

elco

VECTRON

MONOBLOCK BURNERS

11 - 2300 kW



VECTRON

ELCO sets the standard for perfection with its gas, light oil and dual fuel program

Reliable heating solutions for every requirement

Wherever small or medium-scale heating solution is needed, ELCO is the best partner you can rely on. A comprehensive offer of tailor-made solutions is proposed by ELCO and offered by its worldwide network of distributors.

A partner in professional heating offering a wide range of burner operations to fit individual and commercial needs with optimum combustion technology respectful of sustainable environment.

VECTRON: an optimal combination of experience and innovation

With its gas and light oil burners series VECTRON, ELCO offers a product range capitalising more than 90 years of experience in the development of burners in all sizes.

All burners series VECTRON are characterized by economical consumption, ease of installation, adjustment and maintenance embedded in an excellent product engineering.

The new generation models are equipped with an integrated display featuring an interactive, intuitive communication system.

Burner and packaging are 100% recyclable.

VECTRON G

Ranging from the output of 14,5 to 2300 kW VECTRON models offer a wide choice of operation, one and two stages, progressive pneumatic, modulating with electronic compound and a complete program of gas burners with speed control.

VECTRON GL

ELCO offers its dual fuel range working in gas and in light oil from 35 to 2050 kW, with models available in one stage, two stages and progressive pneumatic operation.

VECTRON L

The light oil program ranging from the output of 11 to 2080 kW includes powerful variants for all applications and low-emission models with Blue and Yellow flame technology.

Competent advice

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

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

Outstanding service

As an ELCO customer, you can rely on your installation to perform reliably.

Our guarantee is backed up by a service that sets standards in our field.

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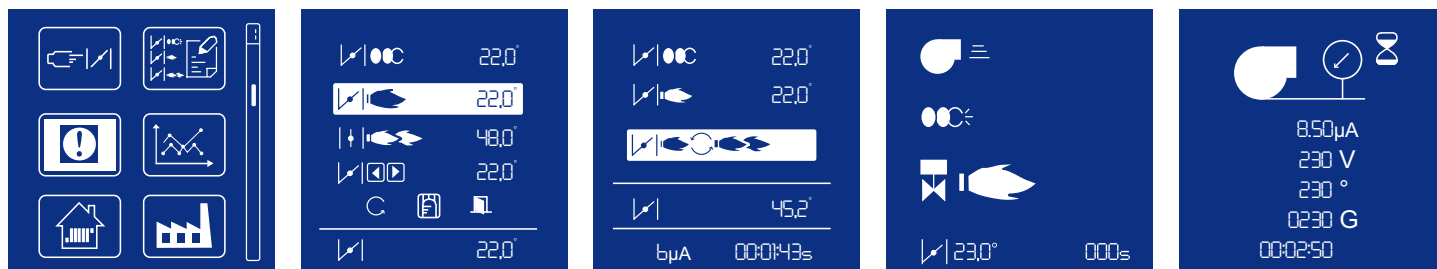
ELCO OPERATIONS AND SYSTEMS

Communication

Choose an intuitive and interactive system

The new MDE2 System and the Elcogram, equipped on VECTRON range constantly give real-time information to professional operators.

