

Heating catalogue 2010

elco





Variatron®

To further improve the performance of its systems, elco is able to apply inverter-controlled regulation of the fan speed over the whole range of modulating burners.

The **Variatron®** is delivered pre-programmed. Its adjustment is extremely simple, requiring only the setting of two limits to obtain progressive speed regulation over the whole burner turndown range.

Application of the **Variatron®** to elco burners results in:

- electrical consumption savings in the order of 50-60%;
- in combination with the **AGP®** turndown ratio of up to 1:8, 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 of 2 dB (at maximum power) to 12 dB (at minimum power).



IME®

elco research developed innovative combustion heads with two main priorities:

- power range identical to the corresponding standard burners;
- simplicity of manufacture, commissioning and maintenance.

The result is a "staged" combustion head, in which the gas is injected at different levels.

In the initial phase, combustion occurs with a large amount of air excess, and therefore low energy density. The flame therefore has time to cool down through radiation and for partial recirculation of exhaust gases, before the second phase, in which the remainder of the gas flow is injected. With the adoption of the **IME®** (Multi-stage Injection) up to 6 MW, fitted as standard on all gas burners, elco guarantees nitrogen oxide emissions less than 80 mg/kWh for natural gas combustion, measured according to the EN 676.



AGP®

Developed and produced by elco, the **AGP®** (proportional air-gas) system provides:

- perfect stability of the air-gas mixture;
- a constantly high CO₂ 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;
- the furnace backpressure.

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

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

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



GEM®

The most recent and universally applied system is an electronic one. It controls the position of one or more actuators simultaneously. The servoMotors of the air flow and oil components are controlled by a microprocessor which contains setpoints defined for each load curve. An additional advantage of the **GEM®** (electronic mix management system) is that it provides specific information on all the commands and states of the overall system: these can be accessed directly or by remote control. Digital programming is easy, either via specific module or a computer by following simple instructions.



RHP®

RHP® (Recirculation with High Performance) is a powerful and quiet fan system, which exploits the principle of air re-injection. Part of the air, under pressure, is sucked in again by the turbine, significantly increasing the ability of the burner to overcome the back pressure of the generator on start-up.

This allows elco burners to adapt to all types of generator and also results in:

- rapid stabilization of the flame and combustion on start-up;
- elimination of vibration;
- reduction of pollutant emissions, in compliance with the applicable European standards;
- very low noise levels (insulated air passage).

In addition, the patented design of the air damper provides optimal regulation of the airflow even at low power settings.



MDE®

A microprocessor-based electronic system which records and stores all the operating data. This system improves burner management through better technical support by providing all the information necessary for analysis of operation and any faults which have occurred in the past.

The stored data can be displayed on a display fitted to the burner, using the special Elcoscope® reader or via a PC using the PC Interface software.

It is possible to obtain different types of operating data:

- 1) instantaneous operating values (operating phase, supply voltage, ionization current, etc.);
- 2) statistical information (duration of operation, number of start-ups, number and type of shutdowns);
- 3) detailed information on the last two shutdowns;
- 4) technical details of the apparatus.

All this information is indicated in clear text.

This diagnostic information is particularly useful in resolving cases of sporadic shut-downs which cannot be reproduced in the presence of the support engineer.



MDE2®

New gas and oil Vectron range is fitted with a new **MDE2®** microprocessor-based electronic system which records and stores all the operating data.

This system improves burner management through better technical support by providing all the information necessary for analysis of operation and any faults which have occurred in the past.

It is possible to obtain different types of operating data:

- 1) instantaneous operating values (operating phase, supply voltage, ionization current, etc.);
- 2) statistical information (duration of operation, number of start-ups, number and type of shutdowns);
- 3) detailed information on the last two shutdowns;
- 4) technical details of the apparatus.

All this information is indicated with pictograms on a display integrated in the burner.

This diagnostic information is particularly useful in resolving cases of sporadic shut-downs which cannot be reproduced in the presence of the support engineer.

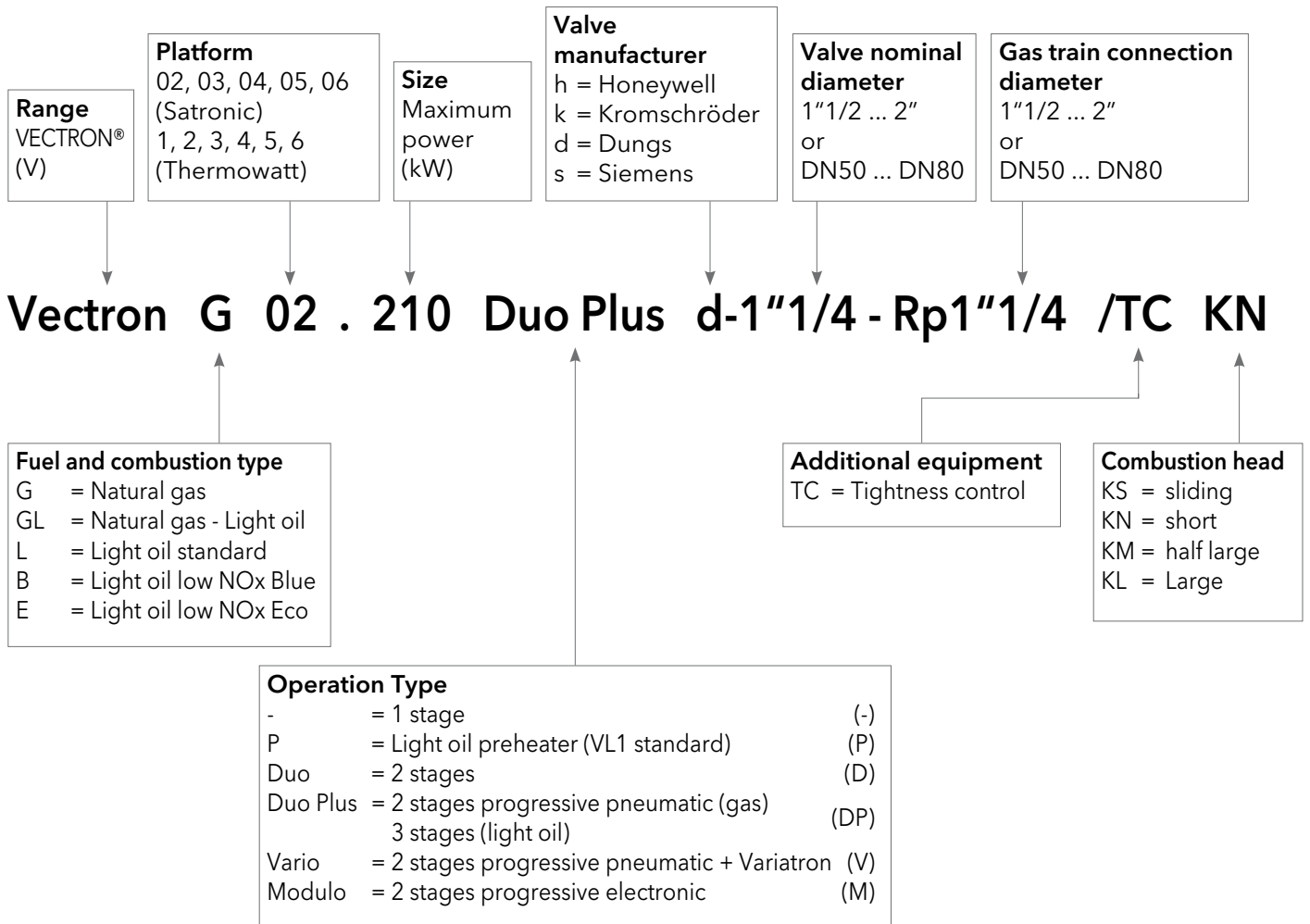
The **MDE2®** is complete with fuel stock control and service period indicator.



RTC®

The functional design of the housing, coupled with the innovative technology of the combustion heads, creates the **RTC®** (Retained Head Adjustment), offering several advantages:

- full access to all components, by simply removing the cover;
- easy and rapid maintenance;
- complete removal of the combustion head and access to its internal components with a single operation, without removing the burner from the boiler or disconnecting the gas train;
- optimum combustion head settings, which are not affected during servicing;
- rapid cleaning of the mechanical components, thanks to their clear layout;
- reduced servicing times through the use of standard nuts, bolts, screws and pipe fittings, which can be adjusted using only a few tools.



One Stage Low NOx

		0	100	200	300		
		kW					
VG1.40	14,5...40						p. 12
VG1.55	35...55						p. 12
VG1.85	45...85						p. 12
VG02.120	70...120						p. 14
VG02.160	100...160						p. 14
VG02.210	140...210						p. 14

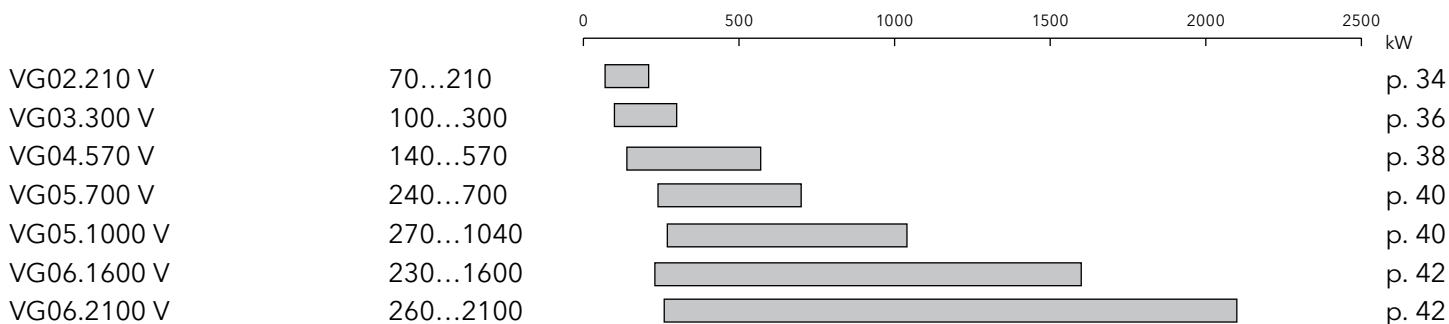
Two stages Low NOx

		0	100	200	300	400	500		
		kW							
VG01.85 D	45...85								p. 16
VG02.120 D	40...120								p. 18
VG02.160 D	60...160								p. 18
VG02.210 D	80...210								p. 18
VG3.290 D	190...290								p. 20
VG3.360 D	240...360								p. 20
VG04.430 D	150...430								p. 22

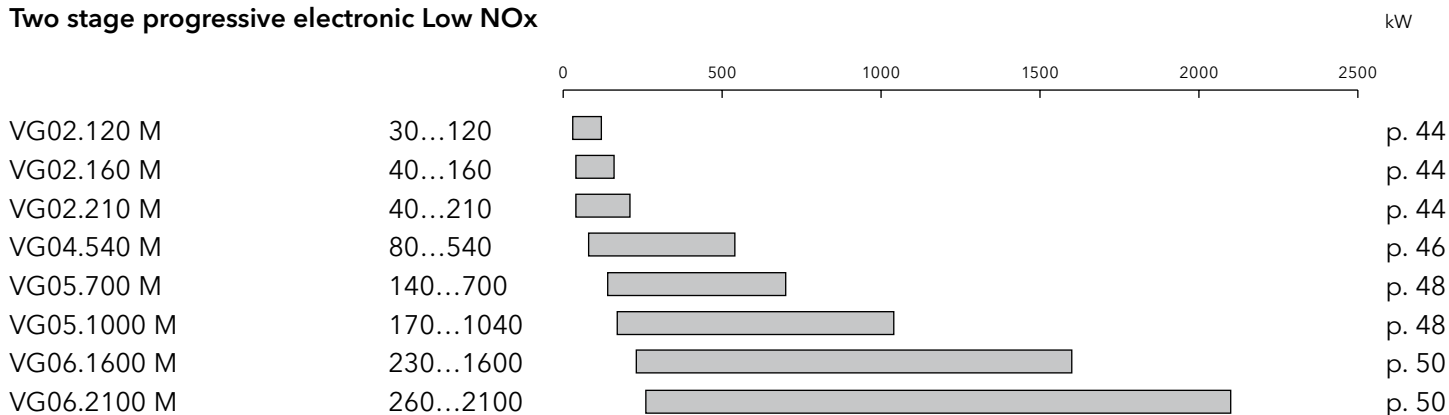
Two stage progressive pneumatic Low NOx

		0	500	1000	1500	2000	2500		
		kW							
VG02.120 DP	40...120								p. 24
VG02.160 DP	60...160								p. 24
VG02.210 DP	70...210								p. 24
VG3.290 DP	190...290								p. 26
VG3.360 DP	240...360								p. 26
VG04.430 DP	90...430								p. 28
VG04.520 DP	120...520								p. 28
VG05.700 DP	240...700								p. 30
VG05.1000 DP	270...1040								p. 30
VG06.1600 DP	230...1600								p. 32
VG06.2100 DP	260...2100								p. 32

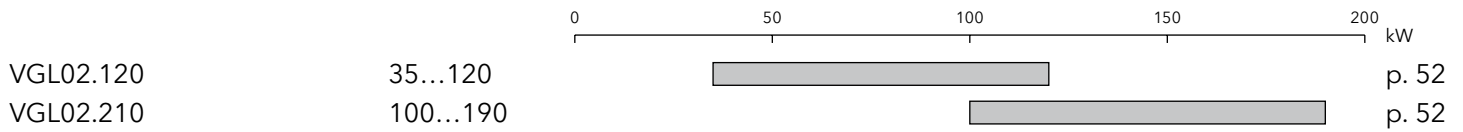
Two stage progressive pneumatic Low NOx + fan speed control



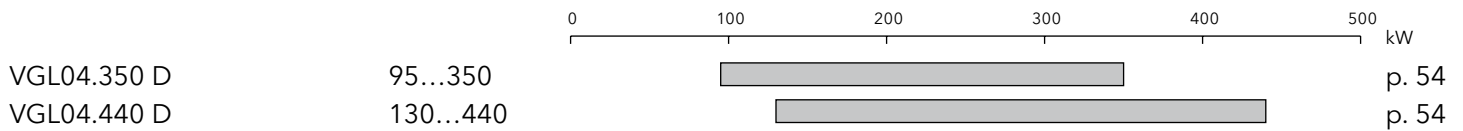
Two stage progressive electronic Low NOx



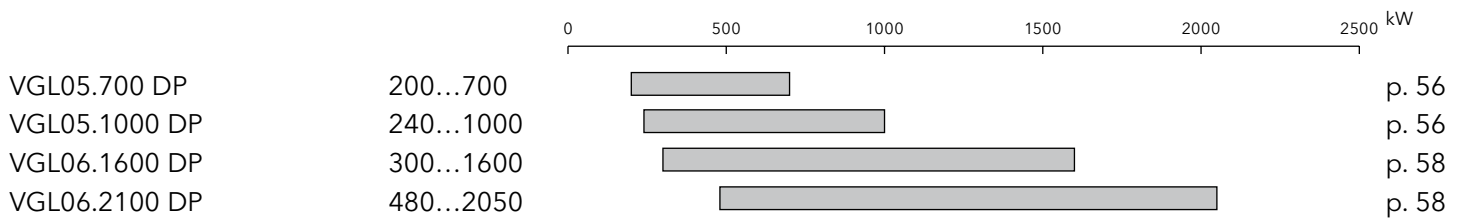
One Stage in gas and in oil



Two stages in gas and in oil

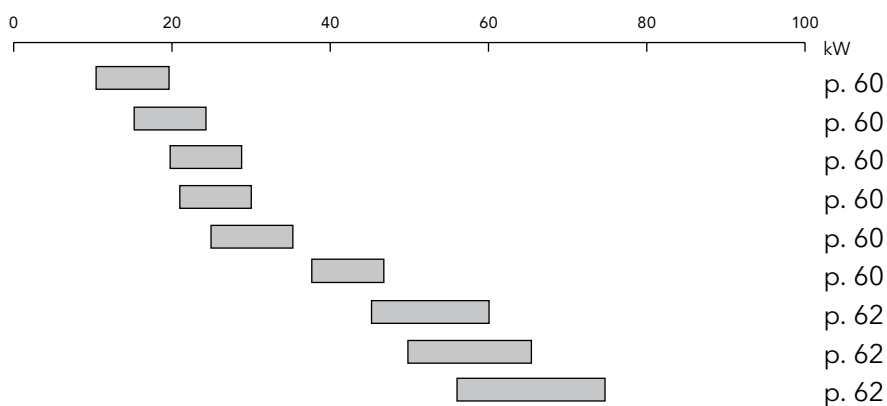


Two stage progressive pneumatic in gas / 3 stages in oil



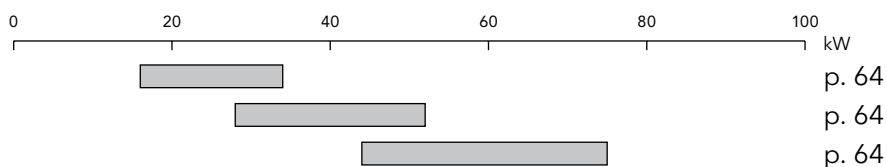
One Stage Low NOx

VB1.20	11...20
VB1.24	14...24
VB1.28	20...28
VB1.30	22...30
VB1.35	25...35
VB1.47	38...47
VBL02.60	45...60
VBL02.65	49...65
VBL02.74	56...74



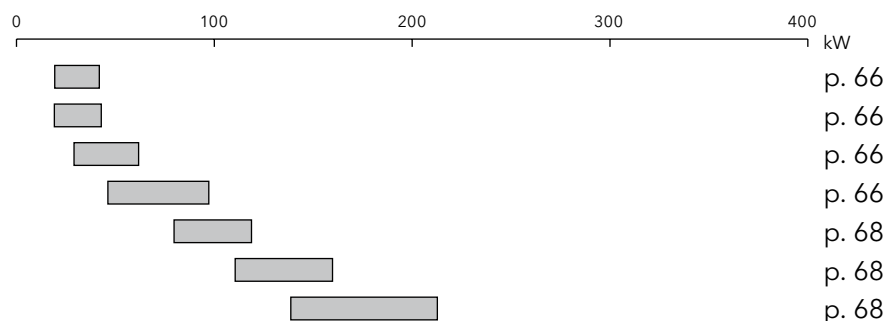
One stage Low NOx Yellow flame

VE1.34	16...34
VE1.50	28...52
VE1.75	44...75



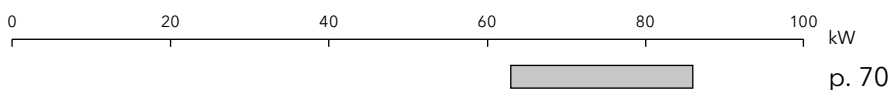
One stage Standard

VL1.40 P	20...40
VL1.42	20...42
VL1.55 / P	30...55
VL1.95	45...95
VL02.120	80...120
VL02.160	110...160
VL02.210	140...210

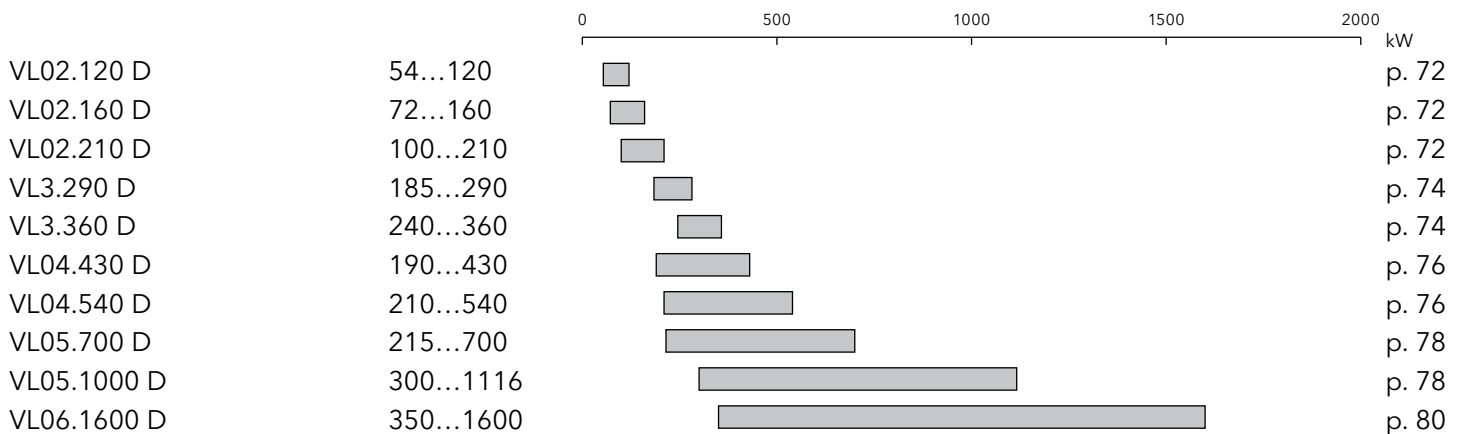


Two stages Low NOx Blue flame

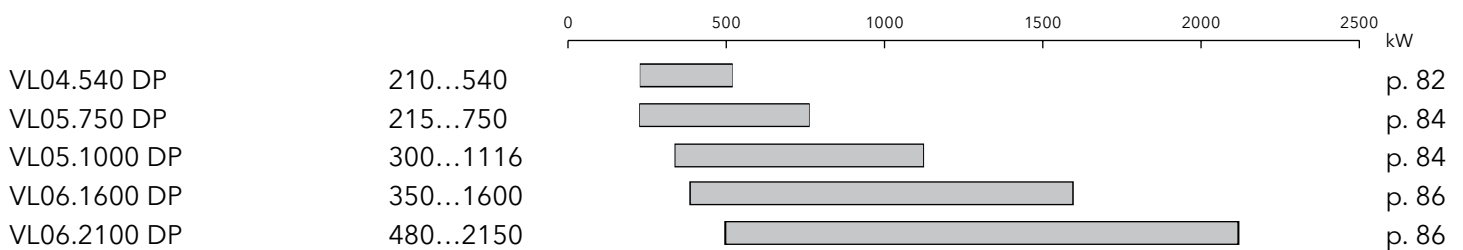
VBL02.86 D	63...86
------------	---------



Two stages Standard



Three stages Standard



Options

p. 88

Gas trains

p. 90

Gas and dual fuel pressure losses

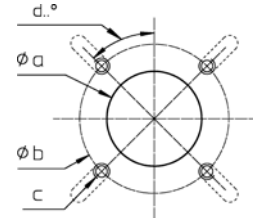
p. 92

Description

- One-stage low NOx class 3 forced draught burner.
 - Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
 - Maximum heat power: 40, 55 and 85 kW.
 - Adjustable combustion head length with sliding flange.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
 - Quiet ventilation and reduced electrical consumption.
 - Complete electrical equipment in the body of the burner with control panel.
 - Single-phase electrical power supply 230V - 50Hz.
 - Protection level IP 21.
 - Maximum working temperature 50°C.
- In compliance with the EN 676 standards and European Guidelines such as:
- Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

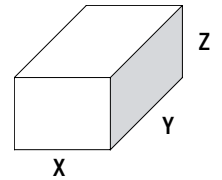
Type	Ø a (mm)	b (mm)	c	d
VG 1.40/55	85 ... 104	150 ... 170	M8	45°
VG 1,85	95 ... 104	150 ... 170	M8	45°



Packaging

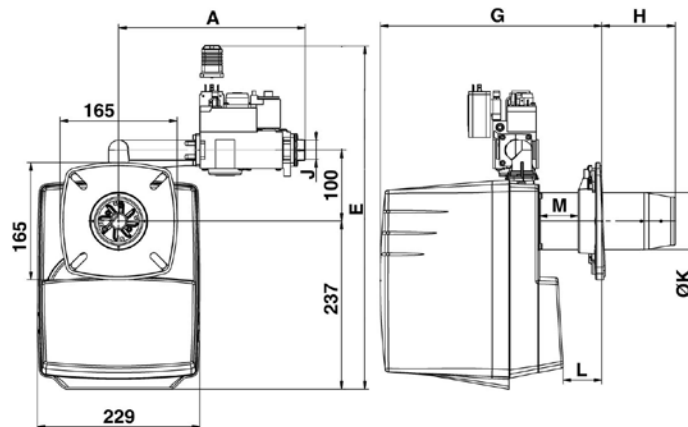
The burner is delivered in its package complete with:

- Gas train,
- Boiler fixing accessories,
- Directions for use including electrical diagram, exploded view & spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG 1.40	260	300	640	11
VG 1.55	260	300	640	11
VG 1.85	260	300	640	12

Dimensions

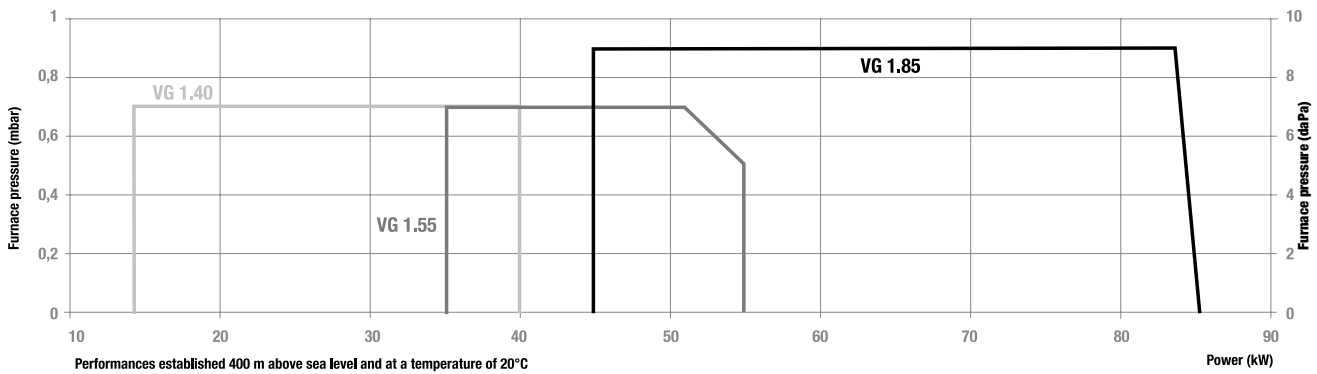


VECTRON®	A	E	L	ØK	H	G	J
VG 1.40	max. 254	max. 435	min. 21/max. 61	80	min. 70/max. 110	min. 297/max. 337	RP 1/2"
VG 1.55							
VG 1.85	266	465	min. 15/max. 83	90	min. 70/max. 138	min. 300/max. 355	RP 3/4"



Range: VG 1.40, VG 1.55, VG 1.85
 14,5 ... 85 kW
 1 stage
 Low NOx

Working fields



Characteristics and equipment

Type	VG 1.40		VG 1.55		VG 1.85	
Operation range	14,5 - 40 kW		35 - 55 kW		45 - 85 kW	
Gas pressure	20 - 50 mbar				20 - 300	
Control box / flame detection	TCG 141.00 / Ionization					
Fan motor	230 V - 50 Hz - 85 W					
Electrical consumption	106 W				185 W	
Acoustic level (LpA)	55 dB(A)		55 dB(A)		60,5 dB(A)	
CE Certificate	1312 AS 2386				1312 BN 3690	
	KN	KL	KN	KL	KN	KL
Complete burner code						
h3/8"-Rp1/2"	3 832 635	-	3 832 636	-	-	-
d3/4"-Rp3/4"	-	-	-	-	3 832 637	-

Options

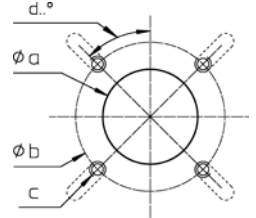
Counter face plate	13 018 495
Air adapter	13 011 996

Description

- One-stage low NOx class 3 forced draught burner.
 - Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
 - Maximum heat power: 120, 160 and 210 kW.
 - Adjustable combustion head length with sliding flange.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
 - Quiet ventilation and reduced electrical consumption.
 - Complete electrical equipment in the body of the burner with control panel.
 - Single-phase electrical power supply 230V - 50Hz.
 - Protection level IP 21.
 - Maximum working temperature 50°C.
- In compliance with the EN 676 standards and European Guidelines such as:
- Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

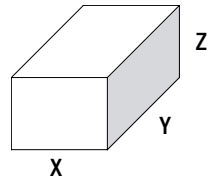
Ø a (mm)	b (mm)	c	d
120 - 135	150 - 180	M8	45°



Packaging

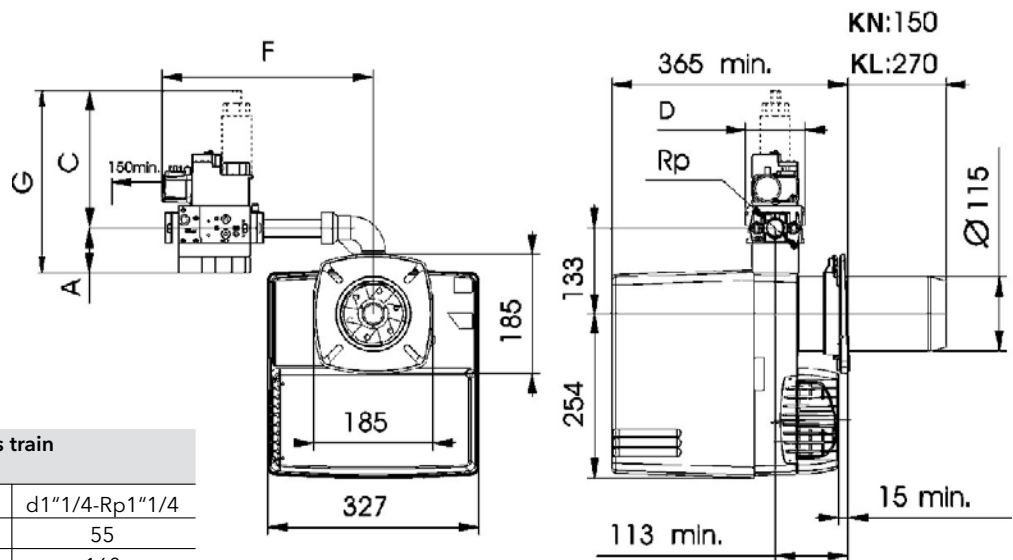
The burner is delivered in its package complete with:

- Gas train,
- Boiler fixing accessories,
- Directions for use including electrical diagram, exploded view & spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG 02.120	400	400	760	20
VG 02.160	400	400	760	20
VG 02.210	400	400	760	23

Dimensions

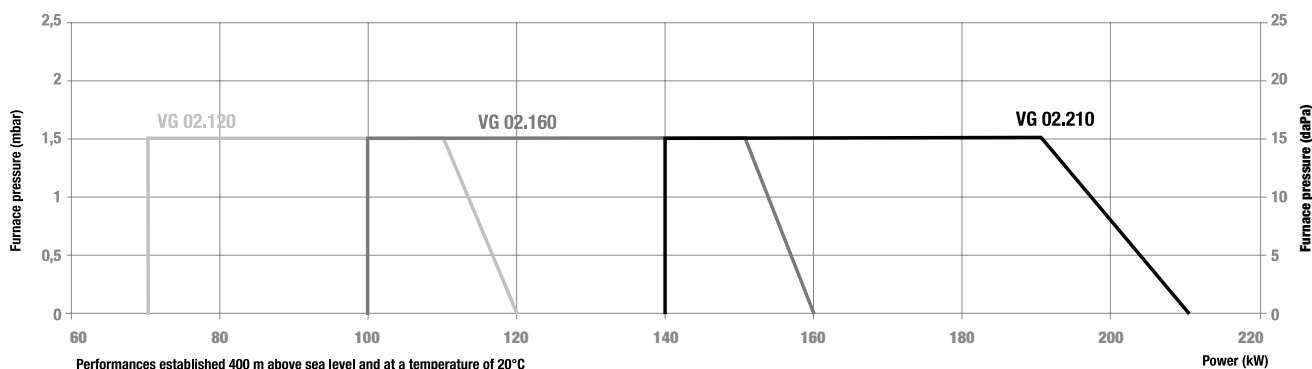


Gas train		
	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4
A	46	55
C	140	160
D	92	116
E	179	188
F	330	360
G	330	350



Range: VG 02.120, VG 02.160, VG 02.210
 70 ... 210 kW
 1 stage
 Low NOx

Working fields



Characteristics and equipment

Type	VG 02.120		VG 02.160		VG 02.210	
Operation range	70 - 120 kW		100 - 160 kW		140 - 210 kW	
Gas pressure	20 - 300 mbar					
Control box / flame detection	SG 113 / Ionization					
Fan motor	230 V - 50 Hz - 160 W					
Electrical consumption	180 W		280 W		290 W	
Acoustic level (LpA)	62 dB(A)		64 dB(A)		65,2 dB(A)	
CE Certificate	1312 BQ 4069					
	KN	KL	KN	KL	KN	KL
Complete burner code						
d1"1/4-Rp1"1/4	-	-	-	-	13 018 486	13 018 487
d3/4"-Rp3/4"	13 017 776	13 017 777	13 017 778	13 017 779	3 832 903	3 832 904

Options

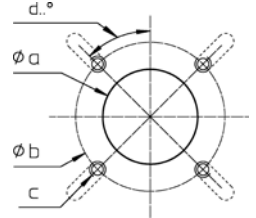
Counter face plate	13 018 496
Air adapter	13 018 822

Description

- Two stages low NOx class 3 forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
- Maximum heat power VG 01.85 Duo: 85 kW.
- Minimum / maximum power ratio : 1/2.
- Adjustable combustion head length with sliding flange.
- Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
- Quiet ventilation and reduced electrical consumption.
- Closing of the air flap on burner shut-down.
- Gas train factory assembled and tested for tightness and electrical security.
- Complete electrical equipment in the body of the burner with control panel.
- Single-phase electrical power supply 230V - 50Hz.
- Protection level IP 21.
- Maximum working temperature 50°C.
- In compliance with the EN 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

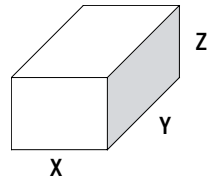
Ø a (mm)	Ø b (mm)	c	d
95 ... 104	150 ... 170	M8	45°



Packaging

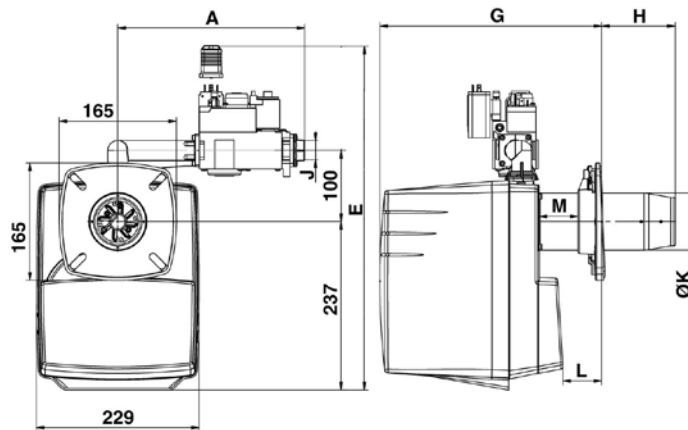
The burner is delivered in its package complete with:

- Gas train,
- Boiler fixing accessories,
- Directions for use including electrical diagram, exploded view & spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG 01.85 Duo	260	300	640	14

Dimensions

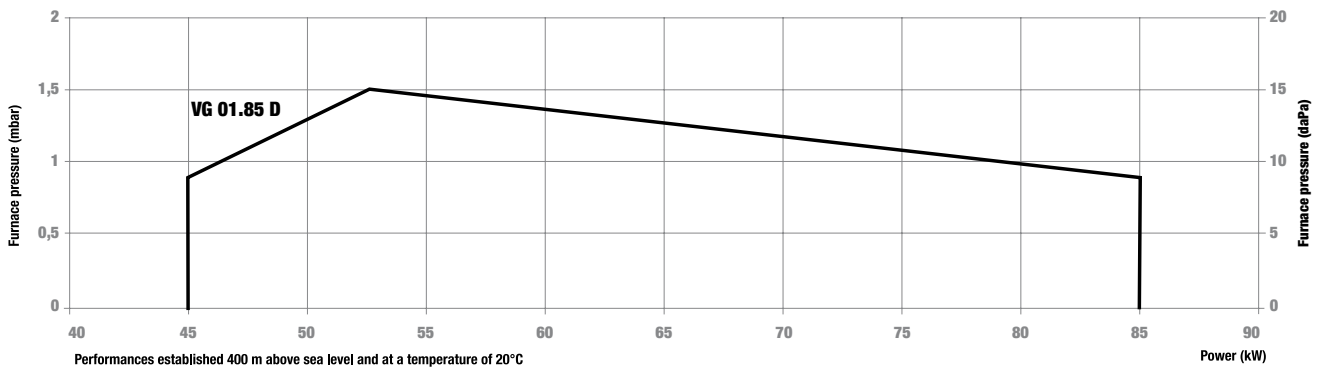


VECTRON®	A	E	L	Ø K	H	G	J
VG 01.85 Duo	266	465	min. 15/max. 83	90	min. 70/max. 138	min. 300/max. 355	RP 3/4"



Range: VG 01.85 D
 45 ... 85 kW
 2 stages
 Low NOx

Working field



Characteristics and equipment

Type	VG 01.85 D	
Operation range	45 - 85 kW	
Gas pressure	20 - 300 mbar	
Control box / flame detection	SG 513 / Ionization	
Fan motor	230 V - 50 Hz - 110 W	
Electrical consumption	180 W	
Acoustic level (LpA)	60,5 dB(A)	
CE Certificate	1312 BQ 4069	
	KN	KL
Complete burner code d3/4"-Rp3/4"	13 017 852	-

Options

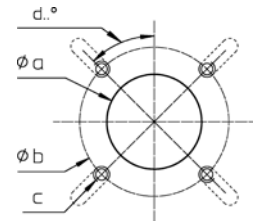
Counter face plate	13 018 495
Air adapter	13 011 996

Description

- Two stages low NOx class 3 forced draught burner.
 - Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
 - Maximum heat power: 120, 160 and 210 kW.
 - Minimum / maximum power ratio : 1/2.
 - Adjustable combustion head length with sliding flange.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
 - Quiet ventilation and reduced electrical consumption.
 - Closing of the air flap on burner shut-down.
 - Gas train factory assembled and tested for tightness and electrical security.
 - Complete electrical equipment in the body of the burner with control panel.
 - Single-phase electrical power supply 230V - 50Hz.
 - Protection level IP 21.
 - Maximum working temperature 50°C.
- In compliance with the EN 676 standards and European Guidelines such as:
- Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

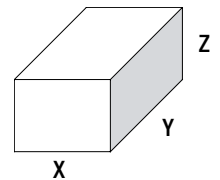
Ø a (mm)	b (mm)	c	d
120 - 135	150 - 180	M8	45°



Packaging

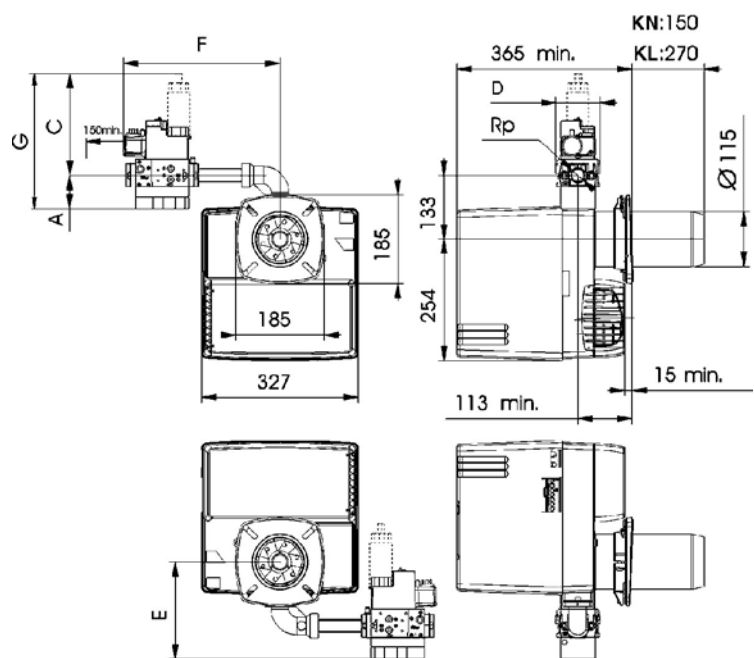
The burner is delivered in its package complete with:

- Gas train,
- Boiler fixing accessories,
- Directions for use including electrical diagram, exploded view & spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG 02.120 Duo	400	400	760	21
VG 02.160 Duo	400	400	760	25
VG 02.210 Duo	400	400	760	25

Dimensions

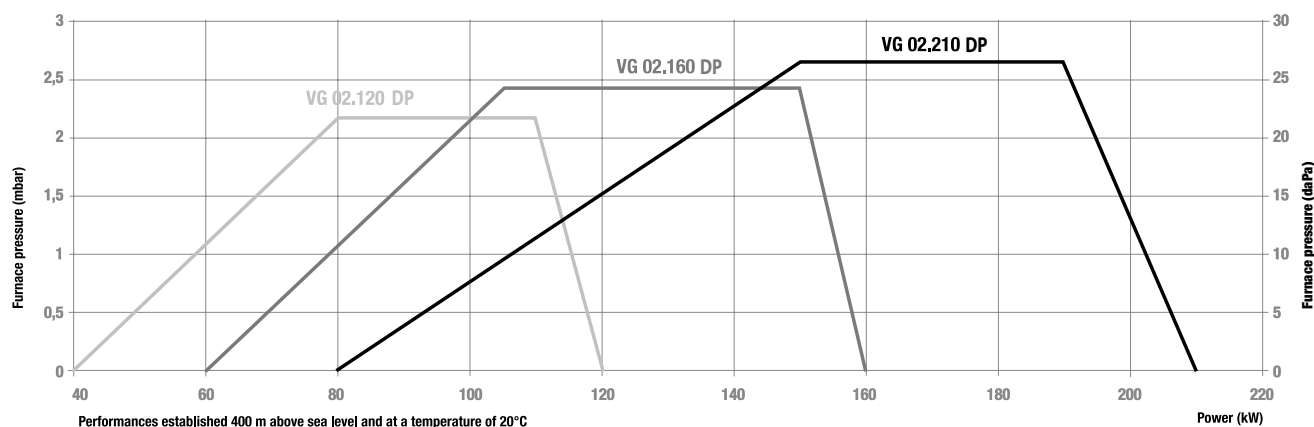


Gas train		
	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4
A	46	55
C	214	254
D	92	114
E	179	188
F	330	360
G	400	440



Range: VG 02.120 D, VG 02.160 D, VG 02.210 D
 40 ... 210 kW
 2 stages
 Low NOx

Working fields



Characteristics and equipment

Type	VG 02.120 D		VG 02.160 D		VG 02.210 D	
Operation range	40 - 120 kW		60 - 160 kW		80 - 210 kW	
Gas pressure	20 - 300 mbar					
Control box / flame detection	SG 513 / Ionization					
Fan motor	230 V - 50 Hz - 160 W					
Electrical consumption	180 W		280 W			
Acoustic level (LpA)	62 dB(A)		64 dB(A)		65,2 dB(A)	
CE Certificate	1312 BQ 4069					
	KN	KL	KN	KL	KN	KL
Complete burner code						
d1"1/4-Rp1"1/4	-	-	-	-	13 018 490	13 018 491
d3/4"-Rp3/4"	13 018 488	13 018 489	13 017 780	13 017 781	3 832 905	3 832 906

Options

Counter face plate	13 018 496
Air adapter	13 018 822

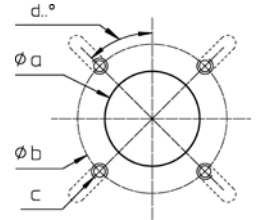
Description

- Two-stages low-NOx class 3 forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
- Maximum heat power: 290 and 360 kW.
- Minimum / maximum power ratio : 1/2.
- Two combustion head lengths.
- Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
- Quiet ventilation and reduced electrical consumption.
- Closing of the air flap on burner shut-down.
- Gas train factory assembled and tested for tightness and electrical security.
- Complete electrical equipment in the body of the burner with MDE2 System and display.
- Single-phase electrical power supply 230V - 50Hz.
- Protection level IP 21.
- Maximum working temperature 50°C.

