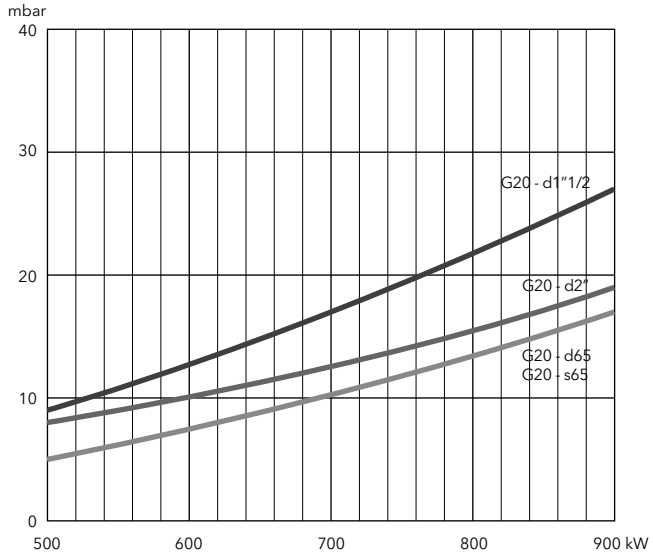
200 ... 1000 kW
2 stages progressive/modulating electronic in gas (Low NOx Class 3) / 3 stages in oil + fan speed control

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

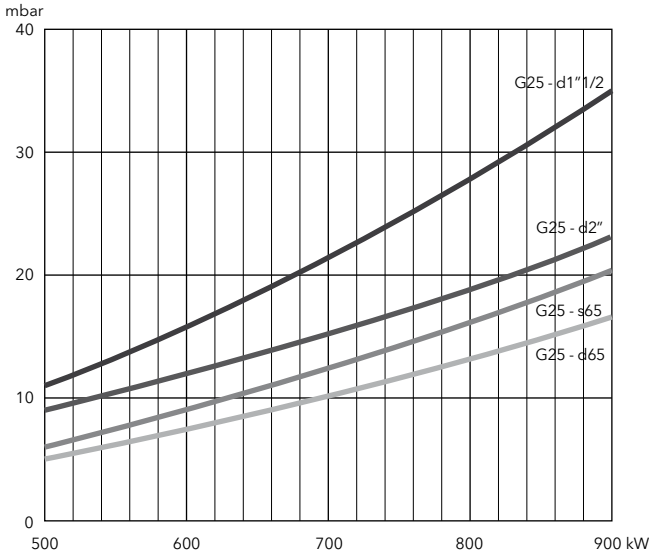
VGL5.700 M V

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³					Natural gas G25 Hi = 8,83 kWh/m³					LPG G31
	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	S65-DN65	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"
500	31	9	8	5	5	37	11	9	5	6	6
600	43	13	10	8	8	53	16	12	7	9	8
700	58	17	13	10	10	73	21	15	10	12	10
800	76	22	16	13	13	96	28	19	13	16	13
900	97	27	19	17	17	124	35	23	17	20	16

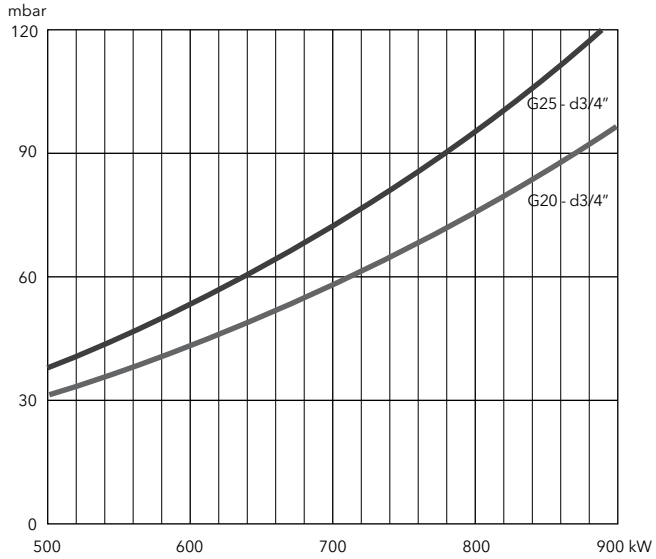
Natural gas G20



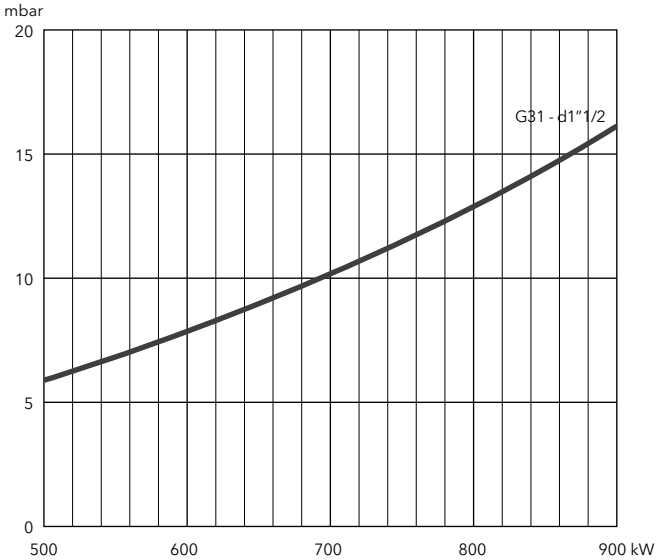
Natural gas G25



Natural gas G20, G25



LPG



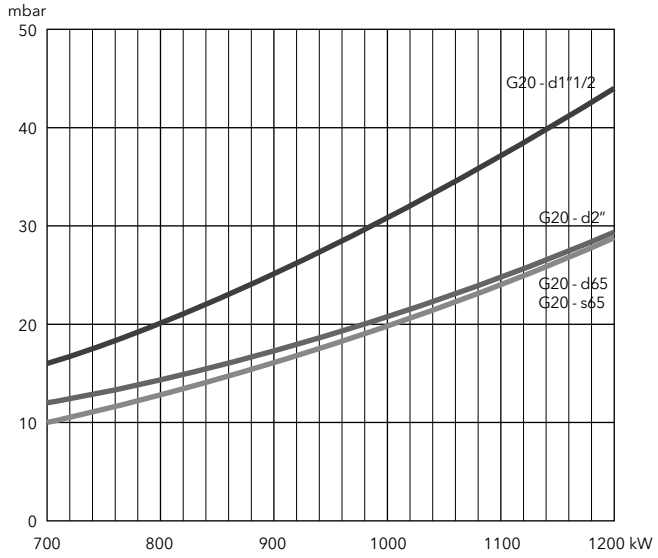
AGP MDE2 RTC LOW NOx CLASS 3

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

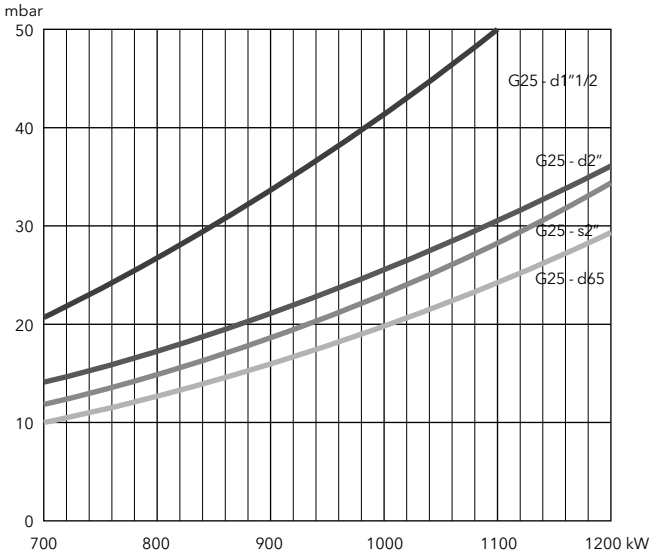
VGL5.1000 M V

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³					Natural gas G25 Hi = 8,83 kWh/m³					LPG G31
	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d3/4-Rp1"1/4	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"
700	40	16	12	10	10	60	21	14	10	12	10
800	53	20	14	13	13	79	27	17	13	15	12
900	68	25	17	16	16	100	34	21	16	19	15
1000	84	31	21	20	20	126	42	26	20	24	18
1100	103	37	25	24	24	154	50	31	24	29	22
1200	123	44	29	29	29	186	59	36	29	34	26

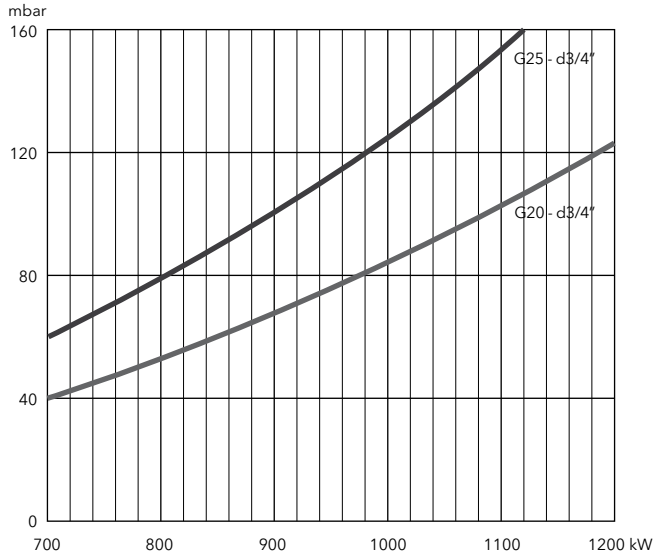
Natural gas G20



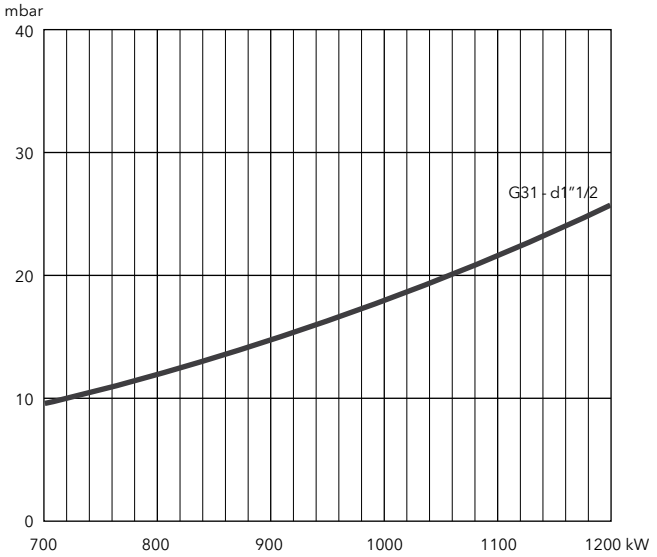
Natural gas G25



Natural gas G20, G25



LPG



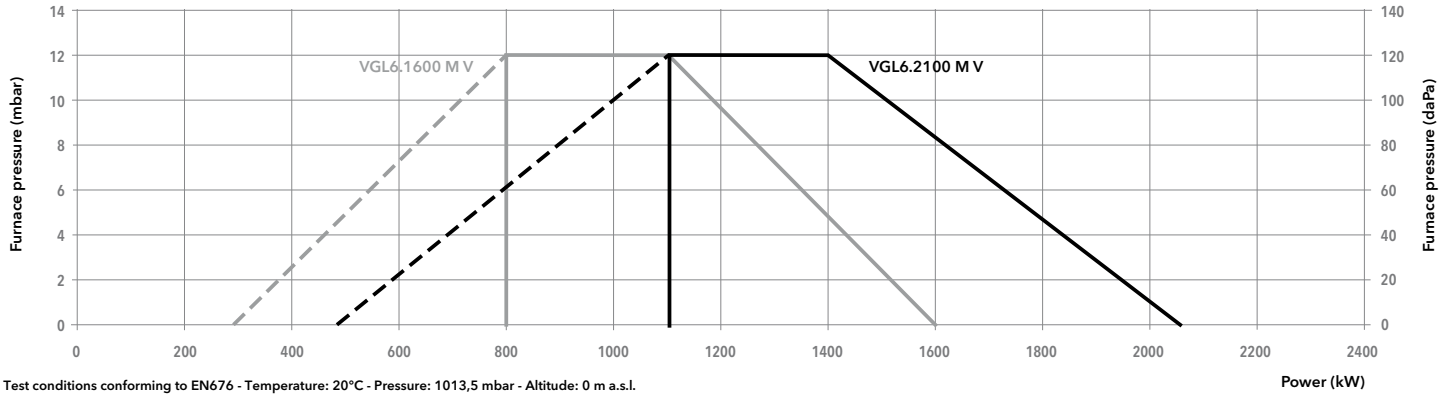
VGL6.1600 M V, VGL6.2100 M V

300 ... 2050 kW
2 stage progressive/modulating electronic (Low NOx Class 3) / 3 stages in oil + fan speed control



- **Fuels:** natural gas (G20/G25, H_u = 8,83…10,35 kWh/m³); light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** Low NOx class 3 in gas (≤80 mg/kWh) according to EN676 Low NOx class 2 in light oil (≤185 mg/kWh) according to EN267
- **Operation:** two stage progressive or modulating with the installation of a power regulator and dedicated probes (see pag. 180) in gas and three stages in light oil
- **Protection level:** IP 41

TECHNICAL DATA



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

Model			VGL6.1600 M V /TC			VGL6.2100 M V /TC		
Operation range			(300) 800 - 1600 kW			(480) 1100 - 2050 kW		
Gas pressure			20 - 300 mbar			20 - 300 mbar		
Control box / flame detection			BT3... / QRA 2			BT3... / QRA 2		
Fan motor			230/400 V - 50 Hz - 2,2 kW			230/400 V - 50 Hz - 2,7 kW		
Electrical consumption			2800 W			3400 W		
Acoustic level (LpA)			77,2 dB(A)			79 dB(A)		
CE certificate			1312 BM 3427			1312 BM 3428		
Head lenght			KN	KL	KM	KN	KL	KM
Complete burner code	VGD 40-065	s65-DN65/TC	**3836717**	**3836719**	**3836718**	**3836729**	**3836731**	**3836730**
	MBC1900	d65-DN65/TC	**3836720**	**3836722**	**3836721**	**3836732**	**3836734**	**3836733**
	MBC1200	d2"-Rp2"/TC	**3836723**	**3836725**	**3836724**	**3836735**	**3836737**	**3836736**
	MBC700	d1"1/2-Rp2"/TC	**3836726**	**3836728**	**3836727**	**3836738**	**3836740**	**3836739**

OTHER AVAILABLE VERSIONS

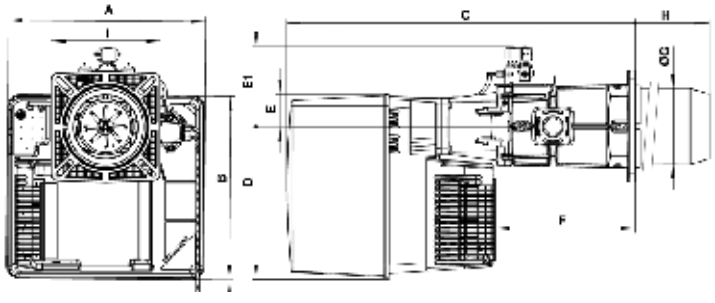
VENT Versions for continuous ventilation and post-ventilation