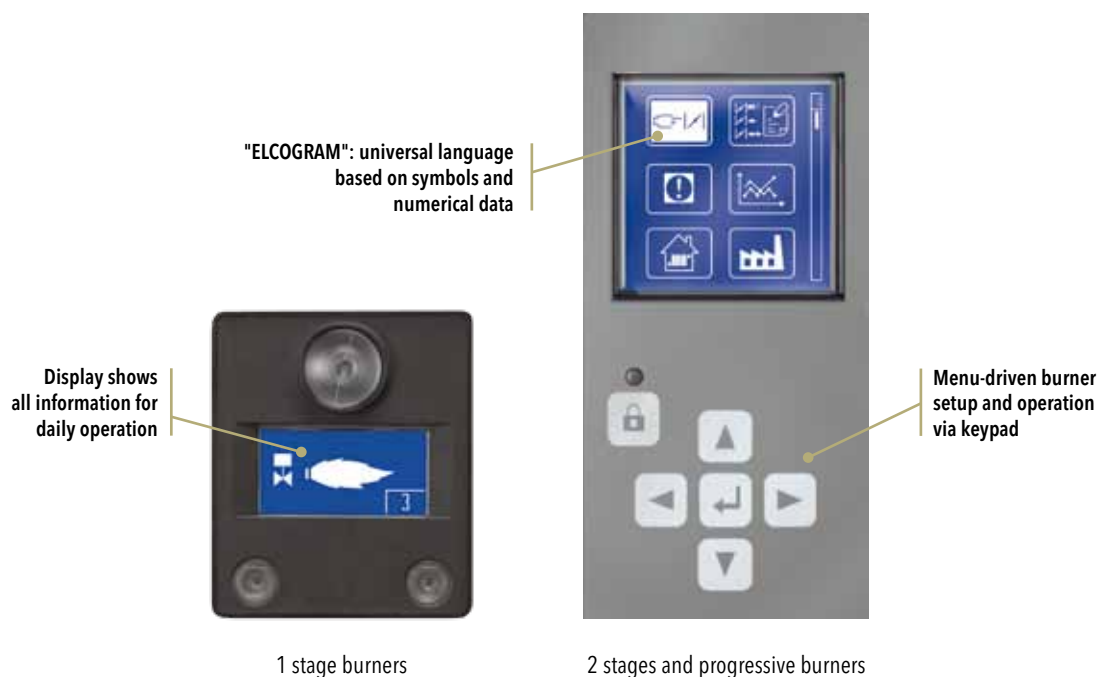
- **During the commissioning**
The setting of all necessary parameters for the burner operation is carried out by a user-friendly method thanks to the 5 buttons and the big size display.
- **During the burner operation**
The instantaneous data of each ignition follow one another in real time, allowing a quick check of the burner running (voltage value, flame signal, time for ignition...)
- **At each operation cycle**
The system records every event that happened during the last heating season and displays the stored data in the form of statistics.



Elcogram, a universal language

As ELCO products are distributed worldwide, the company has developed a universal language composed of pictograms and numerical data.

The pictograms use the majority of the symbols used on the wiring diagrams which are recognised and understood by all Nations. This ensures that information is easier to read than ever before.



ELCO OPERATIONS AND SYSTEMS

Maintenance

Choose a rapid and easy maintenance solution

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

- **Quick:** reduces downtime and cost of maintenance
- **Efficient:** grants optimal performance like after first commissioning

For an easier maintenance, the combustion parts can be quickly removed, easily cleaned and, even when they are disassembled, they easily get back to their position after all the servicing work.

The RTC System developed by ELCO guarantees a simple commissioning and exceptional operation from first to last day of the heating season.

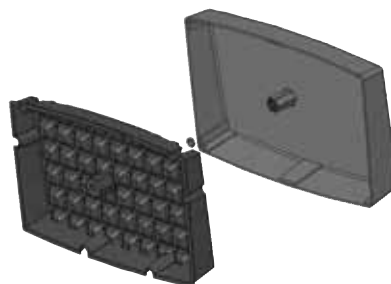
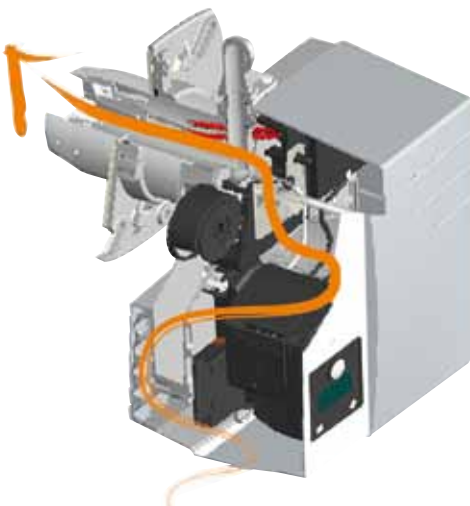


Acoustic

Silent and stylish: a dynamic and functional design

Among all the harmful things that men have to bear with every day, one of the the most annoying is noise, which is difficult to reduce and expensive to get rid of.

This is the reason why ELCO has developed quiet burners both by selecting sound absorbent materials, and by treating each noise sources internally. The main noise comes from the air intake and the air mixing in the fan wheel: all the ELCO burners are equipped with a sound trap on the air intake channel leading to the fan. This brings the acoustic level to a compatible value in respect of the environment.