- In compliance with the EN 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

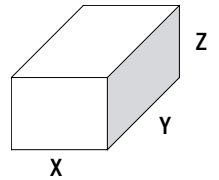
Ø a (mm)	b (mm)	c	d
155 ... 190	175 ... 220	M10	45°



Packaging

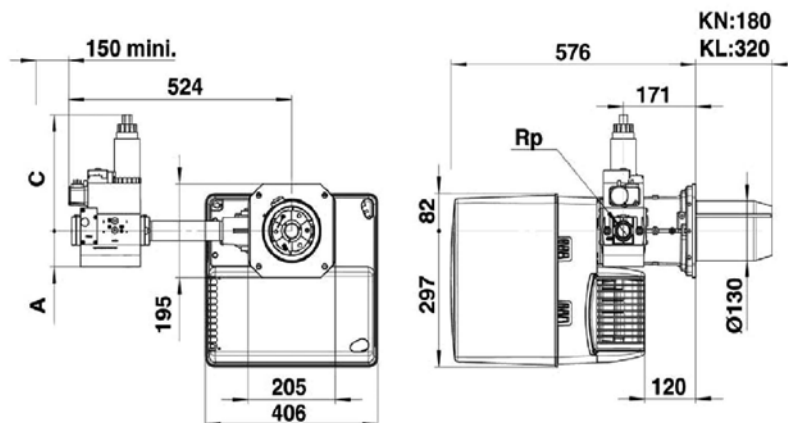
The burner is delivered complete in three packages containing:

- The burner body with: boiler fixing accessories, technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head
- The gas train.



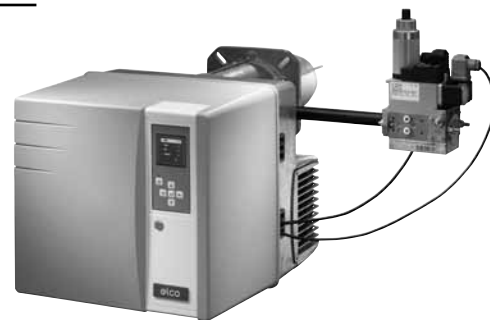
Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Body burner BB	VG3.290 D	430	400	500	20
	VG3.360 D				21
Combustion head CH-G	KN	205	645	240	6
	KL		785		7
Gas train GT	3/4"	585	387	174	5
	1"1/4"				9

Dimensions

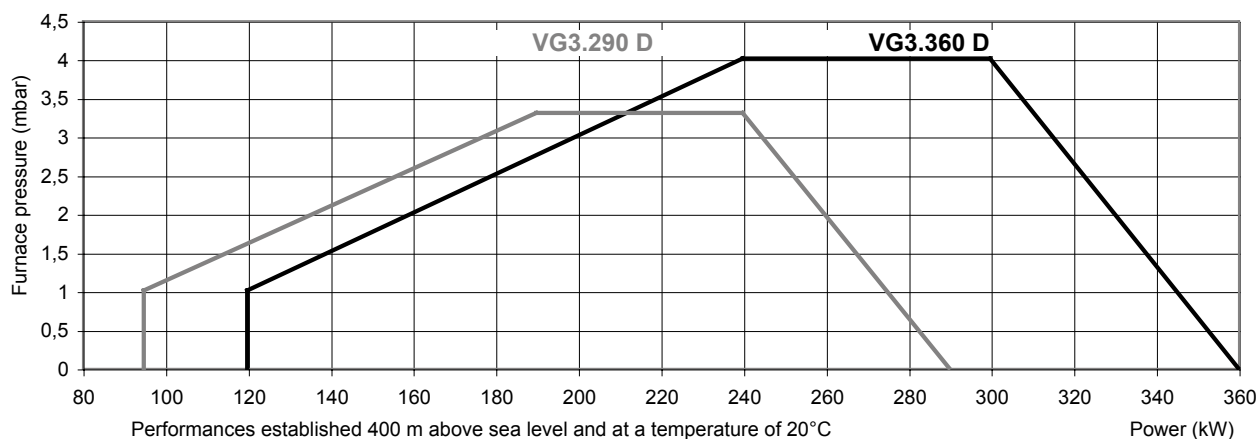


Size	A	B	C
d3/4"-Rp3/4"	46	120	210
d1"1/4-Rp1"1/4"	55	145	260

Range: VG 3.290 D, VG 3.360 D
 95 ... 360 kW
 2 stages
 Low NOx



Working fields



Characteristics and equipment

Type	VG3.290 D		VG3.360 D	
Operating range	(95) 190 - 290 kW		(120) 240 - 360 kW	
Gas pressure	20 ... 300 mbar			
Control box / flame detector	TCG2.../ ionization			
Fan motor	2800 rpm - 230 V - 50 Hz - 250 W		2800 rpm - 230 V - 50 Hz - 300 W	
Electrical consumption	375 VA		480 VA	
Acoustic level (LpA)	67 dB(A)		69 dB(A)	
CE certificate	1312 BV 5208			
Head length	KN	KL	KN	KL
Complete burner code				
d1"1/4 - Rp1"1/4	3 833 056	3 833 057	3 833 052	3 833 053
d3/4" - Rp3/4"	3 833 058	3 833 059	3 833 054	3 833 055

Options

Wieland plugs (4 + 7 pins)	13 016 496
Counter face plate	3 833 151
External air inlet connector	3 833 152
PC Interface	3 833 018
Silencer	on request

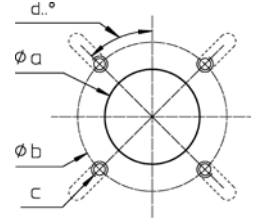
Description

- Two stages low NOx class 3 forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
- Maximum heat power: 430 kW.
- Minimum / maximum power ratio : 1/2.
- Two combustion head lengths.
- Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
- Quiet ventilation and reduced electrical consumption.
- Closing of the air flap on burner shut-down.
- Gas train factory assembled and tested for tightness and electrical security.
- Complete electrical equipment in the body of the burner with control panel.
- Single-phase electrical power supply 230V - 50Hz.
- Protection level IP 21.
- Maximum working temperature 50°C.

- In compliance with the EN 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

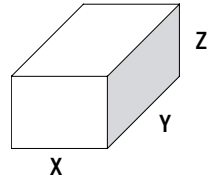
Ø a (mm)	b (mm)	c	d
155	180 ... 270	M10	45°



Packaging

The burner is delivered complete in three packages containing:

- The burner body with: boiler fixing accessories, technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head
- The gas train.

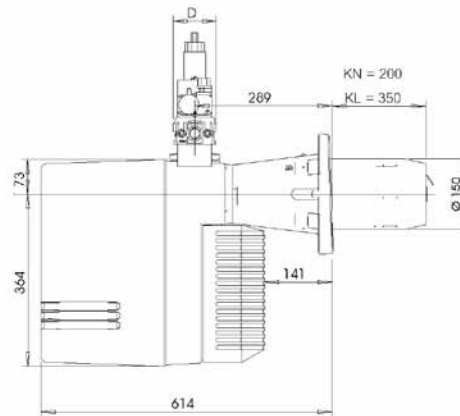
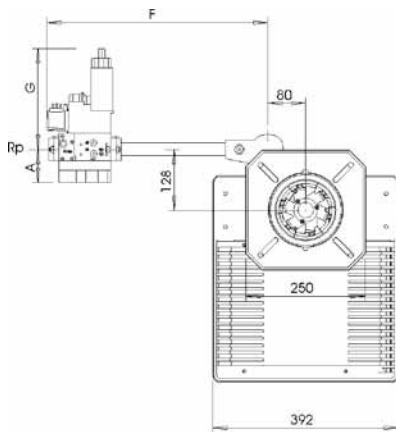


Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG 04.430 Duo	420	510	540	26

Gas train Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
d1"1/4-Rp1"1/4	400	600	240	9
d3/4"-Rp3/4"	400	600	240	6

Head Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
KN	470	760	280	10
KL	470	910	280	11

Dimensions

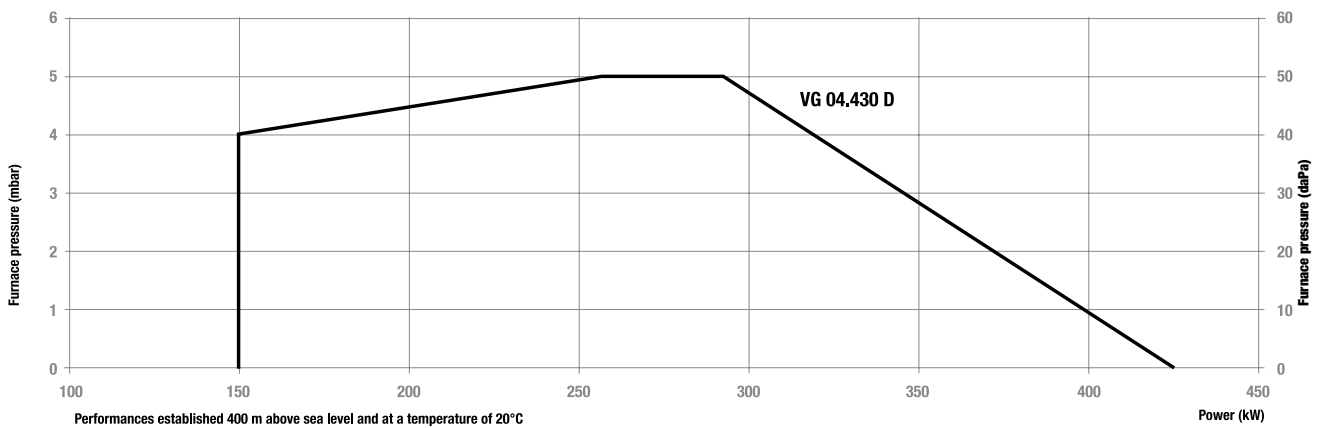


	Gas train	
	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4
A	470	490
B	80	80
C	46	55
D	220	255
E	128	128

Range: VG 04.430 D
 150 ... 430 kW
 2 stages
 Low NOx



Working field



Characteristics and equipment

Type	VG 04.430 D	
Operation Range	150 - 430 kW	
Gas pressure	20 - 300 mbar	
Control box / flame detection	SG 513 / Ionization	
Fan motor	230 V - 50 Hz - 480 W	
Electrical consumption	600 W	
Acoustic level (LpA)	71,8 dB(A)	
CE Certificate	1312 BN 3680	
	KN	KL
Complete burner code		
d1"1/4-Rp1"1/4	13 012 738	13 012 739
d3/4"-Rp3/4"	13 012 740	13 012 741

Options

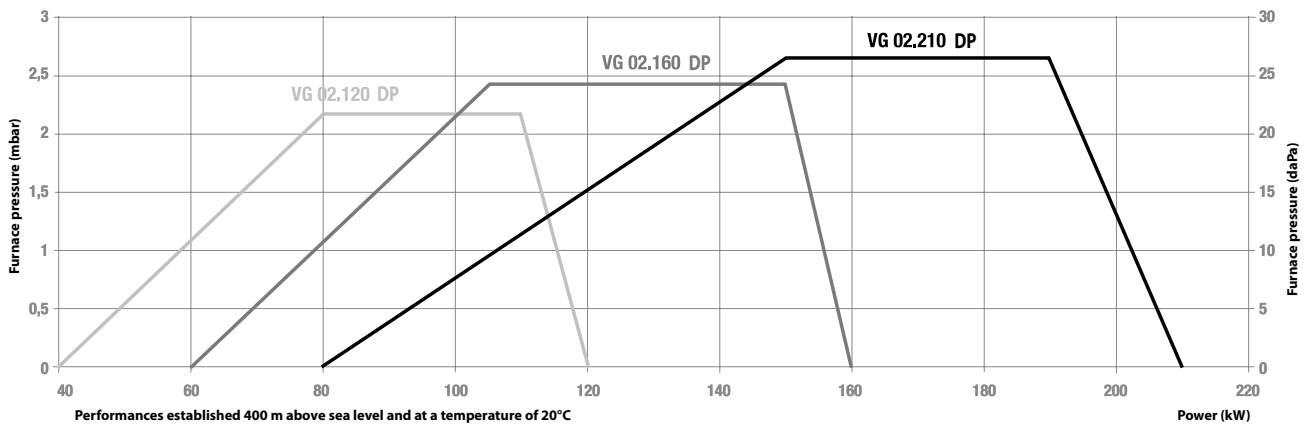
Counter face plate	13 017 499
Silencer	13 012 574
Air adapter	13 002 031

Gas VECTRON® G 02 Duo Plus



Range: VG 02.120 DP, VG 02.160 DP,
VG 02.210 DP
40 ... 210 kW
2 stage progressive pneumatic
Low NOx

Working fields



Characteristics and equipment

Type	VG 02.120 DP		VG 02.160 DP		VG 02.210 DP	
Operation range	40 - 120 kW		60 - 160 kW		80 - 210 kW	
Gas pressure	20 - 300 mbar					
Control box / flame detection	SG 513 / Ionization					
Fan motor	230 V - 50 Hz - 160 W				230 V - 50 Hz - 130 W	
Electrical consumption	180 W		280 W			
Acoustic level (LpA)	62 dB(A)		64 dB(A)		65,2 dB(A)	
CE Certificate	1312 BQ 4069					
	KN	KL	KN	KL	KN	KL
Complete burner code						
d1"1/4-Rp1"1/4	-	-	-	-	3833135	13 020 133
d3/4"-Rp3/4"	3833131	3833132	3833133	3833134	3833136	3 832 907

Options

Counter face plate	13 018 496
Air adapter	13 018 822

Description

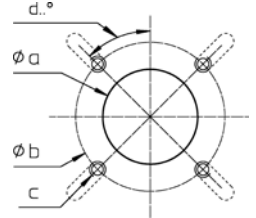
- Two-stage progressive pneumatic low-NOx class 3 forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
- Maximum heat power: 290 and 360 kW.
- Minimum / maximum power ratio : 1/3.
- Air gas ratio with pneumatic control technology (AGP System).
- Two combustion head lengths.
- Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
- Quiet ventilation and reduced electrical consumption.
- Closing of the air flap on burner shut-down.
- Gas train factory assembled and tested for tightness and electrical security.
- Complete electrical equipment in the body of the burner with MDE2 System and display.
- Single-phase electrical power supply 230V - 50Hz.
- Protection level IP 21.
- Maximum working temperature 50°C.

In compliance with the EN 676 standards and European Guidelines such as:

- Gas appliances 93/68/EEC
- EMC 89/336/EEC
- Low voltage 73/23/EEC
- Efficiency 92/42/EEC

Connecting flange

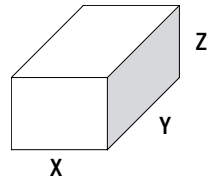
Ø a (mm)	b (mm)	c	d
155 ... 190	175 ... 220	M10	45°



Packaging

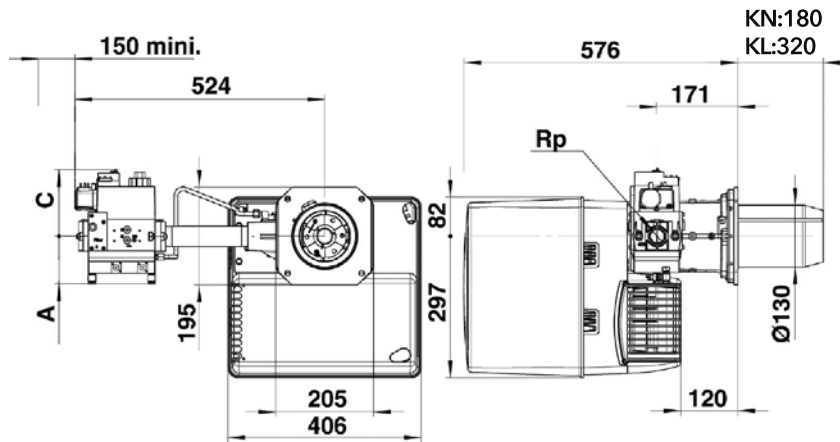
The burner is delivered complete in three packages containing:

- The burner body with: boiler fixing accessories, technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head
- The gas train.



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Body burner BB	VG3.290 DP	430	400	500	20
	VG3.360 DP				21
Combustion head CH-G	KN	205	645	240	6
	KL		785		7
Gas train GT	3/4"	585	387	174	7
	1"1/4"				11

Dimensions



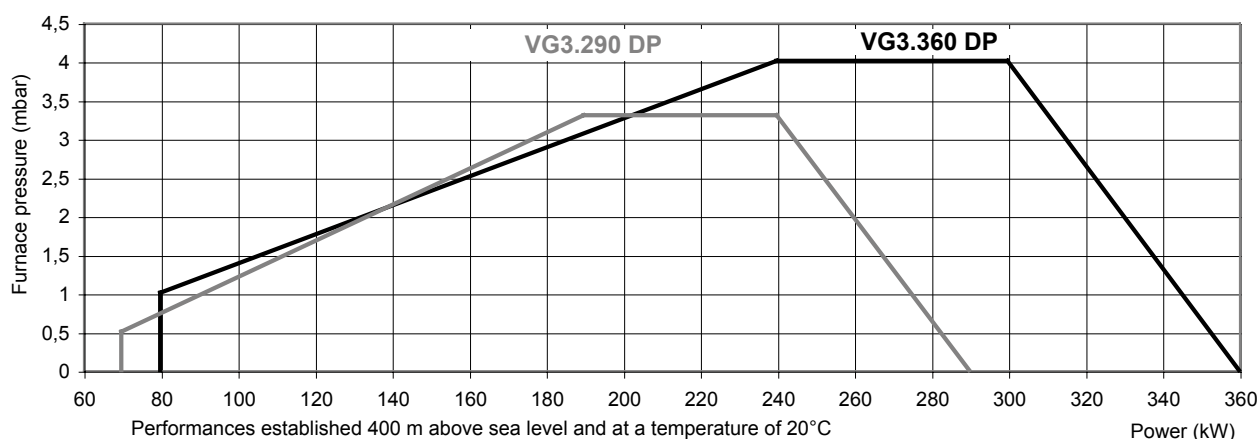
Size	A	B	C
d3/4"-Rp3/4"	70	100	160
d1"1/4-Rp1"1/4"	80	125	175

Gas VECTRON® G 3 Duo Plus

Range: VG 3.290 DP, VG 03.360 DP
 70 ... 360 kW
 2 stages
 Standard



Working fields



Characteristics and equipment

Type	VG3.290 DP		VG3.360 DP	
Operating range	(70) 190 - 290 kW		(80) 240 - 360 kW	
Gas pressure	20 ... 300 mbar			
Control box / flame detector	TCG5.../ ionization			
Fan motor	2800 rpm - 230 V - 50 Hz - 250 W		2800 rpm - 230 V - 50 Hz - 300 W	
Electrical consumption	375 VA		480 VA	
Acoustic level (LpA)	67 dB(A)		69 dB(A)	
CE certificate	1312 BV 5208			
Head length	KN	KL	KN	KL
Complete burner code				
d1"1/4 - Rp1"1/4	3 833 064	3 833 065	3 833 060	3 833 061
d3/4" - Rp3/4"	3 833 066	3 833 067	3 833 062	3 833 063

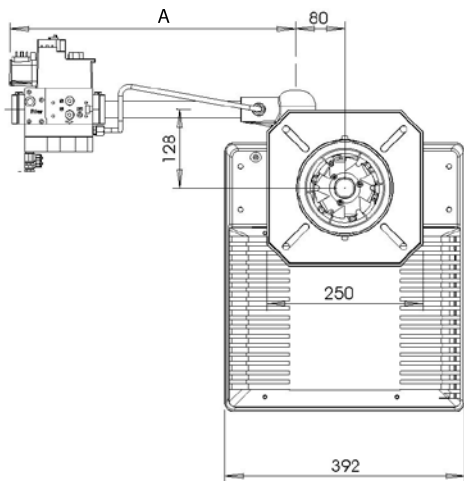
Options

Wieland plugs (4 + 7 pins)	13 016 496
Counter face plate	3 833 151
External air inlet connector	3 833 152
PC Interface	3 833 018
Silencer	on request

Description

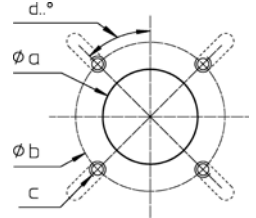
- Two stage progressive pneumatic low NOx class 3 forced draught burner.
 - Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
 - Maximum heat power: 430 and 520 kW.
 - Minimum / maximum power ratio: 1/3.
 - Air / gas ratio with pneumatic control technology.
 - Two combustion head lengths.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
 - Quiet ventilation and reduced electrical consumption.
 - Closing of the air flap on burner shut-down.
 - Gas train factory assembled and tested for tightness and electrical security.
 - Complete electrical equipment in the body of the burner with control panel.
 - Single-phase electrical power supply 230V - 50Hz.
 - Protection level IP 21.
 - Maximum working temperature 50°C.
- In compliance with the EN 676 standards and European Guidelines such as:
- Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Dimensions



Connecting flange

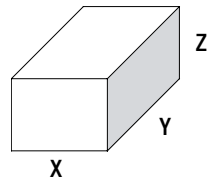
Ø a (mm)	b (mm)	c	d
165	180 ... 270	M10	45°



Packaging

The burner is delivered complete in three packages containing:

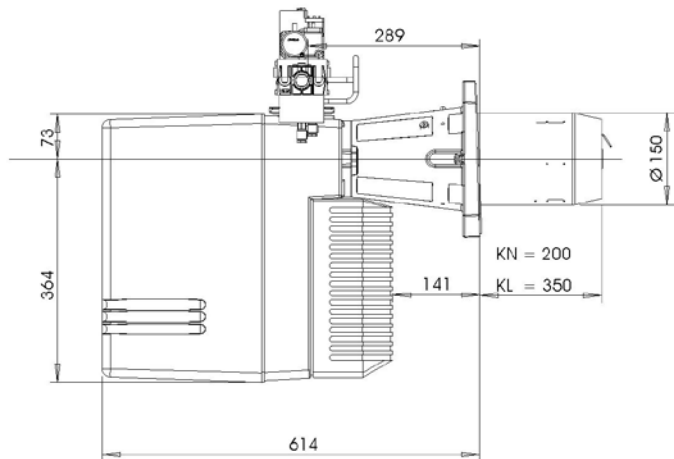
- The burner body with: boiler fixing accessories, technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head
- The gas train.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG 04.430 Duo Plus	420	510	550	26
VG 04.520 Duo Plus	420	510	550	26

Gas train Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
d1"1/2-Rp1"1/2	550	670	380	14
d1"1/4-Rp1"1/4	400	600	240	9
d3/4"-Rp3/4"	400	600	240	7

Head Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
04.430 KN	470	760	280	9
04.430 KL	470	910	280	11
04.520 KN	470	760	280	9
04.520 KL	470	910	280	11



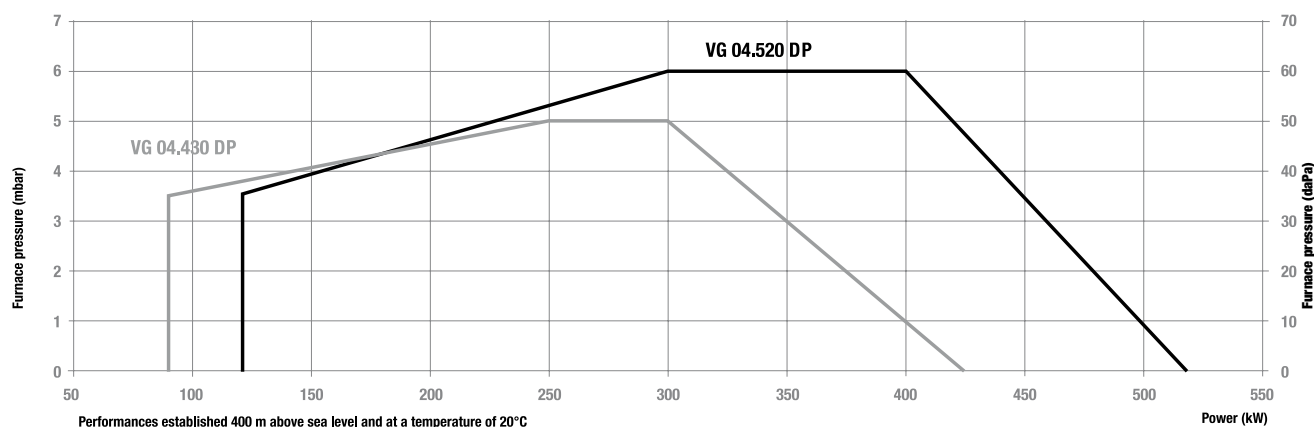
Gas train			
A	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d1"1/2-Rp1"1/2
	430	490	580

Gas VECTRON® G 04 Duo Plus

Range: VG 04.430 DP,
VG 04.520 DP
90 ... 520 kW
2 stage progressive pneumatic
Low NOx



Working fields



Characteristics and equipment

Type	VG 04.430 DP		VG 04.520 DP	
Operation Range	90 - 430 kW		120 - 520 kW	
Gas pressure	20 - 300 mbar			
Control box / flame detection	SG 513 / Ionization			
Fan motor	230 V - 50 Hz - 480 W			
Electrical consumption	550 W			
Acoustic level (LpA)	71,8 dB(A)			
CE Certificate	1312 BP 3680		1312 BP 3681	
	KN	KL	KN	KL
Complete burner code				
d1"1/2-Rp1"1/2	-	-	13 012 700	13 012 701
d1"1/4-Rp1"1/4	13 012 654	13 012 655	13 012 704	13 012 705
d3/4"-Rp3/4"	13 012 656	13 012 657	13 012 807	13 012 808

Options

Counter face plate	13 017 499
Silencer	13 012 574
Air adapter	13 002 031

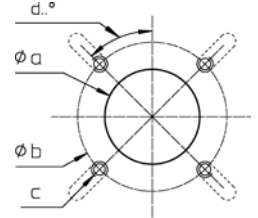
Description

- Two stage progressive pneumatic low NOx class 3 forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
- Maximum heat power: 700 and 1 040 kW.
- Minimum / maximum power ratio: 1/3.
- Air / gas ratio with pneumatic control technology.
- Three combustion head lengths.
- Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
- Quiet ventilation and reduced electrical consumption.
- Closing of the air flap on burner shut-down.
- Gas train factory assembled and tested for tightness and electrical security.
- Complete electrical equipment in the body of the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum working temperature 50°C.

- In compliance with the EN 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

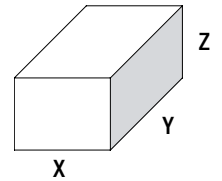
Ø a (mm)	b (mm)	c	d
172 ... 195	220 ... 260	M10	45°



Packaging

The burner is delivered complete in three packages containing:

- The burner body with: boiler fixing accessories, technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head
- The gas train.



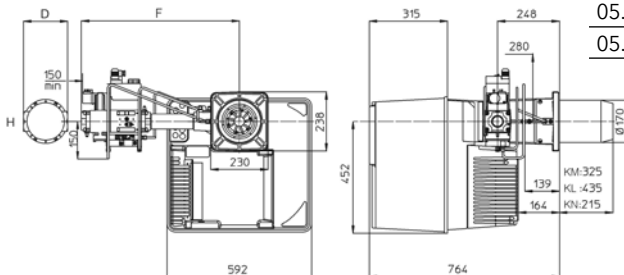
Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG 05.700 Duo Plus	600	800	850	56
VG 05.1000 Duo Plus	600	800	850	58

Gas train Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
s65-DN65	600	790	500	30
s2"-Rp2"	600	790	500	18
d1 1/2-Rp2"	550	670	380	14
d1 1/4-Rp2"	400	600	240	11
d3/4"-Rp1"	400	600	240	8

Head Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
05.700 KN	470	760	280	9
05.700 KL	470	910	280	11
05.700 KM	470	910	280	11
05.1000 KN	470	760	280	9
05.1000 KL	470	910	280	11
05.1000 KM	470	910	280	11

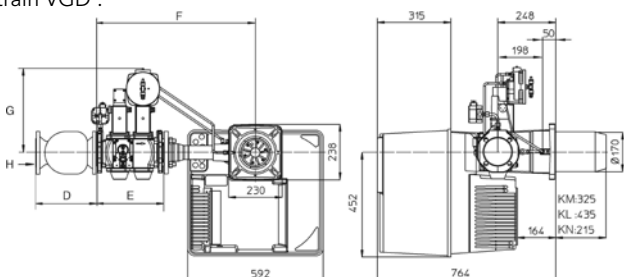
Dimensions

with gas train MB-VEF :



D	F	H
120	516	Rp 3/4"
177	516	Rp 1 1/4"
-	635	Rp 2"

with gas train VGD :



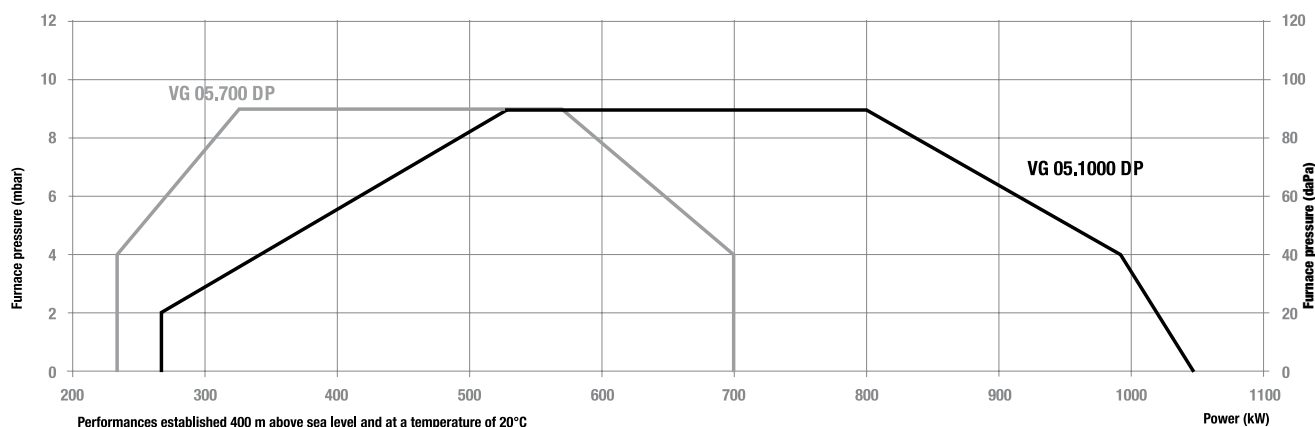
D	E	F	G	H
186	292	734	344	DN50
290	292	740	365	DN65

Gas VECTRON® G 05 Duo Plus

Range: VG 05.700 DP, VG 05.1000 DP
 240 ... 1040 kW
 2 stage progressive pneumatic
 Low NOx



Working fields



Characteristics and equipment

Type	VG 05.700 DP			VG 05.1000 DP		
Operation range	240 - 700 kW			270 - 1040 kW		
Gas pressure	20 - 300 mbar					
Control box / flame detection	SG 513 / Ionization					
Fan motor	230/400 V - 50 Hz - 1,1 kW			230/400 V - 50 Hz - 1,5 kW		
Acoustic level (LpA)	75,4 dB(A)			77,6 dB(A)		
CE Certificate	1312 AQ 0924			1312 AQ 0925		
	KN	KL	KM	KN	KL	KM
Complete burner code						
s65-DN65	-	-	-	3 832 911	3 832 912	3 832 913
s2"-Rp2"	3 832 908	3 832 909	3 832 910	3 832 914	3 832 915	3 832 916
d1"1/2-Rp2"	13 008 554	13 008 555	13 008 556	13 004 869	13 004 870	13 004 871
d1"1/4-Rp2"	13 008 557	13 008 558	13 008 559	13 008 569	13 008 570	13 008 571
d3/4"-Rp1"	13 014 766	13 014 767	13 014 768	13 014 769	13 014 770	13 014 771

Options

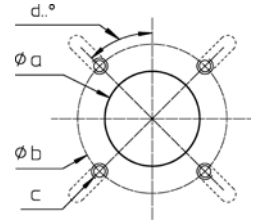
Counter face plate	13 018 499
Silencer	13 001 566
Air adapter	13 001 567
Digital power regulation R 40 (hot water, immersion probe)	13 007 765
Digital power regulation R 40 (hot water, strap-on probe)	13 007 766

Description

- Two stage progressive pneumatic low NOx class 3 forced draught burner.
 - Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
 - Maximum heat power: 1 600 and 2 100 kW.
 - Minimum / maximum power ratio: 1/3.
 - Air / gas ratio with pneumatic control technology.
 - Three combustion head lengths.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
 - Quiet ventilation and reduced electrical consumption.
 - Closing of the air flap on burner shut-down.
 - Gas train factory assembled and tested for tightness and electrical security.
 - Complete electrical equipment in the body of the burner with control panel.
 - Three-phase electrical power supply.
 - Protection level IP 41.
 - Maximum working temperature 50°C.
- In compliance with the EN 676 standards and European Guidelines such as:
- Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

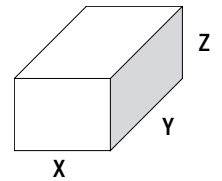
Ø a (mm)	b (mm)	c	d
250	300 ... 400	M12	45°



Packaging

The burner is delivered complete in three packages containing:

- The burner body with: boiler fixing accessories, technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head
- The gas train.



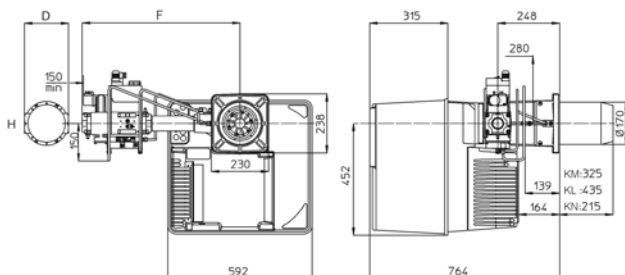
Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG 06.1600 Duo Plus	600	800	850	68
VG 06.2100 Duo Plus	600	800	850	68

Gas train Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
s80-DN80	600	790	500	39
s65-DN65	600	790	500	31
s2"-Rp2"	600	790	500	20
d1"1/2-Rp2"	550	670	380	14
d1"1/4-Rp2"	550	670	380	14

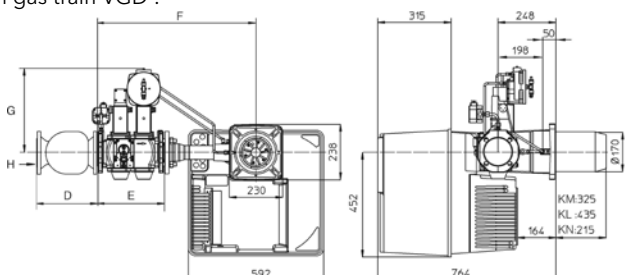
Head Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
06.1600 KN	470	760	280	9
06.1600 KL	420	1000	380	28
06.1600 KM	420	1000	380	27
06.2100 KN	470	760	280	9
06.2100 KL	420	1000	380	28
06.2100 KM	470	910	280	11

Dimensions

with gas train MB-VEF :



with gas train VGD :



D	E	F	H
160	590	107	1"1/2
-	690	-	1"1/4

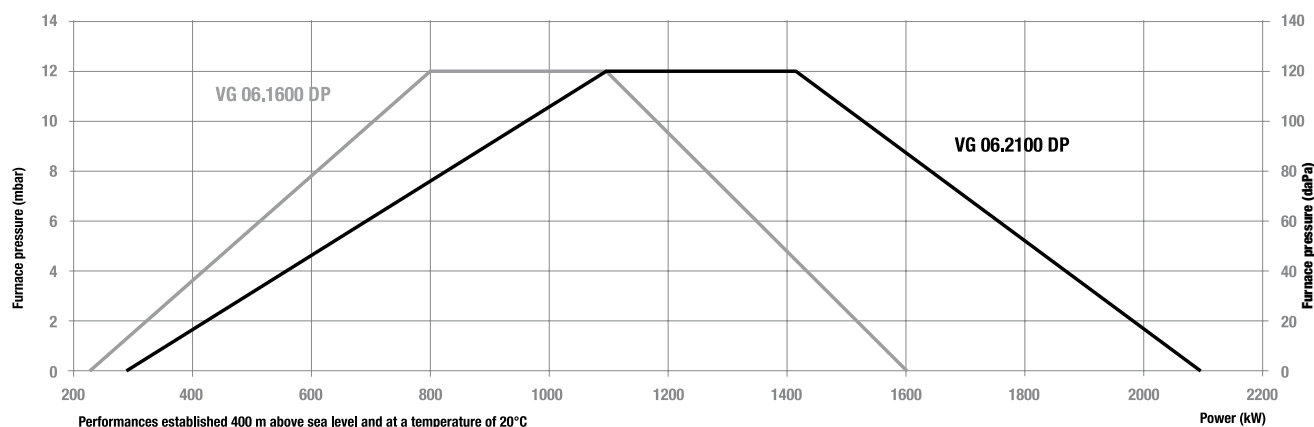
D	E	F	G	H
186	292	734	344	DN50
290	292	740	365	DN65
320	312	746	375	DN80

Gas VECTRON® G 06 Duo Plus

Range: VG 06.1600 DP,
VG 06.2100 DP
230 ... 2100 kW
2 stage progressive pneumatic
Low NOx



Working fields



Characteristics and equipment

Type	VG 06.1600 DP			VG 06.2100 DP		
Operation range	230 - 1600 kW			260 - 2100 kW		
Gas pressure	20 - 300 mbar					
Control box / flame detection	SG 513 / Ionization					
Fan motor	230/400 V - 50 Hz - 2,2 kW			230/400 V - 50 Hz - 2,7 kW		
Acoustic level (LpA)	78,8 dB(A)			80 dB(A)		
CE Certificate	1312 BM 3427			1312 BM 3428		
	KN	KL	KM	KN	KL	KM
Complete burner code						
s80-DN80	3 832 989	3 832 990	3 832 991	3 832 992	3 832 993	3 832 994
s65-DN65	13 014 829	13 014 830	13 014 831	13 011 604	13 011 605	13 011 606
s2"-Rp2"	13 015 134	13 015 135	13 015 136	13 015 139	13 015 140	13 015 141
d1"1/2-Rp2"	13 006 901	13 006 902	13 006 903	13 006 910	13 006 911	13 006 912
d1"1/4-Rp2"	13 015 094	13 015 095	13 015 096	13 015 102	13 015 103	13 015 104

Options

Counter face plate	13 008 019
Silencer	13 007 870
Air adapter	13 001 567
Digital power regulation R 40 (hot water, immersion probe)	13 007 765
Digital power regulation R 40 (hot water, strap-on probe)	13 007 766

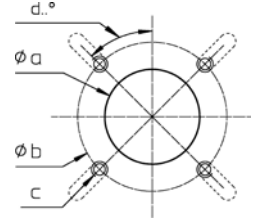
Description

- Two stage progressive pneumatic low NOx class 3 forced draught burner with fan speed control.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
- Maximum heat power: 120, 160 and 210 kW.
- Minimum / maximum power ratio : 1/3.
- Adjustable combustion head length with sliding flange.
- Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
- Quiet ventilation and reduced electrical consumption.
- Closing of the air flap on burner shut-down.
- Gas train factory assembled and tested for tightness and electrical security.
- Complete electrical equipment in the body of the burner with control panel.
- Single-phase electrical power supply 230V - 50Hz.
- Protection level IP 21.
- Maximum working temperature 50°C.