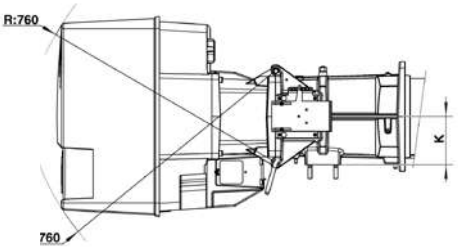
SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 compact gas train with gas filter; the gas filter is built-in for threaded valves (up to 2") and separated for flanged ones (DN65/80/100)
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

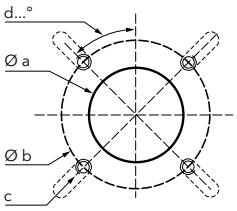
AGP | MDE2 | RTC | LOW NOx CLASS 3

DIMENSIONS (mm)





Connecting flange

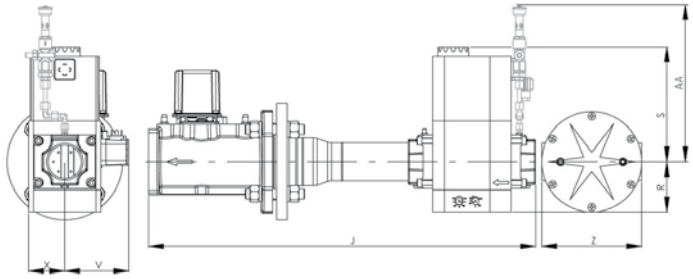


A	B	C	D	E	E1	F	ØG	H			I	K	N
								KN	KM	KL			
592	553	1050	456	97	239	421	227	270	370	470	326x335	144	247

Øa (mm)	b (mm)	c	d
250	300-400	M12	45°

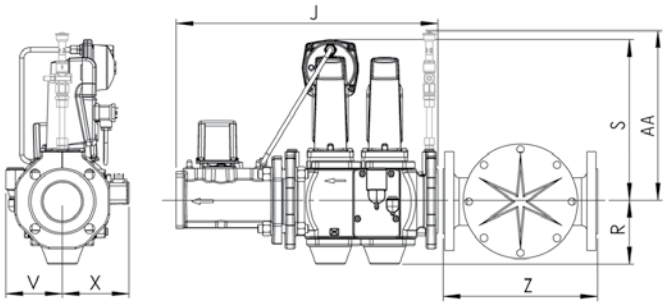
Gas trains

Gas train "d":



Model	J	R	S	V	X	Z	AA*
d65-DN65	490	183	245	110	98	290	385
d2"-Rp2"	700	96	330	125	81	-	385
d1"1/2-Rp2"	622	80	185	102	57	-	320

Gas train "s":

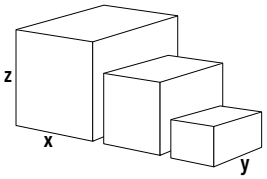


Model	J	R	S	V	X	Z	AA*
s65-DN65	490	118	300	106	126	290	365

***: for PED configuration**

PACKAGING

The burner is delivered on a pallet in 3 packages containing:
- burner housing
- combustion head
- gas train and filter



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	**VGL6.1600 M V**	1200	800	1440	140
	VGL6.2100 M V	1200	800	1440	140
Combustion head	**KN**	800	380	240	28
	KL	1000	380	420	30
	KM	1000	380	420	31
Gas train	**s65-DN65/TC**	670	530	380	26
	d65-DN65/TC	670	530	380	17
	d2"-Rp2"/TC	670	530	380	12
	d1"1/2-Rp2"/TC	670	530	380	12

VGL6.1600 M V, VGL6.2100 M V

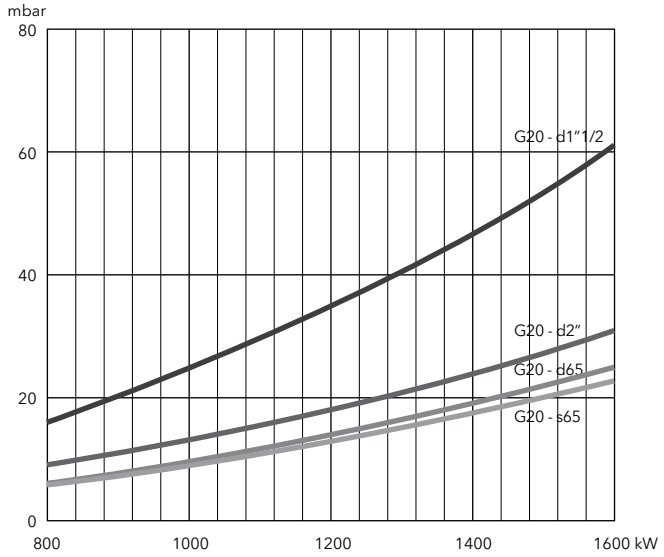
300 ... 2050 kW
2 stage progressive/modulating electronic (Low NOx Class 3) / 3 stages in oil + fan speed control

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

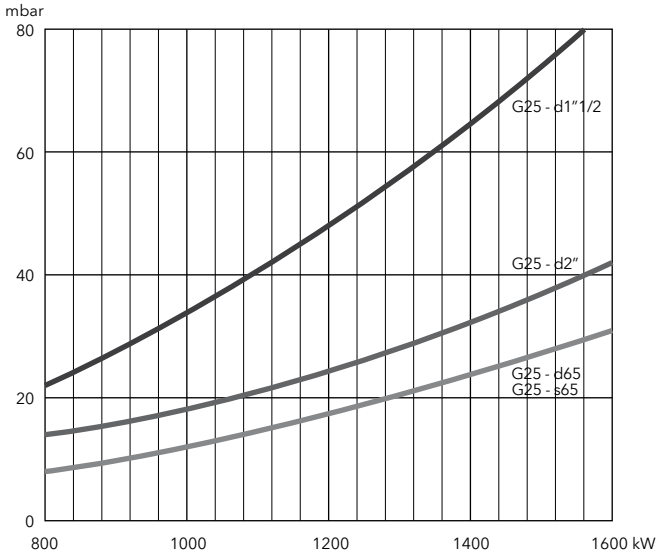
VGL6.1600 M V

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³				Natural gas G25 Hi = 8,83 kWh/m³				LPG G31 Hi = 25,89 kWh/m³
	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"
800	16	9	6	6	22	12	8	8	8
1000	25	13	10	9	34	18	12	12	12
1200	35	18	14	13	48	24	18	18	17
1400	47	24	19	18	64	32	24	24	22
1600	61	31	25	23	83	42	31	31	29

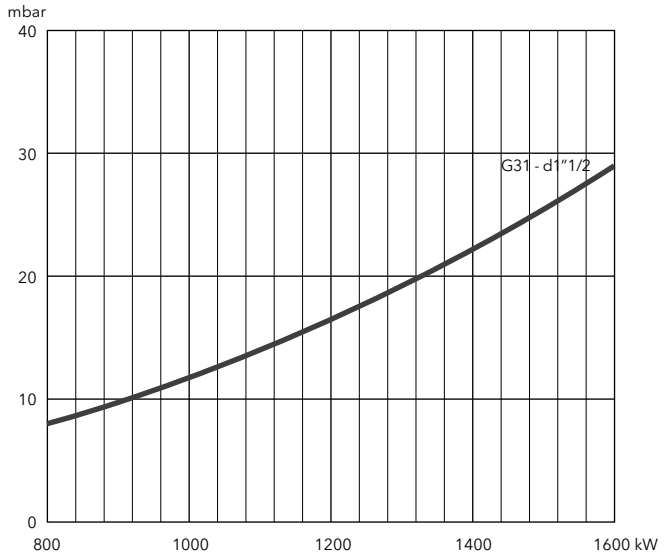
Natural gas G20



Natural gas G25



LPG



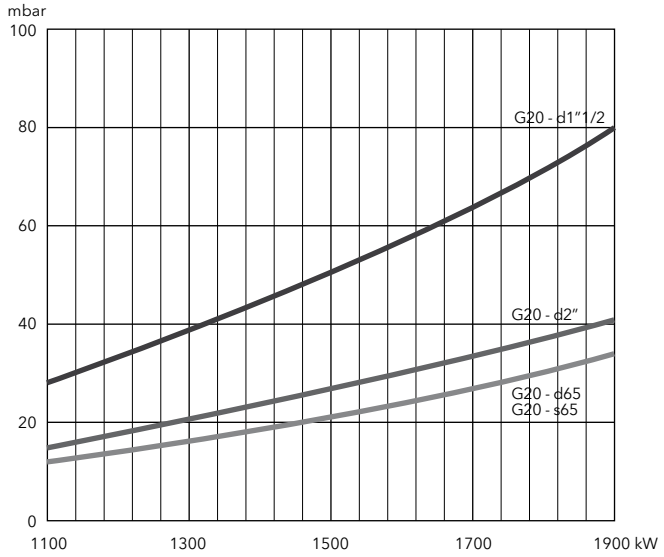
AGP MDE2 RTC LOW NOx CLASS 3

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

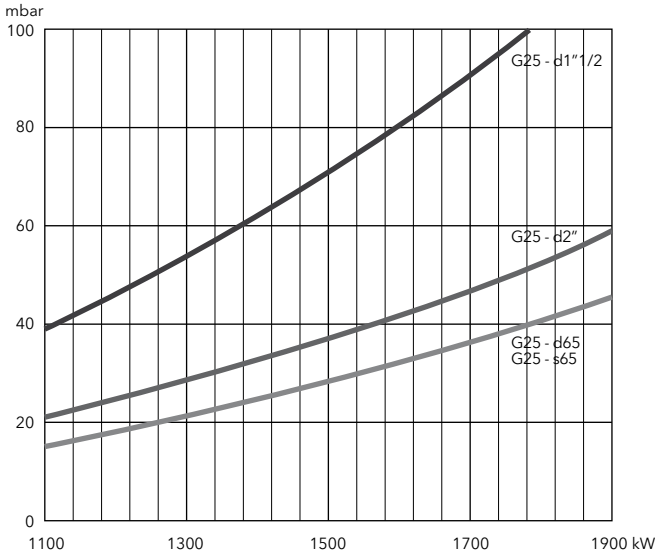
VGL6.2100 M V

Burner output (kW)	Natural gas G20 Hi = 10,35 kWh/m³				Natural gas G25 Hi = 8,83 kWh/m³				LPG G31 Hi = 25,89 kWh/m³	
	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d2"-Rp2"	d65-DN65	s65-DN65	d1"1/2-Rp2"	d2"-Rp2"
1100	28	15	12	11	39	21	15	15	13	9
1300	39	21	16	16	54	29	21	22	18	11
1500	51	27	21	21	71	37	28	29	23	14
1700	64	34	27	27	91	47	36	37	29	17
1900	80	41	34	34	114	59	45	46	36	20

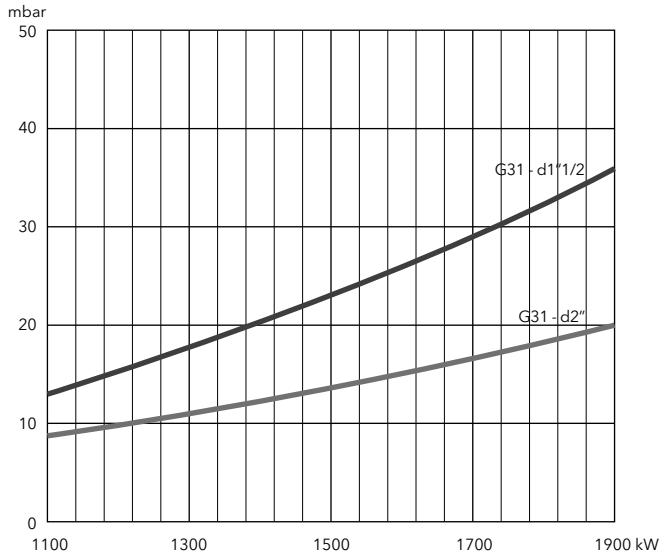
Natural gas G20



Natural gas G25



LPG



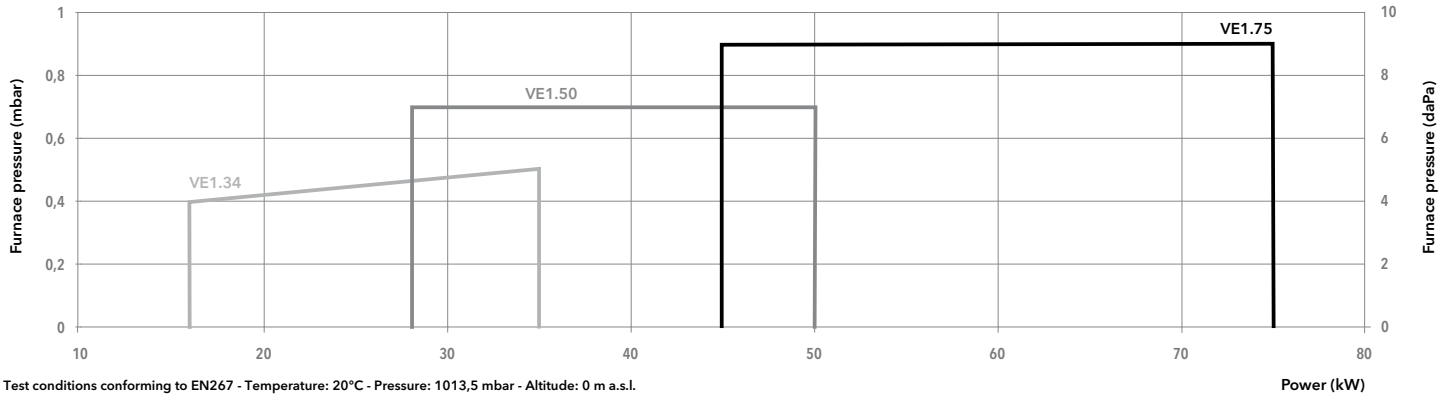
VE1.34, VE1.50, VE1.75

16 ... 75 kW
1 stage (Yellow flame, ErP compliant)



- **Fuel:** light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** compliant with ErP Directive
- **Protection level:** IP 21

TECHNICAL DATA



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

Model	VE1.34	VE1.50	VE1.75
Operation range	16 - 34 kW	28 - 50 kW	44 - 75 kW
Fuel flow	1,3 - 2,8 kg/h	2,4 - 4,2 kg/h	3,7 - 6,3 kg/h
Nozzle	0,45 US gal/h 45°S	0,75 US gal/h 45°S	1,10 US gal/h 45°H
Control box / flame detection	TCH 141.03 / QRB1	TCH 141.03 / QRB1	TCH 141.00 / QRB1
Fan motor	230 V - 50 Hz - 110 W	230 V - 50 Hz - 110 W	230 V - 50 Hz - 110 W
Electrical consumption	244 W	244 W	233 W
Flexible hoses	Rp 3/8" / M14 x 1,5 - 1000 mm	Rp 3/8" / M14 x 1,5 - 1000 mm	Rp 3/8" / M14 x 1,5 - 1000 mm
Acoustic level (LpA)	56 dB(A)	56 dB(A)	56 dB(A)
Head lenght	KN	KN	KN
Complete burner code	**3832630**	**3832632**	**3832634**