Optimal acoustic comfort



ELCO OPERATIONS AND SYSTEMS

Duo (D)

The heat is even cleaner and more efficient

Through an optimized combustion head design, patented as IME (Multi-stage Injection), this burner technology ensures a stable combustion quality and simultaneously ensures excellent energy efficiency.

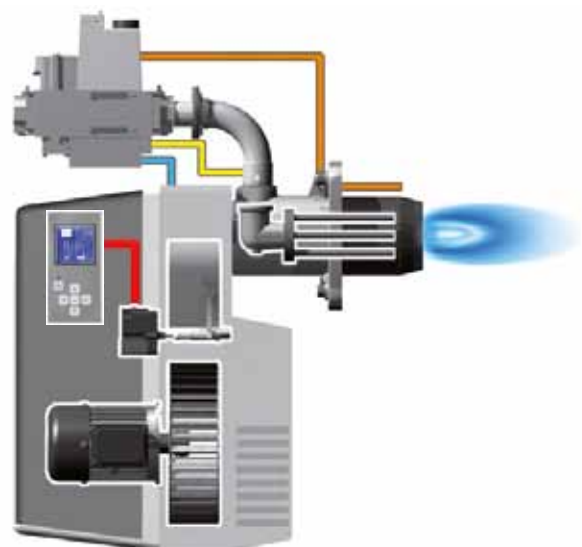
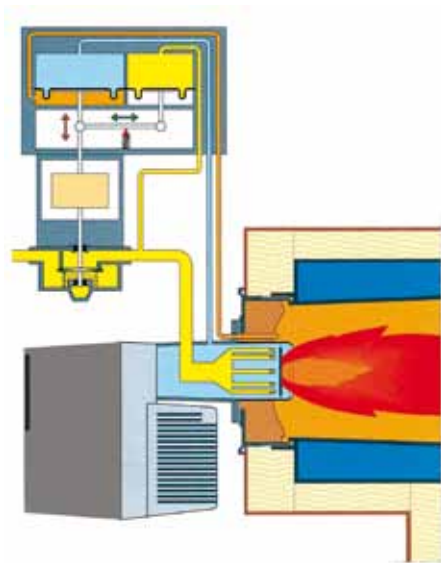


Duo Plus (DP)

An outstanding technology for our gas burners

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 output range;
- precise control of air excess, which is important for high-efficiency operation, in particular for condensing generators.



ELCO OPERATIONS AND SYSTEMS

Variatron (v)

Cutting-edge technology for our modulating gas burners

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

In combination with AGP, we can ensure optimum combustion by constantly controlling minimum air excess in all operating conditions. In addition, electrical energy saving and low noise performance is obtained.

On V2, V3 and V4 models, Variatron can be chosen as a burner version or can be added as an option.

VG5 and VG6 models are available in electronic operation with built-in frequency converter, allowing the precise matching of the performance to the operative conditions and grants a higher modulating ratio.



Modulo (M)

Digital burner manager for our electronic gas burners

Everything is perfectly under control with high reliability and optimum combustion values. The new display ensures easy commissioning and provides real time information on burner operation with precise fault diagnosis based on a detailed error log. The integrated gas leakage control provides additional security. Ready to plug connection for REMOTE SOLUTION monitoring.

The electronic VG5 and VG6 models are available also equipped in order to work with permanent operation («PED» configuration). The electronic control has specific functions and the flame sensor is a PED-compliant model.



ELCO COMBUSTION TECHNOLOGIES

ErP compliant

Low emission burners in compliance with ErP Directive

Thanks to innovative combustion technologies and the experience developed on the field, ELCO is able to offer a Low NOx range able to meet -or exceed- the highest requirements and comply with the European Emission Standards, as well as those of many other countries. All the Vectron models up to VG4.440 and VL4.460 are ErP compliant and grant NOx emission values well below those imposed by the directive:

- Gas models up to VG4.440 <56 mg/kWh (based on GCV)
- Light oil models up to VL4.460 <120 mg/kWh (based on GCV)