- In compliance with the EN 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

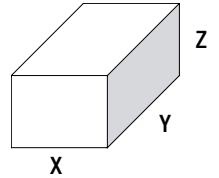
Ø a (mm)	b (mm)	c	d
120 - 135	150 - 180	M8	45°



Packaging

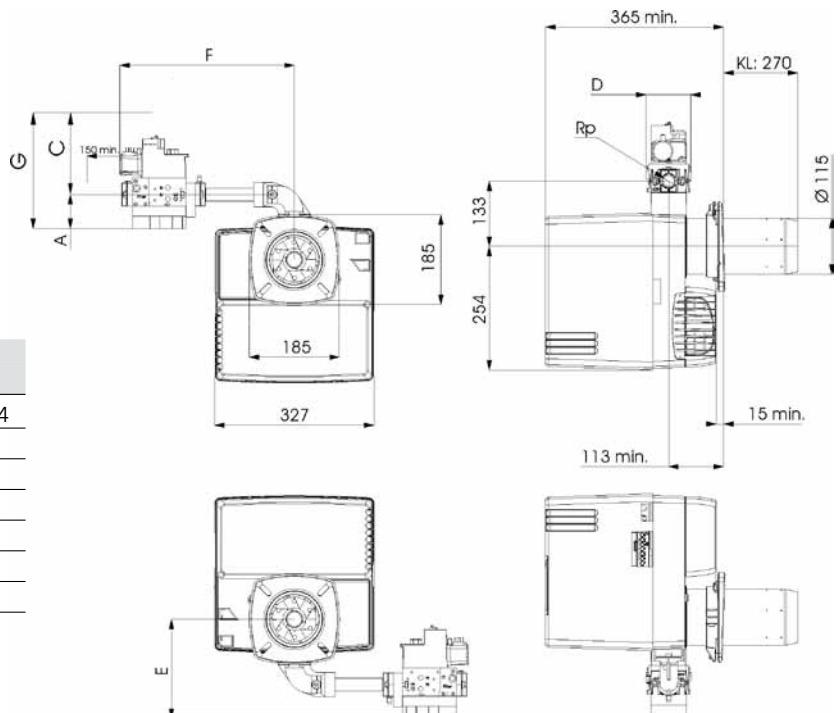
The burner is delivered in its package complete with:

- Gas train,
- Boiler fixing accessories,
- Directions for use including electrical diagram, exploded view & spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG 02.210 Vario	400	400	760	26

Dimensions

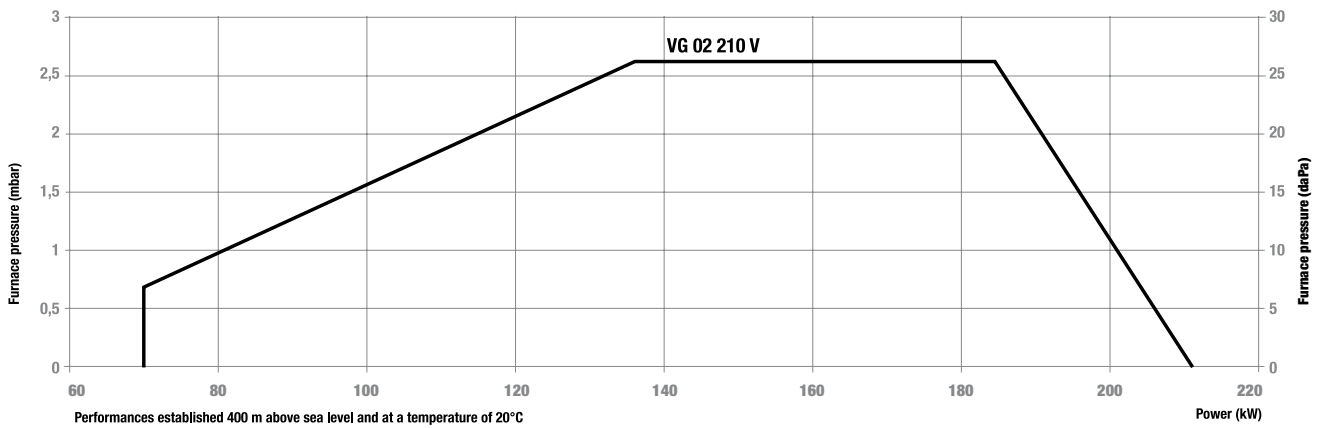


Gas train		
	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4
A	46	55
C	214	254
D	92	114
E	179	188
F	330	360
G	400	440



Range: VG 02.210 V
 70 ... 210 kW
 2 stage progressive pneumatic
 Low NOx + fan speed control

Working field



Characteristics and equipment

Type	VG 02.210 V	
Operation range	70 - 210 kW	
Gas pressure	20 - 300 mbar	
Control box / flame detection	SG 513 / Ionization	
Fan motor	230 V - 50 Hz - 250 W	
Electrical consumption	330 W	
Acoustic level (LpA)	65,2 dB(A)	
CE Certificate	1312 BQ 4069	
Complete burner code	KN	KL
d1"1/4-Rp1"1/4	-	13 020 054
d3/4"-Rp3/4"	-	3 832 917

Options

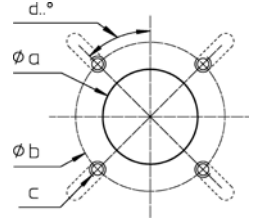
Counter face plate	13 018 496
Air adapter	13 018 822

Description

- Two stage progressive pneumatic low NOx class 3 forced draught burner with fan speed control.
 - Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
 - Maximum heat power: 300 kW.
 - Minimum / maximum power ratio : 1/3.
 - Air / gas ratio with pneumatic control technology.
 - Two combustion head lengths.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
 - Quiet ventilation and reduced electrical consumption.
 - Closing of the air flap on burner shut-down.
 - Gas train factory assembled and tested for tightness and electrical security.
 - Complete electrical equipment in the body of the burner with control panel.
 - Single-phase electrical power supply 230V - 50Hz.
 - Protection level IP 21.
 - Maximum working temperature 50°C.
- In compliance with the EN 676 standards and European Guidelines such as:
- Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

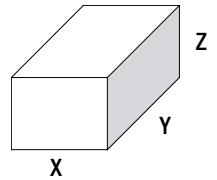
Connecting flange

Ø a (mm)	b (mm)	c	d
130...145	172 ... 184	M8	45°



Packaging

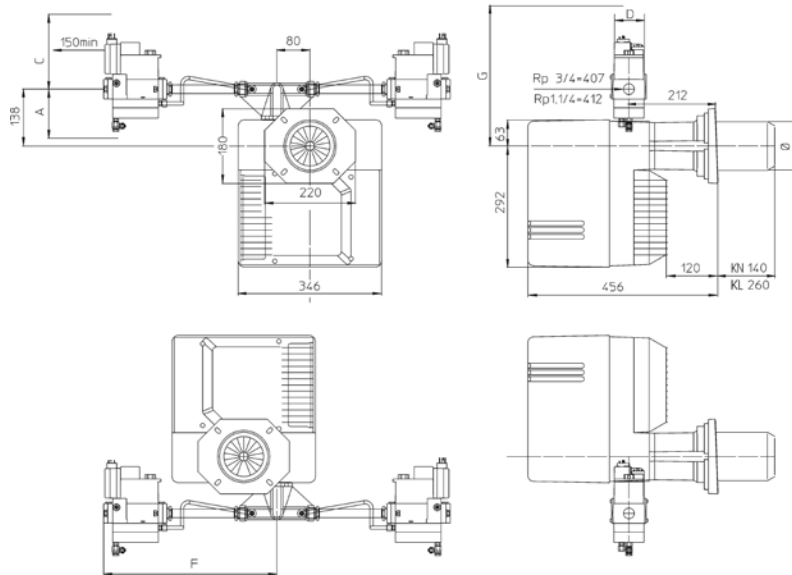
- The burner is delivered in two package complete with:
- The burner body with: boiler fixing accessories, technical data including electrical diagram, exploded view and spare parts list, Instruction manual
 - The gas train.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG 03.300 Vario	400	427	498	20

Gas train Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
d1"1/4-Rp1"1/4	400	600	240	11
d3/4"-Rp1"	400	600	240	6

Dimensions

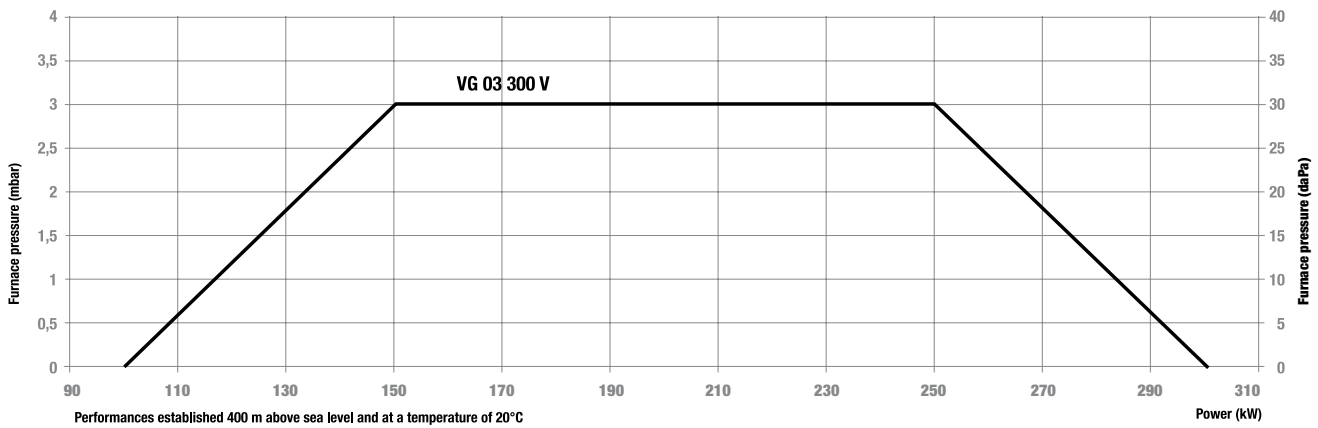


Gas train	A	C	D	F	G	Ø
d3/4"-Rp3/4"	102	180	73	419	317	124
d1"1/4-Rp1"1/4	100	169	96	452	320	



Range: VG 03.300 V
 100 ... 300 kW
 2 stage progressive pneumatic
 Low NOx + fan speed control

Working field



Characteristics and equipment

Type	VG 03.300 V	
Operation range	100 - 300 kW	
Gas pressure	20 - 300 mbar	
Control box / flame detection	SG 513 / Ionization	
Fan motor	230 V - 50 Hz - 250 W	
Electrical consumption	400 W	
CE Certificate	1312 AU 2752	
	KN	KL
Complete burner code		
d1"1/4-Rp1"1/4	13 020 312	13 020 313
d3/4"-Rp1"	13 021 964	13 021 965

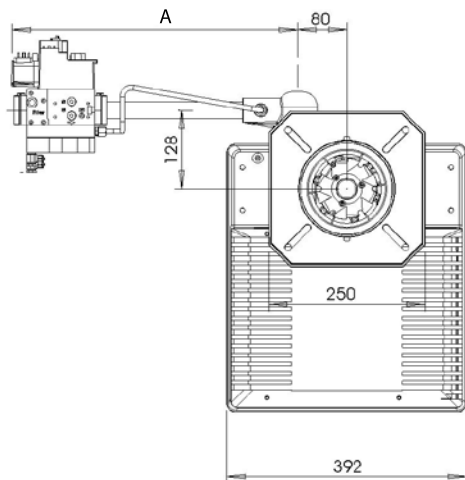
Options

Counter face plate	13 018 496
Silencer	13 006 068
Air adapter	13 005 571

Description

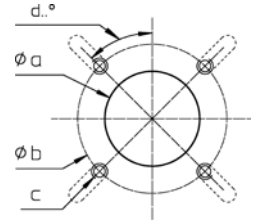
- Two stage progressive pneumatic low NOx class 3 forced draught burner with fan speed control.
 - Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
 - Maximum heat power: 430 and 520 kW.
 - Minimum / maximum power ratio: 1/3.
 - Air / gas ratio with pneumatic control technology.
 - Two combustion head lengths.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
 - Quiet ventilation and reduced electrical consumption.
 - Closing of the air flap on burner shut-down.
 - Gas train factory assembled and tested for tightness and electrical security.
 - Complete electrical equipment in the body of the burner with control panel.
 - Single-phase electrical power supply 230V - 50Hz.
 - Protection level IP 21.
 - Maximum working temperature 50°C.
- In compliance with the EN 676 standards and European Guidelines such as:
- Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Dimensions



Connecting flange

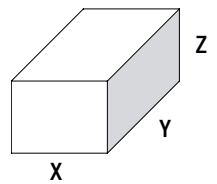
Ø a (mm)	b (mm)	c	d
165	180 ... 270	M10	45°



Packaging

The burner is delivered complete in three packages containing:

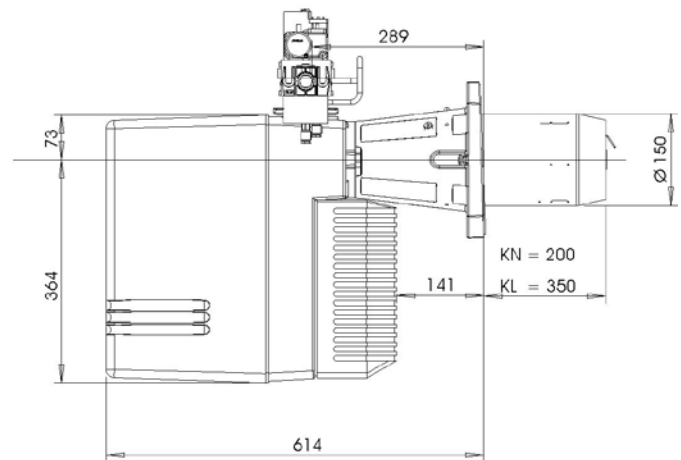
- The burner body with: boiler fixing accessories, technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head
- The gas train.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG 04.570 Vario	420	510	540	27

Gas train Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
d1"1/2-Rp1"1/2	550	670	380	14
d1"1/4-Rp1"1/4	400	600	240	9
d3/4"-Rp3/4"	400	600	240	7

Head Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
04.570 KN	470	760	280	9
04.570 KL	470	910	280	11

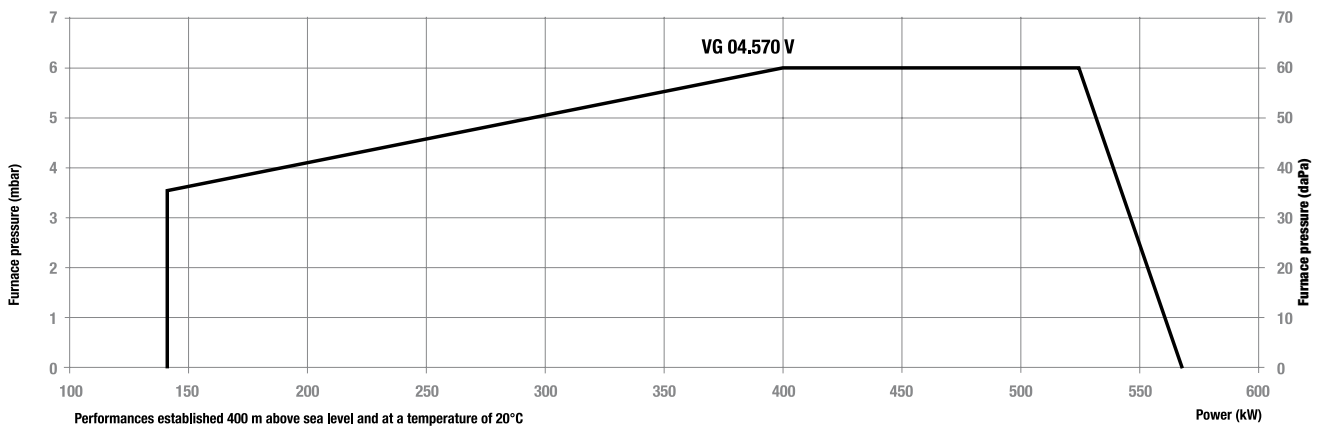


Gas train			
A	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d1"1/2-Rp1"1/2
	430	490	580

Range: VG 04.570 V
 140 ... 570 kW
 2 stage progressive pneumatic
 Low NOx + fan speed control



Working field



Characteristics and equipment

Type	VG 04.570 V	
Operation range	140 - 570 kW	
Gas pressure	20 - 300 mbar	
Control box / flame detection	SG 513 / Ionization	
Fan motor	230 V - 50 Hz - 750 W	
Electrical consumption	800 W	
Acoustic level (LpA)	73,9 dB(A)	
CE Certificate	1312 BN 3682	
	KN	KL
Complete burner code		
d1"1/2-Rp1"1/2	13 012 802	13 012 804
d1"1/4-Rp1"1/4	13 012 749	13 012 750
d3/4"-Rp3/4"	3 832 918	3 832 919

Options

Counter face plate	13 017 499
Silencer	13 012 574
Air adapter	13 002 031

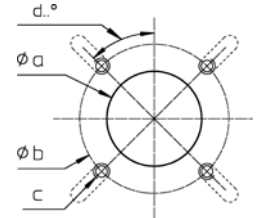
Description

- Two stage progressive pneumatic low NOx class 3 forced draught burner with fan speed control.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
- Maximum heat power: 700 and 1 040 kW.
- Minimum / maximum power ratio: 1/5.
- Air / gas ratio with pneumatic control technology.
- Three combustion head lengths.
- Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
- Quiet ventilation and reduced electrical consumption.
- Closing of the air flap on burner shut-down.
- Gas train factory assembled and tested for tightness and electrical security.
- Complete electrical equipment in the body of the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum working temperature 50°C.

- In compliance with the EN 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

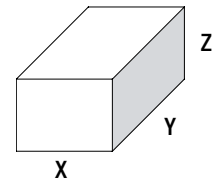
Ø a (mm)	b (mm)	c	d
172 ... 195	220 ... 260	M10	45°



Packaging

The burner is delivered complete in three packages containing:

- The burner body with: boiler fixing accessories, technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head
- The gas train.



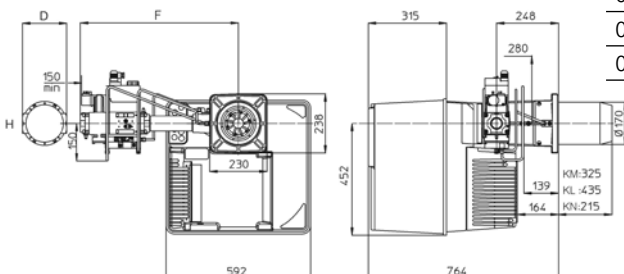
Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG 05.700 Vario	800	600	850	56
VG 05.1000 Vario	600	800	850	56

Gas train Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
s65-DN65	600	790	500	30
s2"-Rp2"	600	790	500	18
d1"1/2-Rp2"	550	670	380	14
d1"1/4-Rp2"	400	600	240	11
d3/4"-Rp1"	400	600	240	8

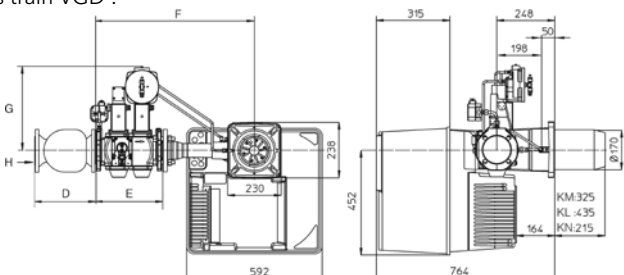
Head Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
05.700 KN	470	760	280	9
05.700 KL	470	910	280	11
05.700 KM	470	910	280	11
05.1000 KN	470	760	280	9
05.1000 KL	470	910	280	11
05.1000 KM	470	910	280	11

Dimensions

with gas train MB-VEF :



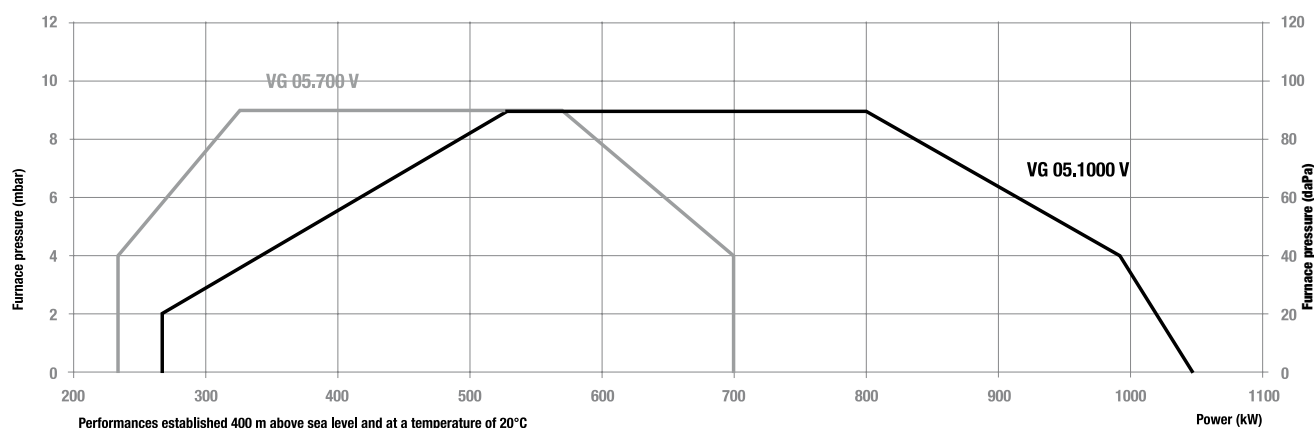
with gas train VGD :



Range: VG 05.700 V, VG 05.1000 V
 240 ... 1040 kW
 2 stage progressive pneumatic
 Low NOx + fan speed control



Working fields



Characteristics and equipment

Type	VG 05.700 V			VG 05.1000 V		
Operation range	240 - 700 kW			270 - 1040 kW		
Gas pressure	20 - 300 mbar					
Control box / flame detection	SG 513 / Ionization					
Fan motor	230/400 V - 50 Hz - 1,1 kW			230/400 V - 50 Hz - 1,5 kW		
Acoustic level (LpA)	75,4 dB(A)			77,6 dB(A)		
CE Certificate	1312 AQ 0924			1312 AQ 0925		
	KN	KL	KM	KN	KL	KM
Complete burner code						
s65-DN65	-	-	-	3 832 932	3 832 933	3 832 934
s2"-Rp2"	3 832 920	3 832 921	3 832 922	3 832 935	3 832 936	3 832 937
d1"1/2-Rp2"	3 832 923	3 832 924	3 832 925	3 832 938	3 832 939	3 832 940
d1"1/4-Rp2"	3 832 926	3 832 927	3 832 928	3 832 941	3 832 942	3 832 943
d3/4"-Rp1"	3 832 929	3 832 930	3 832 931	3 832 944	3 832 945	3 832 946

Options

Counter face plate	13 018 499
Silencer	13 001 566
Air adapter	13 001 567
Digital power regulation R 40 (hot water, immersion probe)	13 007 765
Digital power regulation R 40 (hot water, strap-on probe)	13 007 766

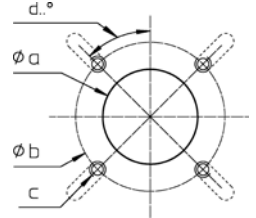
Description

- Two stage progressive pneumatic low NOx class 3 forced draught burner with fan speed control.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
- Maximum heat power: 1 600 and 2 100 kW.
- Minimum / maximum power ratio: 1/5.
- Air / gas ratio with pneumatic control technology.
- Three combustion head lengths.
- Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
- Quiet ventilation and reduced electrical consumption.
- Closing of the air flap on burner shut-down.
- Gas train factory assembled and tested for tightness and electrical security.
- Complete electrical equipment in the body of the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum working temperature 50°C.

- In compliance with the EN 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

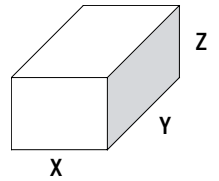
Ø a (mm)	b (mm)	c	d
250	300 ... 400	M12	45°



Packaging

The burner is delivered complete in three packages containing:

- The burner body with: boiler fixing accessories, technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head
- The gas train.



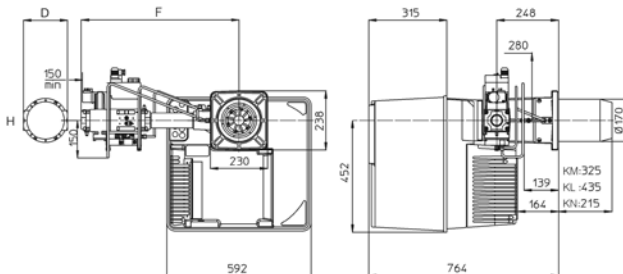
Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG 06.1600 Vario	600	800	850	73
VG 06.2100 Vario	600	800	850	73

Gas train Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
s80-DN80	600	790	500	39
s65-DN65	600	790	500	31
s2"-Rp2"	600	790	500	20
d1"1/2-Rp2"	550	670	380	14
d1"1/4-Rp2"	550	670	380	14

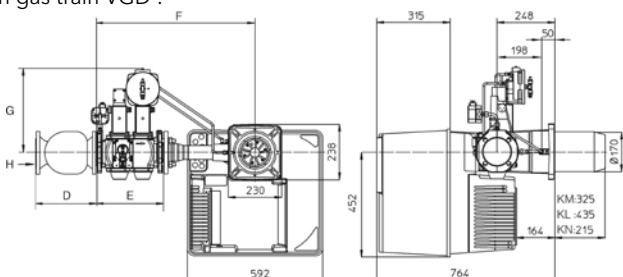
Head Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
06.1600 KN	470	760	280	9
06.1600 KL	420	1000	380	28
06.1600 KM	420	1000	380	27
06.2100 KN	470	760	280	9
06.2100 KL	420	1000	380	28
06.2100 KM	470	910	280	11

Dimensions

with gas train MB-VEF :



with gas train VGD :

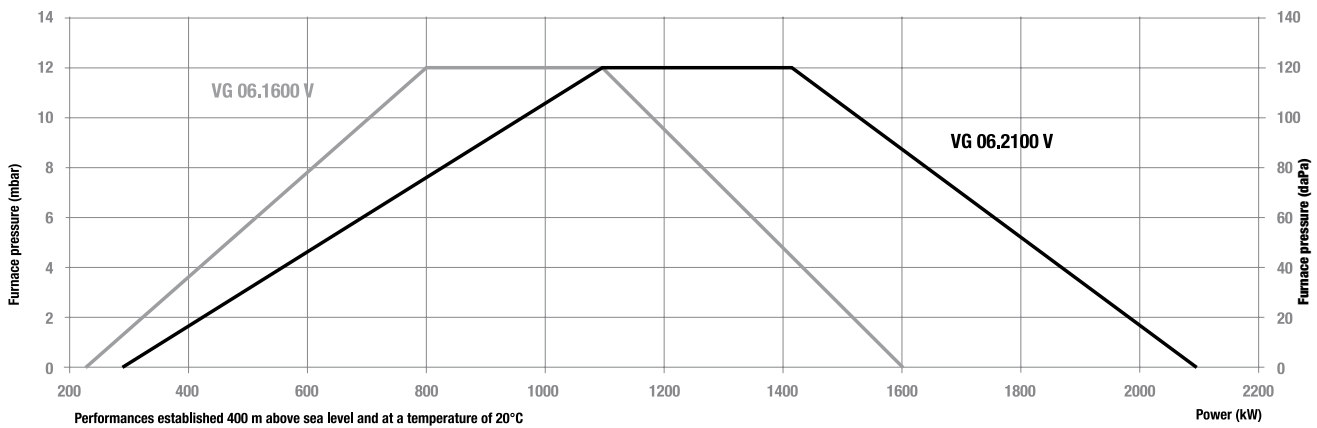


Gas VECTRON® G 06 Vario

Range: VG 06.1600 V, VG 06.2100 V
 230 ... 2100 kW
 2 stage progressive pneumatic
 Low NOx + fan speed control



Working fields



Characteristics and equipment

Type	VG 06.1600 V			VG 06.2100 V		
Operation range	230 - 1600 kW			260 - 2100 kW		
Gas pressure	20 - 300 mbar					
Control box / flame detection	SG 513 / Ionization					
Fan motor	230/400 V - 50 Hz - 2,2 kW			230/400 V - 50 Hz - 2,7 kW		
Acoustic level (LpA)	78,8 dB(A)			80 dB(A)		
CE Certificate	1312 BM 3427			1312 BM 3428		
	KN	KL	KM	KN	KL	KM
Complete burner code						
s80-DN80	3 832 948	3 832 949	3 832 950	3 832 963	3 832 964	3 832 965
s65-DN65	3 832 951	3 832 952	3 832 953	3 832 966	3 832 967	3 832 968
s2"-Rp2"	3 832 954	3 832 955	3 832 956	3 832 969	3 832 970	3 832 971
d1 1/2-Rp2"	3 832 957	3 832 958	3 832 959	3 832 972	3 832 973	3 832 974
d1 1/4-Rp2"	3 832 960	3 832 961	3 832 962	3 832 975	3 832 976	3 832 977

Options

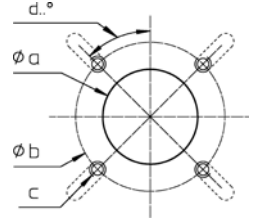
Counter face plate	13 008 019
Silencer	13 007 870
Air adapter	13 001 567
Digital power regulation R 40 (hot water, immersion probe)	13 007 765
Digital power regulation R 40 (hot water, strap-on probe)	13 007 766

Description

- Two stage progressive electronic low NOx class 3 forced draught burner.
 - Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
 - Maximum heat power: 120, 160 and 210 kW.
 - Minimum / maximum power ratio : 1/4 (1/5 for VG2.210 Modulo).
 - Air / gas ratio with digital control technology.
 - Adjustable combustion head length with sliding flange.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
 - Quiet ventilation and reduced electrical consumption.
 - Closing of the air flap on burner shut-down.
 - Gas train factory assembled and tested for tightness and electrical security.
 - Complete electrical equipment in the body of the burner with control panel.
 - Single-phase electrical power supply 230V - 50Hz.
 - Protection level IP 21.
 - Maximum working temperature 50°C.
- In compliance with the EN 676 standards and European Guidelines such as:
- Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

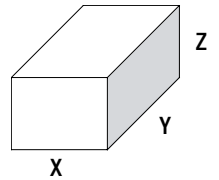
Connecting flange

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



Packaging

- The burner is delivered in two package complete with:
- The burner body with: boiler fixing accessories, technical data including electrical diagram, exploded view and spare parts list, Instruction manual
 - The gas train.

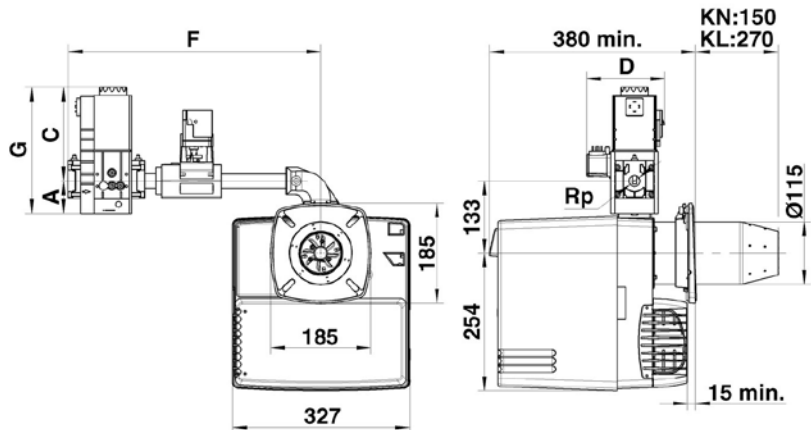


Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG 02.120 Modulo	391	600	770	27
VG 02.160 Modulo	391	600	770	27
VG 02.210 Modulo	391	600	770	27

Gas train Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
d3/4"-Rp3/4"	400	600	240	8

Dimensions

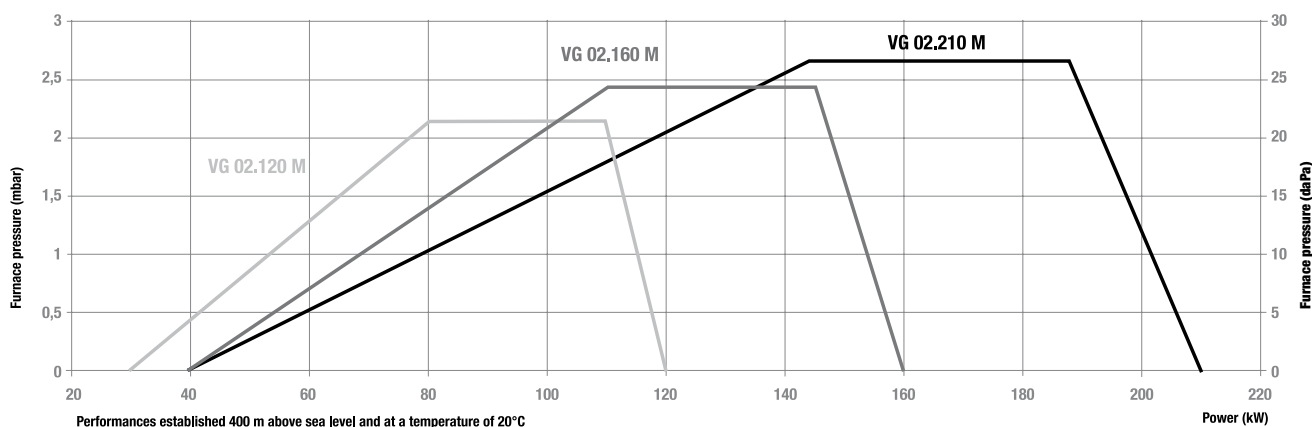
Gas train	
	d3/4"-Rp3/4"
A	60
C	173
D	144
F	466
G	233





Range: VG 02.120 M, VG 02.160 M, VG 02.210 M
 30 ... 210 kW
 2 stage progressive electronic
 Low NOx

Working fields



Characteristics and equipment

Type	VG 02.120 M		VG 02.160 M		VG 02.210 M	
Operation range	30 - 120 kW		40 - 160 kW		40 - 210 kW	
Gas pressure	20 - 100 mbar					
Control box / flame detection	MPA 22 / Ionization					
Fan motor	230 V - 50 Hz - 160 W				230 V - 50 Hz - 130 W	
Electrical consumption	180 W		250 W		260 W	
Acoustic level (LpA)	62 dB(A)		64 dB(A)		65,2 dB(A)	
CE Certificate	1312 BQ 4069					
	KN	KL	KN	KL	KN	KL
Complete burner code d3/4"-Rp3/4"	13 022 406	13 022 845	13 22 407	13 22 846	13 022 408	13 022 847

Options

Counter face plate	13 018 496
Air adapter	13 018 822

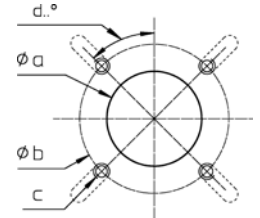
Description

- Two stage progressive electronic low NOx class 3 forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
- Maximum heat power: 540 kW.
- Minimum / maximum power ratio: 1/5.
- Air / gas ratio with digital control technology.
- Two combustion head lengths.
- Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
- Quiet ventilation and reduced electrical consumption.
- Closing of the air flap on burner shut-down.
- Gas train factory assembled and tested for tightness and electrical security.
- Complete electrical equipment in the body of the burner with control panel.
- Single-phase electrical power supply 230V - 50Hz.
- Protection level IP 21.
- Maximum working temperature 50°C.

- In compliance with the EN 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

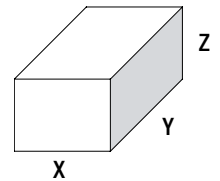
Ø a (mm)	b (mm)	c	d
155	180 ... 270	M10	45°



Packaging

The burner is delivered complete in three packages containing:

- The burner body with: boiler fixing accessories, technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head
- The gas train.