OTHER AVAILABLE VERSIONS

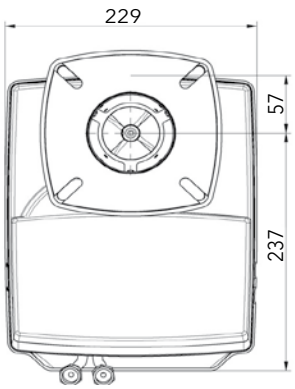
VENT Versions for continuous ventilation and post-ventilation

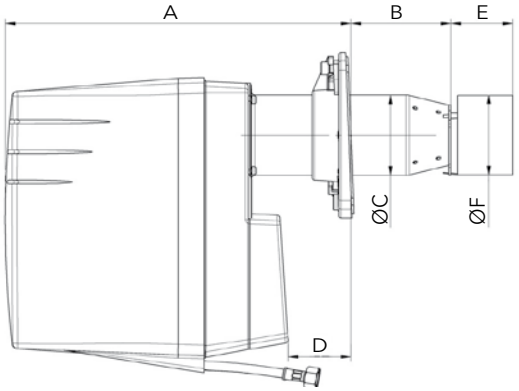
SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 setting template
- 1 burner flange with insulation
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

DIMENSIONS (mm)

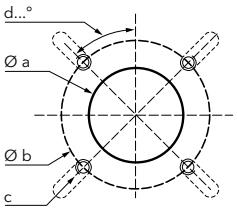




	A	B	ØC	D	E	ØF
VE1.34	264 ... 329	70 ... 135	80	12 ... 77	63	79
VE1.50	264 ... 344	70 ... 150	90	12 ... 92	56	84
VE1.75	297 ... 357	70 ... 138	90	15 ... 83	56	84

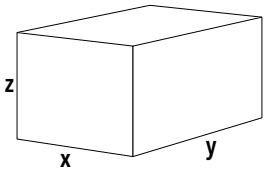
Connecting flange

Øa (mm)	b (mm)	c	d
95-104	150-170	M8	45°



PACKAGING

The burner is delivered in 1 single package containing all components



Burner	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VE1.34	300	260	650	11
VE1.50	300	260	650	11
VE1.75	300	260	650	12

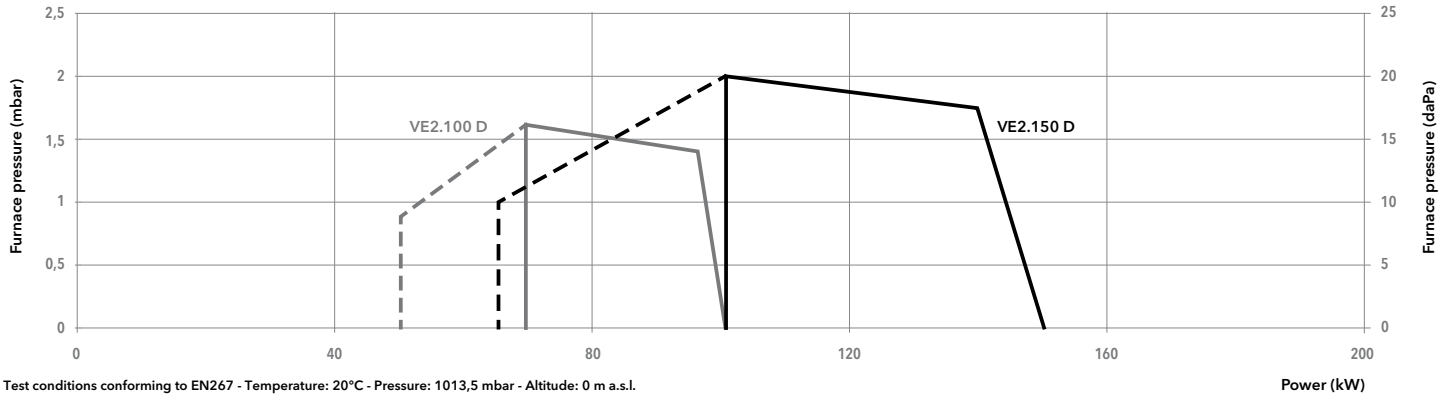
VE2.100 D, VE2.150 D

50 ... 150 kW
2 stages (Yellow flame, ErP compliant)



- **Fuel:** light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** compliant with ErP Directive
- **Protection level:** IP 21

TECHNICAL DATA



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

Model	VE2.100 D	VE2.150 D
Operation range	(50) 70 - 100 kW	(65) 100 - 150 kW
Fuel flow	(4,2) 5,9 - 8,4 kg/h	(5,5) 8,4 - 12,6 kg/h
Nozzle	1,25 US gal/h 45°H	2,00 US gal/h 45°H
Control box / flame detection	TCH2... / QRB1	TCH2... / QRB1
Fan motor	230 V - 50 Hz - 130 W	230 V - 50 Hz - 130 W
Electrical consumption	325 W	325 W
Flexible hoses	Rp 3/8" / DN6 x 1,5 - 1500 mm	Rp 3/8" / DN6 x 1,5 - 1500 mm
Acoustic level (LpA)	66,5 dB(A)	66,5 dB(A)
Head lenght	KL	KL
Complete burner code	**3833101**	**3833102**

OTHER AVAILABLE VERSIONS

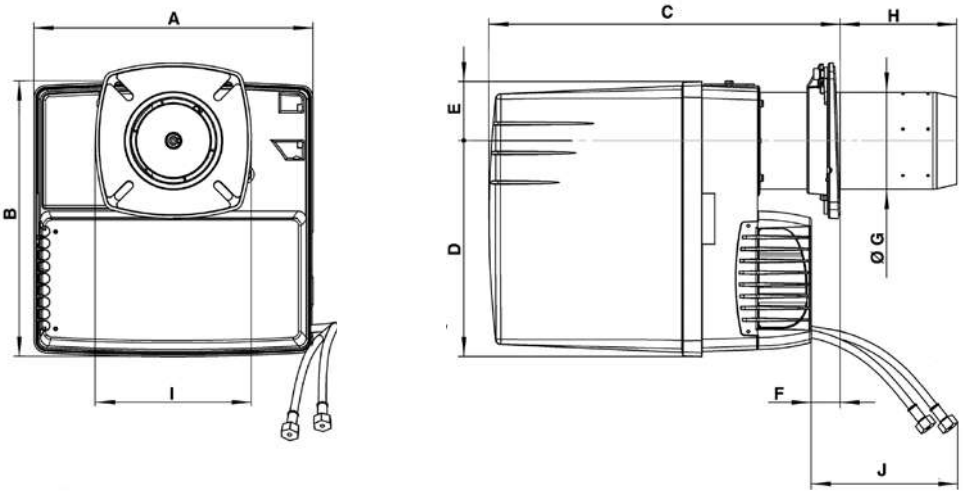
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 setting template
- 1 burner flange with insulation
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

MDE2 | RTC | LOW NOx CLASS 3 | ErP COMPLIANT

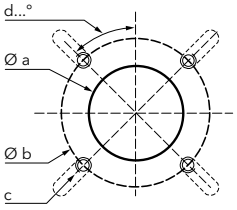
DIMENSIONS (mm)



	A	B	C	D	E	F min	ØG	H max	I	J
			KL					KL		
VE2.100	331	326	398…638	256	133	15	115	264	185	700
VE2.150	331	326	398…638	256	133	15	115	264	185	700

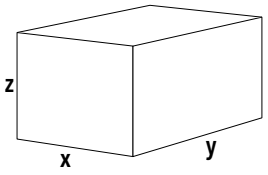
Connecting flange

Øa (mm)	b (mm)	c	d
120-135	150-180	M8	45°



PACKAGING

The burner is delivered in 1 single package containing all components



Burner	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VE2.100 D	400	400	760	18
VE2.150 D	400	400	760	18

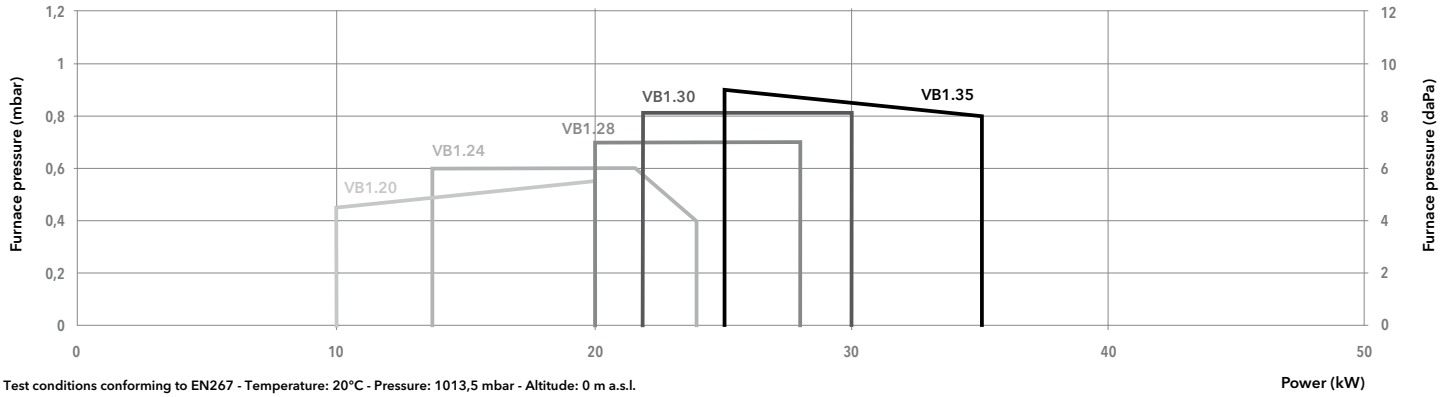
VB1.20, VB1.24, VB1.28, VB1.30, VB1.35

11 ... 35 kW
1 stage (Blue flame, ErP compliant)



- **Fuel:** light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** compliant with ErP Directive
- **Protection level:** IP 21

TECHNICAL DATA



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

Model	VB1.20	VB1.24	VB1.28	VB1.30	VB1.35
Operation range	11 - 20 kW	14 - 24 kW	20 - 28 kW	22 - 30 kW	25 - 35 kW
Fuel flow	0,9 - 1,7 kg/h	1,2 - 2,0 kg/h	1,7 - 2,4 kg/h	1,9 - 2,5 kg/h	2,1 - 3,0 kg/h
Nozzle	0,40 US gal/h 60°S	0,45 US gal/h 60°S	0,50 US gal/h 80°S	0,55 US gal/h 80°S	0,60 US gal/h 80°S
Control box / flame detection	TCH 141.03 / IRD 1010	TCH 141.03 / IRD 1010	TCH 141.03 / IRD 1010	TCH 141.03 / IRD 1010	TCH 141.03 / IRD 1010
Fan motor	230 V - 50 Hz - 110 W	230 V - 50 Hz - 110 W	230 V - 50 Hz - 110 W	230 V - 50 Hz - 110 W	230 V - 50 Hz - 110 W
Electrical consumption	207 W	207 W	207 W	207 W	207 W
Flexible hoses	Rp 3/8" / M14 x 1,5 - 1000 mm				
Acoustic level (LpA)	59 dB(A)	59 dB(A)	59 dB(A)	59 dB(A)	59 dB(A)
Head lenght	KN	KN	KN	KN	KN
Complete burner code	**3832624**	**3832625**	**3832626**	**3832627**	**3832628**

OTHER AVAILABLE VERSIONS

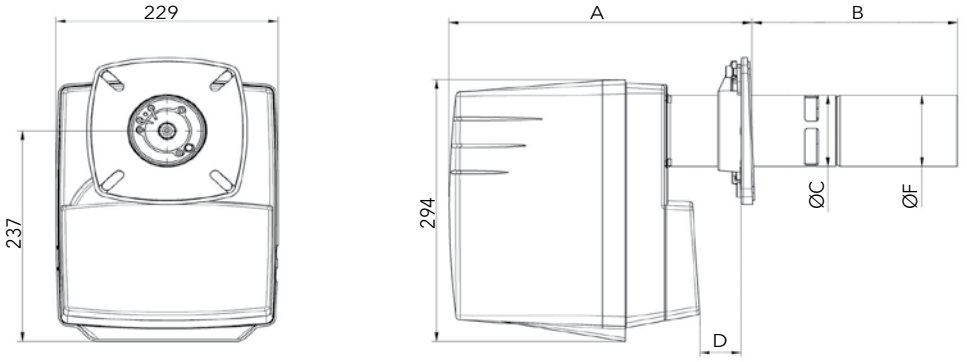
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 setting template
- 1 burner flange with insulation
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

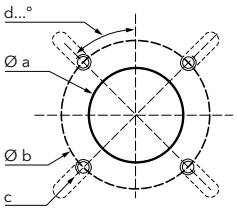
DIMENSIONS (mm)



Model	A		B		ØC	D		ØF
	min	max	min	max		min	max	
VB1.20	269	284	234	249	80	12	27	80
VB1.24	269	284	234	249	80	12	27	80
VB1.28	269	284	234	249	80	12	27	100
VB1.30	269	284	244	259	80	12	27	100
VB1.35	269	284	294	309	80	12	27	120

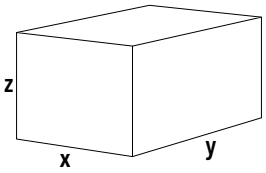
Connecting flange

Øa (mm)	b (mm)	c	d
85-104	150-170	M8	45°



PACKAGING

The burner is delivered in 1 single package containing all components



Burner	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VB1.20	300	260	650	12
VB1.24	300	260	650	12
VB1.28	300	260	650	12
VB1.30	300	260	650	12
VB1.35	300	260	650	12

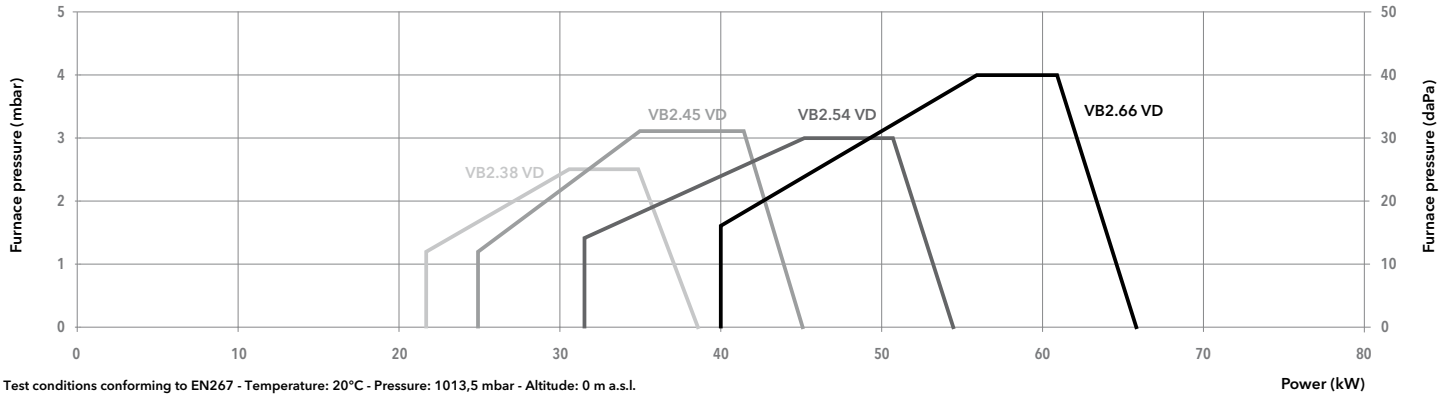
VB2.38 VD, VB2.45 VD, VB2.54 VD, VB2.66 VD