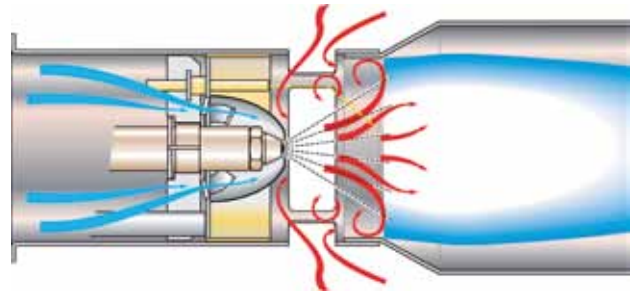
Blue Flame (VB)

Low NOx Blue flame technology

The VECTRON Blue light oil burners have reached an excellent combustion technique for an improved quality of life. The combustion fuel is already in the form of gas-air mixture and ready for the combustion, thanks to the light oil atomizer. The result is a clean combustion with very low NOx emissions. These burners are electronically controlled and with the uncountable adjustable flue gas recirculation they can satisfy any installation requirements, from new boilers to older ones.



Class 3



Yellow Flame (VE)

Low NOx Yellow flame technology

The precision of the combustion head of the VECTRON Eco light oil burner series is particularly efficient and grants low NOx emissions.

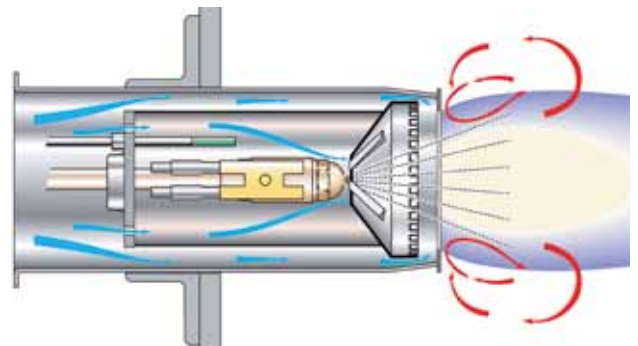
The characteristic crown of baffle plates optimizes the combustion by mixing fuel and air.

The result of this innovative combustion head is a low air excess, a clean flame and high-efficiency energy saving.

The internal flue gas recirculation considerably reduces NOx emissions.



Class 3



ELCO COMBUSTION TECHNOLOGIES

Ultra Low NOx version (FGR)

FGR System equipped burners



ELCO offers the VG5 and VG6 models in ULTRA Low NOx configuration thanks to the of the external FGR (Flue Gas Recirculation) technology.
The principle of the FGR System consists in sending a mixture of comburent air and flue gas to the combustion head, thus reducing the NOx emissions.
This technology enables ELCO to guarantee emissions of less than 30 mg/kWh, a value which is hard to obtain with conventional combustion systems.

"R" versions (DP R, M R, M V R)