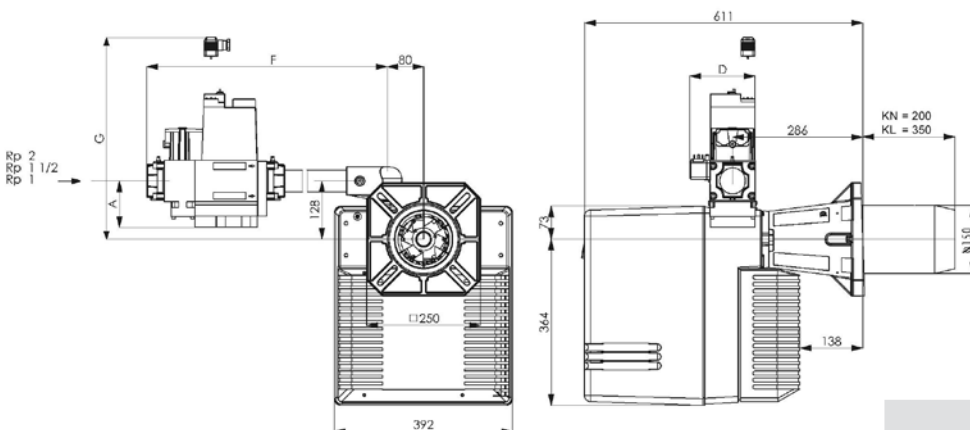


Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG 04.540 Modulo	420	510	540	27

Gas train Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
d1"1/2-Rp2"	400	600	240	12
d1"1/4-Rp1"1/2	400	600	240	12
d3/4"-Rp1"	400	600	240	9

Head Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
KN	470	760	280	11
KL	470	910	280	11

Dimensions



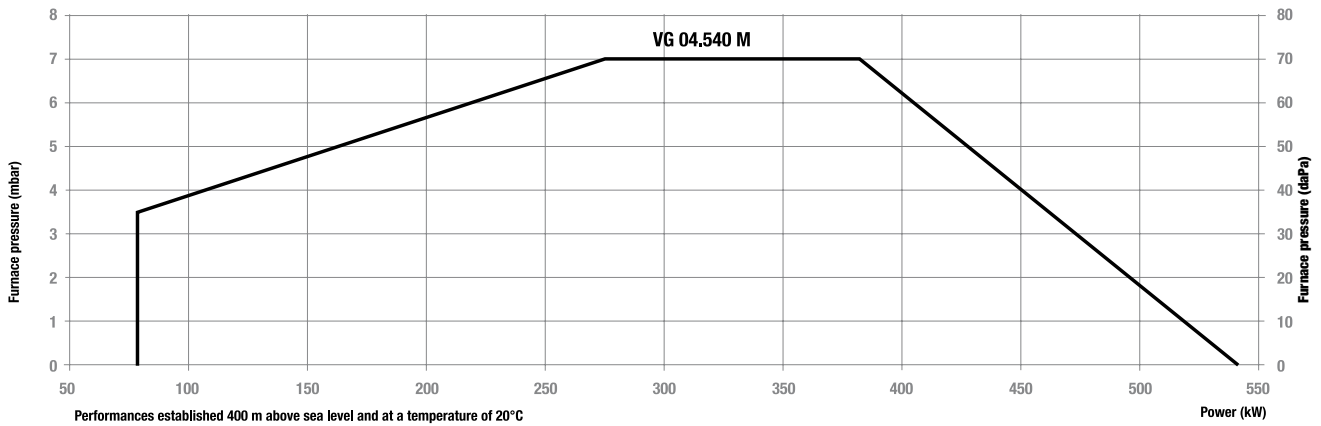
VG 04 Modulo			
	d1"1/2-Rp2"	d1"1/4-Rp1"1/2	d3/4"-Rp1"
A	310	340	400
B	85	102	102
C	128	128	128
D	640	640	645
E	80	80	80

Gas VECTRON® G 04 Modulo

Range: VG 04.540 M
 80 ... 540 kW
 2 stage progressive electronic
 Low NOx



Working field



Characteristics and equipment

Type	VG 04.540 M	
Operation range	80 - 540 kW	
Gas pressure	20 - 100 mbar	
Control box / flame detection	MPA 22 / Ionization	
Fan motor	230 V - 50 Hz - 480 W	
Electrical consumption	580 W	
Acoustic level (LpA)	71,2 (dB(A))	
CE Certificate	1312 BL 3115	
Complete burner code	KN	KL
d1"1/2-Rp2"	13 006 281	13 006 282
d1"1/4-Rp1"1/2	13 006 279	13 006 280
d3/4"-Rp1"	13 006 275	13 006 276

Options

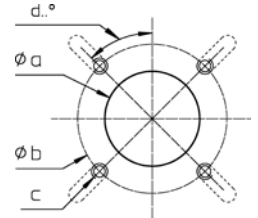
Counter face plate	13 017 499
Silencer	13 012 574
Air adapter	13 002 031

Description

- Two stage progressive electronic low NOx class 3 forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
- Maximum heat power: 700 and 1 040 kW.
- Minimum / maximum power ratio: 1/5.
- Air / gas ratio with digital control technology.
- Three combustion head lengths.
- Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
- Quiet ventilation and reduced electrical consumption.
- Closing of the air flap on burner shut-down.
- Gas train factory assembled and tested for tightness and electrical security.
- Complete electrical equipment in the body of the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum working temperature 50°C.
- In compliance with the EN 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

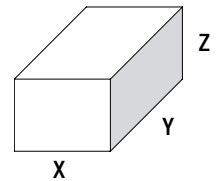
Ø a (mm)	b (mm)	c	d
172 ... 195	220 ... 260	M10	45°



Packaging

The burner is delivered complete in three packages containing:

- The burner body with: boiler fixing accessories, technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head
- The gas train.

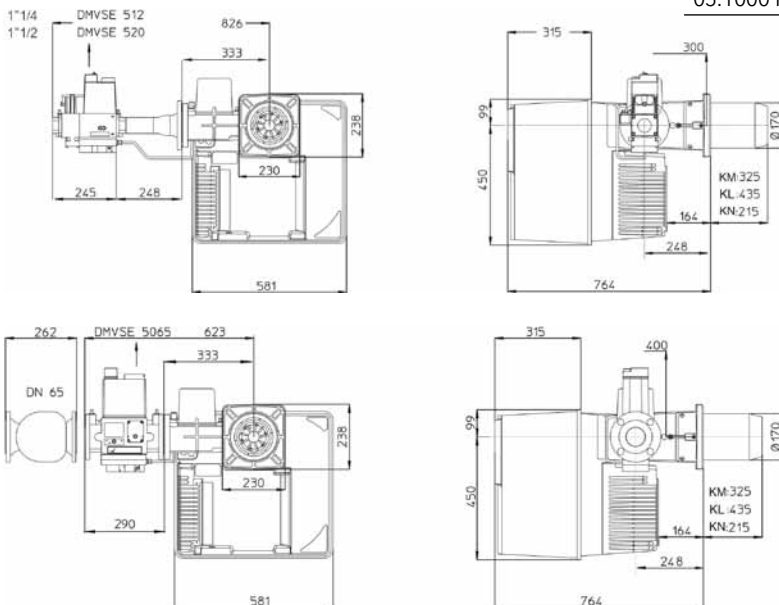


Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG 05.700 Modulo	600	800	850	56
VG 05.1000 Modulo	600	800	850	56

Gas train Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
d2"-Rp2"	550	670	380	22
d1"1/4-Rp1"1/2	550	670	380	21
d65-DN65	550	670	380	33

Head Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
05.700 KN	470	760	280	9
05.700 KL	470	910	280	11
05.700 KM	470	910	280	11
05.1000 KN	470	760	280	9
05.1000 KL	470	910	280	11
05.1000 KM	470	910	280	11

Dimensions

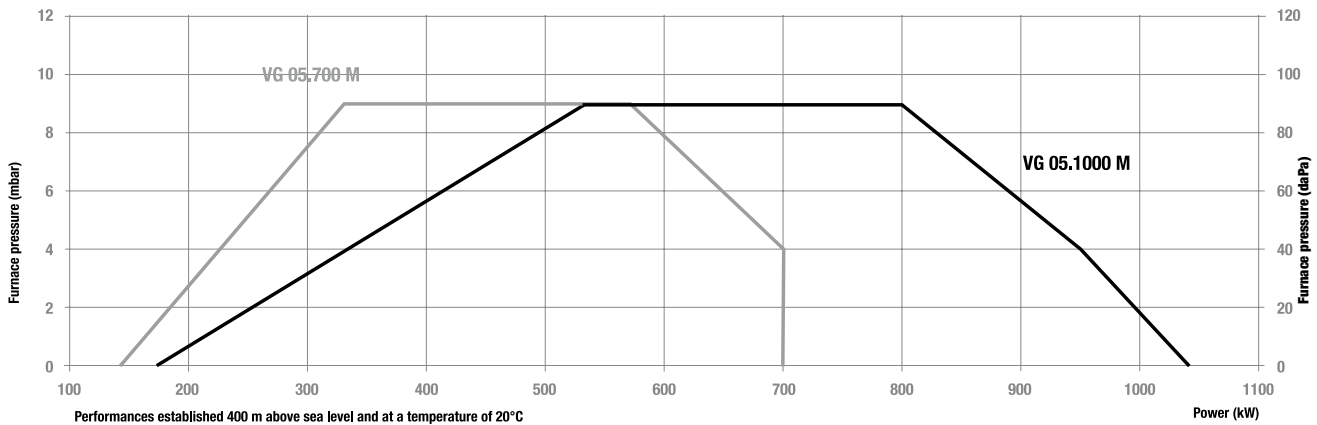


Gas VECTRON® G 05 Modulo

Range: VG 05.700 M, VG 05.1000 M
 140 ... 1040kW
 2 stage progressive electronic
 Low NOx



Working fields



Characteristics and equipment

Type	VG 05.700 M			VG 05.1000 M		
Operation range	140 - 700 kW			170 - 1040 kW		
Gas pressure	20 - 100 mbar					
Control box / flame detection	MPA 22 / Ionization					
Fan motor	230/400 V - 50 Hz - 1,1 kW			230/400 V - 50 Hz - 1,5 kW		
Acoustic level (LpA)	75,4 dB(A)			77,6 dB(A)		
CE Certificate	1312 AQ 924			1312 AQ 925		
	KN	KL	KM	KN	KL	KM
Complete burner code						
d65-DN65	-	-	-	13 009 029	13 009 030	13 009 031
d2"-Rp2"	13 009 015	13 009 016	13 009 017	13 009 023	13 009 024	13 009 025
d1 1/4"-Rp1 1/2"	13 009 012	13 009 013	13 009 014	13 009 020	13 009 021	13 009 022

Options

Counter face plate	13 017 499
Silencer	13 001 566
Air adapter	13 001 567
Digital power regulation R 40 (hot water, immersion probe)	13 007 765
Digital power regulation R 40 (hot water, strap-on probe)	13 007 766

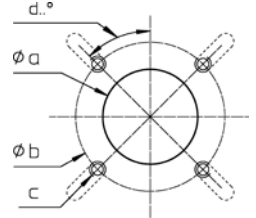
Description

- Two stage progressive electronic low NOx class 3 forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
- Maximum heat power: 1 600 and 2 100 kW.
- Minimum / maximum power ratio: 1/5.
- Air / gas ratio with digital control technology.
- Three combustion head lengths.
- Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
- Quiet ventilation and reduced electrical consumption.
- Closing of the air flap on burner shut-down.
- Gas train factory assembled and tested for tightness and electrical security.
- Complete electrical equipment in the body of the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum working temperature 50°C.

- In compliance with the EN 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

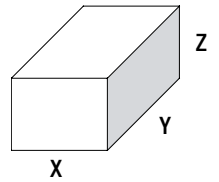
Connecting flange

Ø a (mm)	b (mm)	c	d
250	300 ... 400	M12	45°



Packaging

- The burner is delivered complete in three packages containing:
- The burner body with: boiler fixing accessories, technical data including electrical diagram, exploded view and spare parts list, Instruction manual
 - The combustion head
 - The gas train.

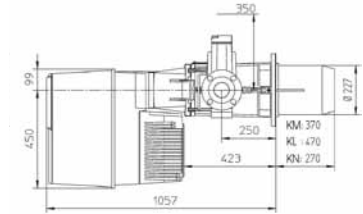
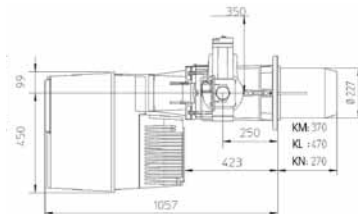
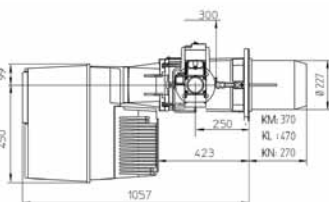
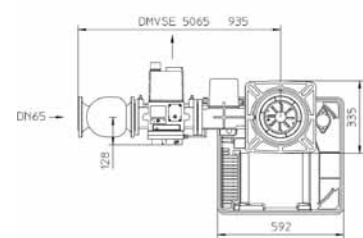
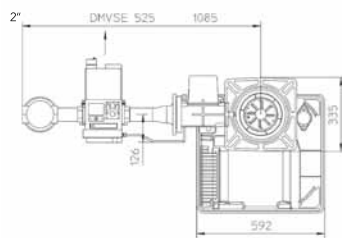
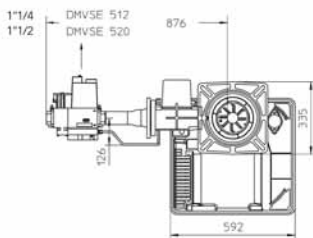


Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VG 06.1600 Modulo	600	800	850	69
VG 06.2100 Modulo	600	800	850	70

Gas train Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
d65-DN65	550	670	380	33
d2"-Rp2"	550	670	380	32
d1"1/2-Rp2"	550	670	380	22
d1"1/4-Rp1"1/2	550	670	380	21

Head Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
06.1600 KN	470	760	280	9
06.1600 KL	420	1000	380	28
06.1600 KM	420	1000	380	27
06.2100 KN	470	760	280	9
06.2100 KL	420	1000	380	28
06.2100 KM	470	910	280	11

Dimensions

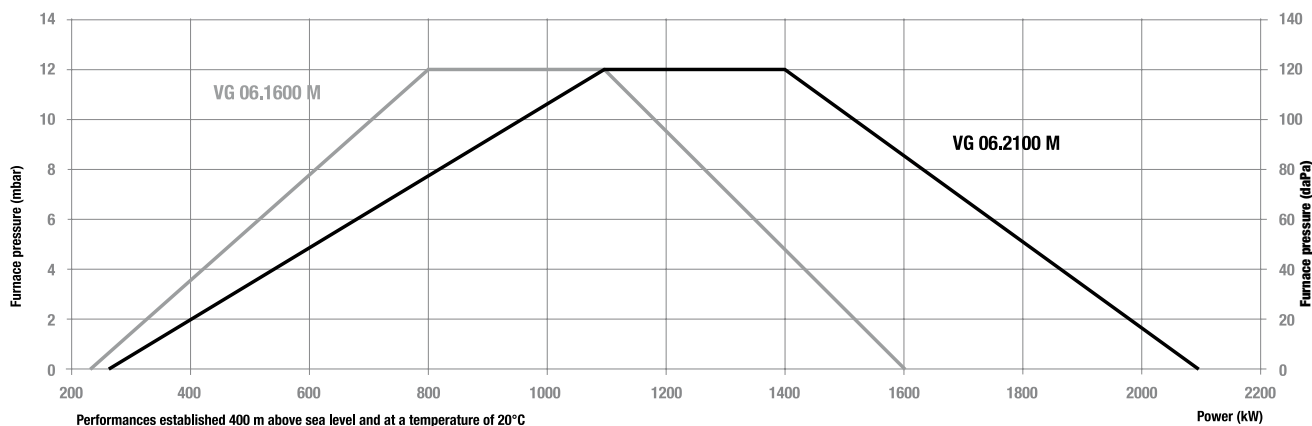


Gas VECTRON® G 06 Modulo

Range: VG 06.1600 M,
VG 06.2100 M
230 ... 2100 kW
2 stages progressive electronic
Low NOx



Working fields



Characteristics and equipment

Type	VG 06.1600 M			VG 06.2100 M		
Operation range	230 - 1600 kW			260 - 2100 kW		
Gas pressure	20 - 100 mbar					
Control box / flame detection	MPA 22 / Ionization					
Fan motor	230/400 V - 50 Hz - 2,2 kW			230/400 V - 50 Hz - 2,7 kW		
Acoustic level (LpA)	78,8 dB(A)			80 dB(A)		
CE Certificate	1312 BM 3427			1312 BM 3428		
	KN	KL	KM	KN	KL	KM
Complete burner code						
d65-DN65	13 009 047	13 009 048	13 009 049	13 009 056	13 009 057	13 009 058
d2"-Rp2"	13 009 044	13 009 045	13 009 046	13 009 053	13 009 054	13 009 055
d1"1/4-Rp1"1/2	13 009 038	13 009 039	13 009 040	-	-	-
d1"1/2-Rp2"	-	-	-	13 009 050	13 009 051	13 009 052

Options

Counter face plate	13 008 019
Silencer	13 007 870
Air adapter	13 001 567
Digital power regulation R 40 (hot water, immersion probe)	13 007 765
Digital power regulation R 40 (hot water, strap-on probe)	13 007 766

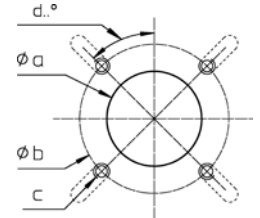
Description

- One-stage dual fuel forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Maximum heat power: 120 and 210 kW.
- Adjustable combustion head length with sliding flange.
- Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
- Quiet ventilation and reduced electrical consumption.
- Gas train factory assembled and tested for tightness and electrical security.
- Complete electrical equipment in the body of the burner with control panel.
- Single-phase electrical power supply 230V - 50Hz.
- Protection level IP 21.
- Maximum working temperature 50°C.

- In compliance with the EN 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

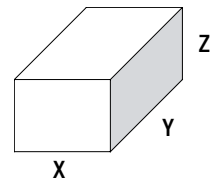
Ø a (mm)	b (mm)	c	d
120 ... 135	150 ... 180	M8	45°



Packaging

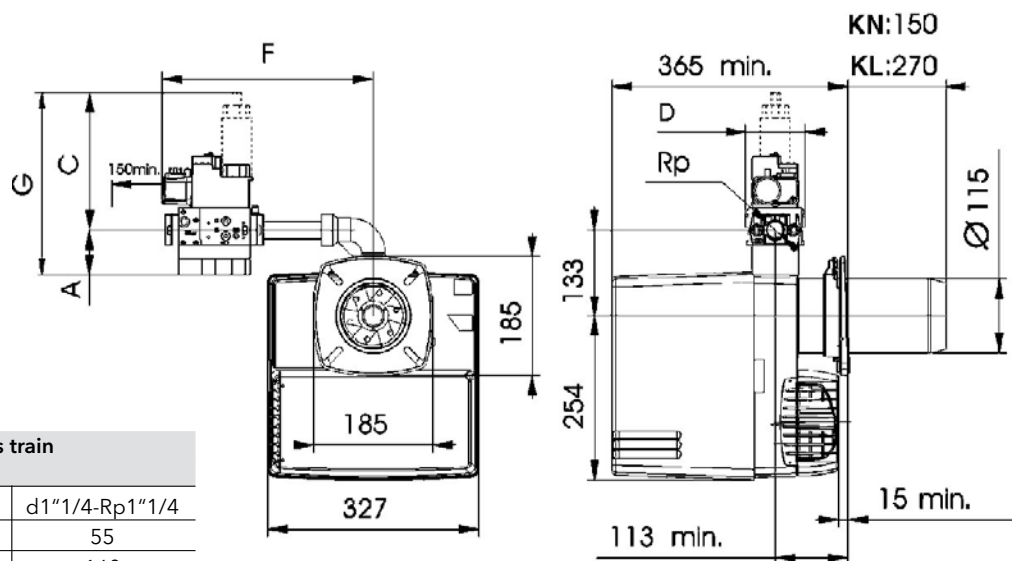
The complete burner is delivered in its package complete with:

- Gas train and filter,
- Hoses and nozzle,
- Boiler fixing accessories,
- Directions for use including electrical diagram, exploded view & spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VGL 02.120	400	400	760	24
VGL 02.210	400	400	760	24

Dimensions

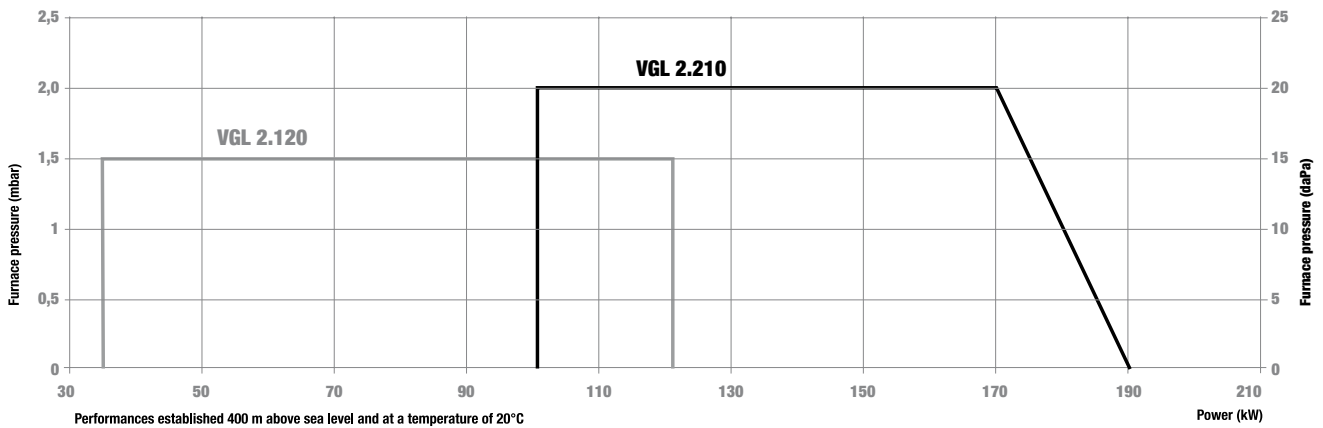


	Gas train	
	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4
A	46	55
C	140	160
D	92	116
E	179	188
F	330	360
G	330	350

Range: VGL 02.120, VGL 02.210
 35 ... 190 kW
 1 stage
 Standard



Working fields



Characteristics and equipment

Type	VGL 02.120		VGL 02.210	
Operating range	35 - 120 kW		100 - 190 kW	
Gas pressure	20 - 300 mbar			
Control box / flame detection	TCG 111.02 / IRD 10 20			
Fan motor	230 V - 50 Hz - 160 W		230 V - 50 Hz - 130 W	
Nozzle	1,85 / 45°S gal/h		2,75 / 45°B gal/h	
Acoustic level (LpA)	62 dB(A)		65,2 dB(A)	
CE Certificate	1312 BQ		4069	
	KN	KL	KN	KL
Complete burner code d3/4"-Rp3/4"	-	3 832 978	-	3 832 979

Options

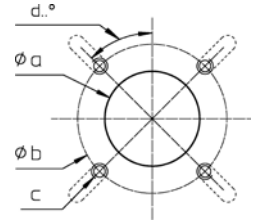
Counter face plate	13 018 496
Air adapter	13 018 022

Description

- Two stages dual fuel forced draught burner.
 - Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
 - Maximum heat power: 350 and 440 kW.
 - Two combustion head lengths.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments.
 - Quiet ventilation and reduced electrical consumption.
 - Gas train factory assembled and tested for tightness and electrical security.
 - Complete electrical equipment in the body of the burner with control panel.
 - Single-phase electrical power supply 230V - 50Hz.
 - Protection level IP 21.
 - Maximum working temperature 50°C.
- In compliance with the EN 676 standards and European Guidelines such as:
- Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

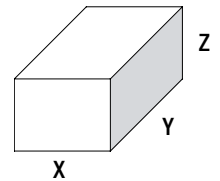
Ø a (mm)	b (mm)	c	d
140	165 ... 220	M10	45°



Packaging

The burner is delivered complete in three packages containing:

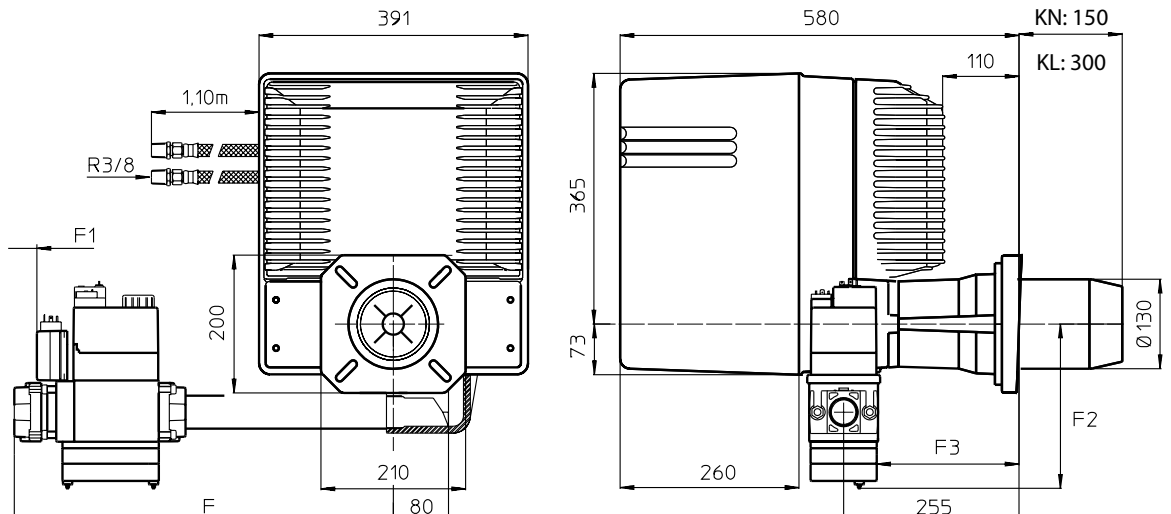
- The burner body with: boiler fixing accessories, hoses and nozzle technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head
- The gas train.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VGL 04.350 Duo	523	1010	550	52
VGL 04.440 Duo	521	1010	570	53

Gas train Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
d1"1/4-Rp1"1/2	320	440	250	9
d3/4"-Rp3/4"	320	440	250	5

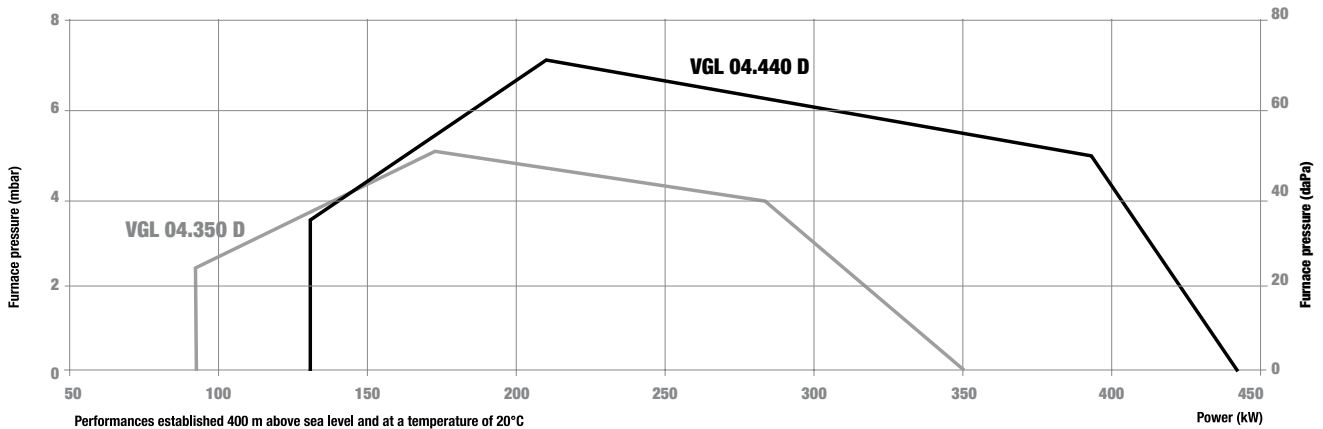
Dimensions



Gas train		
	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4"
F	385	410
F + 1 min	535	560
F2	220	230
F3	210	200

Range: VGL 04.350 D, VGL 04.440 D
 95 ... 440 kW
 2 stages
 Standard

Working fields



Characteristics and equipment

Type	VGL 04.350 D		VGL 04.440 D	
Operating range	95 - 350 kW		130 - 440 kW	
Gas pressure	20 - 300 mbar			
Control box / flame detection	LGB 22 / QRA2			
Fan motor	230 V - 50 Hz - 400 W		230 V - 50 Hz - 480 W	
Nozzle gal/h	on request		on request	
CE Certificate	49 AQ 0985		48 AQ 0986	
	KN	KL	KN	KL
Complete burner code				
d1"1/4-Rp1"1/4	3 833 225	3 833 226	3 833 229	3 833 230
d3/4"-Rp3/4"	3 833 223	3 833 224	3 833 227	3 833 228

Options

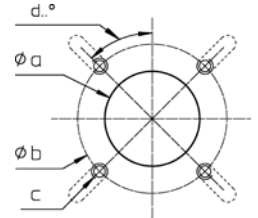
Counter face plate	13 018 499
Silencer	13 012 574
Air adapter	13 002 031

Description

- Two stage progressive pneumatic dual fuel forced draught burner.
 - Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
 - Maximum heat power: 700 and 1 000 kW.
 - Minimum / maximum power ratio: 1/3.
 - Air / gas ratio with pneumatic control technology in gas, three stages in oil.
 - Three combustion head lengths.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Separated motor-pump,
 - Preserved burner head adjustments.
 - Quiet ventilation and reduced electrical consumption.
 - Closing of the air flap on burner shut-down.
 - Gas train factory assembled and tested for tightness and electrical security.
 - Complete electrical equipment in the body of the burner with control panel.
 - Three-phase electrical power supply.
 - Protection level IP 41.
 - Maximum working temperature 50°C.
- In compliance with the EN 676 standards and European Guidelines such as:
- Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

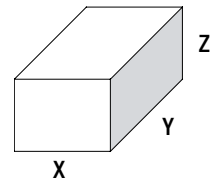
Ø a (mm)	b (mm)	c	d
172 ... 195	220 ... 260	M10	45°



Packaging

The burner is delivered complete in three packages containing:

- The burner body with: boiler fixing accessories, hoses and nozzle technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head
- The gas train.



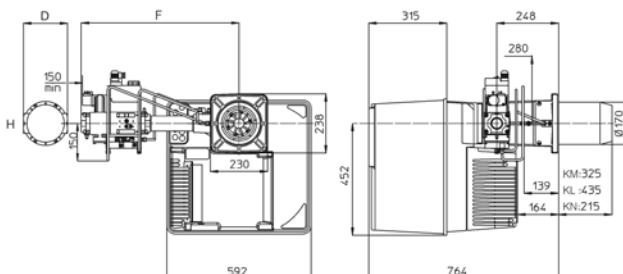
Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VGL 05.700 Duo Plus	600	800	850	70
VGL 05.1000 Duo Plus	600	800	850	70

Gas train Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
s65-DN65	600	790	500	30
s2"-Rp2"	600	790	500	18
d1"1/2-Rp2"	550	670	380	14
d1"1/4-Rp2"	400	600	240	11
d3/4"-Rp1"	400	600	240	8

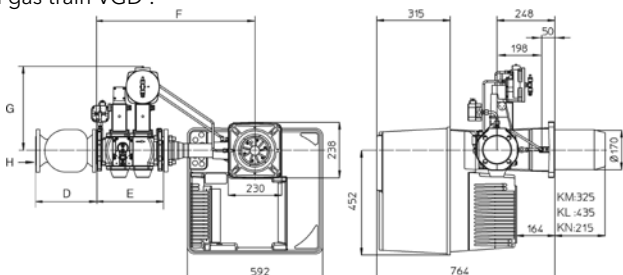
Head Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
05.700 KN	470	760	280	9
05.700 KL	470	910	280	11
05.700 KM	470	910	280	11
05.1000 KN	470	760	280	9
05.1000 KL	470	910	280	11
05.1000 KM	470	910 </td <td>280</td> <td>11</td>	280	11

Dimensions

with gas train MB-VEF :



with gas train VGD :

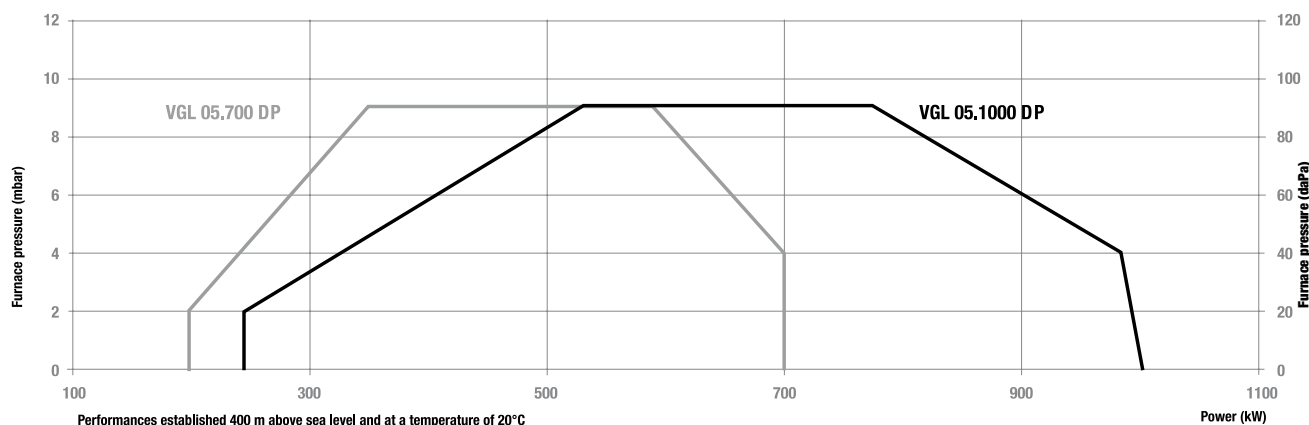


Dual fuel VECTRON® GL 05 Duo Plus

Range: VGL 05.700 DP,
VGL 05.1000 DP
200 ... 1000 kW
2 stages progressive pneumatic in gas (Low NOx)
3 stages in oil



Working fields



Characteristics and equipment

Type	VGL 05.700 DP			VGL 05.1000 DP		
Operating range	200 - 700 kW			240 - 1000 kW		
Gas pressure	20 - 300 mbar					
Control box / flame detection	LFL 1.333 / QRA 2					
Fan motor	230/400 V - 50 Hz - 1,1 kW			230/400 V - 50 Hz - 1,5 kW		
Nozzle	4,5-45° B/5-45° B gal/h			5-45° B/8,5-45° B gal/h		
Acoustic level (LpA)	75,4 dB(A)			77,6 dB(A)		
CE Certificate	1312 AR 2061			1312 AR 2062		
	KN	KL	KM	KN	KL	KM
Complete burner code						
s65-DN65	-	-	-	3 832 983	3 832 984	3 832 985
s2"-Rp2"	3 832 980	3 832 981	3 832 982	3 832 986	3 832 987	3 832 988
d1"1/2-Rp2"	13 004 136	13 004 137	13 004 138	13 004 869	13 004 870	13 004 871
d1"1/4-Rp2"	13 001 930	13 001 931	13 001 932	13 001 936	13 001 937	13 001 938
d3/4"-Rp1"	13 014 772	13 014 773	13 014 774	13 014 775	13 014 776	13 014 777

Options

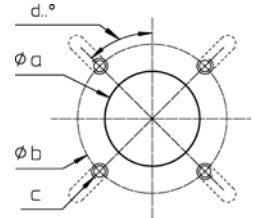
Counter face plate	13 018 499
Silencer	13 001 566
Air adapter	13 001 567
Digital power regulation R 40	
(hot water, immersion probe)	13 007 765
Digital power regulation R 40	
(hot water, strap-on probe)	13 007 766

Description

- Two stage progressive pneumatic dual fuel forced draught burner.
 - Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
 - Maximum heat power: 1 600 and 2 100 kW.
 - Minimum / maximum power ratio: 1/3.
 - Air / gas ratio with pneumatic control technology in gas, three stages in oil.
 - Three combustion head lengths.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Separated motor-pump,
 - Preserved burner head adjustments.
 - Quiet ventilation and reduced electrical consumption.
 - Closing of the air flap on burner shut-down.
 - Gas train factory assembled and tested for tightness and electrical security.
 - Complete electrical equipment in the body of the burner with control panel.
 - Three-phase electrical power supply.
 - Protection level IP 41.
 - Maximum working temperature 50°C.
- In compliance with the EN 676 standards and European Guidelines such as:
- Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

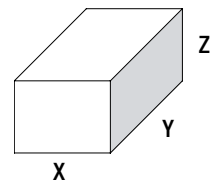
Ø a (mm)	b (mm)	c	d
250	300 ... 400	M12	45°



Packaging

The burner is delivered complete in three packages containing:

- The burner body with: boiler fixing accessories, hoses and nozzle technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head
- The gas train.