22 ... 66 kW
2 stages (Blue flame, ErP compliant)



- **Fuel:** light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** compliant with ErP Directive
- **Protection level:** IP 21

TECHNICAL DATA



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

Model	VB2.38 VD	VB2.45 VD	VB2.54 VD	VB2.66 VD
Operation range	22 - 38 kW	25 - 45 kW	32 - 54 kW	40 - 66 kW
Fuel flow	1,8 - 3,2 kg/h	2,1 - 3,8 kg/h	2,7 - 4,6 kg/h	3,4 - 5,6 kg/h
Nozzle	0,55 US gal/h 80°S	0,55 US gal/h 80°S	0,65 US gal/h 80°S	1,00 US gal/h 80°S
Control box / flame detection	TCH 24x / IRD 1010	TCH 24x / IRD 1010	TCH 24x / IRD 1010	TCH 24x / IRD 1010
Fan motor	230 V - 50 Hz - 56 W	230 V - 50 Hz - 190 W	230 V - 50 Hz - 190 W	230 V - 50 Hz - 190 W
Electrical consumption	191 W	287 W	325 W	310 W
Flexible hoses	Rp 3/8" / M14 x 1,5 - 1000 mm	Rp 3/8" / M14 x 1,5 - 1000 mm	Rp 3/8" / M14 x 1,5 - 1000 mm	Rp 3/8" / M14 x 1,5 - 1000 mm
Acoustic level (LpA)	59,3 dB(A)	67,2 dB(A)	70,2 dB(A)	68,4 dB(A)
Head lenght	KN	KN	KN	KN
Complete burner code	**3835349**	**3835350**	**3835351**	**3835352**

OTHER AVAILABLE VERSIONS

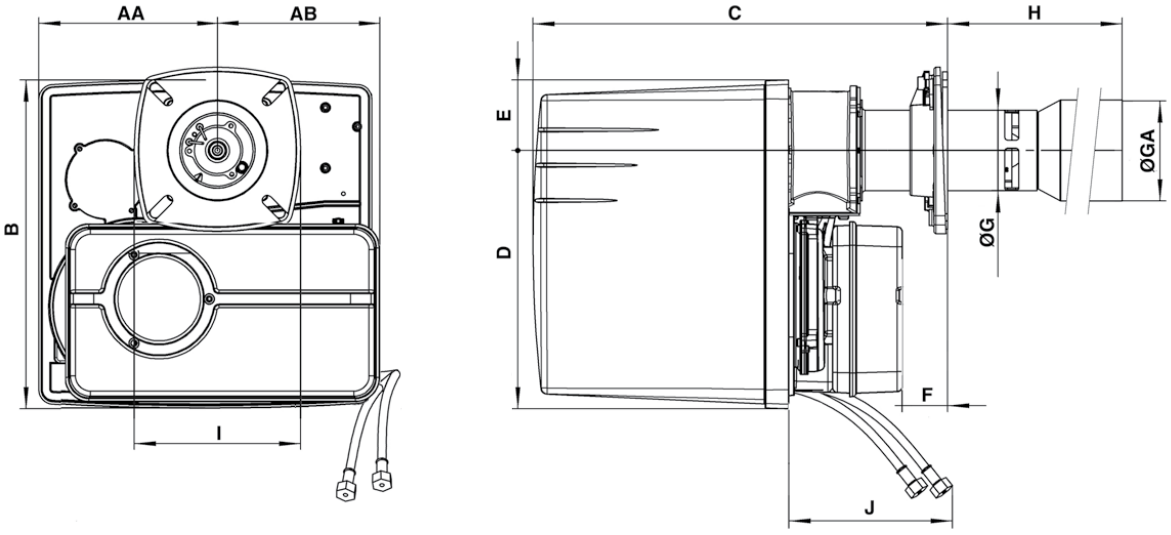
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 setting template
- 1 burner flange with insulation
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

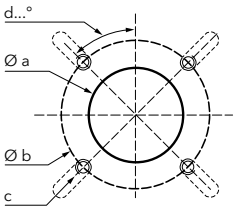
DIMENSIONS (mm)



	AA	AB	B	C KN	D	E	F	ØG	ØGA	H KN	I	J
VB2.38 VD	178	153	325	390...450	256	69	15...75	80	100	245...185	165	1200
VB2.45 VD	178	153	325	390...450	256	69	15...75	80	100	245...185	165	1200
VB2.54 VD	178	153	325	390...450	256	69	15...75	80	100	245...185	165	1200
VB2.66 VD	178	153	325	390...450	256	69	15...75	100	120	300...240	185	1200

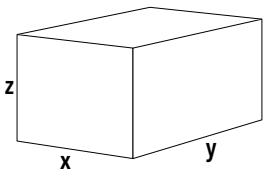
Connecting flange

Model	Øa (mm)	b (mm)	c	d
VB2.38/45/54 VD	85-104	150-170	M8	45°
VB2.66 VD	110-135	150-184	M8	45°



PACKAGING

The burner is delivered in 1 single package containing all components



Burner	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VB2.38 VD	400	400	760	17
VB2.45 VD	400	400	760	17
VB2.54 VD	400	400	760	17
VB2.66 VD	400	400	760	17

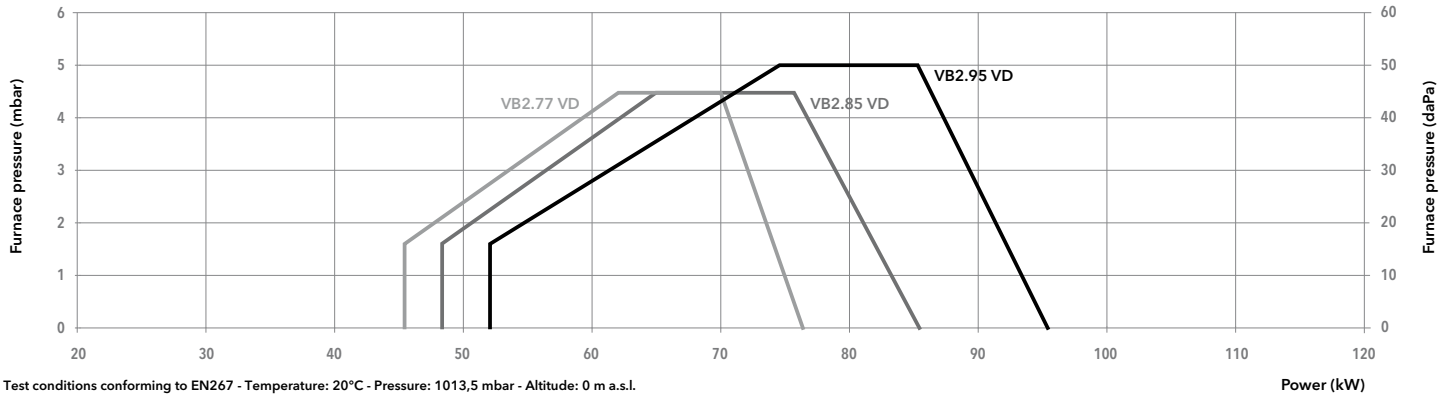
VB2.77 VD, VB2.85 VD, VB2.95 VD

45 ... 95 kW
2 stages (Blue flame, ErP compliant)



- **Fuel:** light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** compliant with ErP Directive
- **Protection level:** IP 21

TECHNICAL DATA



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

Model	VB2.77 VD	VB2.85 VD	VB2.95 VD
Operation range	45 - 77 kW	48 - 85 kW	52 - 95 kW
Fuel flow	3,8 - 6,5 kg/h	4,0 - 7,2 kg/h	4,4 - 8,0 kg/h
Nozzle	1,10 US gal/h 80°S	1,25 US gal/h 80°S	1,25 US gal/h 80°S
Control box / flame detection	TCH 24x / IRD 1010	TCH 24x / IRD 1010	TCH 24x / IRD 1010
Fan motor	230 V - 50 Hz - 190 W	230 V - 50 Hz - 190 W	230 V - 50 Hz - 190 W
Electrical consumption	276 W	285 W	262 W
Flexible hoses	Rp 3/8" / DN6 x 1,5 - 1500 mm	Rp 3/8" / DN6 x 1,5 - 1500 mm	Rp 3/8" / DN6 x 1,5 - 1500 mm
Acoustic level (LpA)	68,5 dB(A)	66,5 dB(A)	67,6 dB(A)
Head lenght	KN	KN	KN
Complete burner code	**3835353**	**3835354**	**3835355**

OTHER AVAILABLE VERSIONS

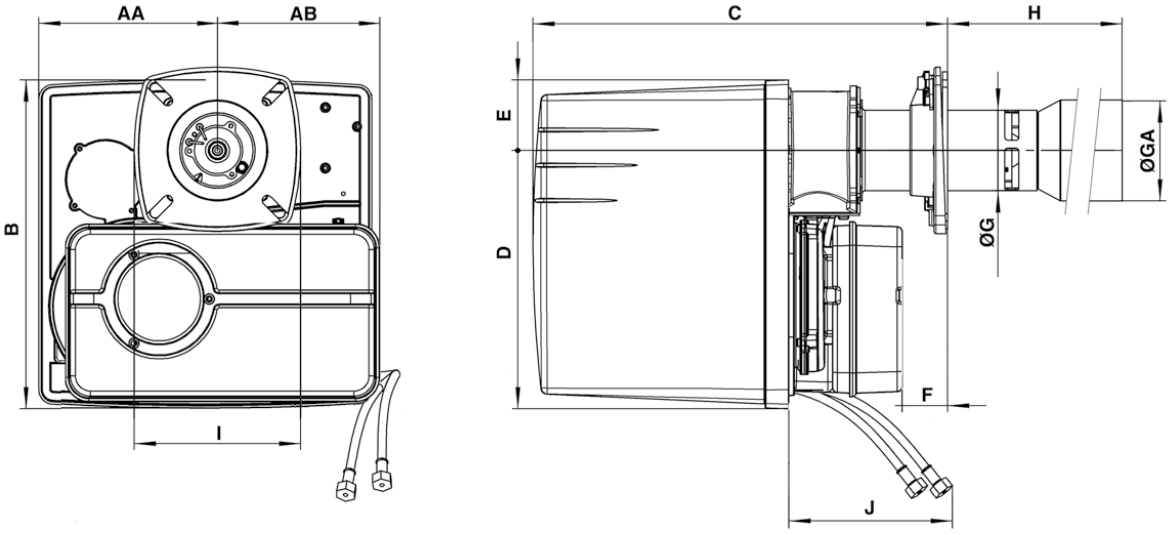
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 setting template
- 1 burner flange with insulation
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

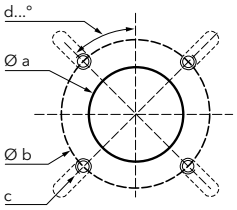
DIMENSIONS (mm)



	AA	AB	B	C KN	D	E	F	ØG	ØGA	H KN	I	J
VB2.77 VD	178	153	325	390...450	256	69	15...75	100	120	300...240	185	1200
VB2.85 VD	178	153	325	390...450	256	69	15...75	100	120	300...240	185	1200
VB2.95 VD	178	153	325	390...450	256	69	15...75	100	120	300...240	185	1200

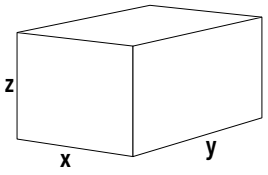
Connecting flange

Øa (mm)	b (mm)	c	d
110-135	150-184	M8	45°



PACKAGING

The burner is delivered in 1 single package containing all components



Burner	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VB2.77 VD	400	400	760	17
VB2.85 VD	400	400	760	17
VB2.95 VD	400	400	760	17

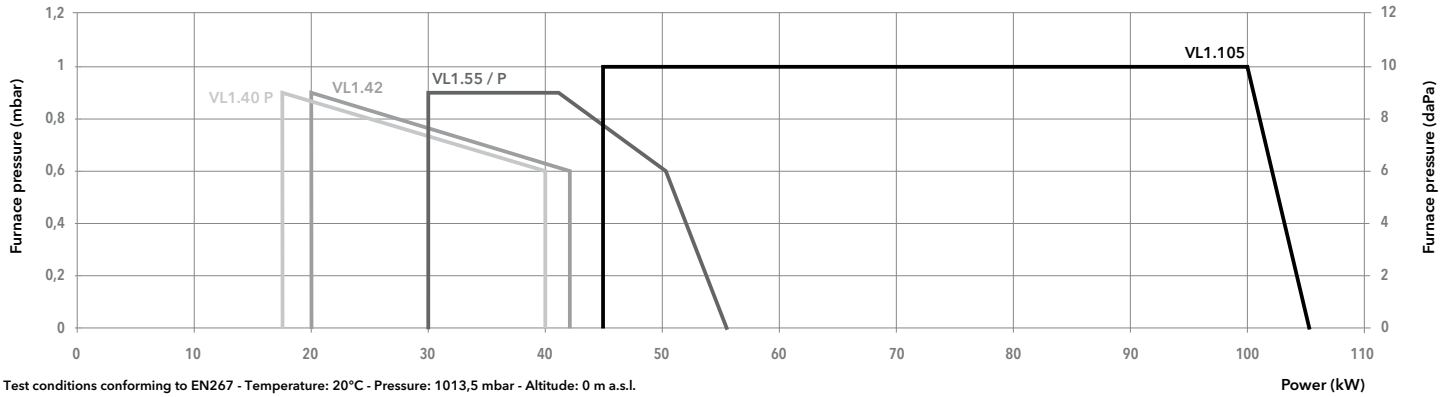
VL1.40 P, VL1.55 P, VL1.42, VL1.55, VL1.105

18 ... 105 kW
1 stage (ErP compliant)



- **Fuel:** light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** compliant with ErP Directive
- **Protection level:** IP 21

TECHNICAL DATA



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

Model	VL1.40 P *	VL1.55 P *	VL1.42	VL1.55	VL1.105	
Operation range	18 - 40 kW	30 - 55 kW	20 - 42 kW	30 - 55 kW	45 - 105 kW	
Fuel flow	1,5 - 3,3 kg/h	2,5 - 4,6 kg/h	1,7 - 3,5 kg/h	2,5 - 4,6 kg/h	3,8 - 8,8 kg/h	
Nozzle	0,50 US gal/h 60°S	1,00 US gal/h 45°S	0,60 US gal/h 60°S	1,00 US gal/h 45°S	1,25 US gal/h 45°S	
Control box / flame detection	TCH 141.03 / QRB1					
Fan motor	230 V - 50 Hz - 110 W					
Electrical consumption	244 W	244 W	195 W	195 W	240 W	
Flexible hoses	Rp 3/8" / M14 x 1,5 - 1000 mm					
Acoustic level (LpA)	55 dB(A)	55 dB(A)	55 dB(A)	55 dB(A)	60,5 dB(A)	
Head lenght	KN	KN	KN	KN	KN	KL
Complete burner code	**3832615**	**3833026**	**3832616**	**3832617**	**3836898**	**3836899**