Low NOx class 2 burners with extended power range



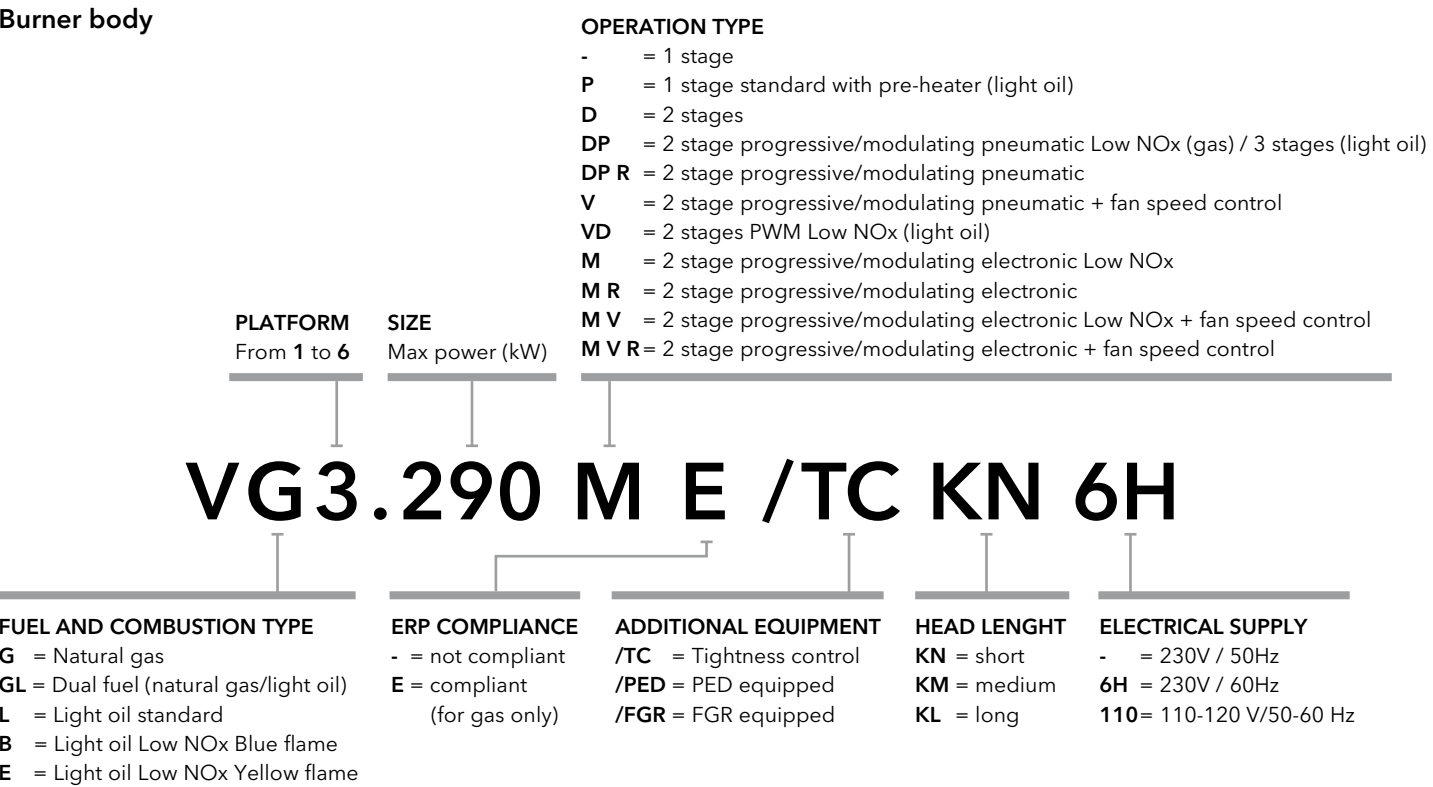
Class 2

To complete the range, ELCO offers VG5 and VG6 models also in "R" version (low NOx class 2). This version combines a reliable and flexible combustion with an extended power range (up to 2300 kW) to cover a wider range of heating and industrial applications.