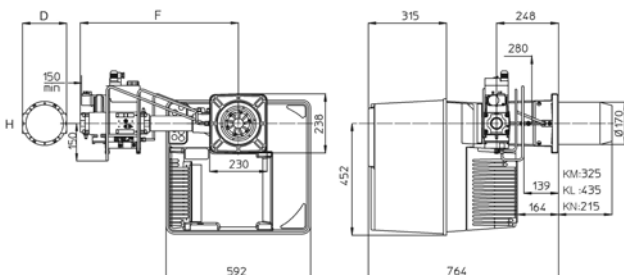
Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VGL06.1600 Duo Plus	600	800	850	85
VGL06.2100 Duo Plus	600	800	850	85

Gas train Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
s80-DN80	600	790	500	39
s65-DN65	600	790	500	31
s2"-Rp2"	600	790	500	20
d1"1/2-Rp2"	550	670	380	14
d1"1/4-Rp2"	550	670	380	14

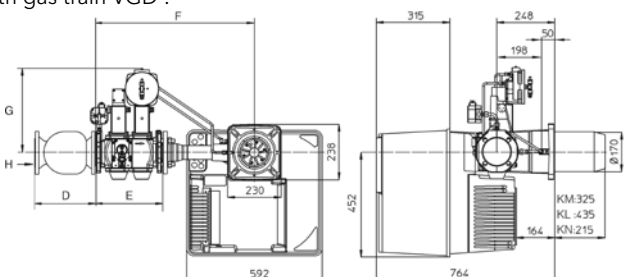
Head Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
06.1600 KN	420	800	380	28
06.1600 KL	420	1000	380	31
06.1600 KM	420	1000	380	30
06.2100 KN	420	800	380	28
06.2100 KL	420	1000	380	31
06.2100 KM	420	1000	380	31

Dimensions

with gas train MB-VEF :



with gas train VGD :

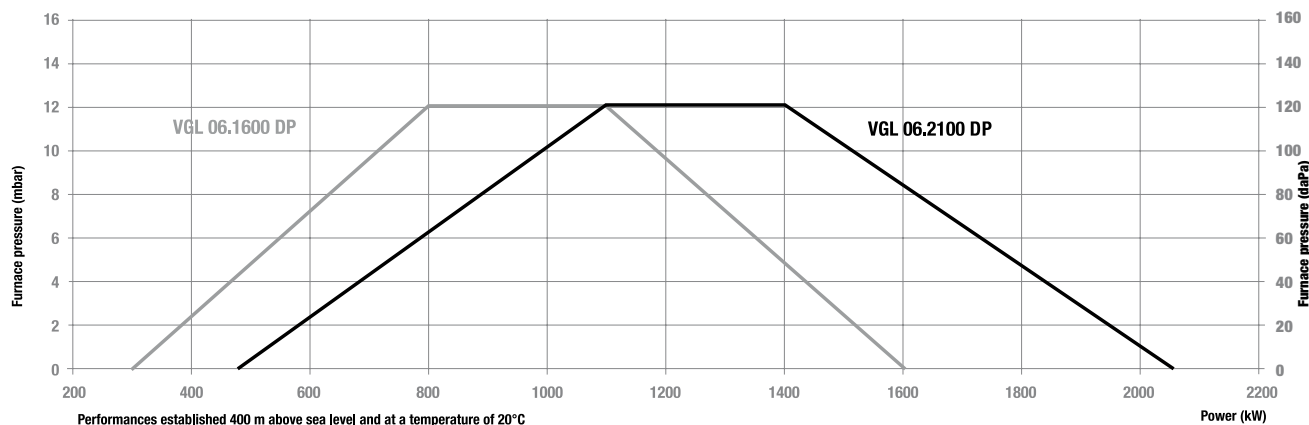


Dual fuel VECTRON® GL 06 Duo Plus



Range: VGL 06.1600 DP,
VGL 06.2100 DP
300 ... 2050 kW
2 stages progressive pneumatic in gas (Low NOx)
3 stages in oil

Working fields



Characteristics and equipment

Type	VGL 06.1600 DP			VGL 06.2100 DP		
Operating range	300 - 1600 kW			480 - 2050 kW		
Gas pressure	20 - 300 mbar					
Control box / flame detection	LFL 1.333 / QRA 2					
Fan motor	230/400 V - 50 Hz - 2,2 kW			230/400 V - 50 Hz - 2,7 kW		
Nozzle	8,5/7,5/7,5/60° B gal/h			13,5/11/11/60° B gal/h		
Acoustic level (LpA)	78,8 dB(A)			80 dB(A)		
CE Certificate	1312 BM 3427			1312 BM 3428		
	KN	KL	KM	KN	KL	KM
Complete burner code						
s80-DN80	3 832 995	3 832 996	3 832 997	3 832 998	3 832 999	3 833 000
s65-DN65	13 014 890	13 014 891	13 014 892	13 016 833	13 016 834	13 016 835
s2"-Rp2"	13 016 827	13 016 828	13 016 829	13 016 830	13 016 831	13 016 832
d1"1/2-Rp2"	13 007 340	13 007 341	13 007 342	13 007 343	13 007 344	13 007 345
d1"1/4-Rp2"	13 015 105	13 015 106	13 015 107	13 015 108	13 015 109	13 015 110

Options

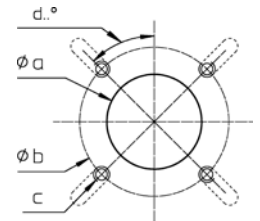
Counter face plate	13 008 019
Silencer	13 007 870
Air adapter	13 001 567
Digital power regulation R 40 (hot water, immersion probe)	13 007 765
Digital power regulation R 40 (hot water, strap-on probe)	13 007 766

Description

- One-stage class 3 low NOx (blue flame) forced draught burner.
 - Fuel: light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
 - Maximum heat power: 20, 24, 28, 30, 35, 47 kW.
 - Adjustable combustion head length with sliding flange.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments,
 - Quiet ventilation and reduced electrical consumption.
 - Complete electrical equipment in the body of the burner with control panel.
 - Single-phase electrical power supply 230V - 50Hz.
 - Protection level IP 21.
 - Maximum working temperature 50°C.
- In compliance with the EN 267 norm and European Guidelines such as:
- EMC 89/336/EEC
 - low voltage 73/23/EEC
 - efficiency 92/42/EEC

Connecting flange

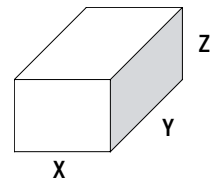
Ø a (mm)	b (mm)	c	d
85 ... 104	150 ... 170	M8	45°



Packaging

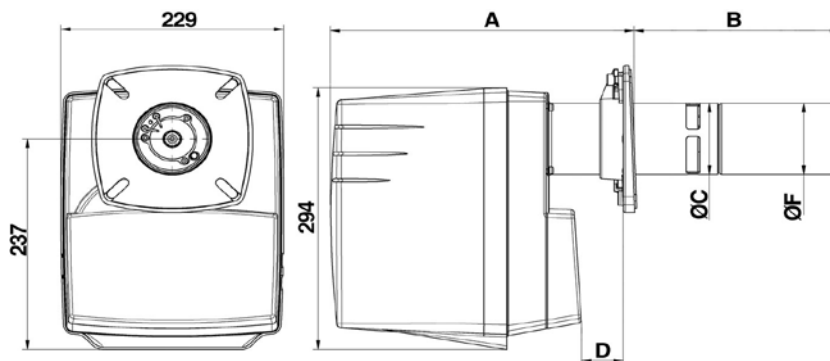
The burner is delivered in its package complete with:

- Hoses, nozzle,
- Boiler fixing accessories,
- Directions for use including electrical diagram, exploded view & spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VB 1.20	260	300	640	11
VB 1.24	260	300	640	11
VB 1.28	260	300	640	11
VB 1.30	260	300	640	11
VB 1.35	260	300	640	11
VB 1.47	260	300	640	11

Dimensions



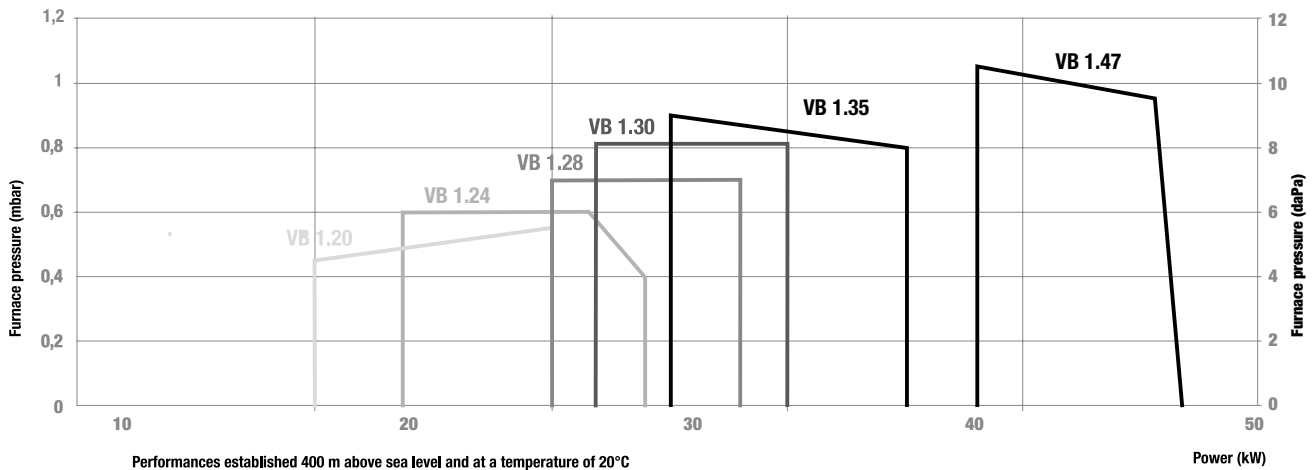
VECTRON®	A	B	Ø C	D	Ø F
VB 1.20	min. 269 / max. 284	min. 234 / max. 249	80	min. 12 / max. 42	80
VB 1.24		min. 234 / max. 249			80
VB 1.28		min. 244 / max. 249			100
VB 1.30		min. 294 / max. 259			100
VB 1.35		min. 294 / max. 309			120
VB 1.47	min. 297 / max. 312	min. 294 / max. 305			120

Light oil VECTRON® Blue 1



Range: VB 1.20, VB 1.24, VB 1.28, VB 1.30,
 VB 1.35, VB 1.47
 11 ... 47 kW
 1 stage
 Low NOx Blue flame

Working fields



Characteristics and equipment

Type	VB 1.20		VB 1.24		VB 1.28		VB 1.30		VB 1.35		VB 1.47	
Operation range	11-20 kW		14-24 kW		20-28 kW		22-30 kW		25-35 kW		38-47 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		3,3-4,0 kg/h	
Nozzle	0,40 / 60°S		0,45 / 60°S		0,50 / 80°S		0,55 / 80°S		0,60 / 80°S		0,75 / 80°S	
Control box / flame detector	TCH 141.04 / IRD 1010											
Fan motor	230 V - 50 Hz - 110 W											
Electrical consumption	207 W											
Fuel connection	Rp 3/8" / M14 x 1,5 - 1000 mm											
Acoustiv level (LpA)	59 dB(A)											
CE certificate	EN 267											
	KN	KL	KN	KL	KN	KL	KN	KL	KN	KL	KN	KL
Complete burner code	3 832 624	-	3 832 625	-	3 832 626	-	3 832 627	-	3 832 628	-	3 833 013	-

Options

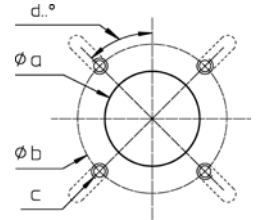
Counter face plate	13 018 495
Air adapter	13 011 996

Description

- One-stage class 3 low NOx (blue flame) forced draught burner.
 - Fuel: light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
 - Maximum heat power: 60, 65 and 74 kW.
 - Adjustable combustion head length with sliding flange.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments,
 - Quiet ventilation and reduced electrical consumption.
 - Complete electrical equipment in the body of the burner with control panel.
 - Single-phase electrical power supply 230V - 50Hz.
 - Protection level IP 21.
 - Maximum working temperature 50°C.
- In compliance with the EN 267 norm and European Guidelines such as:
- EMC 89/336/EEC
 - low voltage 73/23/EEC
 - efficiency 92/42/EEC

Connecting flange

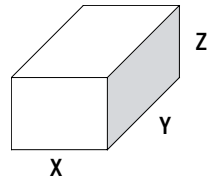
Ø a (mm)	b (mm)	c	d
125 ... 135	150 ... 170	M8	45°



Packaging

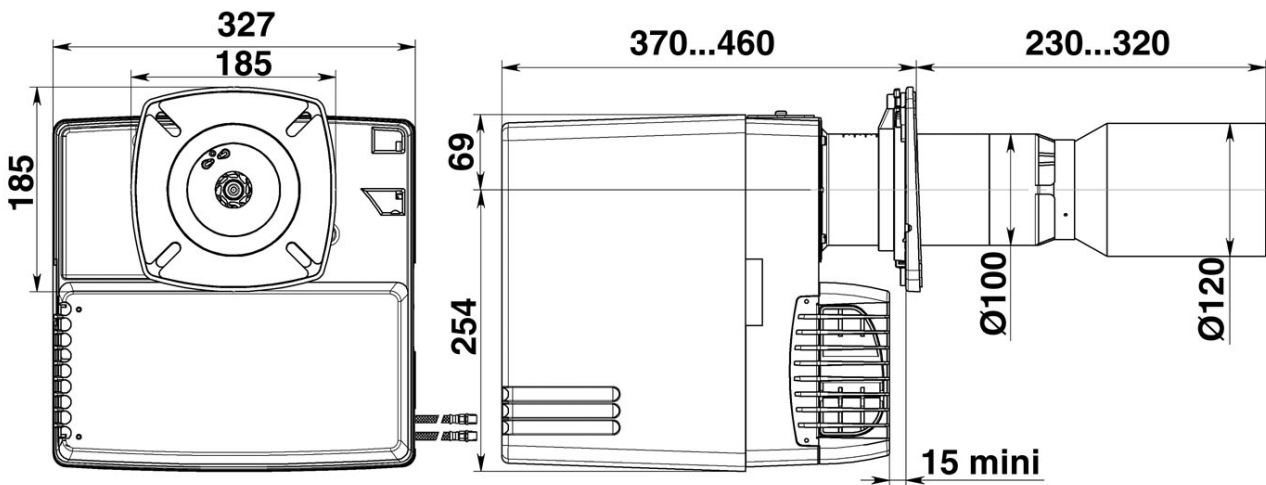
The burner is delivered in its package complete with:

- Hoses, nozzle,
- Boiler fixing accessories,
- Directions for use including electrical diagram, exploded view & spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VBL 02.60	260	300	640	11
VBL 02.65	260	300	640	11
VBL 02.74	260	300	640	11

Dimensions

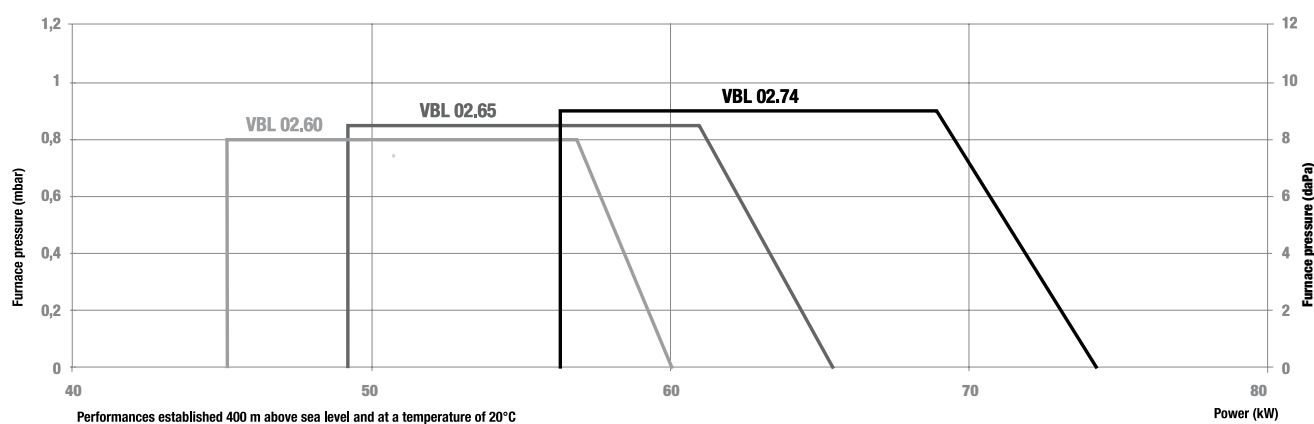


Light oil VECTRON® Blue L 02

Range: VBL 02.60, VBL 02.65, VBL 02.74
 39 ... 74 kW
 1 stage
 Low NOx Blue flame



Working fields



Characteristics and equipment

Type	VBL 02.60		VBL 02.65		VBL 02.74	
Operation range	45-60 kW		49-65 kW		56-74 kW	
Fuel flow	3,8-5,1 kg/h		4,1-5,5 kg/h		4,7-6,2 kg/h	
Nozzle	1,0 gal/h 80° S		1,1 gal/h 80° S		1,25 gal/h 80° S	
Control box / flame detector	SH 143 / Ionisation					
Fan motor	230 V - 50 Hz - 110 W					
Electrical consumption	285 W					
Fuel connection	Rp 3/8i/ M14 x 1,5 - 1000 mm					
CE certificate	EN 267					
	KN	KL	KN	KL	KN	KL
Complete burner code	13 020 325	-	13 022 788	-	13 022 789	-

Options

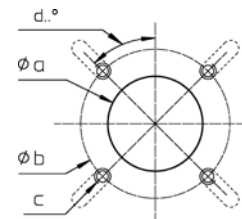
Counter face plate	13 018 496
Air adapter	13 018 822

Description

- One-stage class 3 low NOx forced draught burner.
 - Fuel: light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
 - Maximum heat power: 34, 52 and 75 kW.
 - Adjustable combustion head length with sliding flange.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments,
 - Preserved burner head adjustments,
 - Quiet ventilation and reduced electrical consumption.
 - Complete electrical equipment in the body of the burner with control panel.
 - Single-phase electrical power supply 230V - 50Hz.
 - Protection level IP 21.
 - Maximum working temperature 50°C.
- In compliance with the EN 267 norm and European Guidelines such as:
- EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

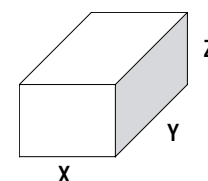
Ø a (mm)	b (mm)	c	d
95 ... 104	150 ... 170	M8	45°



Packaging

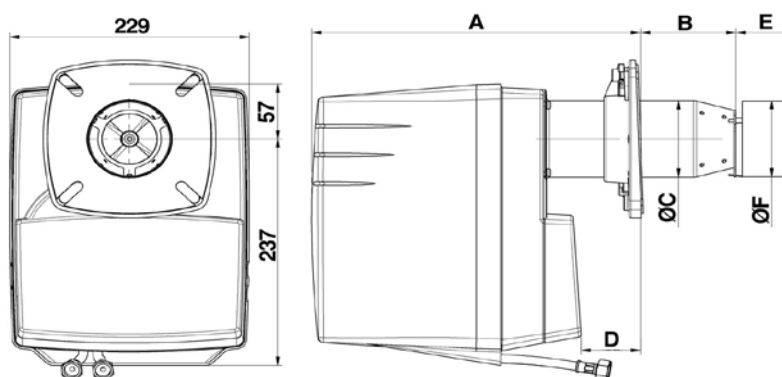
The burner is delivered in its package complete with:

- Hoses, nozzle,
- Boiler fixing accessories,
- Directions for use including electrical diagram, exploded view & spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VE 1.34	260	300	640	11
VE 1.50	260	300	640	11
VE 1.75	260	300	640	12

Dimensions

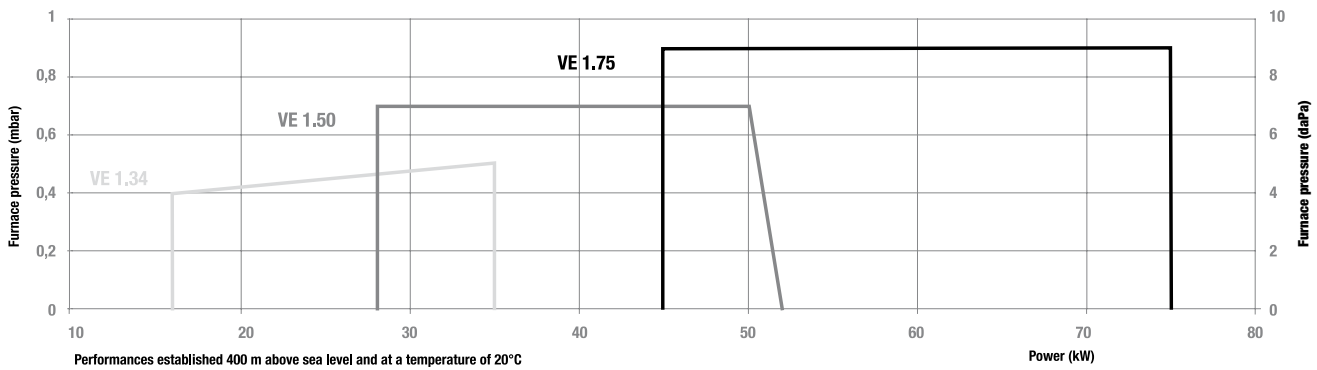


VECTRON®	A	B	Ø C	D	E	Ø F
VE 1.34	264 ... 329	70 ... 135	80	12 ... 77	63	79
VE 1.50	264 ... 344	70 ... 135	90	12 ... 92	56	84
VE 1.75	297 ... 357	70 ... 135	90	15 ... 83	56	84

Range: VE 1.34, VE 1.50, VE 1.75
 16 ... 75 kW
 1 stage
 Low NOx Yellow flame



Working fields



Characteristics and equipment

Type	VE 1.34		VE 1.50		VE 1.75	
Operation range	16-34 kW		28-52 kW		44-75 kW	
Fuel flow	1,4-2,9 kg/h		2,4-4,4 kg/h		3,7-6,3 kg/h	
Nozzle	0,45 / 45°S		0,75 / 45°S		1,10 / 45°H	
Control box / flame detector	TCH 141.03 / MZ 770				TCH 141.00 / MZ 770	
Fan motor	230 V - 50 Hz - 110 W					
Electrical consumption	224 W					
Fuel connection	Rp 3/8" / M14 x 1,5 - 1000 mm					
Acoustic level (LpA)	56 dB(A)					
CE certificate	EN 267					
	KN	KL	KN	KL	KN	KL
Complete burner code	3 832 630	-	3 832 632	-	3 832 634	-

Options

Counter face plate	13 018 495
Air adapter	13 011 996

Description

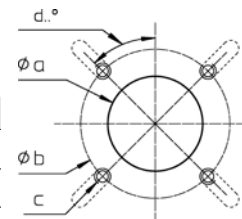
- One-stage forced draught burner.
- Fuel: light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
- Maximum heat power: 42, 55 and 95 kW.
- Adjustable combustion head length with sliding flange.
- Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments,
- Quiet ventilation and reduced electrical consumption.
- Complete electrical equipment in the body of the burner with control panel.
- Single-phase electrical power supply 230V - 50Hz.
- Protection level IP 21.
- Maximum working temperature 50°C.

• In compliance with the EN 267 norm and European Guidelines such as:

- EMC 89/336/EEC
- Low voltage 73/23/EEC
- Efficiency 92/42/EEC

Connecting flange

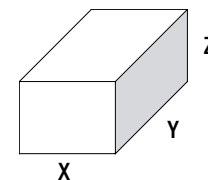
Type	Ø a (mm)	b (mm)	c	d
VL 1.40...55	85 ... 104	150 ... 170	M8	45°
VL 1.95	95 ... 104	150 ... 170	M8	45°



Packaging

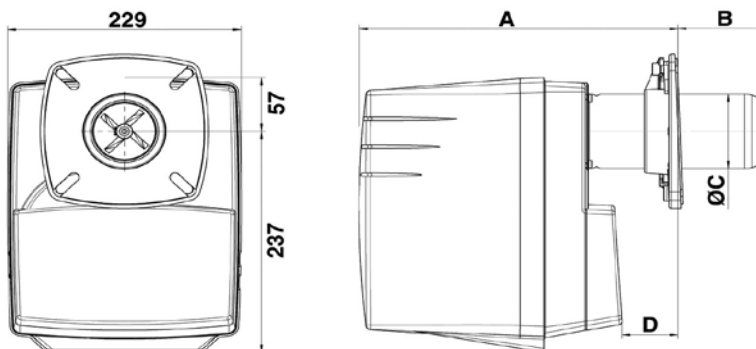
The burner is delivered in its package complete with:

- Hoses, nozzle,
- Boiler fixing accessories,
- Directions for use including electrical diagram, exploded view & spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VL 1.40 P	260	300	640	11
VL 1.42	260	300	640	11
VL 1.55 / P	260	300	640	11
VL 1.95	260	300	640	12

Dimensions



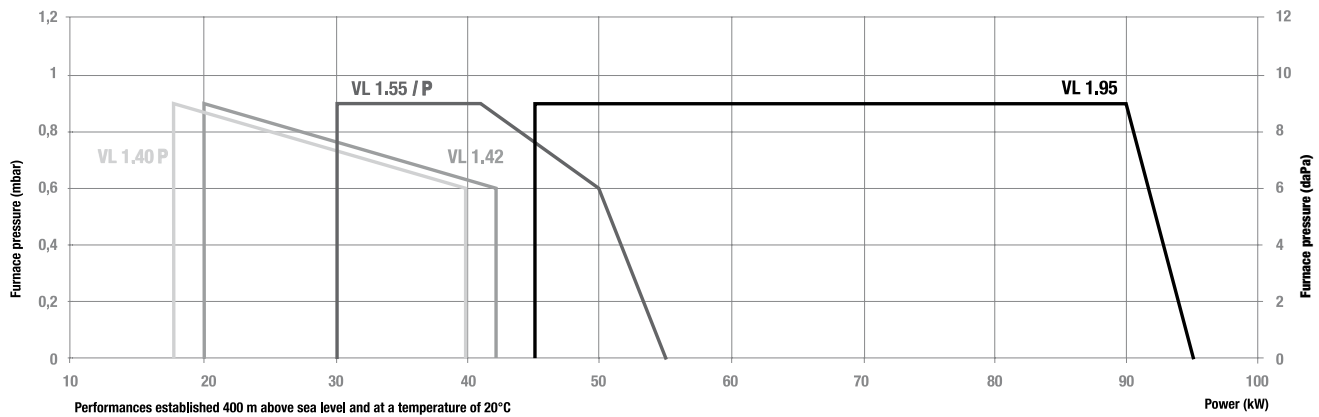
VECTRON®	A	B	Ø C	D
VL 1.40 P	min. 21 / max. 71	min. 70 / max. 120	80	min. 273 / max. 323
VL 1.42				
VL 1.55 / P				
VL 1.95	min. 297 / max. 357	min. 70 / max. 138	90	min. 15 / max. 83

Light oil VECTRON® L 1

Range: VL 1.40P, VL 1.55P, VL 1.42, VL 1.55, VL 1.95
 18 ... 95 kW
 1 stage
 Standard



Working fields



Characteristics and equipment

Type	VL 1.40P	VL 1.55P	VL 1.42	VL 1.55	VL 1.95
Operating range	18 - 40 kW Preheater	30 - 55 kW Preheater	20 - 42 kW	30 - 55 kW	45 - 95 kW
Fuel flow	1,6 - 3,4 kg/h	2,6 - 4,6 kg/h	1,7-3,6 kg/h	2,6 - 4,6 kg/h	3,8 - 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 detector	TCH 141.03 / MZ 770				
Fan motor	230 V - 50 Hz - 110 W				
Electrical consumption	244 W	244 W	195 W	195 W	223 W
Fuel connection	Rp 3/8" / M14 x 1000 mm				
Acoustic level (LpA)	55 dB(A)				60,5 dB(A)
CE certificate	EN 267				
Complete burner code	KN KL	KN KL	KN KL	KN KL	KN KL
	3 832 615 -	3 833 026 -	3 832 616 -	3 832 617 -	3 832 618 -

Options

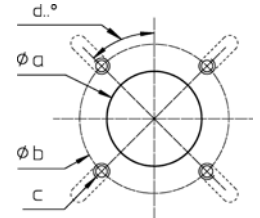
Counter face plate	13 018 495
Air adapter	13 011 996

Description

- One-stage forced draught burner.
 - Fuel: light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
 - Maximum heat power: 120, 160 and 210 kW.
 - Adjustable combustion head length with sliding flange.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments,
 - Quiet ventilation and reduced electrical consumption.
 - Complete electrical equipment in the body of the burner with control panel.
 - Single-phase electrical power supply 230V - 50Hz.
 - Protection level IP 21.
 - Maximum working temperature 50°C.
- In compliance with the EN 267 norm and European Guidelines such as:
- EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

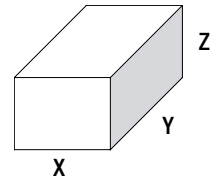
Ø a (mm)	b (mm)	c	d
120 ... 135	150 ... 180	M8	45°



Packaging

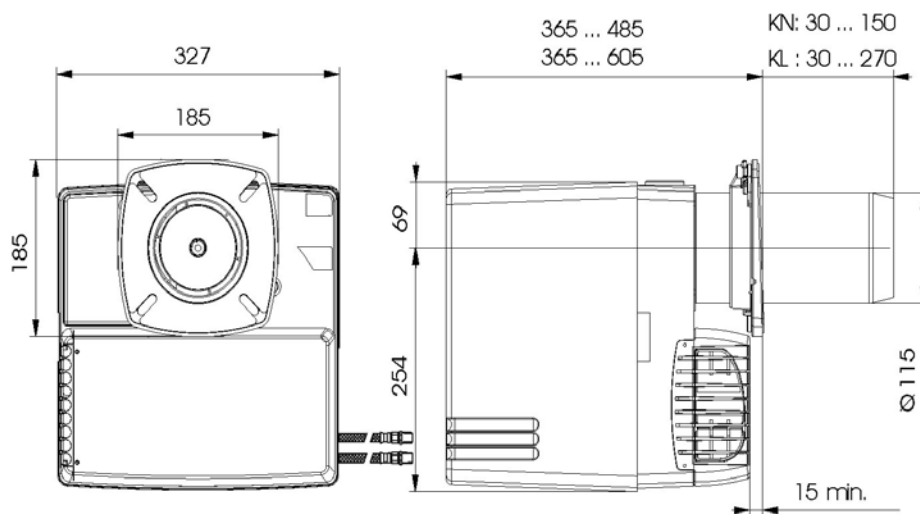
The burner is delivered in its package complete with:

- Hoses, nozzle,
- Boiler fixing accessories,
- Directions for use including electrical diagram, exploded view & spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VL 02.120	400	400	760	17
VL 02.160	400	400	760	17
VL 02.210	400	400	760	17

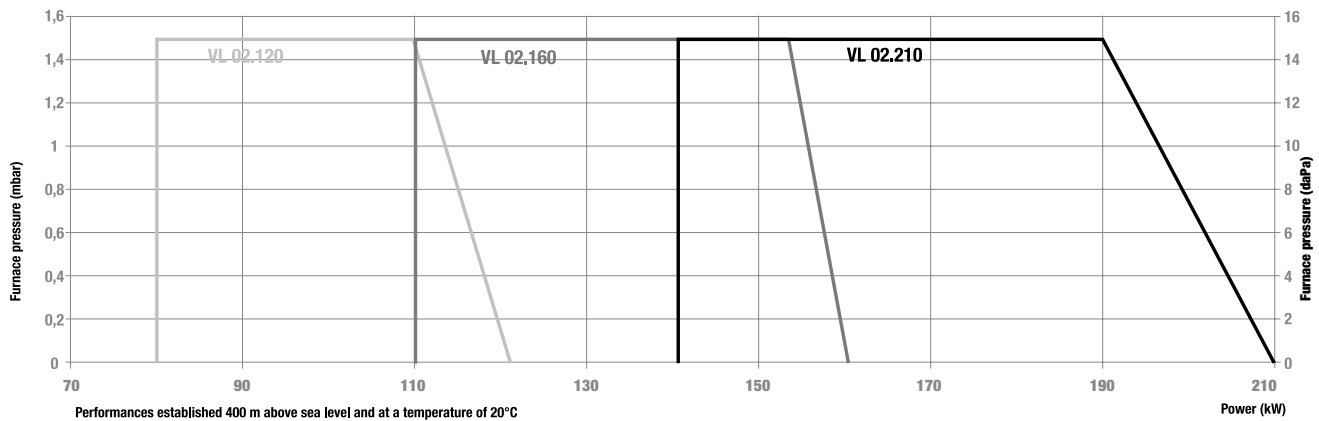
Dimensions



Range: VL 02.120, VL 02.160, VL 02.210
 80 ... 210 kW
 1 stage
 Standard



Working fields



Characteristics and equipment

Type	VL 02.120		VL 02.160		VL 02.210	
Operation range	80- 120 kW		110-160 kW		140-210 kW	
Fuel flow	6,7-10,1 kg/h		9,3-13,5 kg/h		11,8-17,7 kg/h	
Nozzle	2,25 / 45°S		2,75 / 45°S		3,5 / 45° S	
Control box / flame detector	SH 113 / MZ 770S					
Fan motor	230 V - 50 Hz - 160 W		230 V - 50 Hz - 130 W			
Electrical consumption	205 W		270 W		290 W	
Fuel connection	Rp 3/8" / M14 x 1,5 - 1500 mm					
Acoustic level (LpA)	62 dB(A)		64 dB(A)		65,2 dB(A)	
CE certificate	EN 267					
	KN	KL	KN	KL	KN	KL
Complete burner code	13 017 768	13 017 769	13 017 770	13 017 771	13 019 646	13 019 647

Options

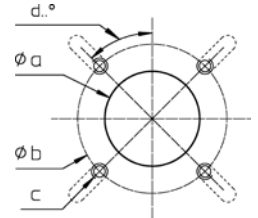
Counter face plate	13 018 496
Air adapter	13 018 822

Description

- Two stages class 3 low NOx (blue flame) forced draught burner.
 - Fuel: light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
 - Maximum heat power: 86 kW.
 - Adjustable combustion head length with sliding flange.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments,
 - Quiet ventilation and reduced electrical consumption.
 - Closing of the air flap on burner shut-down.
 - Complete electrical equipment in the body of the burner with control panel.
 - Single-phase electrical power supply 230V - 50Hz.
 - Protection level IP 21.
 - Maximum working temperature 50°C.
- In compliance with the EN 267 norm and European Guidelines such as:
- EMC 89/336/EEC
 - low voltage 73/23/EEC
 - efficiency 92/42/EEC

Connecting flange

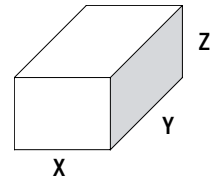
Ø a (mm)	b (mm)	c	d
125 ... 135	150 ... 170	M8	45°



Packaging

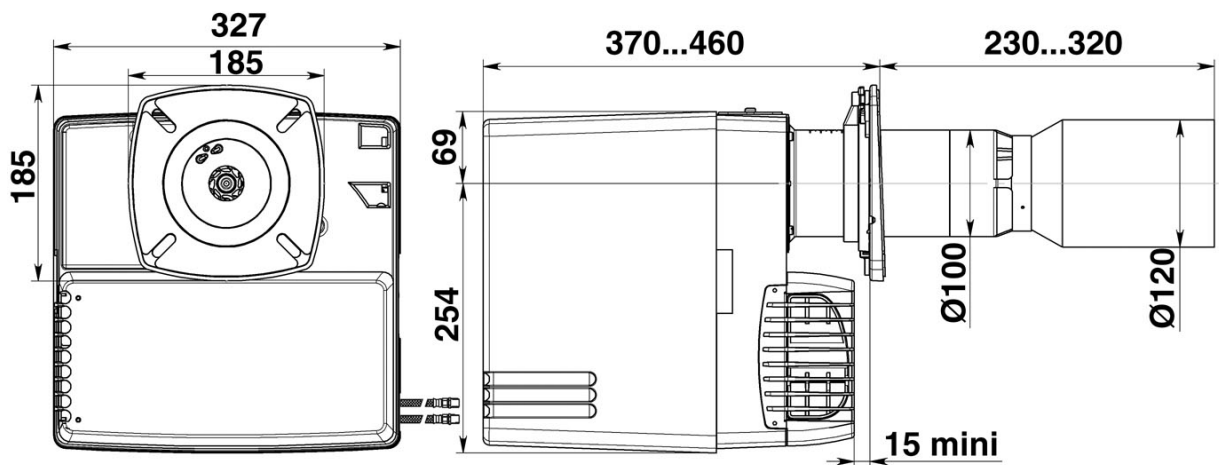
The burner is delivered in its package complete with:

- Hoses, nozzle,
- Boiler fixing accessories,
- Directions for use including electrical diagram, exploded view & spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VBL 02.86 Duo	400	400	760	18

Dimensions

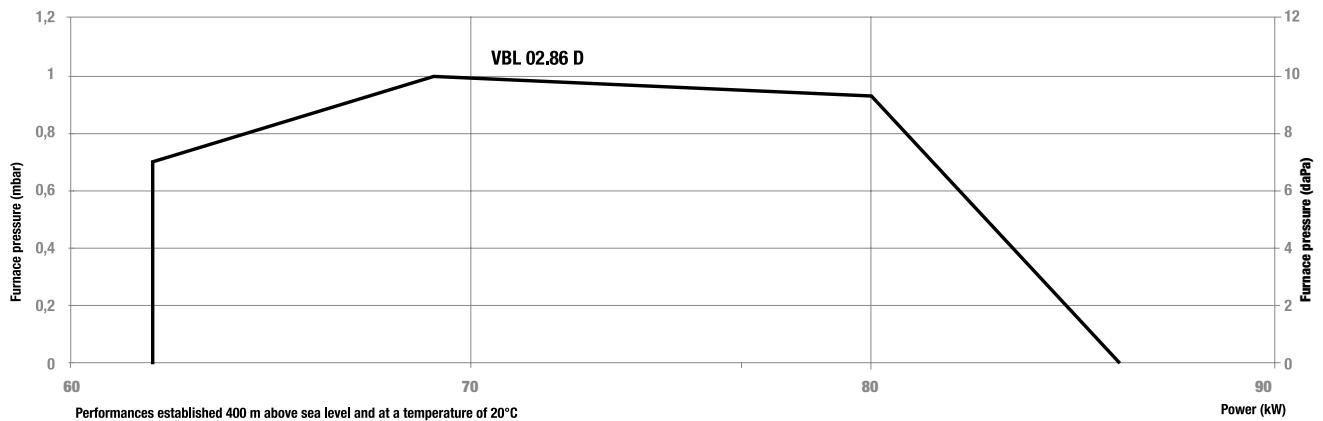


Light oil VECTRON® Blue L 02.86 Duo

Range: VBL 02.86 D
63 ... 86 kW
2 stages
Low NOx Blue flame



Working field



Characteristics and equipment

Type	VBL 02.86 D	
Operation range	63-86 kW	
Fuel flow	5,3-7,3 kg/h	
Nozzle	1,35 gal/h 80° S	
Control box / flame detector	SH 213 / Ionization	
Fan motor	230 V - 50 Hz - 130 W	
Electrical consumption	285 W	
Fuel connection	Rp 3/8" / M14 x 1,5 - 1000 mm	
CE certificate	EN 267	
	KN	KL
Complete burner code	13 022 790	-

Options

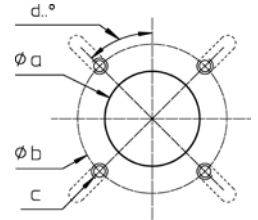
Counter face plate	13 018 496
Air adapter	13 018 822

Description

- Two stages forced draught burner.
 - Fuel: light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
 - Maximum heat power: 120, 160 and 210 kW.
 - 1st/2nd stage ratio: 0,7/1 with one nozzle and two pressures.
 - Adjustable combustion head length with sliding flange.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments,
 - Quiet ventilation and reduced electrical consumption.
 - Closing of the air flap on burner shut-down.
 - Complete electrical equipment in the body of the burner with control panel.
 - Single-phase electrical power supply 230V - 50Hz.
 - Protection level IP 21.
 - Maximum working temperature 50°C.
-
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

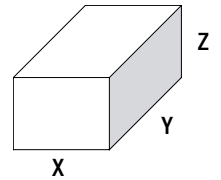
Ø a (mm)	b (mm)	c	d
120 ... 135	150 ... 170	M8	45°



Packaging

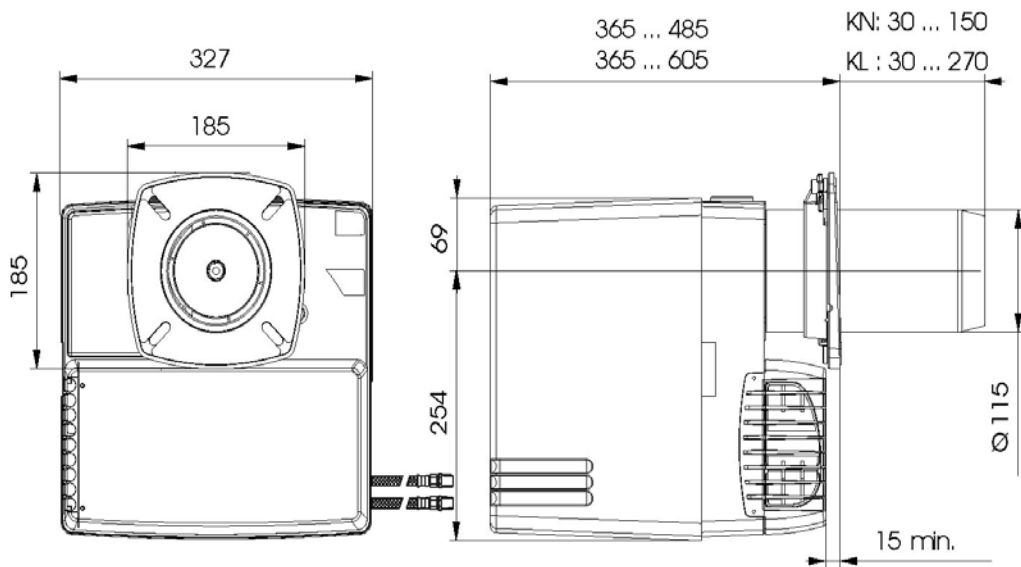
The burner is delivered in its package complete with:

- Hoses, nozzle,
- Boiler fixing accessories,
- Directions for use including electrical diagram, exploded view & spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VL 02.120 Duo	400	400	760	18
VL 02.160 Duo	400	400	760	18
VL 02.210 Duo	400	400	760	19

Dimensions

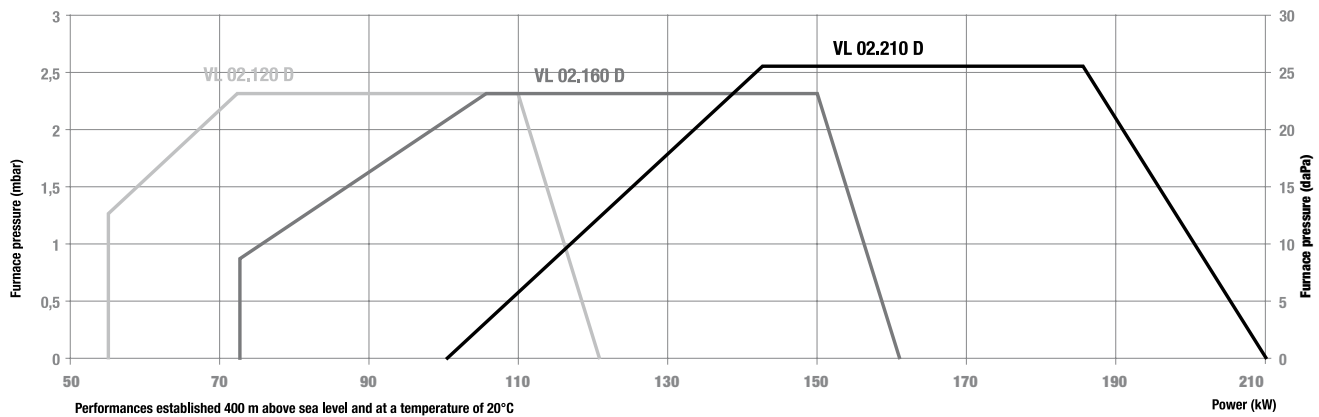


Light oil VECTRON® L 02 Duo

Range: VL 02.120 D, VL 02.160 D,
VL 02.210 D
54 ... 210 kW
2 stages
Standard



Working fields



Characteristics and equipment

Type	VL 02.120 D		VL 02.160 D		VL 02.210 D	
Operation range	54-120 kW		72-160 kW		100-210 kW	
Fuel flow	4,6- 10,1 kg/h		6,1-13,5 kg/h		8,4-17,7 kg/h	
Nozzle	1,50 / 45°S		2,25 / 45°S		2,75 / 45° S	
Control box / flame detector	SH 213 / MZ 770S					
Fan motor	230 V - 50 Hz - 160 W				230 V - 50 Hz - 130 W	
Electrical consumption	205 W		270 W		345 W	
Fuel connection	Rp 3/8" / M14 x 1,5 - 1500 mm					
Acoustic level (LpA)	62 dB(A)		64 dB(A)		65,2 dB(A)	
CE certificate	EN 267					
Complete burner code	KN	KL	KN	KL	KN	KL
	13 019 644	13 019 645	13 017 772	13 017 773	13 017 774	13 017 775

Options

Counter face plate	13 018 496
Air adapter	13 018 822

Description

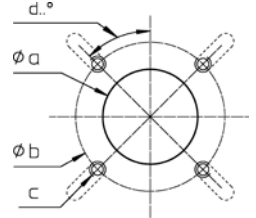
- Two-stages forced draft burner.
- Fuel: light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
- Maximum heat power: 290 and 360 kW.
- 1st/2nd stage ratio: 1/1.5 with one nozzle and two pressures.
- Two combustion head length.
- Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments,
 - Maintenance without opening oil circuit,
- Quiet ventilation and reduced electrical consumption.
- Closing of the air damper on burner shut-down.
- Complete electrical equipment in the body of the burner with MDE2 System and display.
- Single-phase electrical power supply 230V - 50Hz.
- Protection level IP 21.
- Maximum working temperature 50°C.