*: pre-heater

OTHER AVAILABLE VERSIONS

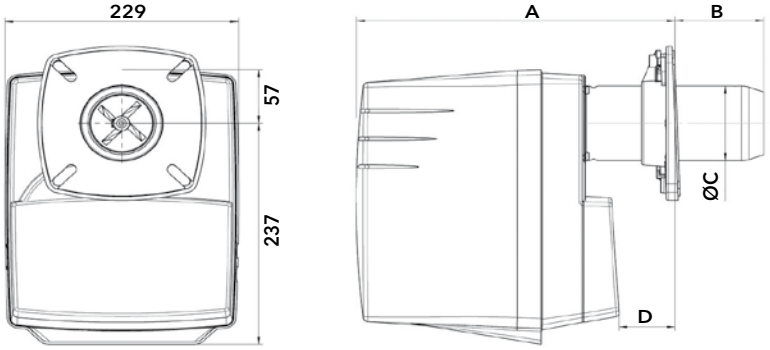
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner flange with insulation
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

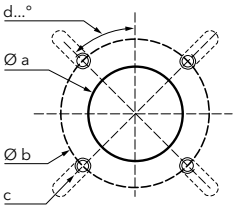
DIMENSIONS (mm)



	A		B			ØC	D	
	min	max	min	KN max	KL max		min	max
VL1.40 P	270	310	70	120	-	80	21	71
VL1.42	270	310	70	120	-	80	21	71
VL1.55	270	310	70	120	-	80	21	71
VL1.55 P	270	310	70	120	-	80	21	71
VL1.105	297	357	70	138	200	90	15	83

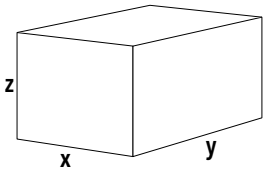
Connecting flange

Model	Øa (mm)	b (mm)	c	d
VL1.40/55	85-104	150-170	M8	45°
VL1.105	95-104	150-170	M8	45°



PACKAGING

The burner is delivered in 1 single package containing all components



Burner	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VL1.40 P	300	260	650	11
VL1.42	300	260	650	11
VL1.55	300	260	650	11
VL1.55 P	300	260	650	11
VL1.105	300	260	650	12

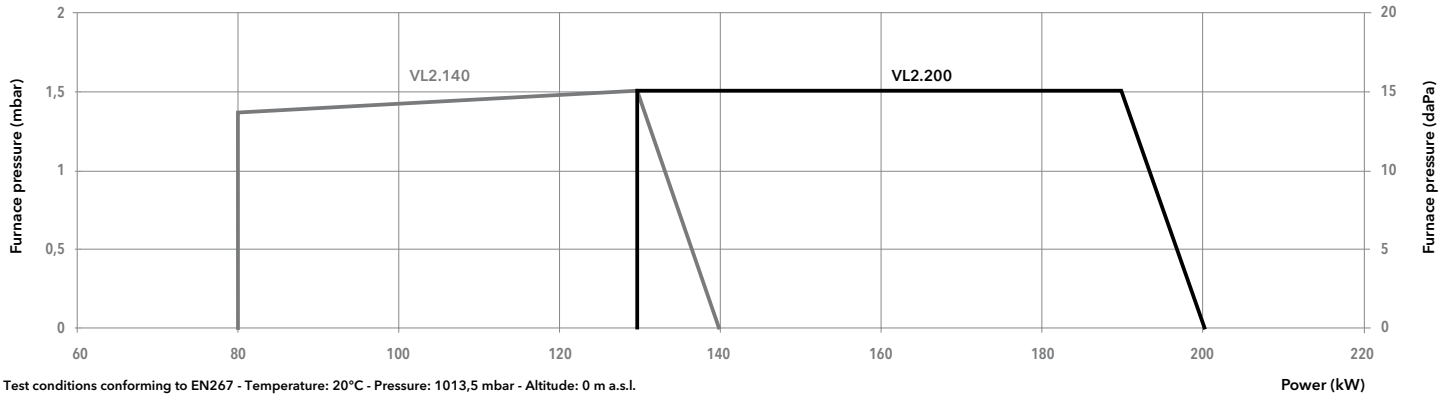
VL2.140, VL2.200

80 ... 200 kW
1 stage (ErP compliant)



- **Fuel:** light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** compliant with ErP Directive
- **Protection level:** IP 21

TECHNICAL DATA



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

Model	VL2.140		VL2.200	
Operation range	80 - 140 kW		130 - 200 kW	
Fuel flow	6,7 - 11,8 kg/h		11 - 16,9 kg/h	
Nozzle	2,25 US gal/h 45°S		3,50 US gal/h 45°S	
Control box / flame detection	TCH1... / QRB1		TCH1... / QRB1	
Fan motor	230 V - 50 Hz - 160 W		230 V - 50 Hz - 130 W	
Electrical consumption	274 W		290 W	
Flexible hoses	Rp 3/8" / DN6 x 1,5 - 1500 mm		Rp 3/8" / DN6 x 1,5 - 1500 mm	
Acoustic level (LpA)	62 dB(A)		65 dB(A)	
Head lenght	KN	KL	KN	KL
Complete burner code	**3833536**	**3833537**	**3833540**	**3833541**

OTHER AVAILABLE VERSIONS

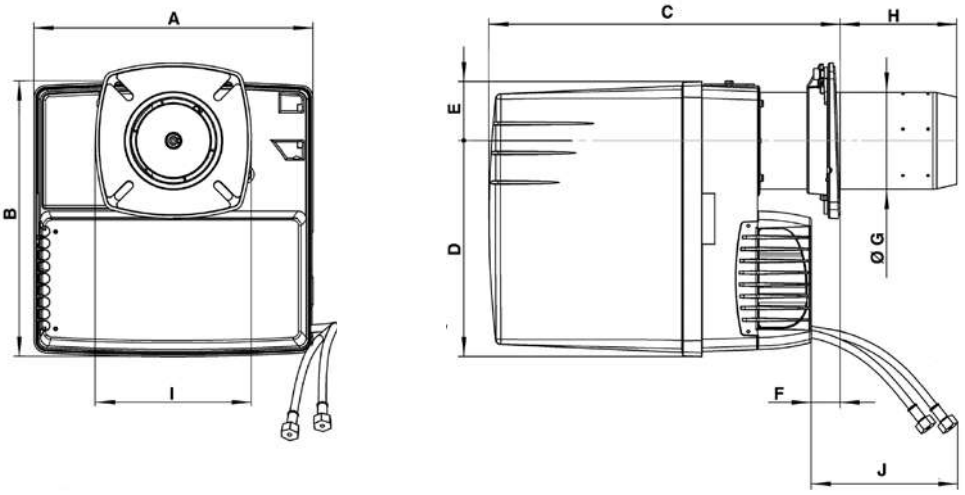
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 2 oil hoses
- 1 burner flange with insulation
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

RTC | LOW NOx CLASS 3 | ErP COMPLIANT

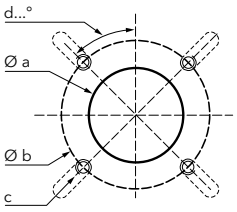
DIMENSIONS (mm)



	A	B	C		D	E	F min	ØG	H		I	J
			KN	KL					KN	KL		
VL2.140	331	325	398…518	398…638	256	69	15	100	30…150	30…270	185	1200
VL2.200	331	325	398…518	398…638	256	69	15	100	30…150	30…270	185	1200

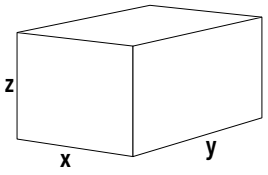
Connecting flange

Øa (mm)	b (mm)	c	d
120-135	150-184	M8	45°



PACKAGING

The burner is delivered in 1 single package containing all components



Burner	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VL2.140	400	400	760	18
VL2.200	400	400	760	18

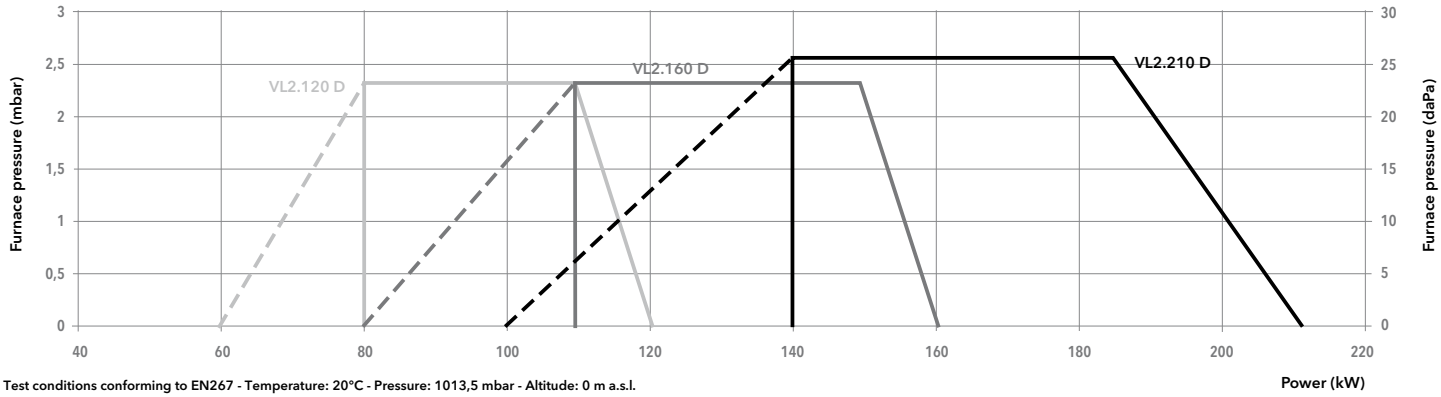
VL2.120 D, VL2.160 D, VL2.210 D

60 ... 210 kW
2 stages (ErP compliant)



- **Fuel:** light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** compliant with ErP Directive
- **Protection level:** IP 21

TECHNICAL DATA



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

Model	VL2.120 D		VL2.160 D		VL2.210 D	
Operation range	(60) 80 - 120 kW		(80) 110 - 160 kW		(100) 140 - 210 kW	
Fuel flow	4,6 - 10,0 kg/h		6,1 - 13,5 kg/h		8,4 - 17,7 kg/h	
Nozzles	1,50 US gal/h 45°S		2,25 US gal/h 45°S		2,75 US gal/h 45°S	
Control box / flame detection	TCH 2... / QRB1		TCH 2... / QRB1		TCH 2... / QRB1	
Fan motor	230 V - 50 Hz - 160 W		230 V - 50 Hz - 160 W		230 V - 50 Hz - 130 W	
Electrical consumption	216 W		290 W		345 W	
Flexible hoses	Rp 3/8" / M14 x 1,5 - 1500 mm		Rp 3/8" / M14 x 1,5 - 1500 mm		Rp 3/8" / M14 x 1,5 - 1500 mm	
Acoustic level (LpA)	62 dB(A)		64 dB(A)		65 dB(A)	
Head lenght	KN	KL	KN	KL	KN	KL
Complete burner code	**3833344**	**3833345**	**3833346**	**3833347**	**3833348**	**3833349**

OTHER AVAILABLE VERSIONS

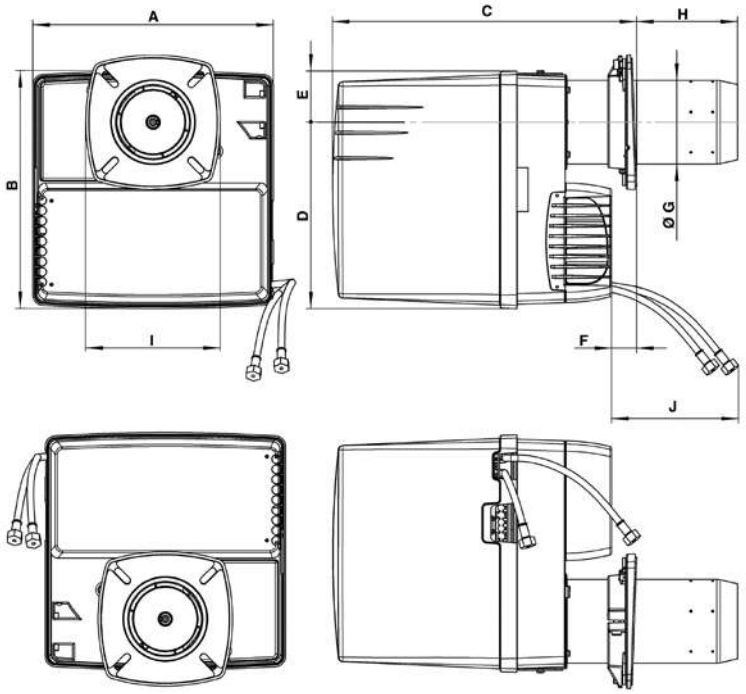
VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 setting template
- 1 burner flange with insulation
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

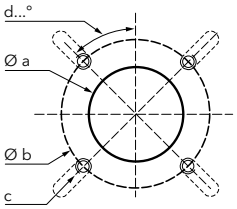
DIMENSIONS (mm)



A	B	C		D	E	F min	ØG	H		I	J
		KN	KL					KN	KL		
331	326	398…518	398…638	256	69	15	115	30…150	30…270	185x185	1200

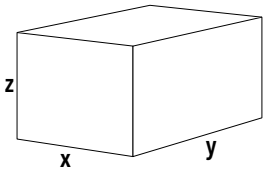
Connecting flange

Øa (mm)	b (mm)	c	d
120-135	150-184	M8	45°



PACKAGING

The burner is delivered in 1 single package containing all components



Burner	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VL2.120 D	400	400	770	18
VL2.160 D	400	400	770	18
VL2.210 D	400	400	770	19