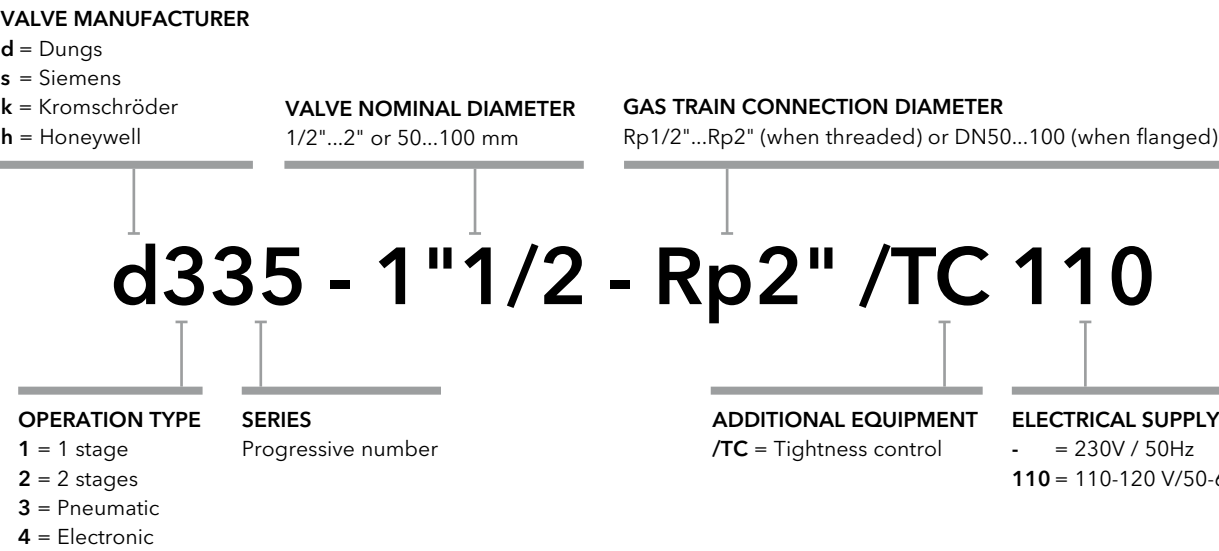


DESIGNATION

Burner body



Gas train



RANGE OVERVIEW

Gas range

15 - 2300 kW

	Designation	VG1	VG2	VG3	VG4	VG5	VG6
1 stage Low NOx	VG...	●	●				
2 stages Low NOx	VG... D	●	●	● (1)	● (1)		
2 stages progressive pneumatic (AGP) Low NOx	VG... DP		●	● (1)	● (1)	● (1)	●
2 stages progressive pneumatic (AGP)	VG... DP R					● (1)	●
2 stages progressive pneumatic (AGP) Low NOx + fan speed control	VG... V		●	● (1)	● (1)		
2 stages progressive electronic Low NOx	VG... M		●	●	●	● (2)	● (2)
2 stages progressive electronic Low NOx for permanent operation (PED)	VG... M /PED					● (2)	● (2)
2 stages progressive electronic Low NOx + fan speed control	VG... M V					● (2)	● (2)
2 stages progressive electronic Low NOx + fan speed control (PED)	VG... M V /PED					● (2)	● (2)
2 stages progressive electronic	VG... M R					●	●
2 stages progressive electronic for permanent operation (PED)	VG... M R /PED					●	●
2 stages progressive electronic + fan speed control (PED)	VG... M V R /PED					●	●

(1): version with tightness control on request

(2): version with FGR System on request

Dual fuel range

35 - 2050 kW

	Designation	VGL1	VGL2	VGL3	VGL4	VGL5	VGL6
1 stage in gas and in oil	VGL...		●				
2 stages in gas and in oil (class 3 in gas)	VGL... D			●			
2 stages progressive pneumatic in gas (class 3) / 2 stages in oil	VGL... DP				●		
2 stages progressive electronic in gas (class 3) / 3 stages in oil	VGL... M					●	●
2 stages progressive electronic + fan speed control in gas (class 3) / 3 stages in oil	VGL... M V					●	●

Light oil range

11 - 2080 kW

	Designation	V...1	V...2	VL3	VL4	VL5	VL6
1 stage Low NOx Blue Flame	VB...	●					
1 stage Low NOx Yellow Flame	VE...	●					
1 stage with pre-heater	VL... P	●					
1 stage	VL...	●	●				
2 stages Low NOx Yellow Flame	VE... D		●				
2 stages "PWM" Low NOx Blue Flame	VB... VD		●				
2 stages	VL... D		●	●	●	●	
3 stages	VL... DP				●	●	●