- In compliance with the EN 267 norm and European Guidelines such as:

EMC	89/336/EEC
Low voltage	73/23/EEC
Efficiency	92/42/EEC

Connecting flange

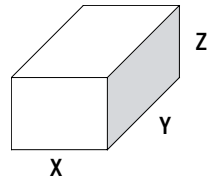
Ø a (mm)	b (mm)	c	d
155 ... 190	175 ... 220	M10	45°



Packaging

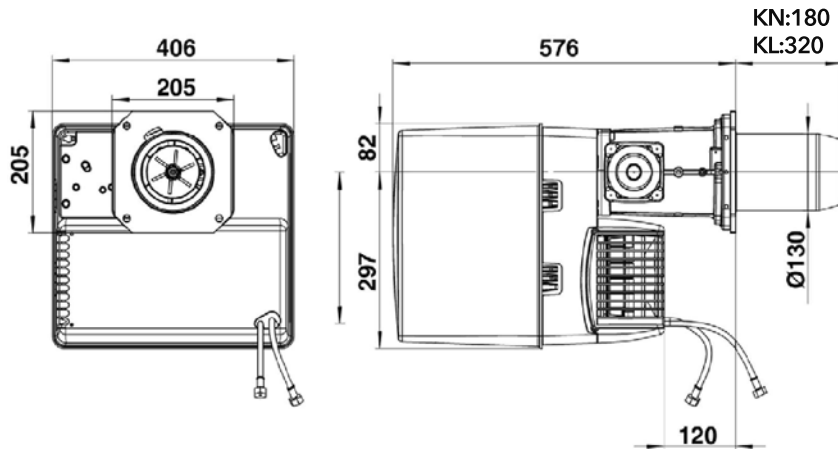
The burner is delivered complete in two packages containing:

- The burner body with:
 - Boiler fixing accessories, hoses and nozzle
 - technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head.



Component		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
Body burner BB	VL3.290 D	430	400	500	22
	VL3.360 D				23
Combustion head CH-G	KN	205	645	240	6
	KL		785		7

Dimensions

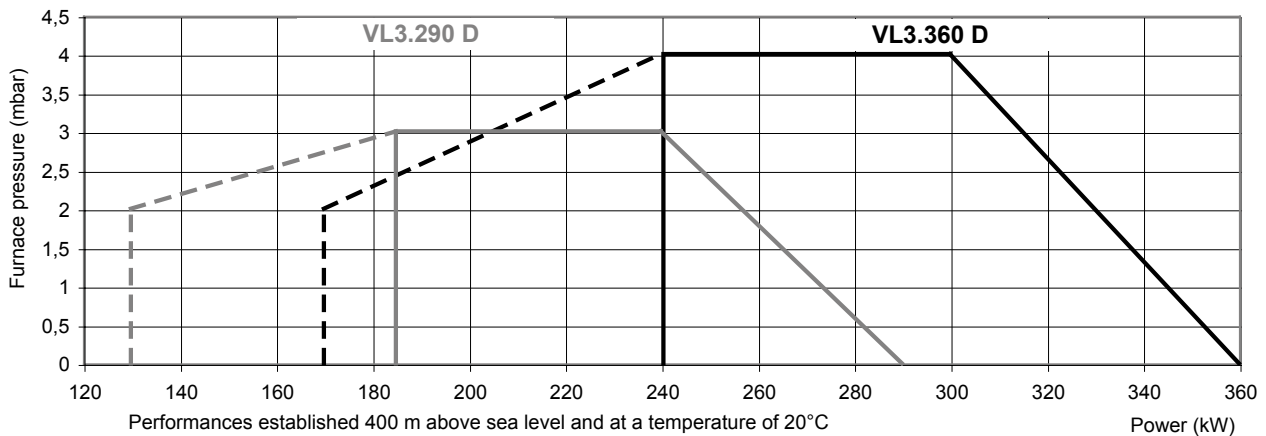


Type	A	B	C	D	E	ØG	H		X
							KN	KL	
VL3.290 D	406	379	576	297	82	130	180	320	120
VL3.360 D									

Range: VL 3.290 D, VL 3.360 D
 130 ... 360 kW
 2 stages
 Standard



Working fields



Characteristics and equipment

Type	VL3.290 D		VL3.360 D	
Operating range	(130) 185 - 290 kW		(170) 240 - 360 kW	
Flue flow	15,4 - 24,2 kg/h		20,0 - 30,0 kg/h	
Nozzle	3,75 US gal/h		4,50 US gal/h	
Control box / flame detector	TCH2.../ MZ 770 S			
Fan motor	2800 rpm - 230 V - 50 Hz - 250 W		2800 rpm - 230 V - 50 Hz - 300 W	
Electrical consumption	445 VA		540 VA	
Fuel connection	3/8" - DN6 x 1000 mm			
Acoustic level (LpA)	67 dB(A)		69 dB(A)	
CE certificate	EN267			
Head length	KN	KL	KN	KL
Complete burner code	3 833 072	3 833 073	3 833 070	3 833 071

Options

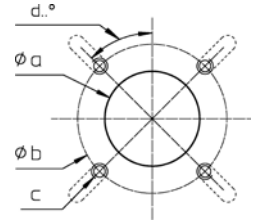
Wieland plugs (4 + 7 pins)	13 016 496
Counter face plate	3 833 151
External air inlet connector	3 833 152
PC Interface	3 833 018
Silencer	on request

Description

- Two stages forced draught burner.
 - Fuel: light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
 - Maximum heat power: 350 and 480 kW.
 - 1st/2nd stage ratio: 0,7/1 (VL04.420 Duo)
0,5/1 (VL04.540 Duo)
 - Two combustion head lengths.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments,
 - Quiet ventilation and reduced electrical consumption.
 - Closing of the air flap on burner shut-down.
 - Complete electrical equipment in the body of the burner with control panel.
 - Single-phase electrical power supply 230V - 50Hz.
 - Protection level IP 21.
 - Maximum working temperature 50°C.
- In compliance with the EN 267 norm and European Guidelines such as:
- EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

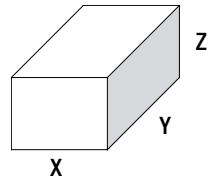
Ø a (mm)	b (mm)	c	d
155	180 ... 270	M10	45°



Packaging

The burner is delivered complete in two packages containing:

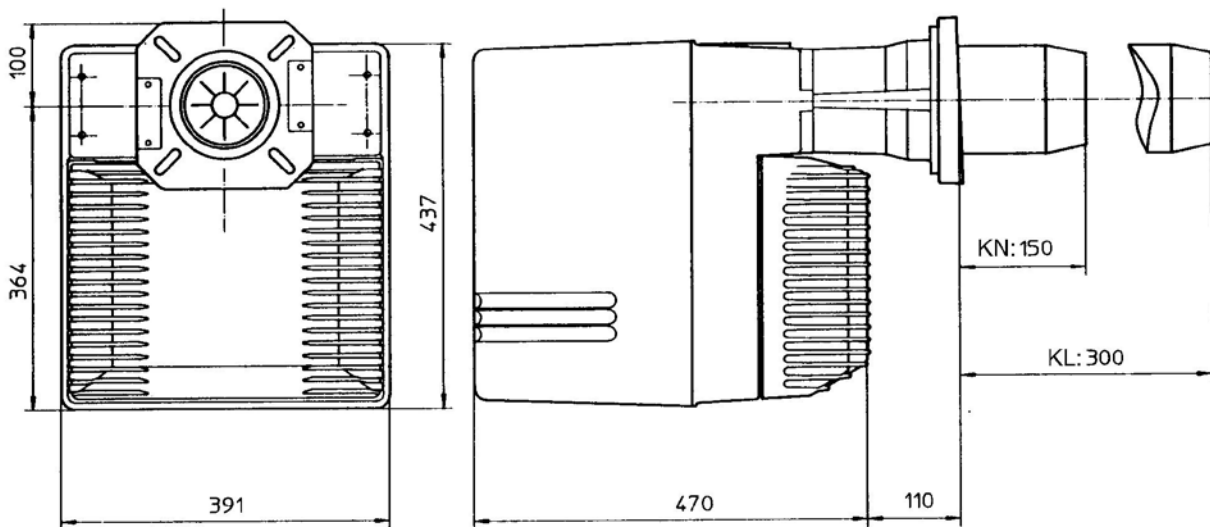
- The burner body with: Boiler fixing accessories, hoses and nozzle technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VL 04.430 Duo KN	460	1010	570	41
VL 04.430 Duo KL	460	1010	570	43
VL 04.540 Duo KN	400	427	498	42
VL 04.540 Duo KL	400	427	498	44

Head Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
04.430 KN	470	760	280	9
04.430 KL	470	910	280	11
04.540 KN	470	760	280	9
04.540 KL	470	910	280	11

Dimensions

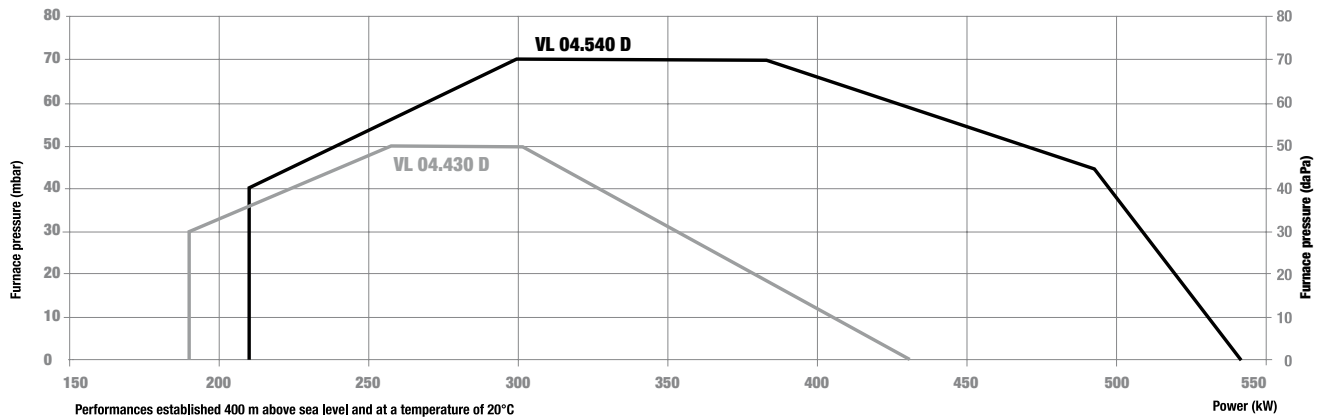


Light oil VECTRON® L 04 Duo

Range: VL 04.430 D, VL 04.540 D
 260 ... 540 kW
 2 stages
 Standard



Working fields



Characteristics and equipment

Type	VL 04.430 D	VL 04.540 D		
Operation range	190-430 kW	210-540 kW		
Fuel flow	22-36 kg/h	25-45 kg/h		
Nozzle	5,0 / 45°B	6,5-3,0 / 45°B		
Control box / flame detector	SH 213 / MZ 770 S	SH 213 / MZ 770 S		
Fan motor	230 V - 50 Hz - 480 W			
Electrical consumption	620 W			
Fuel connection	Rp 3/8" / M14 x 1,5 - 1150 mm			
Acoustic level (LpA)	71,8 dB(A)	71,2 dB(A)		
CE certificate	EN 267			
	KN	KL	KN	KL
Complete burner code	3 833 083-A	3 833 084-A	3 833 085-A	3 833 086-A

Options

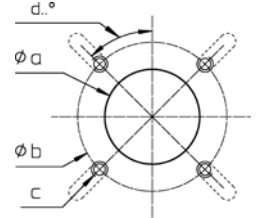
Counter face plate	13 018 499
Silencer	13 012 574
Air adapter	13 002 031

Description

- Two stages forced draught burner.
 - Fuel: light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
 - Maximum heat power: 700 and 1000 kW.
 - 1st/2nd stage ratio: 0,5/1 with two nozzles.
 - Three combustion head lengths.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Separated motor-pump,
 - Preserved burner head adjustments,
 - Quiet ventilation and reduced electrical consumption.
 - Closing of the air flap on burner shut-down.
 - Complete electrical equipment in the body of the burner with control panel.
 - Three-phase electrical power supply.
 - Protection level IP 41.
 - Maximum working temperature 50°C.
-
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

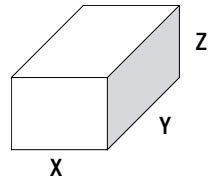
Ø a (mm)	b (mm)	c	d
172 ... 195	220 ... 260	M10	45°



Packaging

The burner is delivered complete in two packages containing:

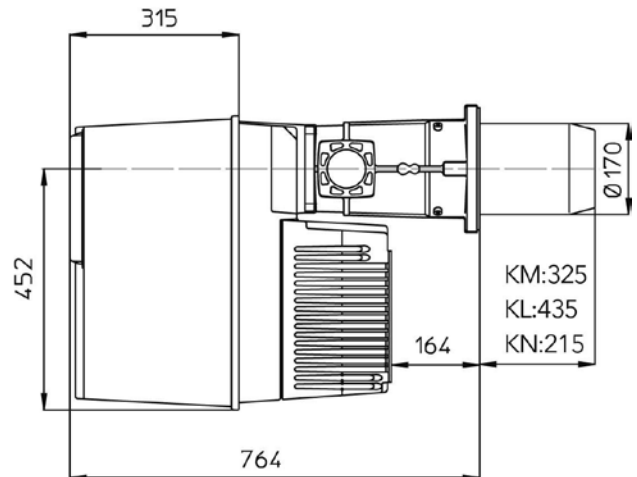
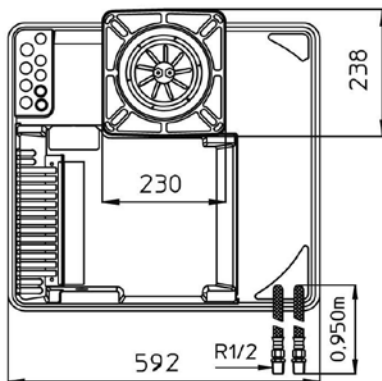
- The burner body with: Boiler fixing accessories, hoses and nozzle technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VL 05.700 Duo	600	800	850	59
VL 05.1000 Duo	600	800	850	59

Head Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
05.700 KN	470	760	280	10
05.700 KL	470	910	280	12
05.700 KM	470	910	280	11
05.1000 KN	470	760	280	10
05.1000 KL	470	910	280	12
05.1000 KM	470	910	280	11

Dimensions

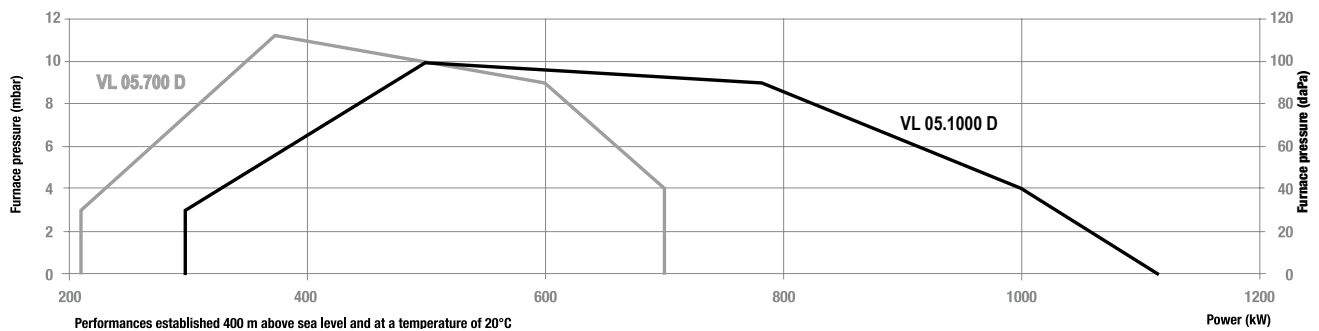


Light oil VECTRON® L 05 Duo

Range: VL 05.700 D, VL 05.1000 D
 215 ... 1116 kW
 2 stages
 Standard



Working fields



Characteristics and equipment

Type	VL 05.700 D			VL 05.1000 D		
Operation range	215-700 kW			300-1116 kW		
Fuel flow	18-59 kg/h			25-94 kg/h		
Nozzle	6-45°B / 5-45°B			7,5-45°B / 6,5-45°B		
Control box / flame detector	SH 213 / MZ 770S					
Fan motor	230/400 V - 50 Hz - 1,1 kW			230/400 V - 50 Hz - 1,5 kW		
Fuel connection	Rp 3/8" / M16 x 1,5 - 1500 mm					
Acoustic level (LpA)	75,4 dB(A)			77,6 dB(A)		
CE certificate	EN 267					
	KN	KL	KM	KN	KL	KM
Complete burner code	13 008 522	13 008 523	13 008 524	13 008 525	13 008 526	13 008 527

Options

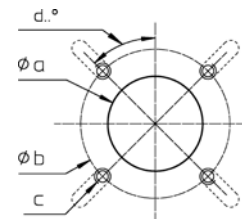
Counter face plate	13 018 499
Silencer	13 001 566
Air adapter	13 001 567

Description

- Two stages forced draught burner.
 - Fuel: light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
 - Maximum heat power: 1 600 kW.
 - 1st/2nd stage ratio: 0,5/1 with two nozzles.
 - Three combustion head lengths.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Separated motor-pump,
 - Preserved burner head adjustments,
 - Quiet ventilation and reduced electrical consumption.
 - Closing of the air flap on burner shut-down.
 - Complete electrical equipment in the body of the burner with control panel.
 - Three-phase electrical power supply.
 - Protection level IP 41.
 - Maximum working temperature 50°C.
- In compliance with the EN 267 norm and European Guidelines such as:
- EMC 89/336/EEC
 - low voltage 73/23/EEC
 - gas appliances 92/42/EEC

Connecting flange

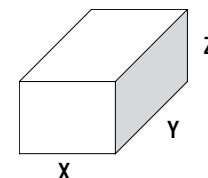
Ø a (mm)	b (mm)	c	d
250	300 ... 400	M12	45°



Packaging

The burner is delivered complete in two packages containing:

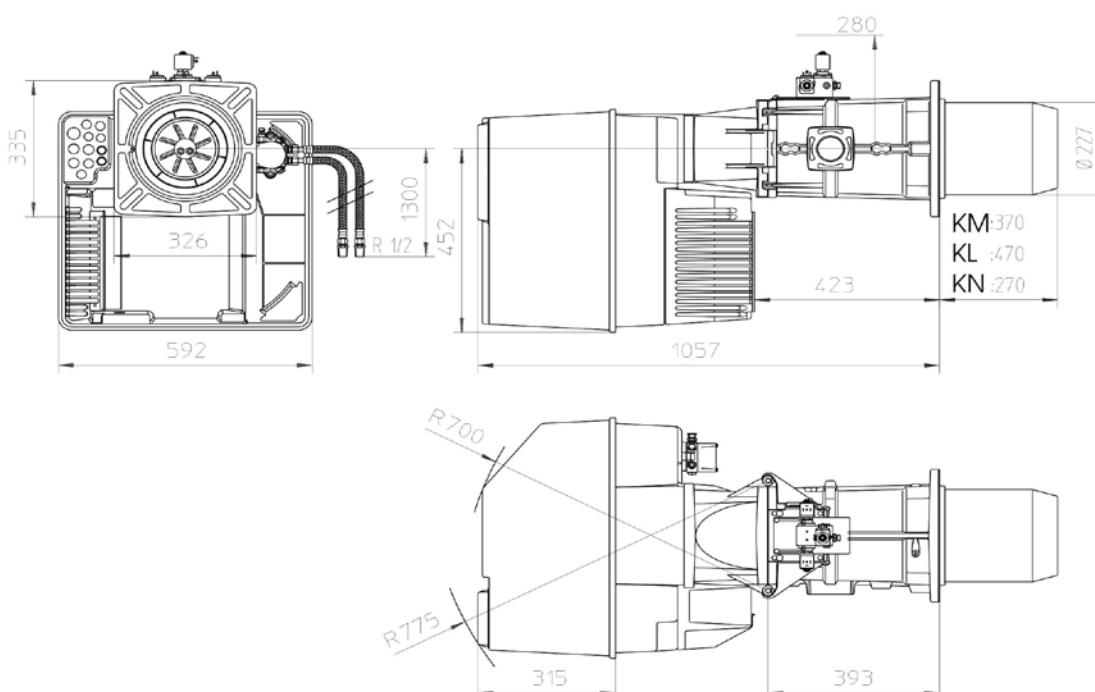
- The burner body with:
 - Boiler fixing accessories, hoses and nozzle
 - technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VL 06.1600 Duo	600	800	850	79

Head Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
06.1600 KN	420	800	380	23
06.1600 KL	420	1000	380	23
06.1600 KM	420	1000	380	25

Dimensions

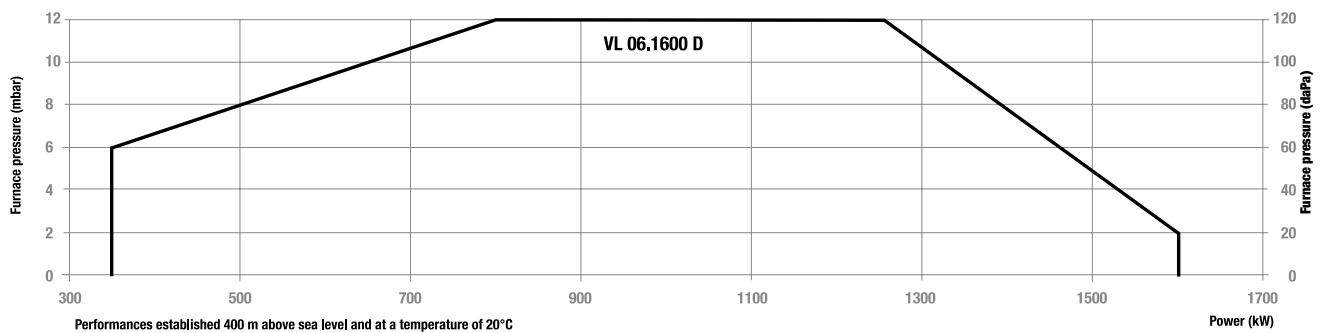


Light oil VECTRON® L 06 Duo

Range: VL 06.1600 D
350 ... 1600 kW
2 stages
Standard



Working field



Characteristics and equipment

Type	VL 06.1600 D		
Operation range	350-1600 kW		
Fuel flow	29-135 kg/h		
Nozzle	10-60°B / 10-60°B		
Control box / flame detector	SH 213 / MZ 770S		
Fan motor	230/400 V - 50 Hz - 2,2 kW		
Fuel connection	Rp 1/2 / M16 x 1,5 - 1500 mm		
Acoustic level (LpA)	78,8 dB(A)		
CE certificate	EN 267		
	KN	KL	KM
Complete burner code	13 006 881	13 006 882	13 006 883

Options

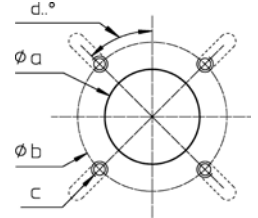
Counter face plate	13 008 019
Silencer	13 007 870
Air adapter	13 001 567

Description

- Three stages forced draught burner.
 - Fuel: light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
 - Maximum heat power: 540 kW.
 - 1st/3rd stage ratio: 1/3 with two nozzles and two pressures
 - Two combustion head lengths.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Preserved burner head adjustments,
 - Quiet ventilation and reduced electrical consumption.
 - Closing of the air flap on burner shut-down.
 - Complete electrical equipment in the body of the burner with control panel.
 - Single-phase electrical power supply 230V - 50Hz.
 - Protection level IP 21.
 - Maximum working temperature 50°C.
- In compliance with the EN 267 norm and European Guidelines such as:
- EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

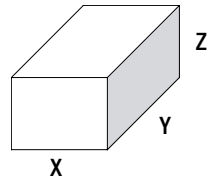
Ø a (mm)	b (mm)	c	d
155	180 ... 270	M10	45°



Packaging

The burner is delivered complete in two packages containing:

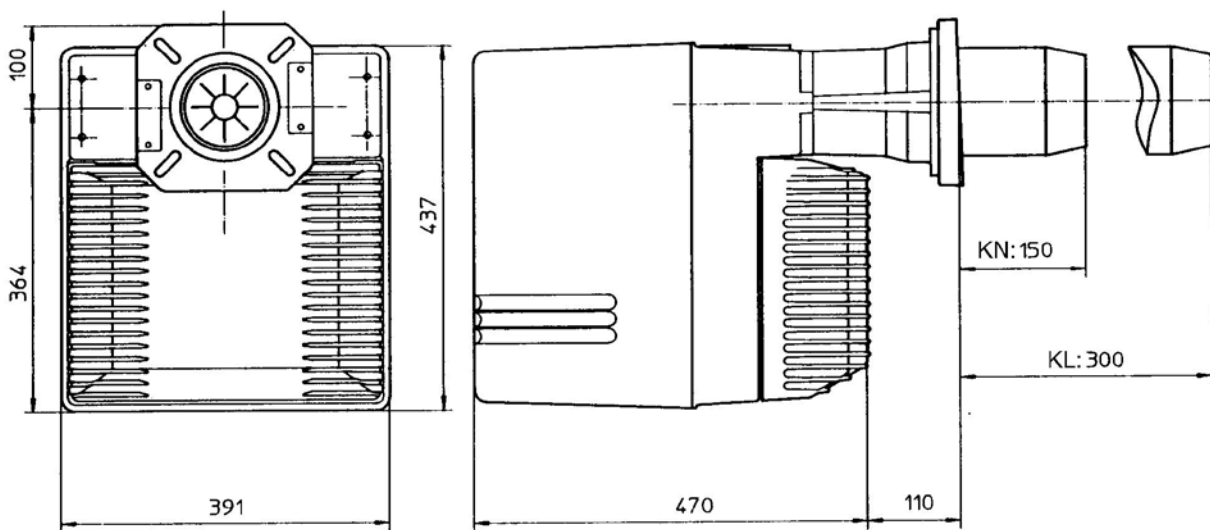
- The burner body with:
 - Boiler fixing accessories, hoses and nozzle
 - technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VL 04.540 Duo Plus KN	400	427	498	42
VL 04.540 Duo Plus KL	400	427	498	44

Head Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
04.540 KN	600	800	760	23
04.540 KL	600	800	760	23

Dimensions

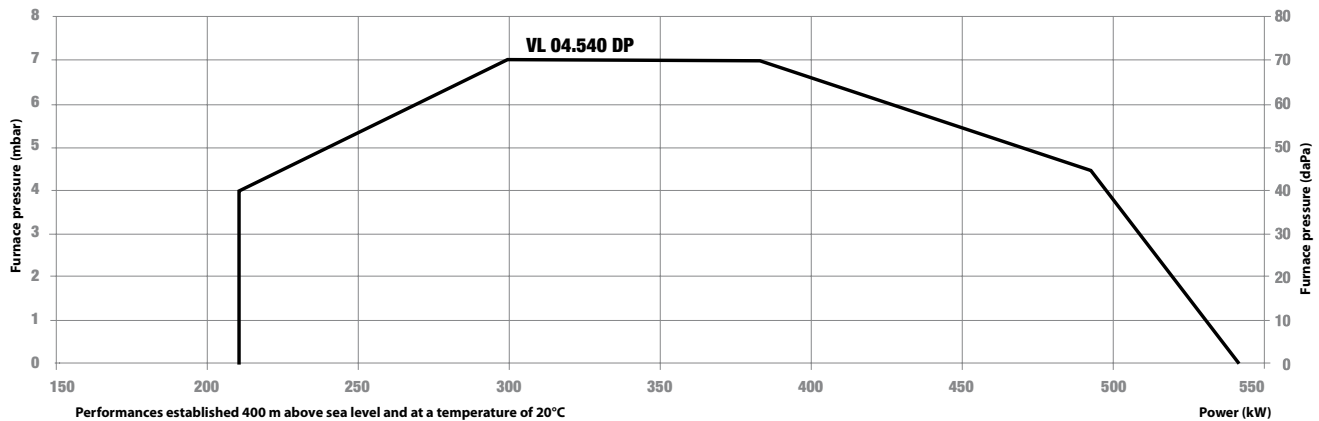


Light oil VECTRON® L 04 Duo Plus

Range: VL 04.540 DP
210 ... 540 kW
3 stages
Standard



Working field



Characteristics and equipment

Type	VL 04.540 DP	
Operation range	210-540 kW	
Fuel flow	25-45 kg/h	
Nozzle	6,5-3,0 / 45°B	
Control box / flame detector	SH 213 / MZ 770 S	
Fan motor	230 V - 50 Hz - 480 W	
Electrical consumption	620 W	
Fuel connection	Rp 3/8" / M14 x 1,5 - 1150 mm	
Acoustic level (LpA)	71,2 dB(A)	
CE certificate	EN 267	
	KN	KL
Complete burner code	on request	on request

Options

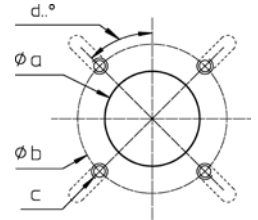
Counter face plate	13 018 499
Silencer	13 012 574
Air adapter	13 002 031

Description

- Three stages forced draft burner, or two stages with one ignition stage forced draft burner.
 - Fuel: light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
 - Maximum heat power: 750 and 1000 kW.
 - 1st/3rd stage ratio: 1/3 with two nozzles and two pressures.
 - Three combustion head lengths.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Separated motor-pump,
 - Preserved burner head adjustments,
 - Quiet ventilation and reduced electrical consumption.
 - Closing of the air flap on burner shut-down.
 - Complete electrical equipment in the body of the burner with control panel.
 - Three-phase electrical power supply.
 - Protection level IP 41.
 - Maximum working temperature 50°C.
- In compliance with the EN 267 norm and European Guidelines such as:
- EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

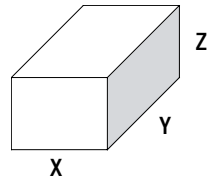
Ø a (mm)	b (mm)	c	d
172 ... 195	220 ... 260	M10	45°



Packaging

The burner is delivered complete in two packages containing:

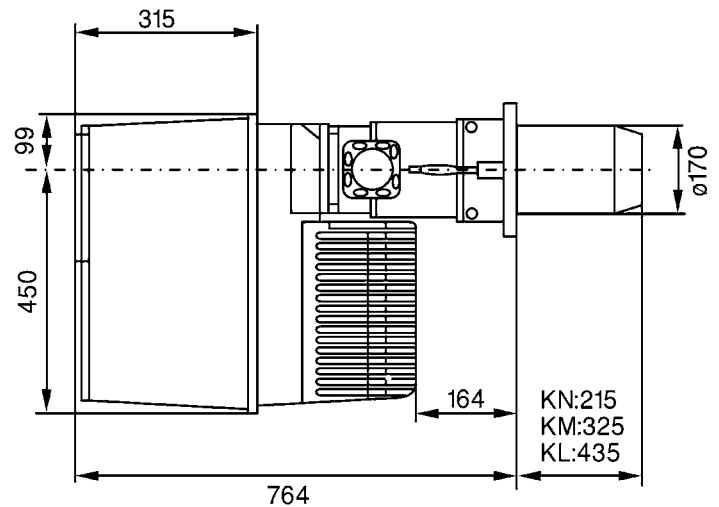
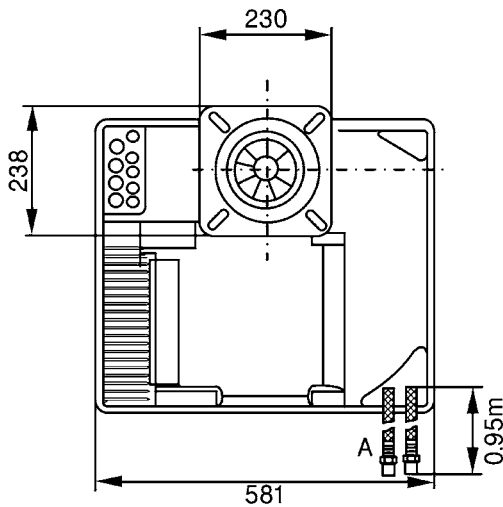
- The burner body with:
 - Boiler fixing accessories, hoses and nozzle
 - technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VL 05.750 Duo Plus	600	800	850	61
VL 05.1000 Duo Plus	600	800	850	61

Head Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
05.750 KN	470	760	280	10
05.750 KL	470	910	280	12
05.750 KM	470	910	280	11
05.1000 KN	470	760	280	10
05.1000 KL	470	910	280	12
05.1000 KM	470	910	280	11

Dimensions

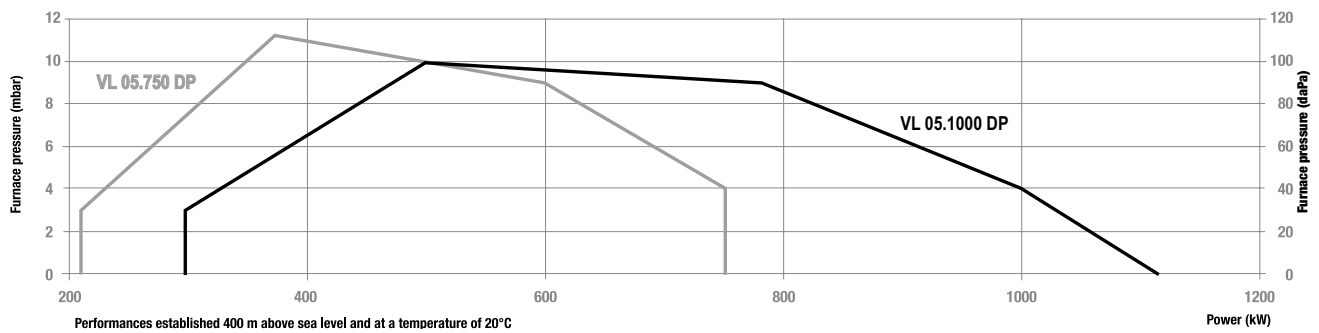


Light oil VECTRON® L 05 Duo Plus

Range: VL 05.750 DP, VL 05.1000 DP
 215 ... 1116 kW
 3 stages
 Standard



Working fields



Characteristics and equipment

Type	VL 05.750 DP			VL 05.1000 DP		
Operation range	215-750 kW			300-1116 kW		
Fuel flow	18-59 kg/h			25-94 kg/h		
Nozzle	on request			on request		
Control box / flame detector	LAL 2.25 / QRB1					
Fan motor	230/400 V - 50 Hz - 1,1 kW			230/400 V - 50 Hz - 1,5 kW		
Fuel connection	Rp 3/8" / M16 x 1,5 - 1500 mm					
Acoustic level (LpA)	75,4 dB(A)			77,6 dB(A)		
CE certificate	EN 267					
	KN	KL	KM	KN	KL	KM
Complete burner code	on request	on request	on request	on request	on request	on request

Options

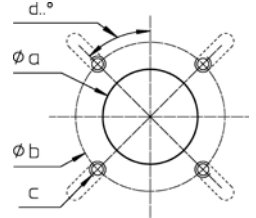
Counter face plate	13 018 499
Silencer	13 001 566
Air adapter	13 001 567

Description

- Three stages forced draft burner, or two stages with one ignition stage forced draft burner.
 - Fuel: light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
 - Maximum heat power: 1 600 and 2 100 kW.
 - 1st/3rd stage ratio: 1/3 with three nozzles.
 - Three combustion head lengths.
 - Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Simplified maintenance,
 - Limited number of tools and components,
 - Separated motor-pump,
 - Preserved burner head adjustments,
 - Quiet ventilation and reduced electrical consumption.
 - Closing of the air flap on burner shut-down.
 - Complete electrical equipment in the body of the burner with control panel.
 - Three-phase electrical power supply.
 - Protection level IP 41.
 - Maximum working temperature 50°C.
- In compliance with the EN 267 norm and European Guidelines such as:
- EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

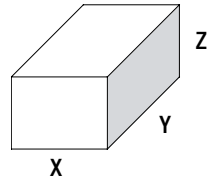
Ø a (mm)	b (mm)	c	d
250	300 ... 400	M12	45°



Packaging

The burner is delivered complete in two packages containing:

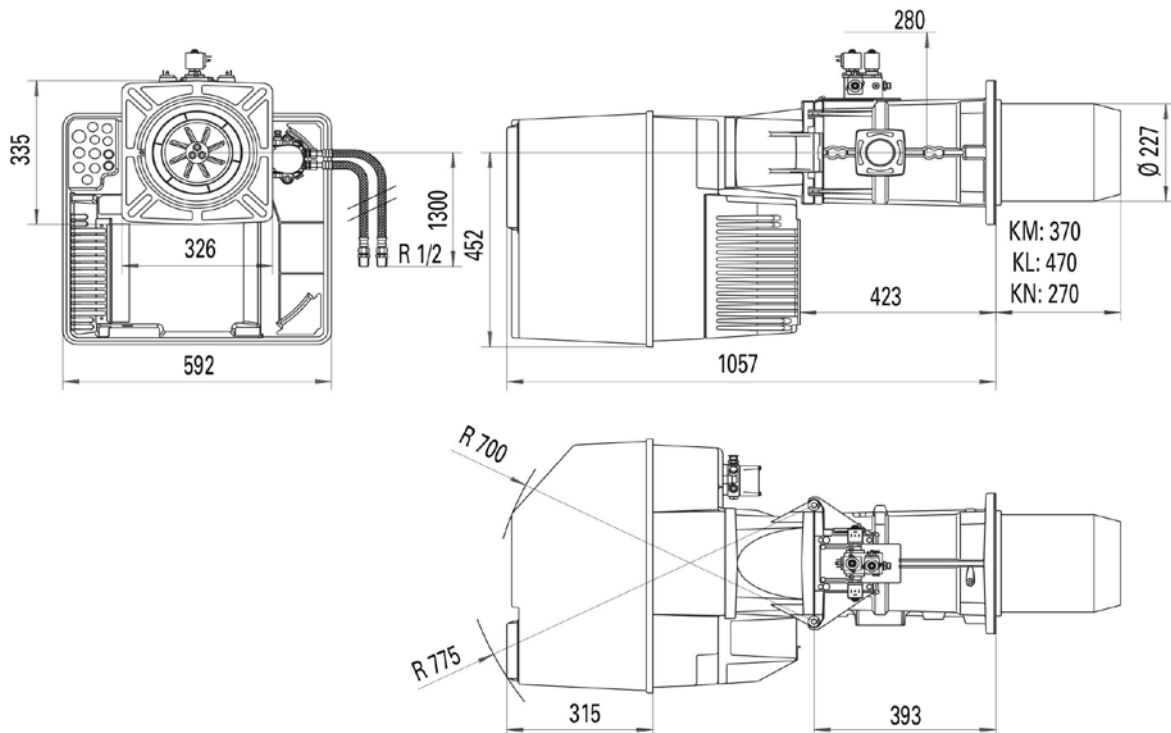
- The burner body with: Boiler fixing accessories, hoses and nozzle technical data including electrical diagram, exploded view and spare parts list, Instruction manual
- The combustion head.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
VL 06.1600 Duo Plus	600	800	850	79
VL 06.2100 Duo Plus	600	800	850	81

Head Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
06.1600 KN	420	800	380	23
06.1600 KL	420	1000	380	23
06.1600 KM	420	1000	380	25
06.2100 KN	420	800	380	22
06.2100 KL	420	1000	380	25
06.2100 KM	420	1000	380	25