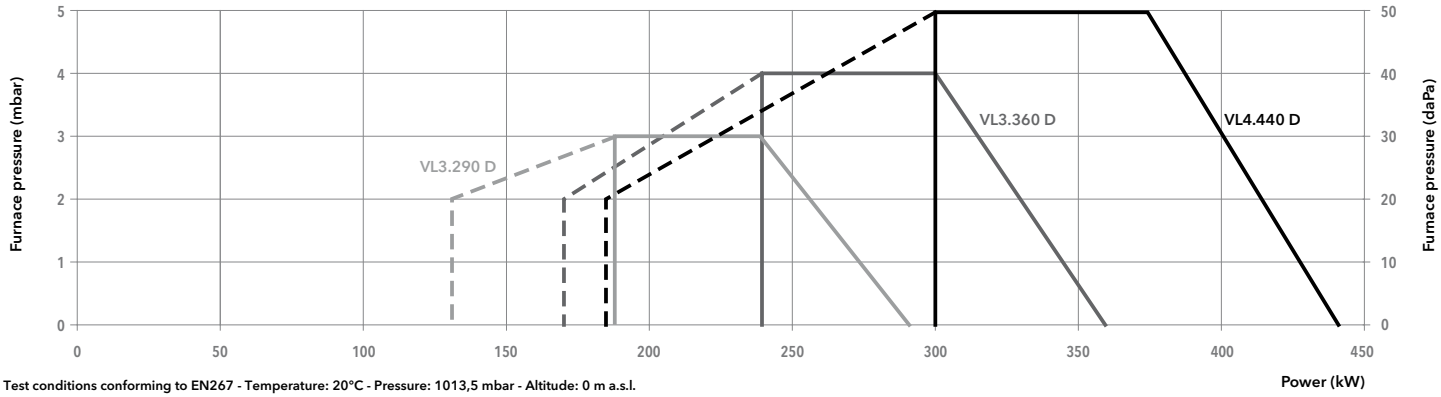
VL3.290 D, VL3.360 D, VL4.440 D

130 ... 360 kW
2 stages (ErP compliant)



- **Fuel:** light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** compliant with ErP Directive
- **Protection level:** IP 41

TECHNICAL DATA



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

Model	VL3.290 D		VL3.360 D		VL4.440 D	
Operation range	(130) 185 - 290 kW		(170) 240 - 360 kW		(180) 300 - 440 kW	
Fuel flow	15,6 - 24,4 kg/h		20,2 - 30,3 kg/h		25,3 - 37,0 kg/h	
Nozzles	3,75 US gal/h 60°B		4,50 US gal/h 60°B		5,00 US gal/h 60°S / 3,5 US gal/h 60°S	
Control box / flame detection	TCH2... / QRB1		TCH2... / QRB1		TCH2... / MZ 770 S	
Fan motor	230 V - 50 Hz - 250 W		230 V - 50 Hz - 300 W		230 V - 50 Hz - 750 W	
Electrical consumption	445 W		540 W		27 + 785 W	
Flexible hoses	Rp 3/8" / DN6 x 1500 mm		Rp 3/8" / DN6 x 1500 mm		Rp 3/8" / DN6 x 1500 mm	
Acoustic level (LpA)	67 dB(A)		69 dB(A)		70 dB(A)	
Head lenght	KN	KL	KN	KL	KN	KL
Complete burner code	**3833072**	**3833073**	**3833070**	**3833071**	**3836614**	**3836615**

OTHER AVAILABLE VERSIONS

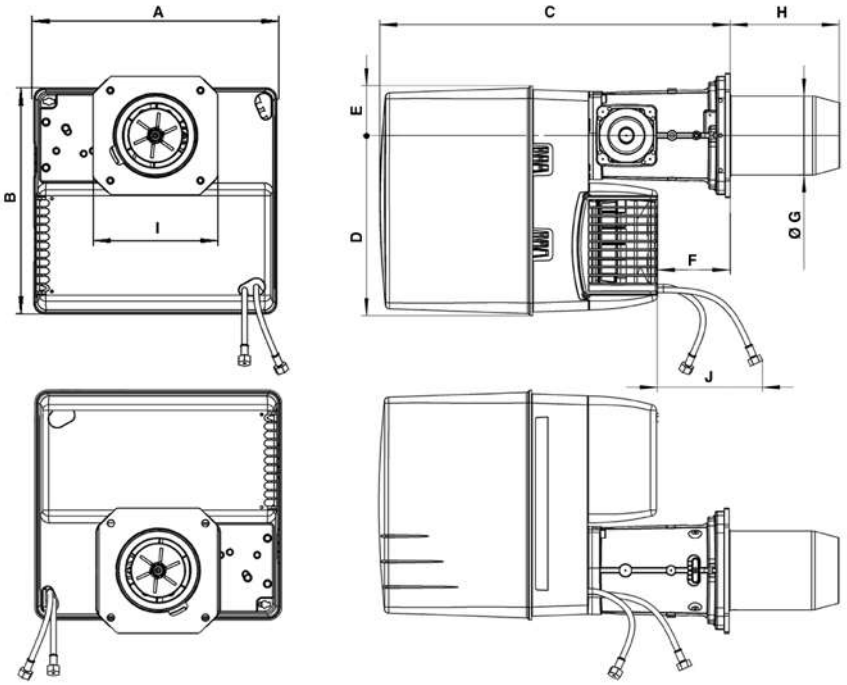
Vent Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

MDE2 RTC LOW NOx CLASS 3 ErP COMPLIANT

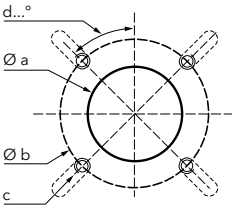
DIMENSIONS (mm)



	A	B	C	D	E	F	ØG	H		I	J
								KN	KL		
VL3	406	379	576	297	82	120	130	180	320	195x205	1000
VL4	465	475	640	377	97	149	150	220	360	245x245	1000

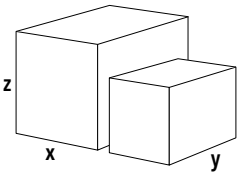
Connecting flange

	Øa (mm)	b (mm)	c	d
VL3	155-190	175-220	M10	45°
VL4	190-240	200-270	M10	45°



PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner housing
- combustion head



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	VL3.290 D	440	400	520	22
	VL3.360 D	440	400	520	23
	VL4.440 D	490	490	590	30
Combustion head	VL3 (KN)	650	210	260	6
	VL3 (KL)	780	210	260	7
	VL4 (KN)	750	260	295	8,5
	VL4 (KL)	895	260	295	9,7

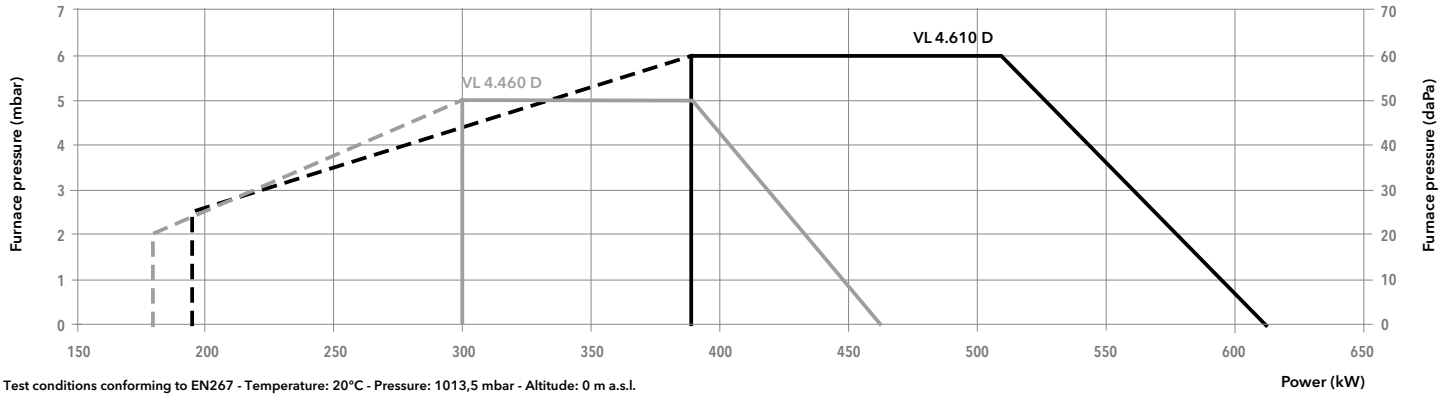
VL4.460 D, VL4.610 D

180 ... 610 kW
2 stages



- **Fuel:** light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** 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.

Model	VL4.460 D		VL4.610 D	
Operation range	(180) 300 - 460 kW		(195) 390 - 610 kW	
Fuel flow	(15,2) 25,3 - 38,8 kg/h		(16,4) 32,9 - 51,4 kg/h	
Nozzles	5,00 US gal/h 60°S / 3,5 US gal/h 60°S		6,50 US gal/h 60°S / 3,00 US gal/h 60°S	
Control box / flame detection	TCH2... / QRB1		TCH2... / QRB1	
Fan motor	230 V - 50 Hz - 420 W		230 V - 50 Hz - 750 W	
Electrical consumption	545 W		830 W	
Flexible hoses	Rp 3/8" / DN6 x 1500 mm		Rp 3/8" / DN6 x 1500 mm	
Acoustic level (LpA)	70 dB(A)		71 dB(A)	
Head lenght	KN	KL	KN	KL
Complete burner code	**3833395**	**3833396**	**3833397**	**3833398**

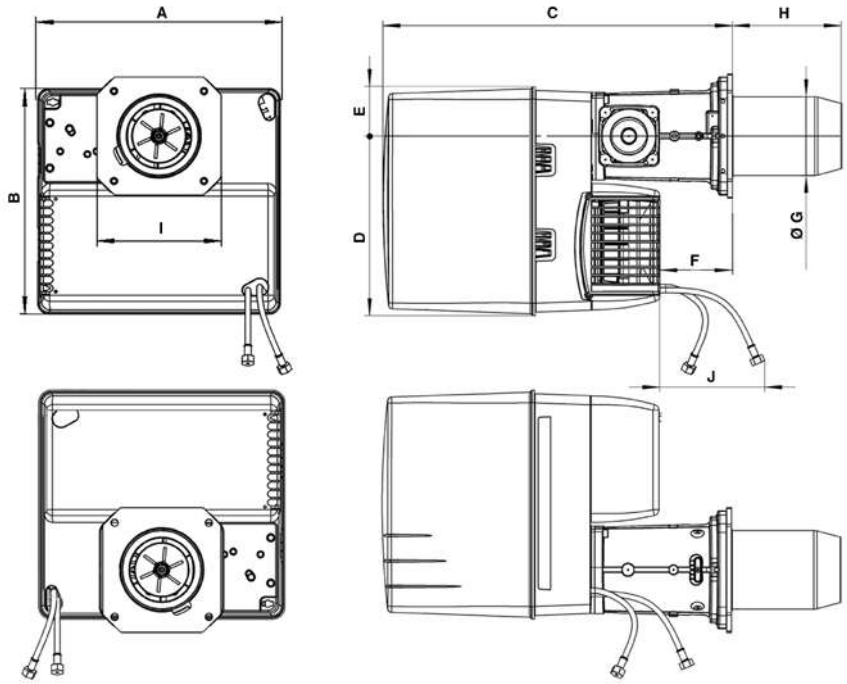
OTHER AVAILABLE VERSIONS

VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

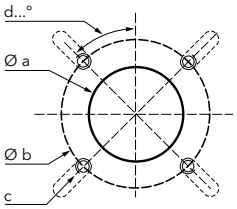
DIMENSIONS (mm)



A	B	C	D	E	F	ØG	H		I	J
							KN	KL		
465	475	640	377	97	149	150	220	360	245	1000

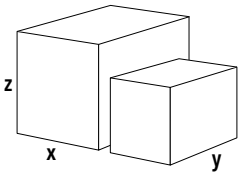
Connecting flange

Øa (mm)	b (mm)	c	d
180-240	200-270	M10	45°



PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner housing
- combustion head



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	VL4.460 D	490	490	590	30
	VL4.610 D	490	490	590	34,2
Combustion head	KN	750	260	295	8,5
	KL	895	260	295	9,7

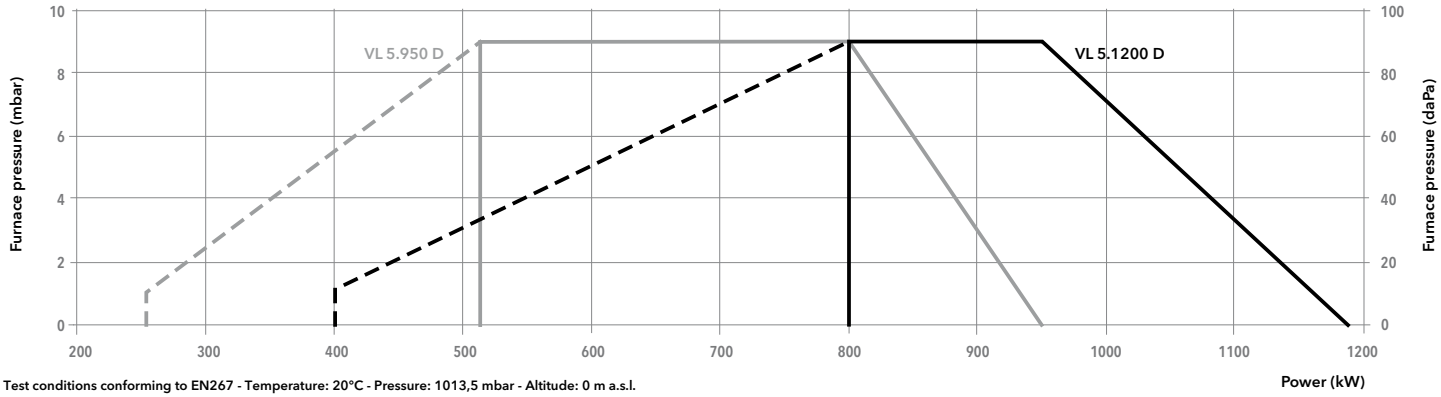
VL5.950 D, VL5.1200 D

260 ... 1186 kW
2 stages



- **Fuel:** light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** Low NOx class 2 (≤185 mg/kWh) according to EN267
- **Protection level:** IP 21

TECHNICAL DATA



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

Model	VL5.950 D			VL5.1200 D		
Operation range	(260) 510 - 950 kW			(400) 800 - 1186 kW		
Fuel flow	(21,9) 43 - 80,1 kg/h			(33,7) 67,5 - 100 kg/h		
Nozzles	7,50 + 6,50 US gal/h			8,50 + 7,50 US gal/h		
Control box / flame detection	TCH2... / QRB1			TCH2... / QRB1		
Fan motor	230 V - 50 Hz - 1,5 kW			230 V - 50 Hz - 1,5 kW		
Electrical consumption	160 + 1700 W			155 + 1940 W		
Flexible hoses	Rp 3/8" / M16 x 1,5 - 1500 mm			Rp 3/8" / M16 x 1,5 - 1500 mm		
Acoustic level (LpA)	70 dB(A)			71 dB(A)		
Head lenght	KN	KL	KM	KN	KL	KM
Complete burner code	**3833501**	**3833504**	**3833613**	**3833502**	**3833503**	**3833614**