Dimensions

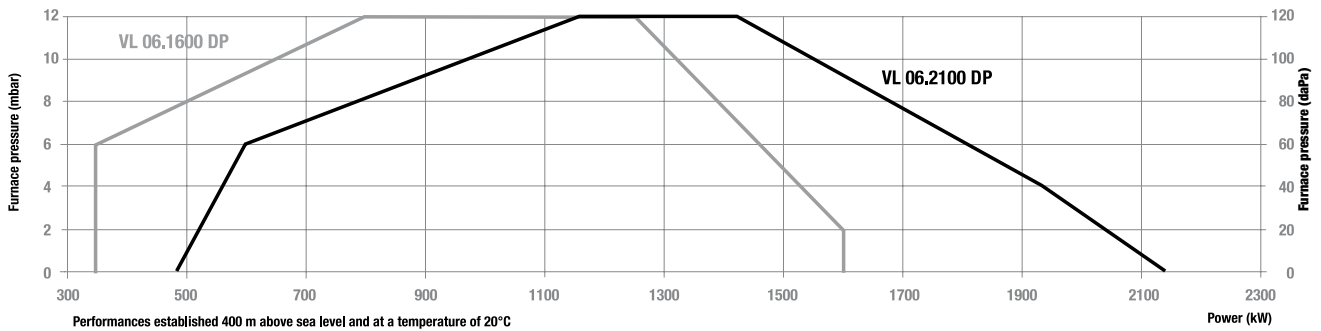


Light oil VECTRON® L 06 Duo Plus

Range: VL 06.1600 DP, VL 06.2100 DP
 350 ... 2150 kW
 3 stages
 Standard



Working fields



Characteristics and equipment

Type	VL 06.1600 DP			VL 06.2100 DP		
Operation range	350-1600 kW			480-2150 kW		
Fuel flow	29-135 kg/h			40-181 kg/h		
Nozzle	on request			on request		
Control box / flame detector	LAL 2.25 / QRB 1					
Fan motor	230/400 V - 50 Hz - 2,2 kW			230/400 V - 50 Hz - 2,7 kW		
Fuel connection	Rp 1/2" / M16 x 1,5 - 1500 mm					
Acoustic level (LpA)	78,8 dB(A)			80 dB(A)		
CE certificate	EN 267					
	KN	KL	KM	KN	KL	KM
Complete burner code	on request	on request	on request	13 006 884	13 006 885	13 006 886

Options

Counter face plate	13 008 019
Silencer	13 007 870
Air adapter	13 001 567

Load controller R40 (RWF40) and separate probes		
Designation	Burners	Code
Kit R40 (load controller RWF40 + wiring)	V02 to V06	13 006 476
Hot water / air probe PT100 (-200°C / +400°C) L = 160	V02 to V06	65 300 274
Steam probe QBE 2002 P1 (1 bar)	V02 to V06	13 017 690
Steam probe QBE 2002 P10 (10 bars)	V02 to V06	13 016 838
Steam probe QBE 2002 P16 (16 bars)	V02 to V06	13 015 195
Steam probe sensor QBE for other / different pressure on request.		
RWF40 stand alone - PID 3 points (RWF40 010 A 97 C) for boiler room installation	V02 to V06	13 007 570
QAC22 (external probe)	V02 to V06	13 018 513

Load controller R40 (RWF40) - KIT complete with probe		
Designation	Burners	Code
KEP13 (water - immersion probe)	V05 and V06	13 007 765
KEA13 (water - strap-on probe)	V05 and V06	13 007 766
KA13 (air - immersion probe)	V05 and V06	13 007 767
KEP45 (immersion probe till 450° C)	V05 and V06	13 007 769
KV16 (steam - pressure probe)	V05 and V06	13 007 769

Load controller RJ316 kit with probe		
Designation	Burners	Code
UEP13 (water - immersion probe)	V3	3 833 170
UEA13 (water - strap-on probe)	V3	3 833 169
UV16 (steam - pressure probe)	V3	3 833 171

Gas pressure switch with support		
Designation	Burners	Code
Maximum gas pressure switch 2,5 ... 50 mbar	V02 to V06	13 021 944
Plug		13 020 755

Gas and air manometer with push button		
Designation	Burners	Code
0 ... 60 mbar	V1 to V06	13 002 181
0 ... 100 mbar	V1 to V06	13 018 509
0 ... 400 mbar	V1 to V06	13 018 510

Valve tightness control		
Designation	Burners	Code
VPS 504 *	VG02 to VG06 & VGL02 to VGL06	13 001 778
Connection pipe for VPS installation on gas train 13 020 944	VG06 and VGL06	13 015 138
*For all VG06 and VGL06, VPS is included in the complete burner code		

External valve connection kit		
Designation	Burners	Code
Connector for safety solenoid valve	V1 to V04	13 010 959

MDE System		
Designation	Burners	Code
MDE Display kit	V02 to V04 gas and light oil	13 011 155
MDE Display kit	V05 and V06 gas and light oil	13 007 610
Elcoscope (tool)	V02 to V06	13 017 305

MDE and MDE2 Systems		
Designation	Burners	Code
PC Interface - Kit «communication PC» for Thermowatt BCU (câble USB and CD Rom)	V1	3 833 018

External air intake connection kit		
Designation	Burners	Code
RG4 (Ø 50mm, directable)	VB1.20 ... VL1.55	13 004 320
RG9 (Ø 50mm)	VB1.20 ... VB1.95	13 011 996
RG10 (Ø 100mm)	V02	13 018 822
RG1 (Ø 125mm)	V03	13 005 571
RG11 (Ø 160mm)	V3	3 833 152
RG2 (Ø 160mm)	V04	13 002 031
RG3 (Ø 250mm)	V05 and V06	13 001 567

Inlet silencer		
Designation	Burners	Code
PS12 (-2dB(A))	V3	on request
PS31 (-2dB(A))	V05	13 001 566
PS5 (-6dB(A))	V06	13 007 870

Sound proofing box - noise reduction 15 ... 20 dB(A)		
Designation	Burners	Code
CI20	V02 gas and light oil	13 021 659
CI21	V03 gas and light oil	14 000 401
CI22	V04 gas and light oil	13 019 309
CI23	V05	13 019 310
CI24	V06	13 019 311

Sound proofing box - noise reduction 20 ... 30 dB(A)		
Designation	Burners	Code
CI32	V04 gas and light oil	13 019 313
CI33	V05	13 019 314
CI34	V06	13 019 315

Permanent ventilation		
Designation	Burners	Code
Kit permanent ventilation for gas	VG1	13 014 400
Kit permanent ventilation for gas	VG02 to VG06	13 006 356
Kit permanent ventilation for oil burners	VL1 to VL06	on request

Post ventilation		
Designation	Burners	Code
Kit post ventilation	VGL04	13 018 501
Kit post ventilation	VG02 to VG04.520	13 014 290
Kit post ventilation	VG04.570 Vario	13 018 124
Kit post ventilation	VG05 and VG06	13 014 510

Variatron® - speed variator external mounting		
Designation	Burners	Code
1,1 TT Motor power 1,1 kW - external mounting without cable, without potentiometer	VECTRON 05.700	3 832 690
1,5 TT Motor power 1,5 kW - external mounting without cable, without potentiometer	VECTRON 05.1000	3 832 691
2,2 TT Motor power 2,2 kW - external mounting without cable, without potentiometer	VECTRON 06.1600	3 832 692
3 TT Motor power 3 kW - external mounting without cable, without potentiometer	VECTRON 06.2100	3 832 693

Potentiometer - wound, 50 mA maximum		
Designation	Burners	Code
Single ASZ12.703	V05 and V06	13 018 502
Single ASZ12.703 + cover	V05 and V06	13 002 293
Double ASZ22.703	V05 and V06	13 018 503
Double ASZ22.703 + cover	V05 and V06	13 002 294

Potentiometer - conductive plastic, 0,1 mA maximum		
Designation	Burners	Code
For servomotor Berger STA 19	V02 to V04	13 014 857
Single ZPN 160 for servomotor LKS 160	V02 to V04	13 018 506
Single ASZ12.803	V05 and V06	13 018 504
Single ASZ12.803 + cover	V05 and V06	13 002 295
Double ASZ22.803	V05 and V06	13 018 505
Double ASZ22.803 + cover	V05 and V06	13 002 296

Gas filter		
Designation	Burners	Code
Gas filter Rp. 3/4"	Rp. 3/4"	13 014 712
Gas filter Rp. 1"	Rp. 1"	13 010 092
Gas filter Rp. 1" 1/2	Rp. 1"1/2	13 011 723
Gas filter Rp. 2"	Rp. 2"	13 009 700
Gas filter DN65 PN16	DN65	13 009 703
Gas filter DN80 PN16	DN80	13 013 787

Antivibration coupling - Compensator		
Designation	Burners	Code
1" Threaded connection	Rp. 1"	13 023 376
1" 1/2 Threaded connection	Rp. 1" 1/2	13 018 369
2" Threaded connection	Rp. 2"	13 019 852
DN 50 Threaded connection	DN50	12 001 014
DN 65 Threaded connection	DN65	12 001 015
DN 80 Threaded connection	DN80	12 001 016

Ball valve		
Designation	Burners	Code
Rp. 1/2" Threaded connection	Rp. 1/2 "	13 018 514
Rp. 3/4" Threaded connection	Rp. 3/4"	65 300 663
Rp. 1" Threaded connection	Rp. 1"	13 018 515
Rp. 1" 1/2 Threaded connection	Rp. 1"1/2	13 018 516
Rp. 2" Threaded connection	Rp. 2"	13 018 517
DN 65 Flanged connection	DN65	13 018 518
DN 80 Flanged connection	DN80	13 018 519

Façade Boiler Plate		
Designation	Burners	Code
CP1	V1	13 018 495
CP2	V02	13 018 496
CP31	V3	3 833 151
CP3	V04	13 018 497
CP4	VL04	13 018 499
CP5.1	V05 and V06	13 008 019

Boiler connection plugs (Wieland)		
Designation	Burners	Code
7 pins Male boiler connectors 7 pins	V1, V02, V03, V3, V04, V05, V06	13 016 494
7 pins Male boiler connectors 7 pins (small bag of 10 units)	V1, V02, V03, V3, V04, V05, V06	65 300 606
Male boiler connectors 7 + 4 pins	V1, V02, V03, V3, V04, V05, V06	13 016 496
Male boiler connectors 7 + 4 pins (small bag of 10 units)	V1, V02, V03, V3, V04, V05, V06	65 300 605

Type	Power range	Natural gas pressure range for max power	Gas train	Valve
Gas burners	kW	mbar		

One stage Low NOx

VG1.40	15 - 40	20 ... 50	h3/8"-Rp1/2"	VR4625
VG1.55	40 - 55	20 ... 50	h3/8"-Rp1/2"	VR4625
VG1.85	45 - 90	20 ... 300	d3/4"-Rp3/4"	MB-DLE 407

VG02.120	80 - 120	20 ... 300	d3/4"-Rp3/4"	MB-DLE 407
VG02.160	110 - 160	20 ... 300	d3/4"-Rp3/4"	MB-DLE 407
VG02.210	140 - 210	20 ... 100	d1"1/4-Rp1"1/4	MB-DLE 412
	140 - 210	100 ... 300	d3/4"-Rp3/4"	MB-DLE 407
	140 - 180	20 ... 100		

Two stages Low NOx

VG01.85 D	(45) 53 - 90	20 ... 300	d3/4"-Rp3/4"	MB-ZRDLE 407
-----------	--------------	------------	--------------	--------------

VG02.120 D	(40) 80 - 120	20 ... 300	d3/4"-Rp3/4"	MB-ZRDLE 407
VG02.160 D	(60) 110 - 160	20 ... 300	d3/4"-Rp3/4"	MB-ZRDLE 407
VG02.210 D	(80) 140 - 210	20 ... 100	d1"1/4-Rp1"1/4	MB-ZRDLE 412
	(80) 140 - 210	100 ... 300	d3/4"-Rp3/4"	MB-ZRDLE 407
	(80) 140 - 180	20 ... 100		

VG3.290 D	(90) 190 - 290	20 ... 60	d1"1/4-Rp1"1/4	MB-ZRDLE 412
		60 ... 300	d3/4"-Rp3/4"	MB-ZRDLE 407
VG3.360 D	(120) 240 - 360	20 ... 60	d1"1/4-Rp1"1/4	MB-ZRDLE 412
		60 ... 300	d3/4"-Rp3/4"	MB-ZRDLE 407

VG04.430 D	(150) 260 - 430	20 ... 100	d1"1/4-Rp1"1/4	MB-ZRDLE 412
		100 ... 300	d3/4"-Rp3/4"	MB-ZRDLE 407

Two stage progressive pneumatique Low NOx

VG02.120 DP	(40) 80 - 120	20 ... 300	d3/4"-Rp3/4"	MB- VEF 407
VG02.160 DP	(60) 110 - 160	20 ... 300	d3/4"-Rp3/4"	MB- VEF 407
VG02.210 DP	(80) 140 - 210	20 ... 40	d1"1/4-Rp1"1/4	MB- VEF 412
		100 ... 300	d3/4"-Rp3/4"	MB- VEF 407
		40 ... 100		

VG3.290 DP	(70) 190 - 290	20 ... 60	d1"1/4-Rp1"1/4	MB- VEF 412
		60 ... 300	d3/4"-Rp1"	MB- VEF 407
VG3.360 DP	(100) 240 - 360	20 ... 60	d1"1/4-Rp1"1/4	MB- VEF 412
		60 ... 300	d3/4"-Rp1"	MB- VEF 407

Type	Power range	Natural gas pressure range for max power	Gas train	Valve
Gas burners	kW	mbar		

VG04.430 DP	(150) 260 - 430	20 ... 100	d1"1/4-Rp1"1/4	MB- VEF 412
		100 ... 300	d3/4"-Rp3/4"	MB- VEF 407
VG04.520 DP	(120) 310 - 520	20 ... 40	d1"1/2-Rp2"	MB- VEF 420
		40 ... 60	d1"1/4-Rp1"1/4	MB- VEF 412
		60 ... 300	d3/4"-Rp1"	MB- VEF 407

VG05.700 DP	(240) 335 - 700	20 ... 40	s2"-Rp2"	VGD 20-503
		40 ... 50	d1"1/2-Rp2"	MB- VEF 420
		50 ... 100	d1"1/4-Rp1"1/2	MB- VEF 412
		100 ... 300	d3/4"-Rp1"	MB- VEF 407
VG05.1000 DP	(270) 520 - 1040	20 ... 35	s65-DN65	VGD 40-065
		35 ... 40	s2"-Rp2"	VGD 20-503
		40 ... 50	d1"1/2-Rp2"	MB- VEF 420
		50 ... 100	d1"1/4-Rp1"1/2	MB- VEF 412
		100 ... 300	d3/4"-Rp1"	MB- VEF 407

VG06.1600 DP	(230) 800 - 1600	30 ... 40	s80-DN80	VGD 40-080
		40 ... 50	s65-DN65	VGD 40-065
		50 ... 70	s2"-Rp2"	VGD 20-503
		70 ... 100	d1"1/2-Rp2"	MB- VEF 420
VG06.2100 DP	(260) 1100 - 2100	100 ... 300	d1"1/4-Rp1"1/2	MB- VEF 412
		40 ... 50	s80-DN80	VGD 40-080
		50 ... 60	s65-DN65	VGD 40-065
		60 ... 70	s2"-Rp2"	VGD 20-503
		70 ... 100	d1"1/2-Rp2"	MB- VEF 420
		100 ... 300	d1"1/4-Rp1"1/2	MB- VEF 412

Two stage progressive pneumatique Low NOx + fan speed control

VG02.210 V	(80) 140 - 210	20 ... 40	d1"1/4-Rp1"1/4	MB- VEF 412
	(80) 140 - 210	100 ... 300	d3/4"-Rp3/4"	MB- VEF 407
	(80) 140 - 180	40 ... 100		

VG03.300 V	(100) 200 - 300	20 ... 60	d1"1/4-Rp1"1/4	MB- VEF 412
		60 ... 300	d3/4"-Rp1"	MB- VEF 407

VG04.570 V	(140) 310 - 570	20 ... 40	d1"1/2-Rp2"	MB- VEF 420
		40 ... 60	d1"1/4-Rp1"1/2	MB- VEF 412
		60 ... 300	d3/4"-Rp1"	MB- VEF 407

VG05.700 V	(240) 335 - 700	20 ... 40	s2"-Rp2"	VGD 20-503
		40 ... 50	d1"1/2-Rp2"	MB- VEF 420
		50 ... 100	d1"1/4-Rp1"1/2	MB- VEF 412
		100 ... 300	d3/4"-Rp1"	MB- VEF 407

Type	Power range	Natural gas pressure range for max power	Gas train	Valve
Gas burners	kW	mbar		
VG05.1000 V	(270) 520 - 1040	20 ... 35	s65-DN65	VDG 40-065
		35 ... 40	s2"-Rp2"	VDG 20-503
		40 ... 50	d1"1/2-Rp2"	MB-VEF 420
		50 ... 100	d1"1/4-Rp1"1/2	MB-VEF 412
		100 ... 300	d3/4"-Rp1"	MB-VEF 407

VG06.1600 V	(230) 800 - 1600	30 ... 40	s80-DN80	VDG 40-080
		40 ... 50	s65-DN65	VDG 40-065
		50 ... 70	s2"-Rp2"	VDG 20-503
		70 ... 100	d1"1/2-Rp2"	MB-VEF 420
		100 ... 300	d1"1/4-Rp1"1/2	MB-VEF 412
VG06.2100 V	(260) 1100 - 2100	40 ... 50	s80-DN80	VDG 40-080
		50 ... 60	s65-DN65	VDG 40-065
		60 ... 70	s2"-Rp2"	VDG 20-503
		70 ... 100	d1"1/2-Rp2"	MB-VEF 420
		100 ... 300	d1"1/4-Rp1"1/2	MB-VEF 412

Two stage progressive electronic Low NOx

VG02.120 M	(30) 80 - 120	20 ... 100	d3/4"-Rp3/4"	MBC300-SE
VG02.160 M	(40) 110 - 160	20 ... 100	d3/4"-Rp3/4"	MBC300-SE
VG02.210 M	(40) 145 - 210	20 ... 100	d3/4"-Rp3/4"	MBC300-SE

VG04.540 M	(80) 275 - 540	20 ... 25	d1"1/2-Rp2"	DMV-SE 520
		25 ... 30	d1"1/4-Rp1"1/2	DMV-SE 512
		30 ... 100	d3/4"-Rp1"	DMV-SE 507

VG05.700 M	(140) 330 - 700	20 ... 30	d1"1/2-Rp2"	DMV-SE 520
		30 ... 100	d1"1/4-Rp1"1/2	DMV-SE 512
VG05.1000 M	(170) 530 - 1040	20 ... 25	d65-DN65	DMV-SE 5065
		25 ... 30	d1"1/2-Rp2"	DMV-SE 520
		30 ... 100	d1"1/4-Rp1"1/2	DMV-SE 512

VG06.1600 M	(230) 800 - 1600	50 ... 60	d65-DN65	DMV-SE 5065
		60 ... 80	s2"-Rp2"	DMV-SE 525
		80 ... 100	d1"1/4-Rp1"1/2	DMV-SE 512
VG06.2100 M	(260) 1100 - 2100	50 ... 60	d65-DN65	DMV-SE 5065
		60 ... 80	s2"-Rp2"	DMV-SE 525
		80 ... 100	d1"1/2-Rp2"	DMV-SE 520

Type	Power range	Natural gas pressure range for max power	Gas train	Valve
Dual fuel burners	kW	mbar		

One stage in gas and in light oil

VGL02.120	35 - 120	20 ... 300	d3/4"-Rp3/4"	MB-DLE 407
VGL02.210	100 - 190	20 ... 300	d3/4"-Rp3/4"	MB-DLE 407

Two stages in gas and in light oil

VGL04.350	(95) 170 - 350	20 ... 100	d1"1/4-Rp1"1/4	MB-ZRDLE 412
		100 ... 300	d3/4"-Rp1"	MB-ZRDLE 407

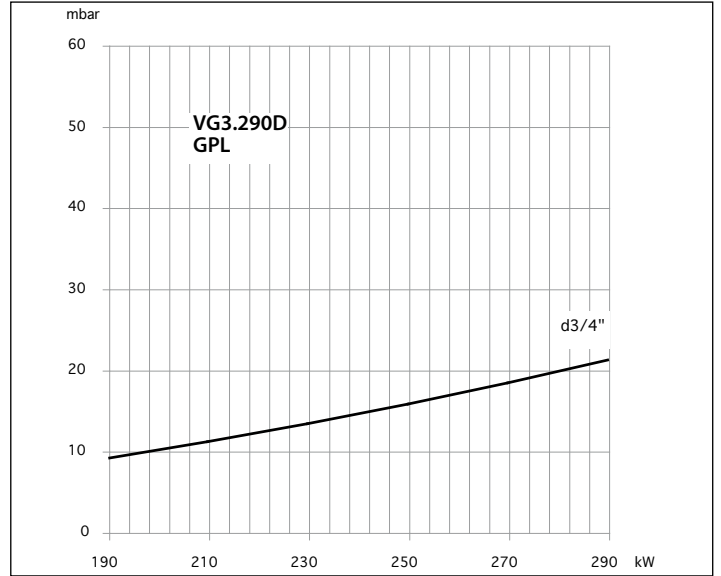
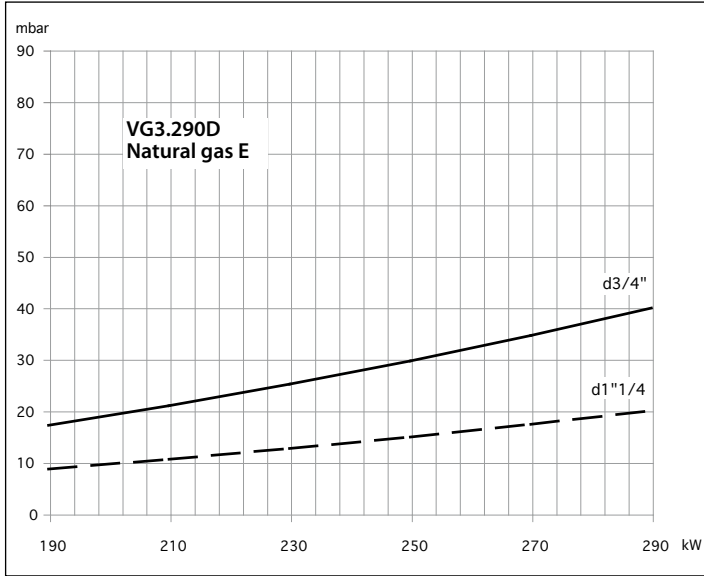
VGL04.440	(130) 210 - 440	20 ... 100	d1"1/4-Rp1"1/4	MB-ZRDLE 412
		100 ... 300	d3/4"-Rp1"	MB-ZRDLE 407

Two stage progressive pneumatique in gas / 3 stages in light oil

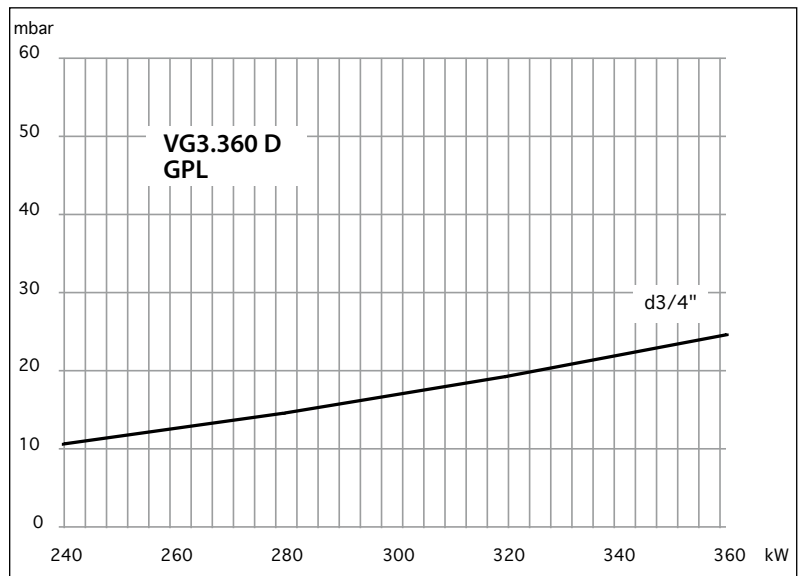
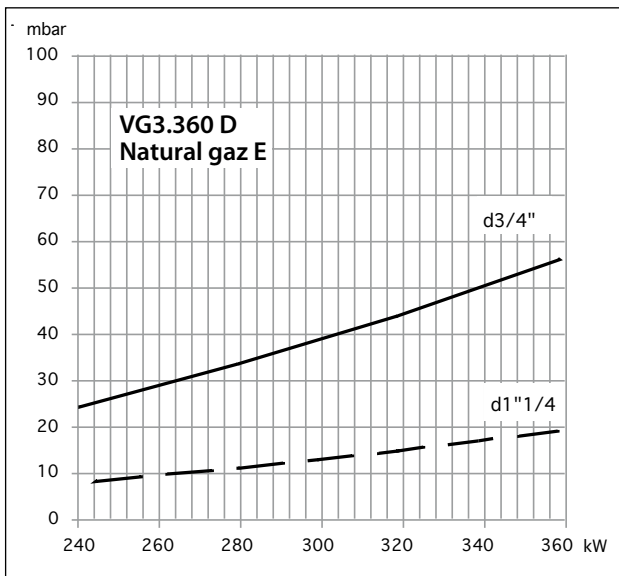
VGL05.700 DP	(200) 320 - 700	20 ... 40	s2"-Rp2"	VDG 20-503
		40 ... 50	d1"1/2-Rp2"	MB-VEF 420
		50 ... 100	d1"1/4-Rp1"1/2	MB-VEF 412
		100 ... 300	d3/4"-Rp1"	MB-VEF 407
VGL05.1000 DP	(240) 510 - 1000	20 ... 35	s65-DN65	VDG 40-065
		35 ... 40	s2"-Rp2"	VDG 20-503
		40 ... 50	d1"1/2-Rp2"	MB-VEF 420
		50 ... 100	d1"1/4-Rp1"1/2	MB-VEF 412
		100 ... 300	d3/4"-Rp1"	MB-VEF 407

VGL06.1600 DP	(300) 800 - 1600	30 ... 40	s80-DN80	VDG 40-080
		40 ... 50	s65-DN65	VDG 40-065
		50 ... 70	s2"-Rp2"	VDG 20-503
		70 ... 100	d1"1/2-Rp2"	MB-VEF 420
VGL06.2100 DP	(480) 1100 - 2050	100 ... 300	d1"1/4-Rp1"1/2	MB-VEF 412
		40 ... 50	s80-DN80	VDG 40-080
		50 ... 60	s65-DN65	VDG 40-065
		60 ... 70	s2"-Rp2"	VDG 20-503
		70 ... 100	d1"1/2-Rp2"	MB-VEF 420
100 ... 300	d1"1/4-Rp2"	MB-VEF 412		

VG3.290 D	Burner capacity (kW)	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d3/4"-Rp3/4"
		Natural gas E Hi = 10,365 kWh/m ³		Natural gas E Hi = 10,365 kWh/m ³		LPG Hi=25,89kWh/m ³
	Gas pressure drops (from gas train air inlet)					
	190	17	9	23	9	9
	210	21	10	29	10	11
	230	25	13	34	13	13
	250	30	15	41	15	16
	270	34	17	47	17	18
	290	40	20	55	20	21

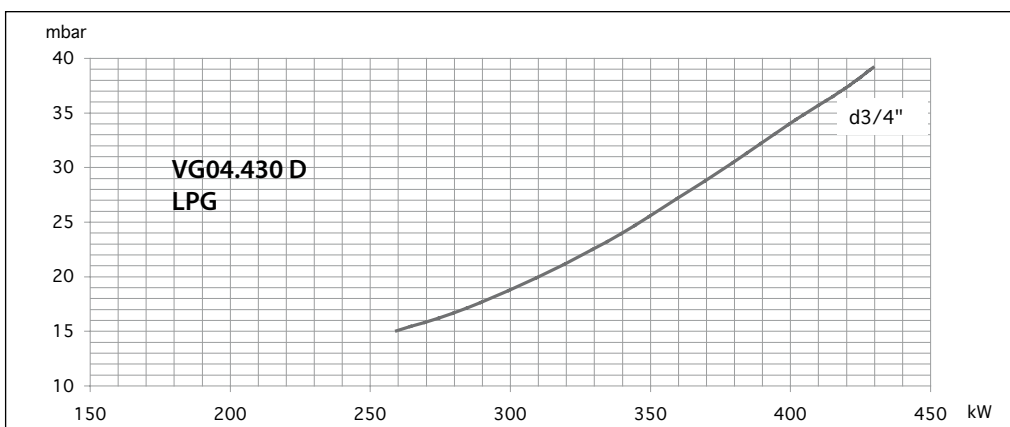
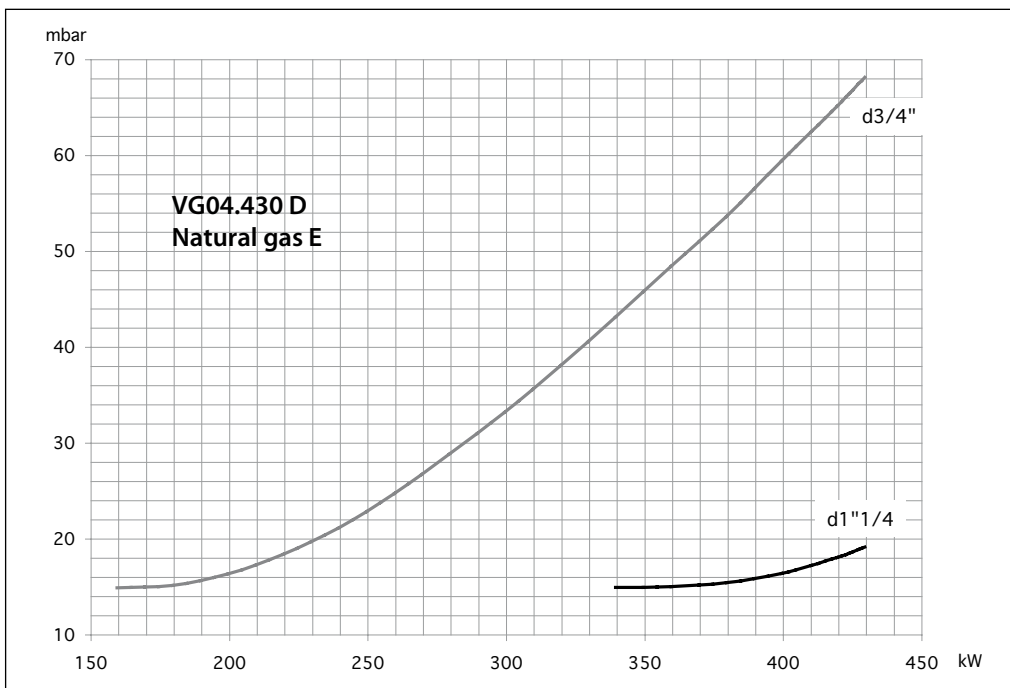


VG3.360 D	Burner capacity (kW)	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d3/4"-Rp3/4"
		Natural gas E Hi = 10,365 kWh/m ³		Natural gas E Hi = 10,365 kWh/m ³		LPG Hi=25,89kWh/m ³
	Gas pressure drops (from gas train air inlet)					
	240	25	9	35	9	13
	280	34	12	48	12	17
	320	45	16	63	16	23
	360	57	20	79	20	29

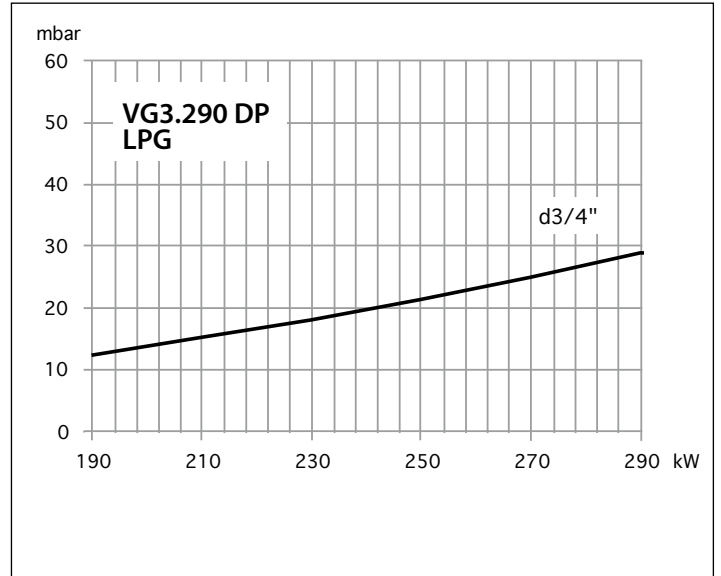
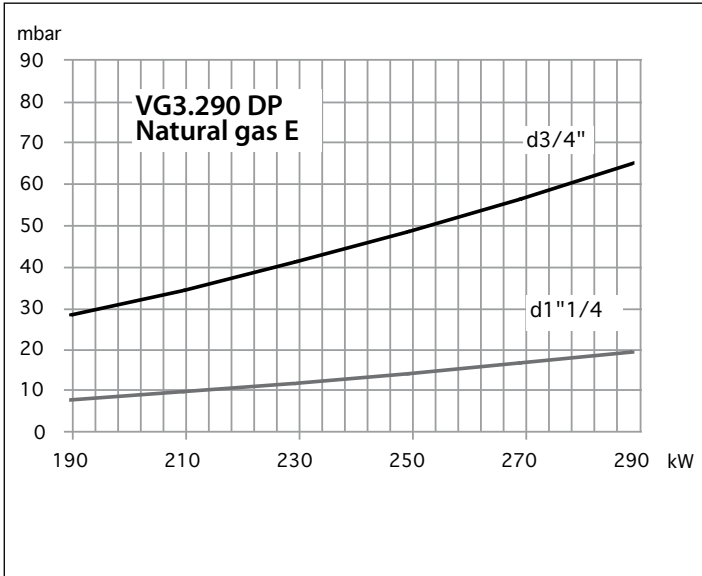


Gas and dual fuel pressure losses

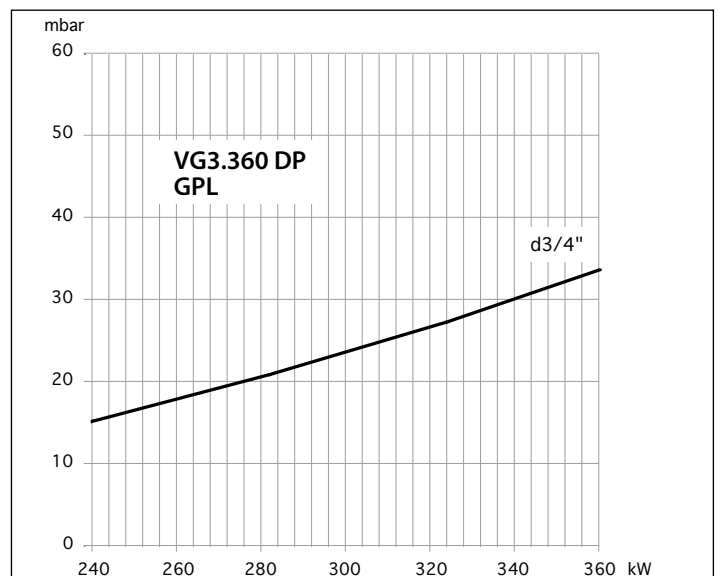
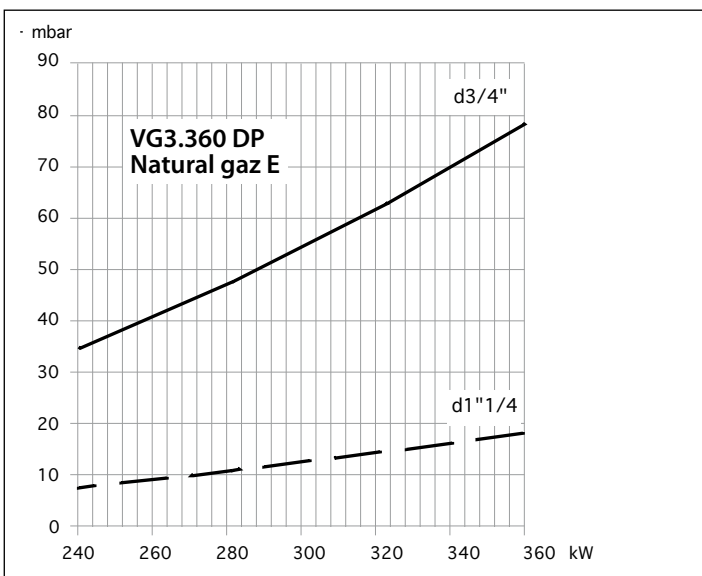
VG 04.430 D	Burner capacity (kW)	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d3/4"-Rp3/4"
		Natural gas G20 Hi = 10,365 kWh/m ³		Natural gas G25 Hi = 8,83 kWh/m ³		LPG
		Gas pressure drops (from gas train air inlet)				
150						
160						
180				15		
200	15			17		
220	18			21		
240	21			25		
260	25			29		15
280	29			34		16
300	33			39	15	19
320	38			44	16	21
340	43			50	18	24
360	48			56	20	27
380	53		15	62	23	30
400	59		16	69	25	34
420	65		18	76	28	37
430	68		19	80	29	39



VG3.290 DP	Burner capacity (kW)	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d3/4"-Rp3/4"	
		Natural gas E Hi = 10,365 kWh/m ³			Natural gas E Hi = 10,365 kWh/m ³		LPG Hi = 25,89kWh/m ³
		Gas pressure drops (from gas train air inlet)					
	190	28	9	41	9	12	
	210	34	10	50	10	15	
	230	41	13	59	13	18	
	250	48	15	70	15	21	
	270	56	17	82	17	25	
	290	65	20	94	20	29	

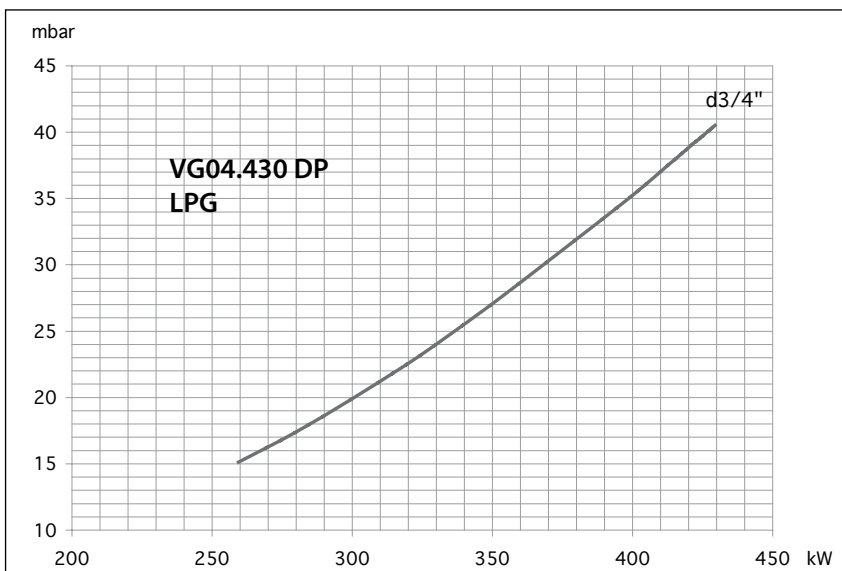
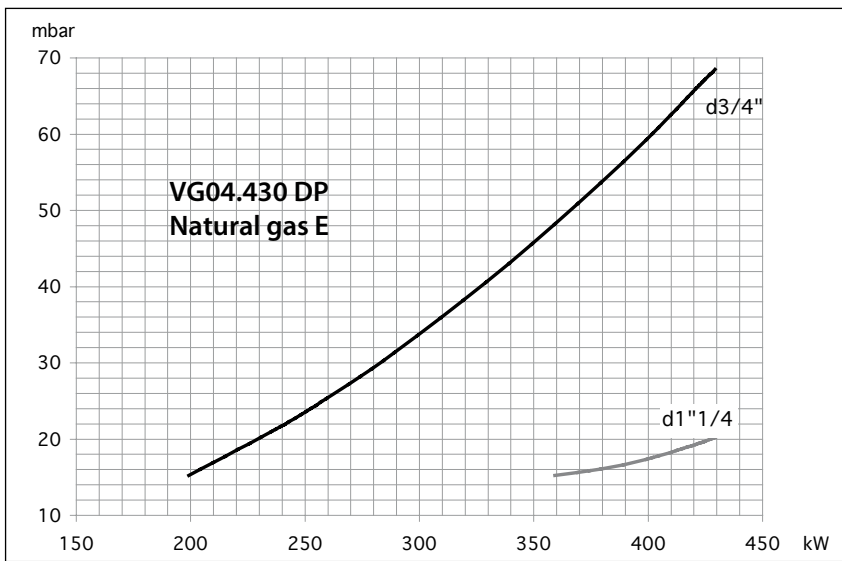