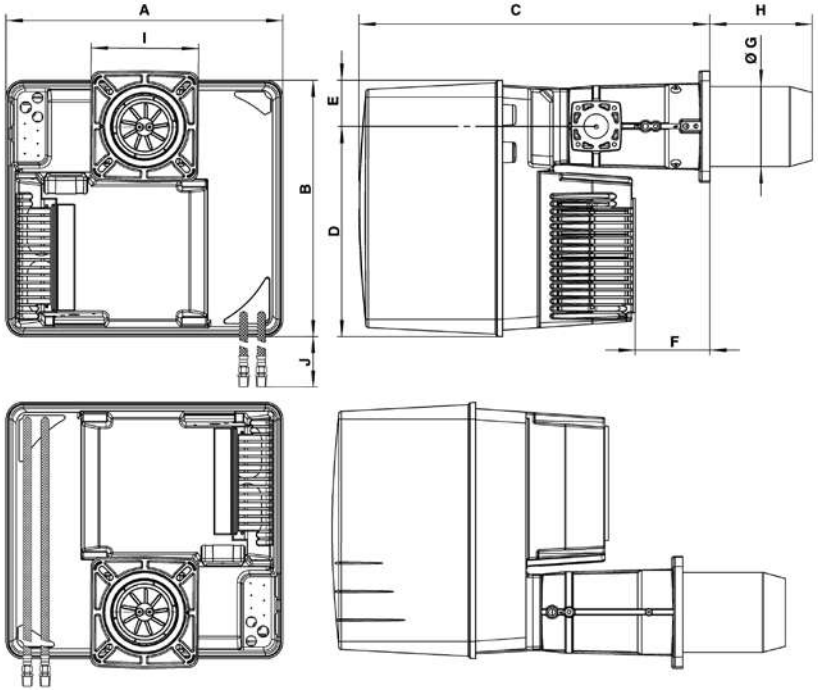
OTHER AVAILABLE VERSIONS

VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

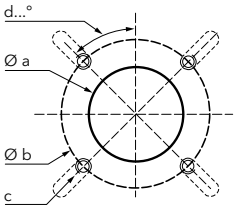
DIMENSIONS (mm)



A	B	C	D	E	F	ØG	H			I	J
							KN	KM	KL		
581	549	752	450	99	164	170	215	325	435	230x238	950

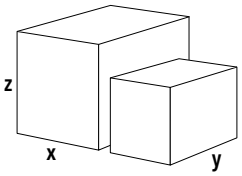
Connecting flange

Øa (mm)	b (mm)	c	d
195	220-260	M10	45°



PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner housing
- combustion head



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	VL5.950 D	800	600	850	58,8
	VL5.1200 D	800	600	850	58,6
Combustion head	VL5.950 (KN)	780	265	280	10
	VL5.950 (KL)	1010	265	280	13,5
	VL5.950 (KM)	1010	265	280	12,5
	VL5.1200 (KN)	780	265	280	10,1
	VL5.1200 (KL)	1010	265	280	13,5
	VL5.1200 (KM)	1010	265	280	12

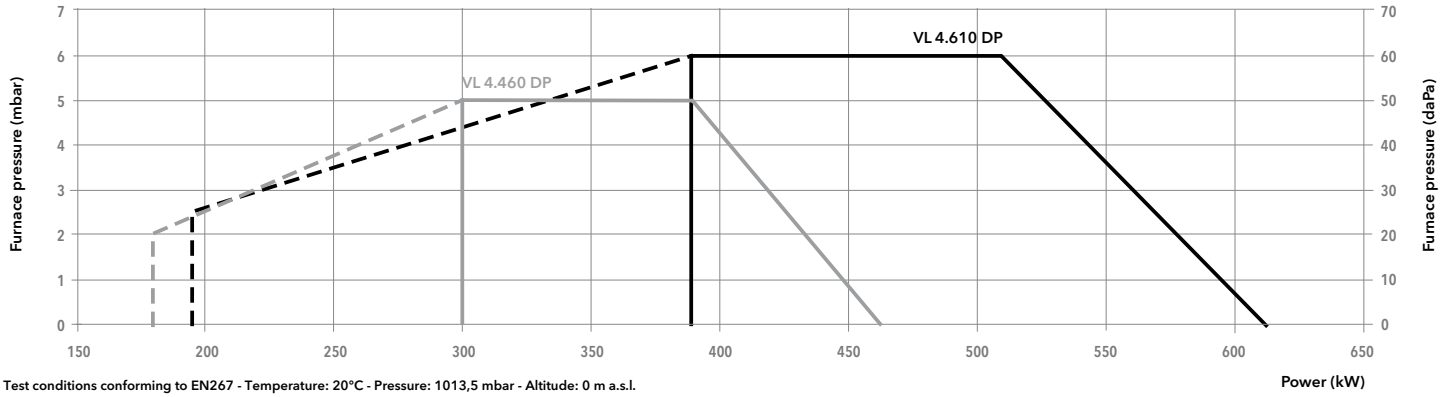
VL4.460 DP, VL4.610 DP

180 ... 610 kW
3 stages



- **Fuel:** light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** 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.

Model	VL4.460 DP		VL4.610 DP	
Operation range	(180) 300 - 460 kW		(195) 390 - 610 kW	
Fuel flow	(15,2) 25,3 - 38,8 kg/h		(16,4) 32,9 - 51,4 kg/h	
Nozzles	4,00 + 2,50 US gal/h		4,50 + 3,00 US gal/h	
Control box / flame detection	TCH2... / QRB1		TCH2... / QRB1	
Fan motor	230 V - 50 Hz - 420 W		230 V - 50 Hz - 750 W	
Electrical consumption	545 W		830 W	
Flexible hoses	Rp 3/8" / DN6 x 1500 mm		Rp 3/8" / DN6 x 1500 mm	
Acoustic level (LpA)	70 dB(A)		71 dB(A)	
Head lenght	KN	KL	KN	KL
Complete burner code	**3833968**	**3833969**	**3833970**	**3833971**

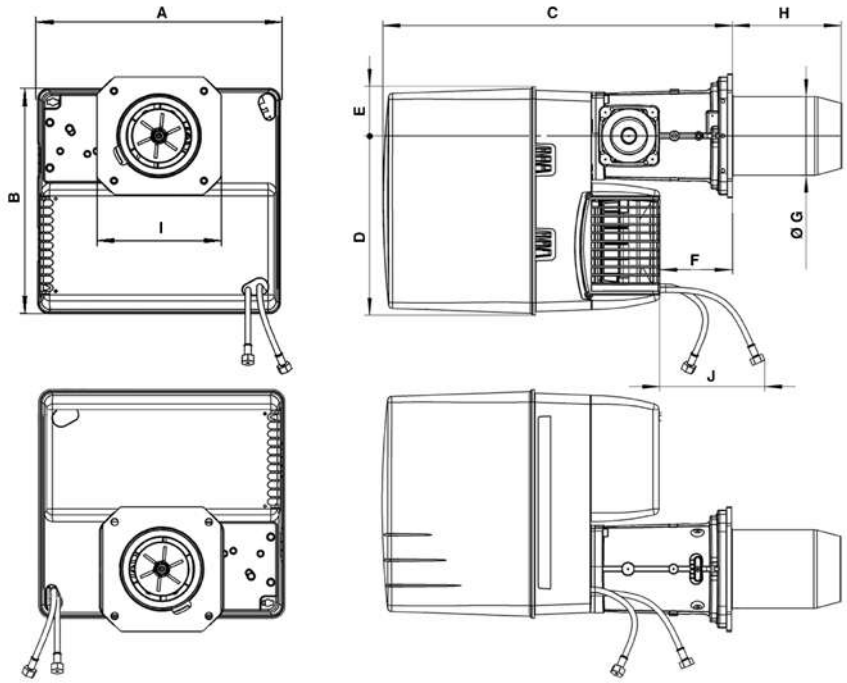
OTHER AVAILABLE VERSIONS

VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

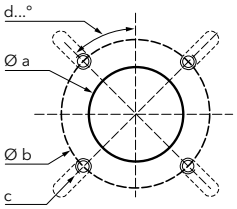
DIMENSIONS (mm)



A	B	C	D	E	F	ØG	H		I	J
							KN	KL		
465	475	640	377	97	149	150	220	360	245	1000

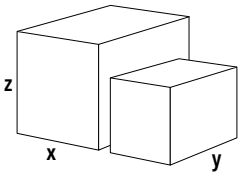
Connecting flange

Øa (mm)	b (mm)	c	d
180-240	200-270	M10	45°



PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner housing
- combustion head



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	VL4.460 DP	490	490	590	30
	VL4.610 DP	490	490	590	34,2
Combustion head	KN	750	260	295	8,5
	KL	895	260	295	9,7

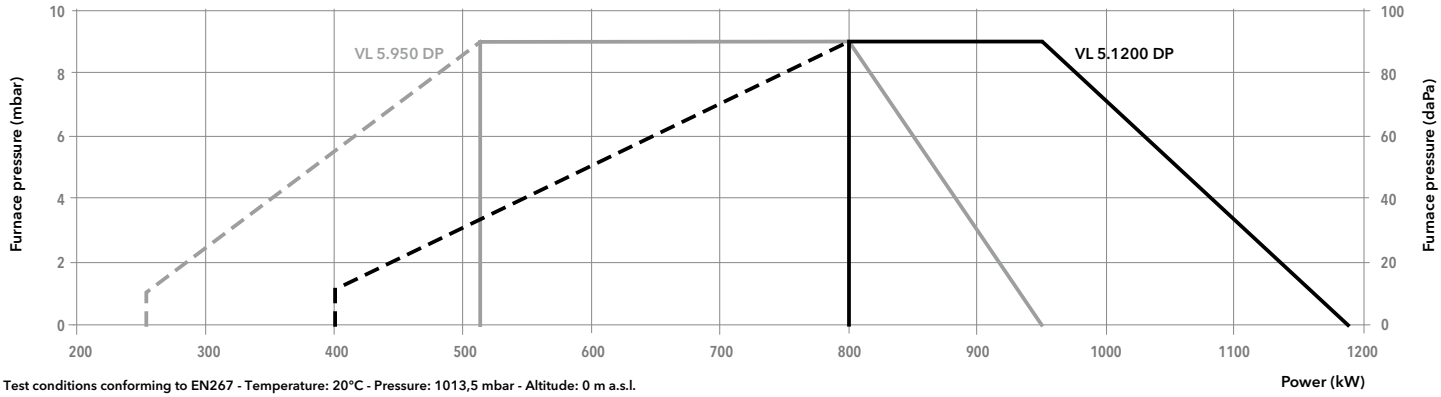
VL5.950 DP, VL5.1200 DP

260 ... 1186 kW
3 stages



- **Fuel:** light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** Low NOx class 2 (≤185 mg/kWh) according to EN267
- **Protection level:** IP 21

TECHNICAL DATA



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

Model	VL5.950 DP			VL5.1200 DP		
Operation range	(260) 510 - 950 kW			(400) 800 - 1186 kW		
Fuel flow	(21,9) 43 - 80,1 kg/h			(33,7) 67,5 - 100 kg/h		
Nozzles	7,50 + 6,50 US gal/h			8,50 + 7,50 US gal/h		
Control box / flame detection	TCH2... / QRB1			TCH2... / QRB1		
Fan motor	230/400 V - 50 Hz - 1,5 kW			230/400 V - 50 Hz - 1,5 kW		
Electrical consumption	160 + 1700 W			155 + 1940 W		
Flexible hoses	Rp 3/8" / M16 x 1,5 - 1500 mm			Rp 3/8" / M16 x 1,5 - 1500 mm		
Acoustic level (LpA)	70 dB(A)			71 dB(A)		
Head lenght	KN	KL	KM	KN	KL	KM
Complete burner code	**3833956**	**3833957**	**3833958**	**3833959**	**3833960**	**3833961**

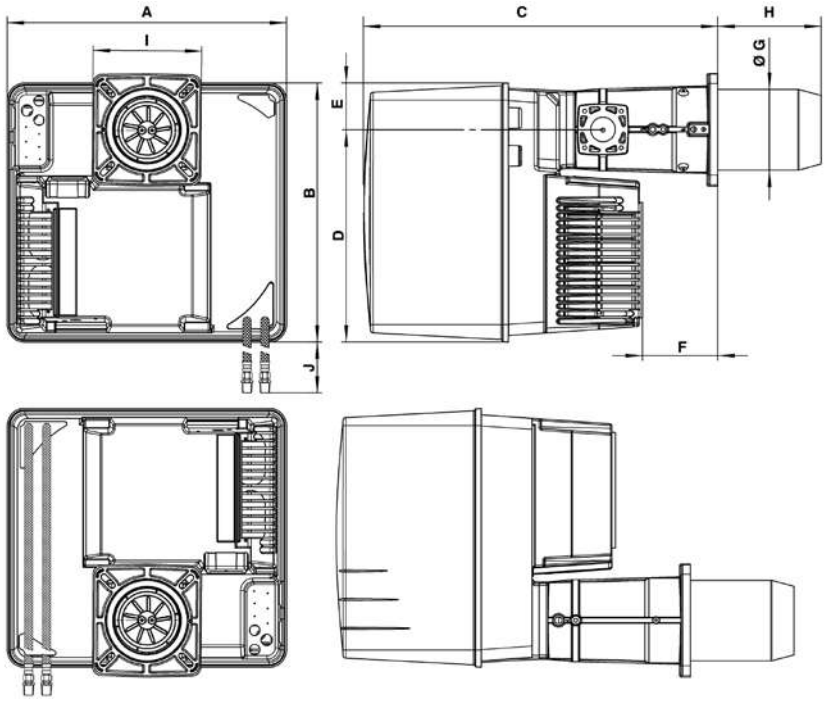
OTHER AVAILABLE VERSIONS

VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

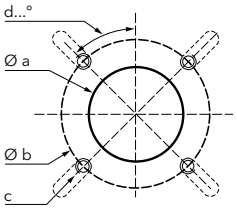
DIMENSIONS (mm)



A	B	C	D	E	F	ØG	H			I	J
							KN	KM	KL		
581	549	752	450	99	164	170	215	325	435	230 x 238	950

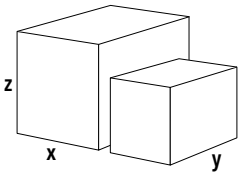
Connecting flange

Øa (mm)	b (mm)	c	d
195	220-260	M10	45°



PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner housing
- combustion head



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	VL5.950 DP	800	600	850	58,8
	VL5.1200 DP	800	600	850	58,6
Combustion head	VL5.950 (KN)	780	265	280	10
	VL5.950 (KL)	1010	265	280	13,5
	VL5.950 (KM)	1010	265	280	12,5
	VL5.1200 (KN)	780	265	280	10,1
	VL5.1200 (KL)	1010	265	280	13,5
	VL5.1200 (KM)	1010	265	280	12

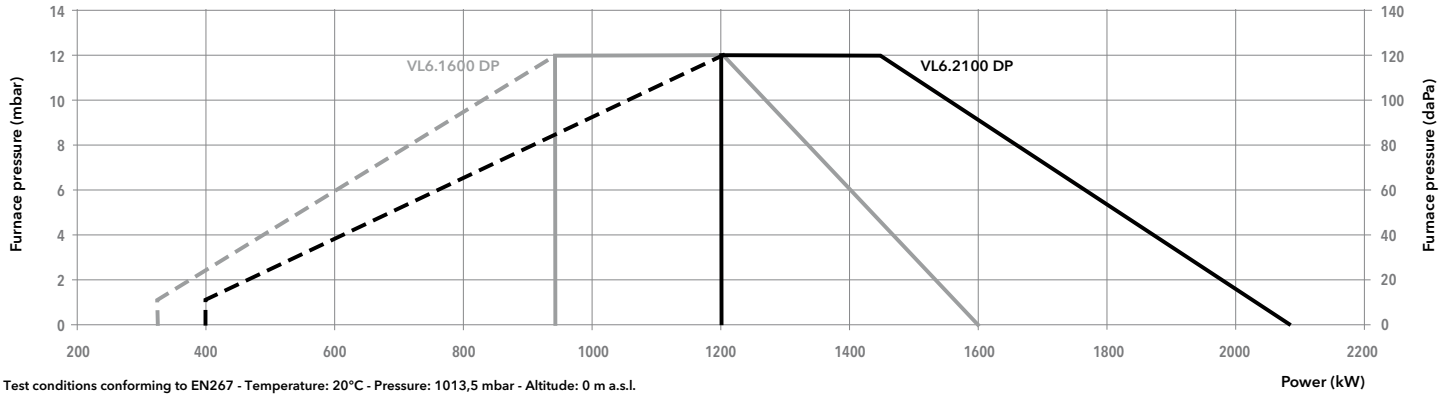
VL6.1600 DP, VL6.2100 DP

320 ... 2080 kW
3 stages



- **Fuel:** light oil (viscosity 6 mm²/s at 20°C, H_u = 11,86 kWh/kg)
- **Emissions:** Low NOx class 2 (≤185 mg/kWh) according to EN267
- **Protection level:** IP 21

TECHNICAL DATA



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

Model	VL6.1600 DP			VL6.2100 DP		
Operation range	(320) 950 - 1600 kW			(400) 1200 - 2080 kW		
Fuel flow	(27) 80,1 - 124,9 kg/h			(33,7) 101,2 - 177 kg/h		
Nozzles	3 x 6,50 US gal/h			3 x 8,50 US gal/h		
Control box / flame detection	TCH3... / QRB1			TCH3... / QRB1		
Fan motor	230/400 V - 50 Hz - 2,2 kW			230/400 V - 50 Hz - 2,7 kW		
Electrical consumption	352 + 2240 W			380 + 2840 W		
Flexible hoses	Rp 1/2" / M16 x 1,5 - 1500 mm			Rp 1/2" / M16 x 1,5 - 1500 mm		
Acoustic level (LpA)	78,1 dB(A)			79,3 dB(A)		
Head lenght	KN	KL	KM	KN	KL	KM
Complete burner code	**3833694**	**3833695**	**3833696**	**3833697**	**3833698**	**3833699**

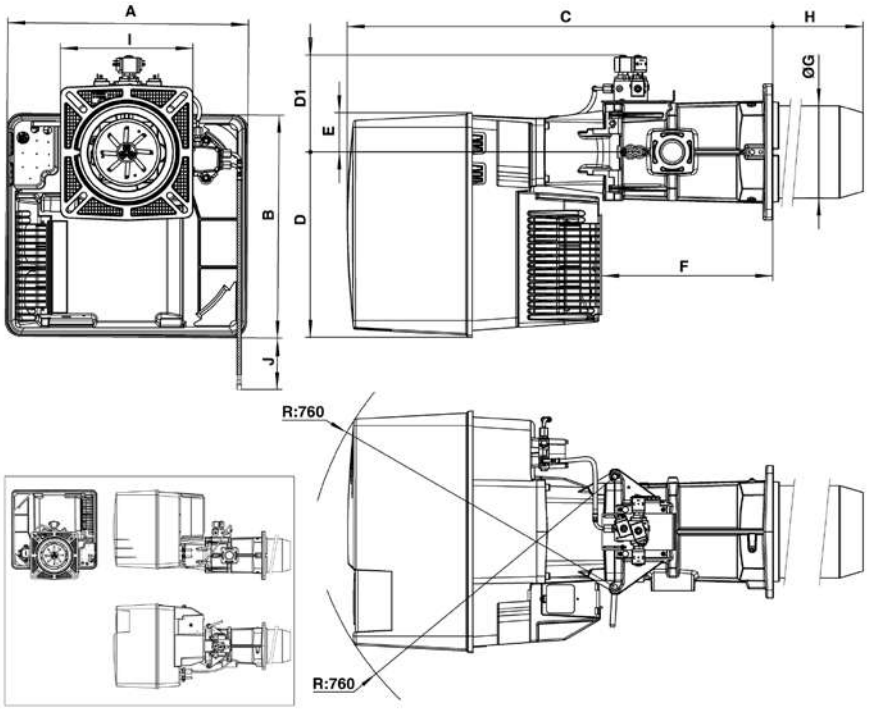
OTHER AVAILABLE VERSIONS

VENT Versions for continuous ventilation and post-ventilation

SCOPE OF SUPPLY

The burner is delivered in its package complete with:
- 1 burner head with flange seal and securing screws
- 1 bag containing installation fittings
- 1 bag containing technical documentation (instruction manual, technical data, electrical diagram, exploded view and spare parts list)

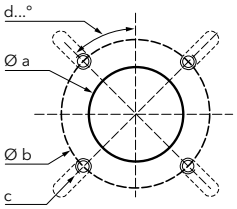
DIMENSIONS (mm)



A	B	C	D	D1	E	F	ØG	H			I	J
								KN	KM	KL		
592	553	1050	456	239	97	421	227	270	370	470	326x335	950

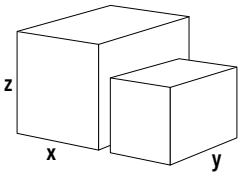
Connecting flange

Øa (mm)	b (mm)	c	d
250	300-400	M12	45°



PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner housing
- combustion head



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Burner body	VL6.1600 DP	800	600	850	79,4
	VL6.2100 DP	800	600	850	79,6
Combustion head	VL6.1600 (KN)	800	380	420	42
	VL6.1600 (KL)	1000	420	380	29,8
	VL6.1600 (KM)	1000	420	380	28,3
	VL6.2100 (KN)	800	380	420	24
	VL6.2100 (KL)	1000	380	420	42
	VL6.2100 (KM)	1000	380	420	42

MODULATION KIT

A modulating burner allows to adapt the power delivered acccording to the boiler/system requirements.
To obtain the modulating operation the installation of a power regulator and the relative temperature or pressure probes, chosen in accordance with the specific requirements of the installation.

To simplify the selection of regulator and probes ELCO offers specific kits. Alternatively, the customer can request the individual components.

Kit RWF50 with sensor

Description	Burners	Code
Kit GEP130 (water - immersion probe)	V2	**3834039**
Kit GEA130 (water - strap-on probe)	V2	**3834040**
Kit IEP130 (water - immersion probe)	V3	**3834043**
Kit IEA130 (water - strap-on probe)	V3	**3834044**
Kit LEP130 (water - immersion probe)	V4	**3834047**
Kit LEA130 (water - strap-on probe)	V4	**3834048**
Kit MEP130 (water - immersion probe)	V5 and V6	**3834049**
Kit MEA130 (water - strap-on probe)	V5 and V6	**3834050**
MIF001R (kit mounted in factory)	V2 to V6	**on request**



Example:
Kit with immersion probe with working field limitation up to 130°C for water tube boiler, mounted in factory on a VG2.210 D

Kit GEP130 (water - immersion probe) 3834039 + **MIF001R (kit mounted in factory)**

Kit RWF55 with sensor

Description	Burners	Code
Kit LEP 130 (water - immersion sensor)	V5 and V6	**3834602**
Kit LEA 130 (water - strap-on probe)	V5 and V6	**3834603**
Kit LVA 16 (steam - pressure probe)	V5 and V6	**3834604**
Acc AQE21.02 (kit for using Kit LEP 130 on hot air generator)	V5 and V6	**3834307**
MIF001R (kit mounted in factory)	V5 and V6	**on request**



Example:
Kit with pressure probe for steam boiler, mounted in factory on a VG5.950 DP

Kit LVA 16 (steam - pressure probe) 3834604 + **MIF001R (kit mounted in factory)**

RWF50 stand-alone and wiring kit

Description	Burners	Code
Load controller RWF50 SA	V2 to V6	**3833498**
Wiring kit RWF50 EW03	V2	**3834056**
Wiring kit RWF50 EW04	V3	**3834057**
Wiring kit RWF50 EW05	V4	**3834058**
Wiring kit RWF50 W06-07	V5 and V6	**3834032**



Example:
Power regulator RWF50 for VG3.360 DP and wiring kit

Load controller RWF50 SA 3833498 + **Wiring kit RWF50 EW04 3834057**

RWF55 stand-alone and wiring kit

Description	Burners	Code
Load controller RWF55 SA*	V5 and V6	**3834298**
Wiring kit RWF55 W06-07*	V5 and V6	**3834299**

*: for VGL5 and VGL6 the RWF55 can be ordered but it must be installed in our factory



Example:
Power regulator RWF55 for VG5.1200 DP and wiring kit

Load controller RWF55 SA 3834298 + **Wiring kit RWF55 W06-07 3834299**

Separated sensors

Description	Burners	Code
Acc TIP 130 (Immersion probe, water 130°C)	V2 to V6	**3833163**
Acc TSP 130 (Strap-on probe, water 130°C)	V2 to V6	**3833165**
Acc TIP 400 (Hot water/air probe Pt100 / 400°C - L = 160 mm)	V2 to V6	**65300274**
Acc QBE2002-P1 (0 … 1 bar)	V2 to V6	**3834310**
Acc QBE2002-P2 (0 … 2 bar)	V2 to V6	**3834311**
Acc QBE2002-P4 (0 … 4 bar)	V2 to V6	**3834312**
Acc QBE2002-P10 (0 … 10 bar)	V2 to V6	**3834313**
Acc QBE2002-P16 (0 … 16 bar)	V2 to V6	**3834305**
Acc QBE2002-P25 (0 … 25 bar)	V2 to V6	**3834314**
Acc AQB22.1 (QBE sensor support)	V2 to V6	**3834309**
Acc AQB2001 (1 meter connection pipe)	V2 to V6	**3834308**
Acc QAC22 (external probe)	V2 to V6	**13018513**



O_2 TRIM for BT3xx

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.

Description	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 BT3xx

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.

Description	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**

Kit LCM for BT3xx

Description	Burners	Code
Analog input and output (chosen among 0-10 V and 4-20 mA) (Module built-in)	V2 M to V6 M	**3836239**

Remote software

Description	Burners	Code
Kit to connect a PC laptop to BT3xx for its parametrization (LSA100 + USB/CAN + cd-rom)	V2 M to V6 M	**3751130**

MDE2 System

Description	Burners	Code
PC interface tool to connect the control box to a personal computer allowing transmission of burner operation data, fault signals and service information	V1 and V2	**3833018**

Cable for 0-10V load input [1] (applicable to Ariston TCG2/TCH2 or higher)

Description	Burners	Code
Kit 0-10V BCU/0	V2 to V6	**3834253**

[1] : the 0-10 V must be exchanged with a device with the electric feeding shared with the burner. On the contrary a galvanic separator (code 3144698) must be fitted

Cable for 0-10V load input [1] + potentiometer for actuator position feedback (applicable to Ariston TCG2/TCH2 or higher)

Description	Burners	Code
Kit 0-10V BCU/1	V2, V3, V4	**3834170**
Kit 0-10V BCU/2	V5, V6	**3834171**

[1] : the 0-10 V must be exchanged with a device with the electric feeding shared with the burner. On the contrary a galvanic separator (code 3144698) must be fitted

Analog signal converter and galvanic separator [2] (applicable to Ariston TCG2/TCH2 or higher)

Description	Burners	Code
Conversion among 0-10 V, 4-20 mA, 0-20 mA signals	V2 to V6	**3144698**

[2] : all the items provided with the code 3834253 are already included in this kit

Sound proofing box - noise reduction 15…20 dB(A)

Description	Burners	Code
CI20	V2	**on request**
CI21	V3	**on request**
CI22	V4	**on request**
CI23	V5	**on request**
CI24	V6	**on request**

Sound proofing box - noise reduction 20…30 dB(A)

Description	Burners	Code
CI31	V3	**on request**
CI32	V4	**on request**
CI33	V5	**on request**
CI34	V6	**on request**

Front boiler flange

Description	Burners	Code
CP1	V1	**13018495**
CP2	V2	**13018496**
CP3.1	V3	**3833151**
CP4	V4 and V5	**13018499**
CP5.1	V6	**13008019**

External air intake connection kit

Description	Burners	Code
Kit RG4 (Ø 50mm, directable)	VB1.20 to V1.55	**13004320**
Kit RG9 (Ø 50)	VB1.20 to VB1.95	**13011996**
Kit RG10 (Ø 100)	V2	**13018822**
Kit RG11 (Ø 160)	V3	**3833152**
Kit RG12 (Ø 200)	V4	**3833429**
Kit RG3 (Ø 250)	V5 and V6	**13014375**

Maximum gas pressure switch

Description	Burners	Code
Kit for burners fitted with Artison BCU TCxx	V1 to V6	**3833903**
Kit for burners fitted with BT3xx	V2 M... to V6 M...	**3836857**

Gas and air manometer with push button

Description	Burners	Code
AGM 0-60mbar	All models	**13002181**
AGM 0-100mbar	All models	**13018509**
AGM 0-400mbar	All models	**13018510**

Gas filter

Description	Code
RP 15 - 1/2"	**3141957**
RP 20 - 3/4"	**3142045**
RP 25 - 1"	**3142046**
RP 40 - 1"1/2	**3141954**
RP 50 - 2"	**3121384**
DN 65 - 2"1/2	**3124111**
DN 80 - 3"	**3142088**
DN 100 - 4"	**3142205**
DN 125 - 5"	**3142206**

Antivibration coupling - Compensator

Description	Code
RP 1/2" threaded connection	**3122321**
RP 3/4" threaded connection	**3122322**
Rp 1" threaded connection	**3122323**
RP 1"1/4 threaded connection	**3122324**
Rp 1"1/2 threaded connection	**3122325**
Rp 2" threaded connection	**3122326**
DN50 flanged connection	**12001014**
DN65 flanged connection	**3142060**
DN80 flanged connection	**3122328**
DN100 flanged connection	**3122329**
DN125 flanged connection	**3142061**

Ball valve

Description	Code
Rp 1/2" threaded connection	3142000
Rp 3/4" threaded connection	3142254
Rp 1" threaded connection	3121430
Rp 1"1/4 threaded connection	3142253
Rp 1"1/2 threaded connection	3142101
Rp 2" threaded connection	3142102
DN65 flanged connection	3142062
DN80 flanged connection	3143730
DN100 flanged connection	3141997
DN125 flanged connection	3141998

External valve connection kit

Description	Burners	Code
Connector for safety solenoide valve	V1 to V4	13010959

Kit Variatron

Description	Burners	Code
Kit Variatron 1,5 KW	VG5 .950/1200 DP	3836887
Kit Variatron 2,2 KW	VG6.1600 DP	3836888
Kit Variatron 3 KW	VG6.2100 DP	3836889

Kit remote reset

Description	Burners	Code
Kit for burners fitted with Artison BCU TCxx	V1 to V6	13011486
Kit for burners fitted with BT3xx	V1 M... to V6 M...	3144622

Kit additional oil safety valve

Description	Burners	Code
Kit OSV 01/02/03	V1 and V2	3832706
Kit OSV 06	V5	3834195

"Flame on" digital output (BT300)

Description	Burners	Code
Kit ROS BT3	V2 M to V6 M	on request

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