VG 03.360 DP	Burner capacity (kW)	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d3/4"-Rp3/4"	d1"1/4-Rp1"1/4	d3/4"-Rp3/4"	
		Natural gas E Hi = 10,365 kWh/m ³			Natural gas E Hi = 10,365 kWh/m ³		LPG Hi = 25,89kWh/m ³
		Gas pressure drops (from gas train air inlet)					
	240	36	9	53	12	15	
	280	49	12	73	17	21	
	320	63	16	95	22	27	
	360	80	20	120	28	35	

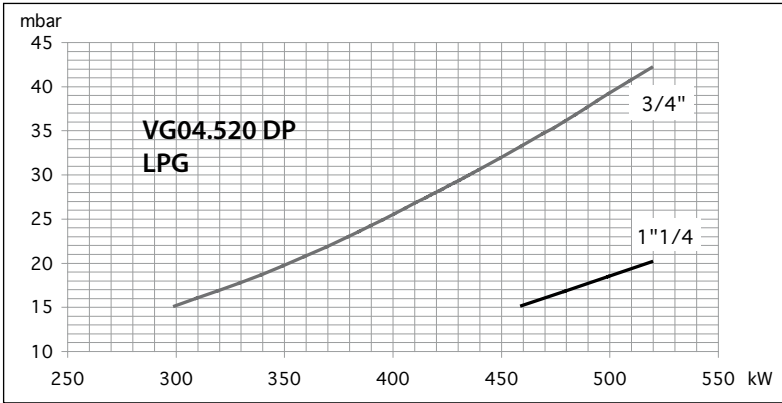
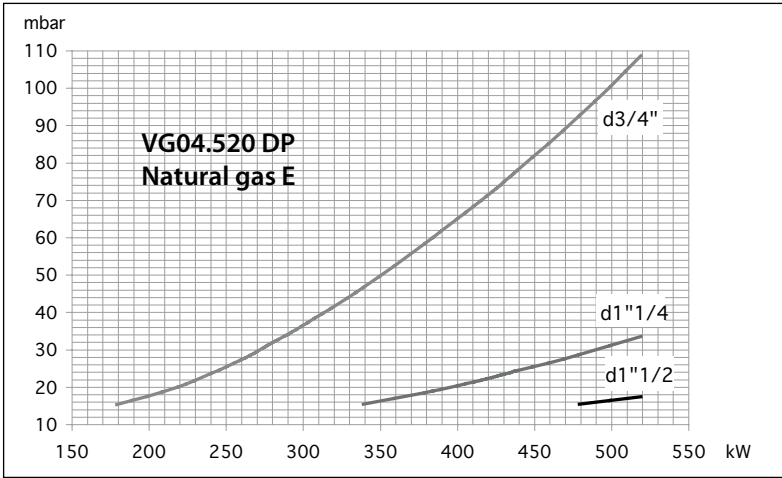


Gas and dual fuel pressure losses

VG 04.430 DP	Burner capacity (kW)	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d3/4"-Rp1"
		Natural gas E Hi = 10,365 kWh/m ³		Natural gas LL Hi = 8,83 kWh/m ³		LPG Hi=25,89kWh/m ³
		Gas pressure drops (from gas train air inlet)				
	100					
	140			15		
	200	15		26		
	240	21		38		
	260	25		44		15
	280	29		51		17
	300	33		59		20
	320	38		67		22
	340	43		75	15	25
	360	48	15	84	16	28
	380	53	16	94	18	32
	400	59	17	104	20	35
	420	65	19	115	22	39
	430	68	20	121	23	40

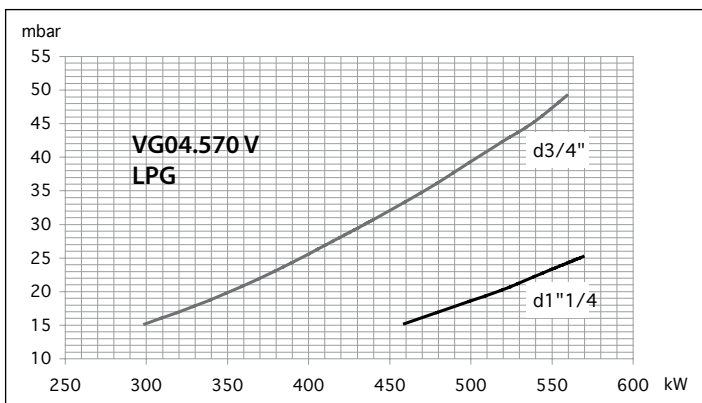
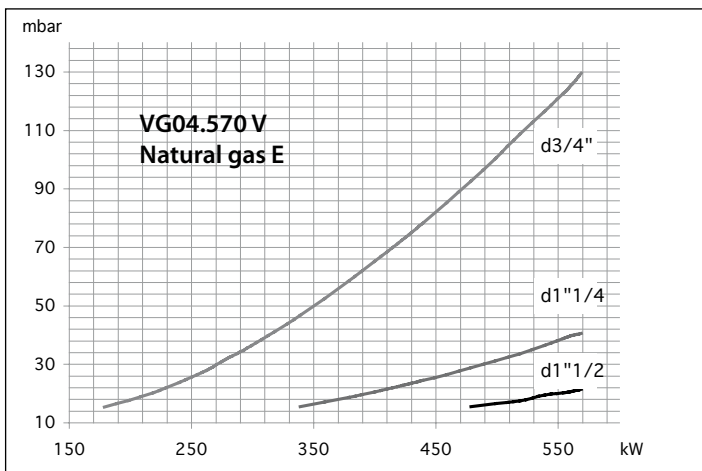


VG 04.520 DP	Burner capacity (kW)	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"	d3/4"-Rp1"	d1"1/4-Rp1"1/4	
		Natural gas E Hi = 10,365 kWh/m ³			Natural gas LL Hi = 8,83 kWh/m ³		LPG Hi=25,89kWh/m ³		
	Gas pressure drops (from gas train air inlet)								
140									
180	15								
220	19								
260	27							16	
280	31							19	
300	36				15		15	23	
340	46	15			18		18	26	
380	58	18			23		23		
420	71	22			28	15	28		
440	77	24			31	16	30		
460	85	26			34	17	33	15	
480	92	28	15		37	19	36	17	
500	100	31	16		40	20	39	18	
520	108	33	17		43	22	42	20	

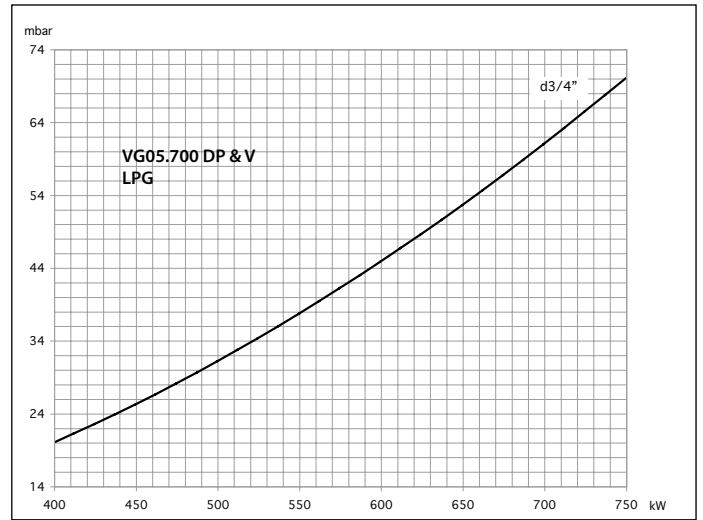
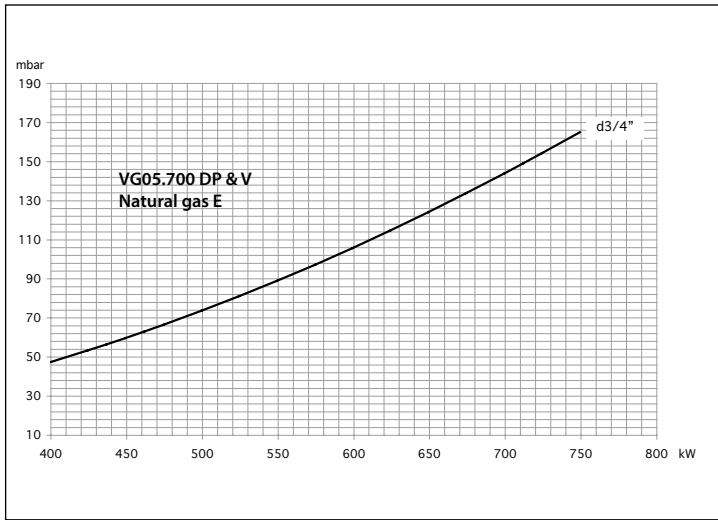
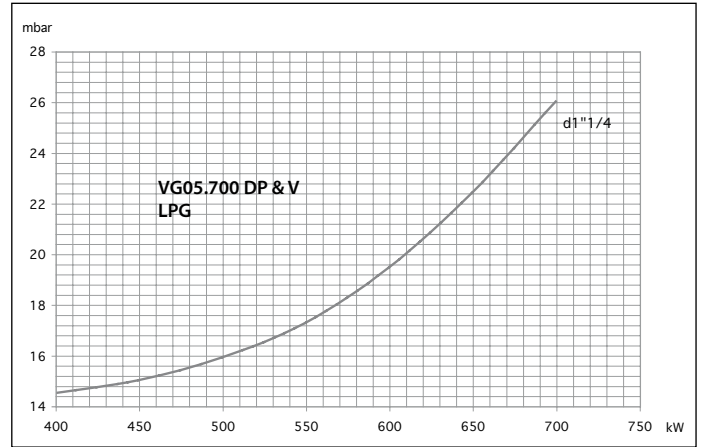
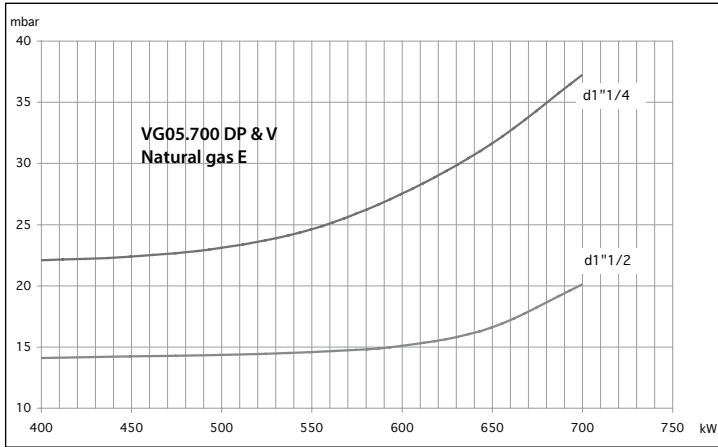


Gas and dual fuel pressure losses

VG 04.570 V	Burner capacity (kW)	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"	d3/4"-Rp1"	d1"1/4-Rp1"1/4	
		Natural gas E Hi = 10,365 kWh/m ³			Natural gas LL Hi = 8,83 kWh/m ³		LPG Hi=25,89kWh/m ³		
	Gas pressure drops (from gas train air inlet)								
140									
180	15								
220	19								
260	27								
280	31								
300	36				15		15		
340	46	15			18		18		
380	58	18			23		23		
420	71	22			28	15	28		
440	77	24			31	16	30		
460	85	26			34	17	33	15	
480	92	28	15		37	19	36	17	
500	100	31	16		40	20	39	18	
520	108	33	17		43	22	42	20	
540	116	36	19		46	24	45	22	
560	124	39	20		50	26	49	24	
570	129	40	21		51	26	51	25	

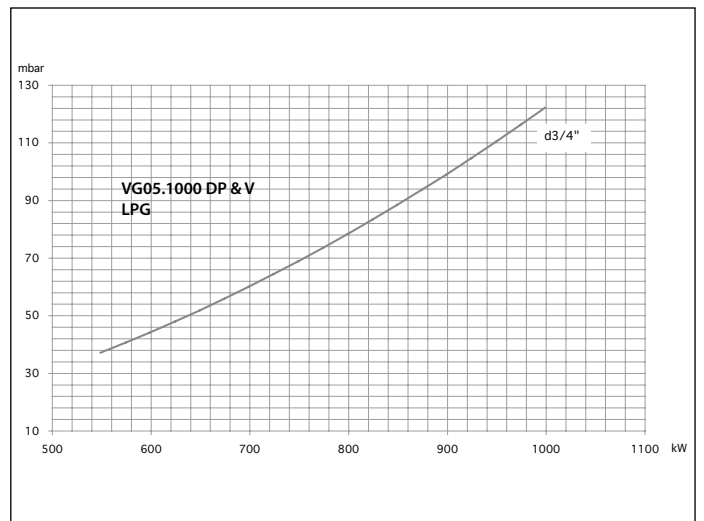
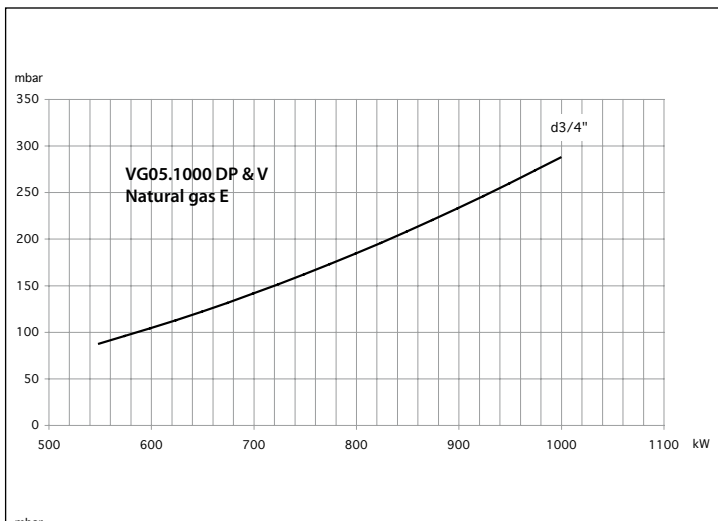
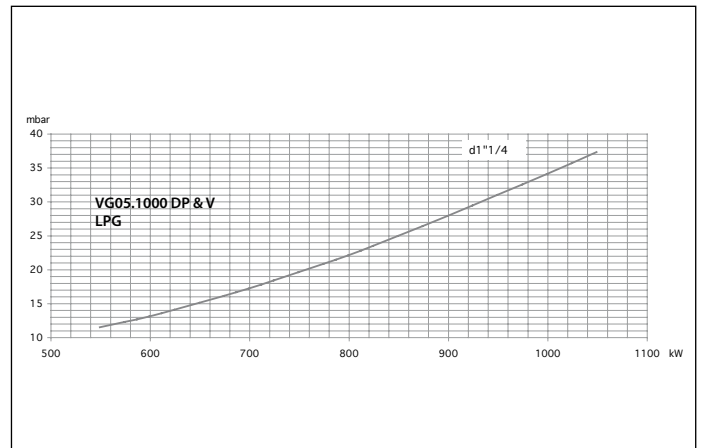
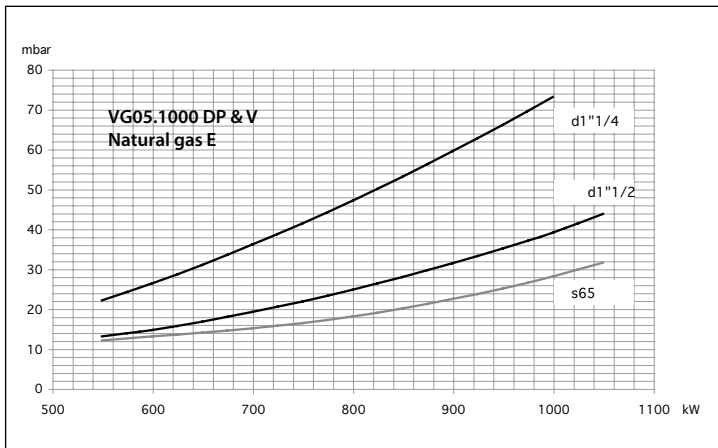


VG 05.700 DP & V	Burner capacity (kW)	d3/4"-Rp1"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"	d1"1/4-Rp1"1/4	d1"1/2-Rp2"	d3/4"-Rp1"	d1"1/4-Rp1"1/4
		Natural gas G20 Hi = 10,365 kWh/m ³			Natural gas G25 Hi = 8,83 kWh/m ³		LPG G31 Hi=25,89kWh/m ³	
	Gas pressure drops (from gas train air inlet)							
	400	47					20	
	450	59					25	
	500	73					31	
	550	88	23	15	27	16	38	16
	600	105	27	15	32	19	45	19
	650	124	32	17	38	22	53	23
	700	143	37	20	44	25	61	26
	750	164	18				70	

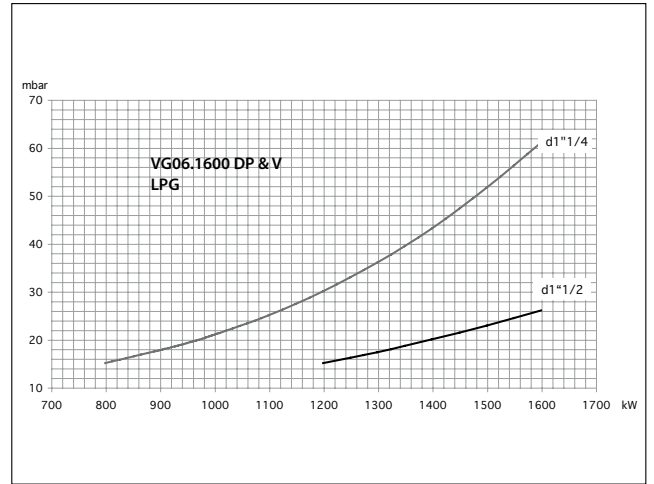
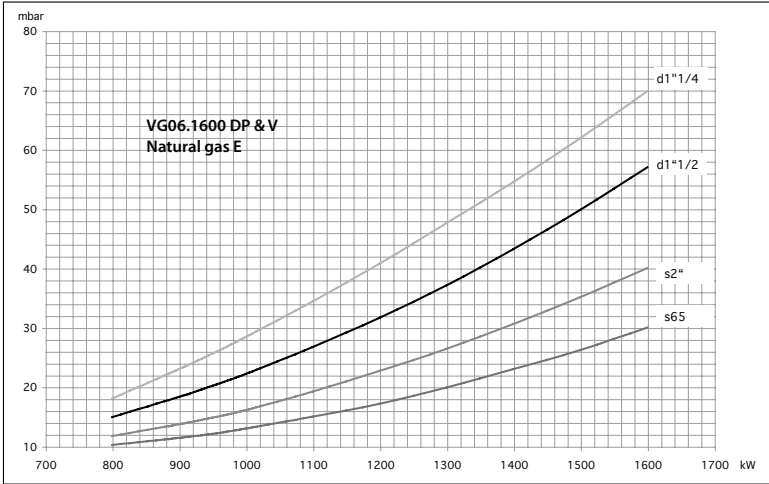


Gas and dual fuel pressure losses

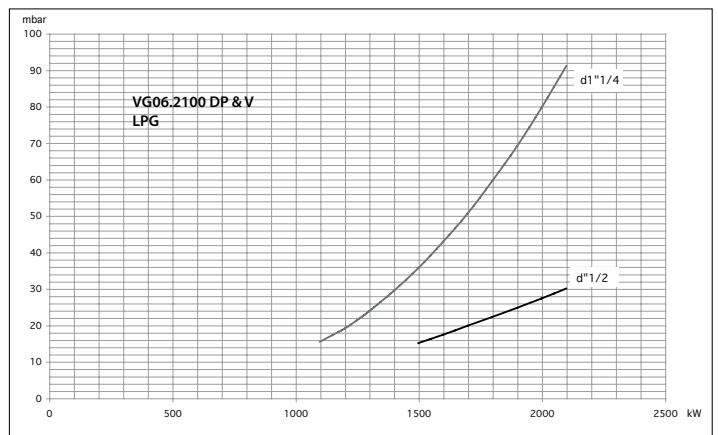
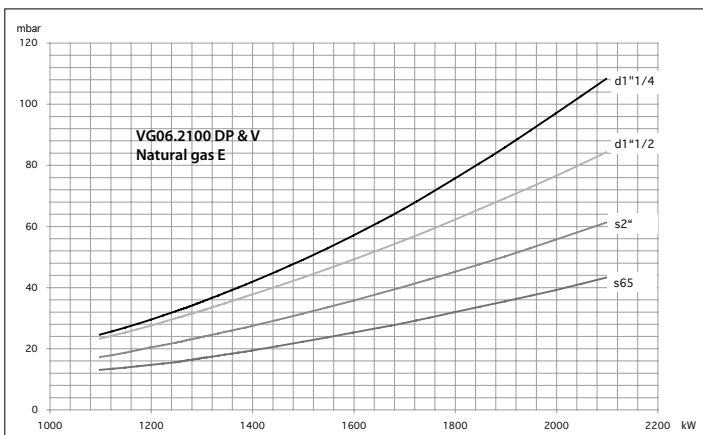
VG 05.1000 DP & V	Burner capacity (kW)	d3/4"-Rp1"	d1"1/4-Rp1"1/2	d1"1/2-Rp2"	s2"-Rp2"	s65-DN65	d1"1/4-Rp1"1/2	d1"1/2-Rp2"	s2"-Rp2"	s65-DN65	d3/4"-Rp1"	d1"1/4-Rp1"1/2	
		Natural gas G20 Hi = 10,365 kWh/m ³					Natural gas G25 Hi = 8,83 kWh/m ³					LPG G31 Hi=25,89kWh/m ³	
		Gas pressure drops (from gas train air inlet)											
550	87	22					27	16				37	
600	103	26	15				32	19	15		44		
650	121	31	16				38	22	17	15	51	15	
700	140	36	19	15	15		44	25	20	17	60	17	
750	161	41	22	18	16		50	29	23	19	69	19	
800	183	47	25	20	18		57	33	26	22	78	22	
850	207	53	28	23	20		64	38	29	25	88	25	
900	232	60	31	25	22		72	42	32	28	99	28	
950	259	66	35	28	25		80	47	36	31	110	31	
1000	286	73	39	31	28		89	52	40	35	122	34	



VG 06.1600 DP & V	Burner capacity (kW)	d1"1/4- Rp1"1/2	d1"1/2- Rp2"	s2"- Rp2"	s65- DN65	d1"1/4- Rp1"1/2	d1"1/2- Rp2"	s2"- Rp2"	s65- DN65	d1"1/4- Rp1"1/2	d1"1/2- Rp2"	
		Natural gas G20 Hi = 10,365 kWh/m ³				Natural gas G25 Hi = 8,83 kWh/m ³				LPG G31 Hi=25,89kWh/m ³		
		Gas pressure drops (from gas train air inlet)										
800	18	15				41	21	15			15	
900	23	18				52	27	19	15		17	
950	26	20	15			58	30	21	16		19	
1000	29	22	16			64	33	23	17		21	
1100	35	27	19	15		78	40	28	21		25	
1200	41	32	23	17		93	48	33	25		30	15
1300	-	37	26	20			56	39	29		-	17
1400	-	43	31	23			65	45	34		-	20
1500	-	50	35	26			74	52	39		-	23
1600	-	57	40	30			85	59	44		-	26

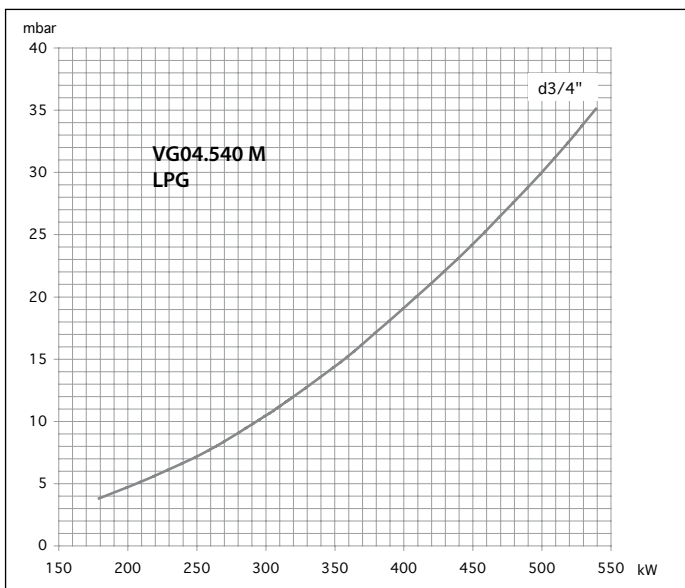
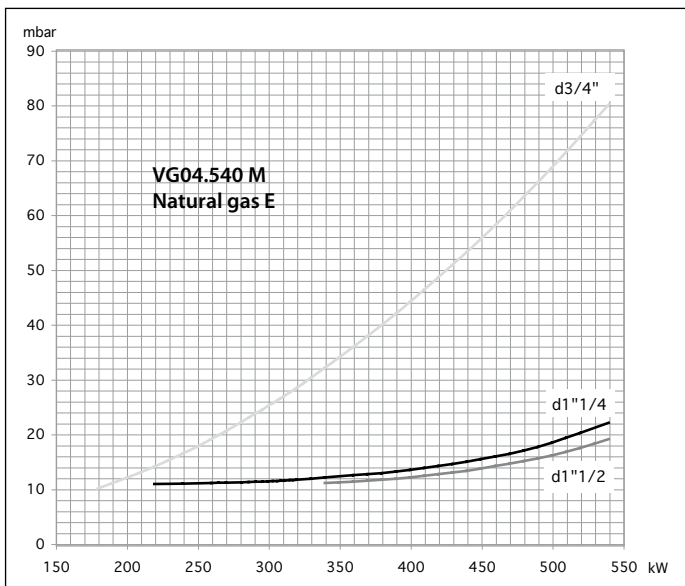


VG 06.2100 DP & V	Burner capacity (kW)	d1"1/4- Rp1"1/2	d1"1/2- Rp2"	s2"- Rp2"	s65- DN65	d1"1/4- Rp1"1/2	d1"1/2- Rp2"	s2"- Rp2"	s65- DN65	d1"1/4- Rp1"1/2	d1"1/2- Rp2"	
		Erdgas G20 Hi = 10,365 kWh/m ³				Erdgas G25 Hi = 8,83 kWh/m ³				LPG G31 Hi=25,89kWh/m ³		
		Gas pressure drops (from gas train air inlet)										
1100	18	23	17	15		41	27	25	15		15	15
1150	23	25	18	15		52	30	27	15		17	15
1200	26	27	20	15		58	33	29	17		19	15
1250	29	30	22	15		64	35	32	18		21	15
1300	35	32	23	17		78	38	34	20		25	15
1400	41	37	27	19		93	44	40	23		30	15
1500	-	43	31	22			51	46	26		-	15
1600	-	49	35	25			58	52	30		-	17
1700	-	55	40	28			66	59	33		-	20
1800	-	62	45	32			73	66	37		-	22
1900	-	69	50	35			82	74	42		-	25
2000	-	76	55	39			91	82	46		-	27
2100	-	84	61	43			100	90	51		-	30

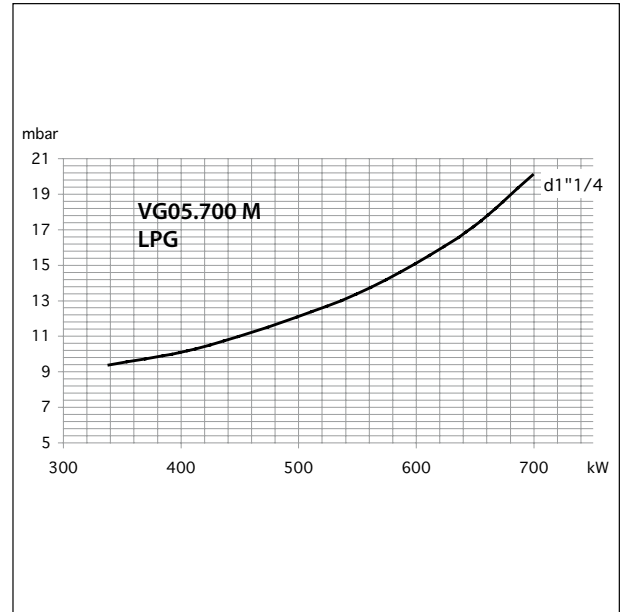
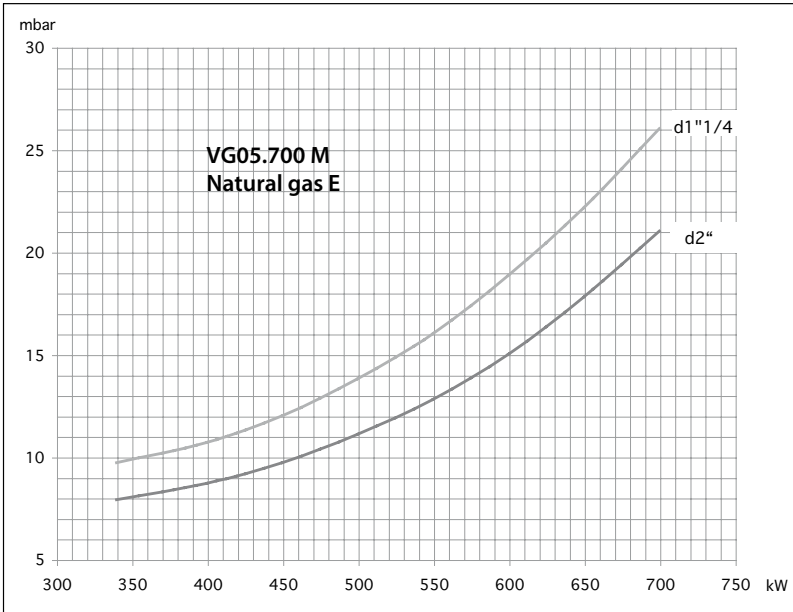


Gas and dual fuel pressure losses

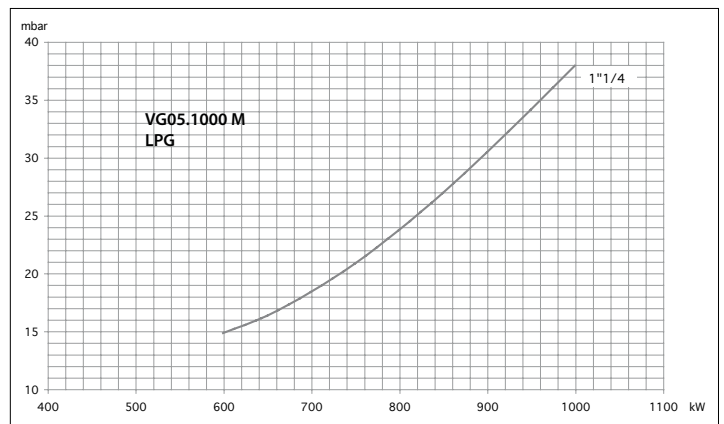
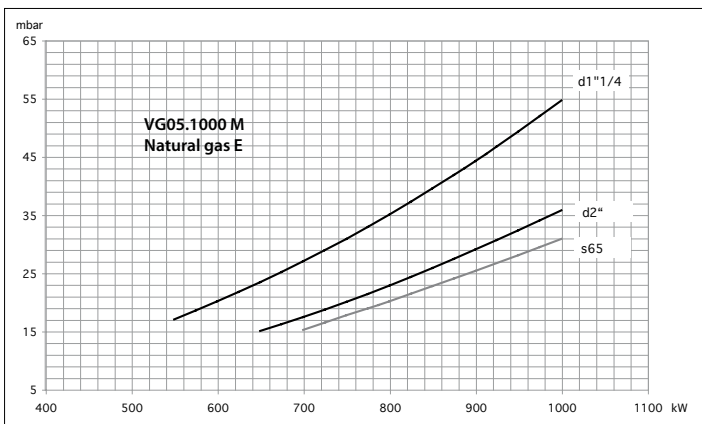
VG 04.540 M	Burner capacity (kW)	d3/4"-Rp1"	d1"1/4-Rp1"1/2	d1"1/2-Rp2"	d3/4"-Rp1"	d1"1/4-Rp1"1/2	d1"1/2-Rp2"	d3/4"-Rp1"	
		Natural gas G20 Hi = 10,365 kWh/m ³				Natural gas G25 Hi = 8,83 kWh/m ³			LPG G31 Hi=25,89kWh/m ³
		Gas pressure drops (from gas train air inlet)							
300	25				33				
320	28				37				
340	32				42				
360	36				47			15	
380	40				52	15		17	
400	44				58	16		19	
420	48				64	17	15	21	
440	53	15			70	19	17	23	
460	58	16			77	21	18	25	
480	63	17	15		83	23	20	27	
500	69	18	16		91	25	22	30	
520	74	20	18		98	27	23	32	
540	80	22	19		106	29	25	35	



VG 05.700 M	Burner capacity (kW)	d1"1/4-Rp1"1/2	s2"-Rp2"	d1"1/4-Rp1"1/2	s2"-Rp2"	d1"1/4-Rp1"1/2
		Natural gas G20 Hi = 10,365 kWh/m ³		Natural gas G25 Hi = 8,83 kWh/m ³		LPG G31 Hi=25,89kWh/m ³
		Gas pressure drops (from gas train air inlet)				
	550	16	15	17	15	15
	600	19	15	21	16	15
	650	22	18	24	19	17
	700	26	21	28	22	20

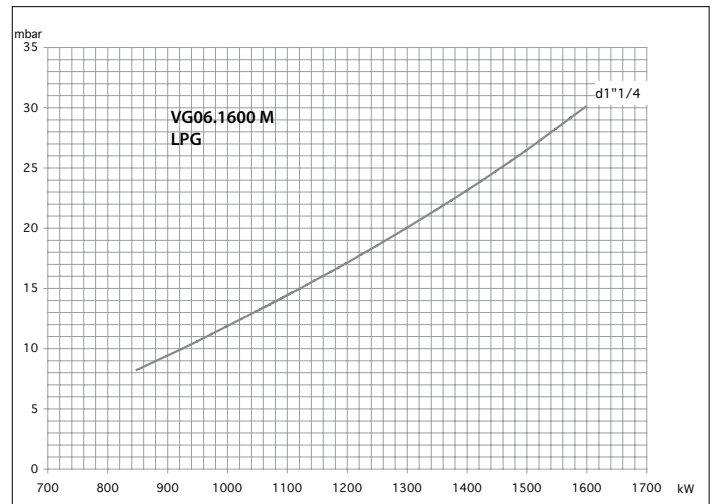
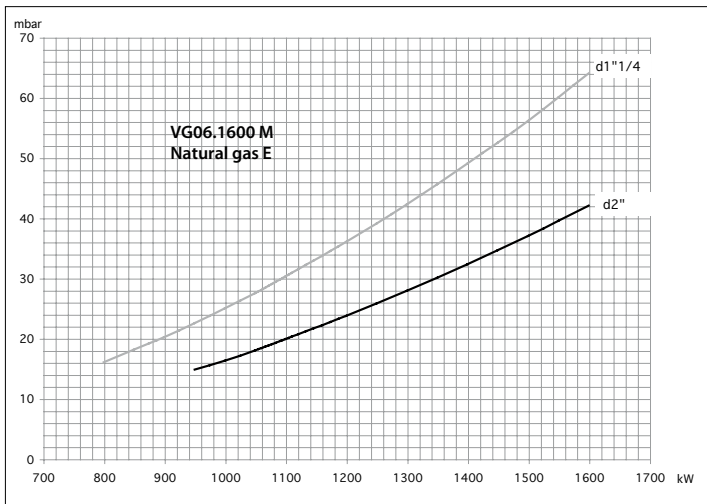


VG 05.1000 M	Burner capacity (kW)	d1"1/4-Rp1"1/2	s2"-Rp2"	s65-DN65	s2"-Rp2"	s65-DN65	d1"1/4-Rp1"1/2
		Natural gas G20 Hi = 10,365 kWh/m ³			Natural gas G25 Hi = 8,83 kWh/m ³		LPG G31 Hi=25,89 kWh/m ³
		Gas pressure drops (from gas train air inlet)					
	550	17			15		
	600	20			17	15	15
	650	23	15		20	17	16
	700	27	17	15	24	20	18
	750	31	20	18	27	23	21
	800	35	23	20	31	26	24
	850	40	26	23	35	29	27
	900	44	29	25	39	33	30
	950	49	32	28	44	37	34
	1000	55	36	31	48	41	38

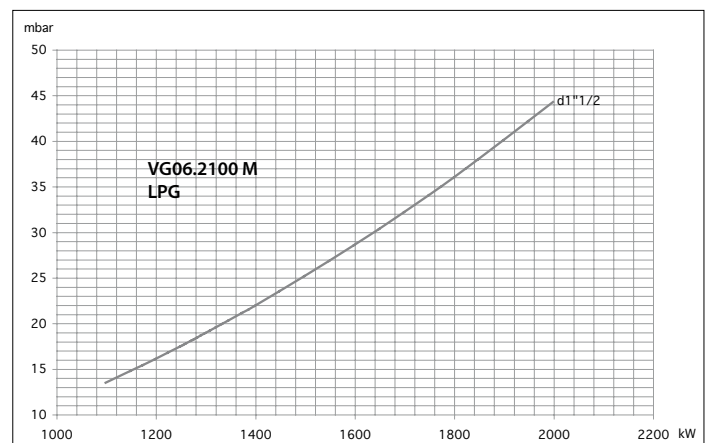
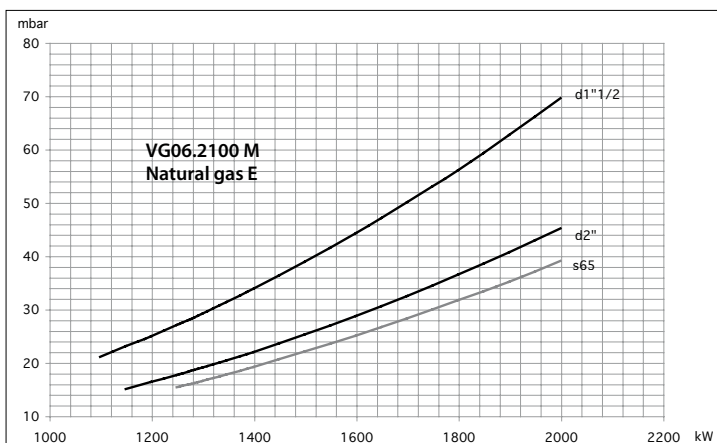


Gas and dual fuel pressure losses

VG 06.1600 M	Burner capacity (kW)	d1"1/4-Rp1"1/2	s2"-Rp2"	s65-DN65	d1"1/4-Rp1"1/2	s2"-Rp2"	s65-DN65	d1"1/4-Rp1"1/2
		Natural gas E Hi = 10,365 kWh/m ³			Natural gas LL Hi = 8,83 kWh/m ³			LPG Hi = 25,89 kWh/m ³
		Gas pressure drops (from gas train air inlet)						
800	16				21			
850	18				24			
900	20				27	15	15	
950	23	15	15	15	30	16	16	
1000	25	16	16	16	33	17	17	
1050	28	18	18	18	37	19	19	
1100	30	20	19	19	40	21	21	14
1200	36	24	23	23	48	25	25	17
1300	42	28	27	27	56	29	29	20
1400	49	32	31	31	65	34	34	23
1500	56	37	36	36	75	39	39	26
1600	64	42	41	41	85	44	44	30



VG 06.2100 M	Burner capacity (kW)	d1"1/2-Rp2"	s2"-Rp2"	s65-DN65	d1"1/2-Rp2"	s2"-Rp2"	s65-DN65	d1"1/2-Rp2"
		Natural gas E Hi = 10,365 kWh/m ³			Natural gas LL Hi = 8,83 kWh/m ³			LPG Hi = 25,89 kWh/m ³
		Gas pressure drops (from gas train air inlet)						
1100	21	15	15	29	20	19		
1150	23	15	15	32	22	21	15	
1200	25	16	15	35	24	23	16	
1250	27	18	15	38	26	25	17	
1300	29	19	17	41	28	27	19	
1400	34	22	19	48	32	31	22	
1500	39	25	22	55	37	36	25	
1600	44	29	25	62	42	41	28	
1700	50	32	28	70	47	46	32	
1800	56	36	32	79	53	52	36	
1900	63	41	35	88	59	58	40	
2000	69	45	39	98	65	64	44	





www.elco-burners.com