●: ErP compliant

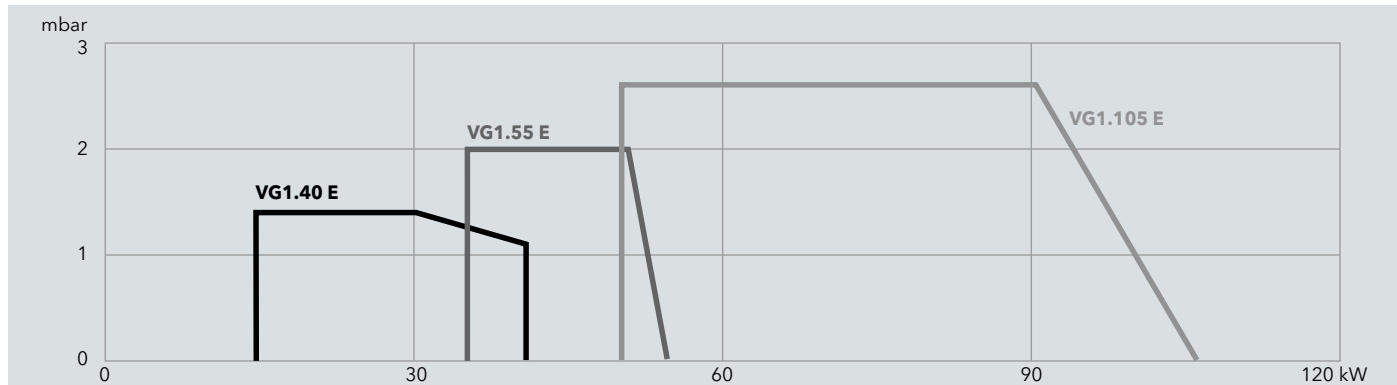
●: Low NOx

●: Class 2

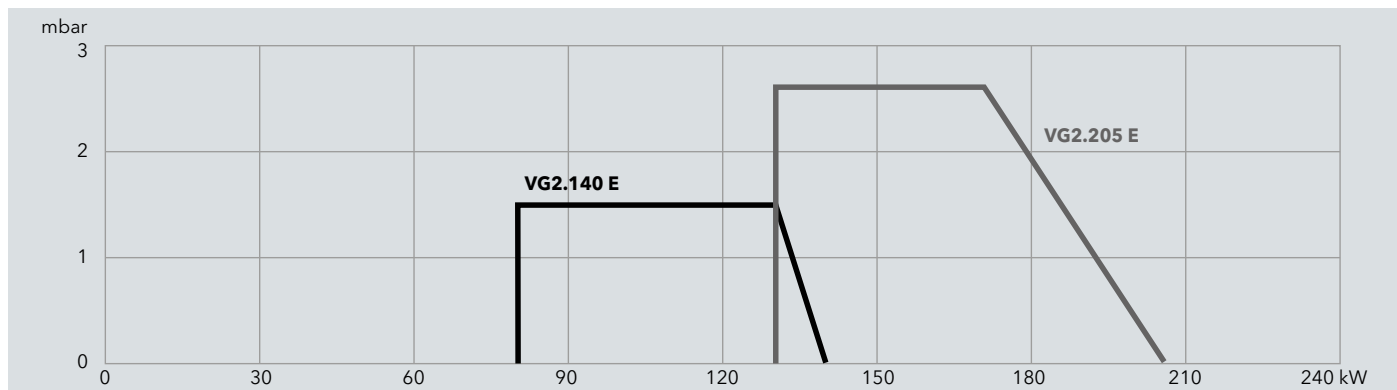
TECHNICAL DATA | GAS RANGE

VG1/2 E, VG1...4 D E

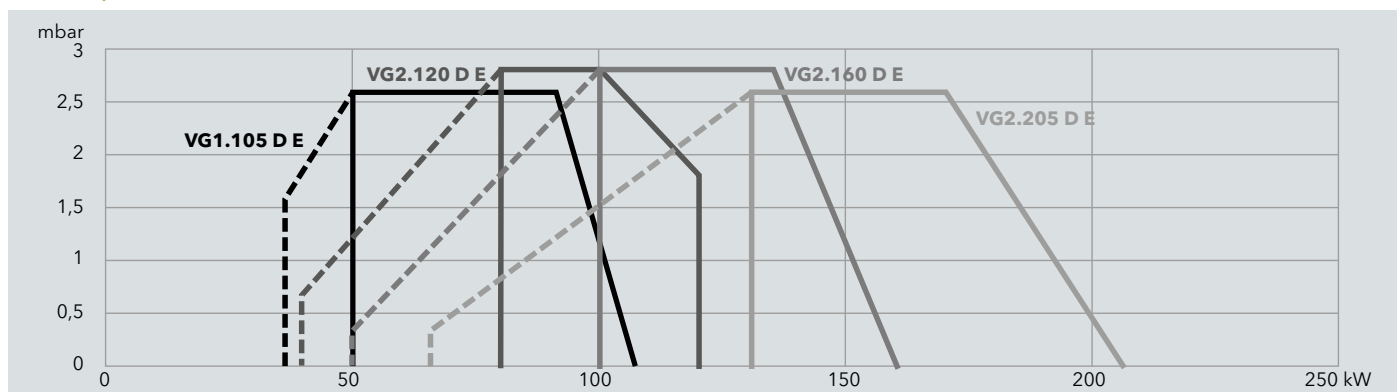
VG1 E



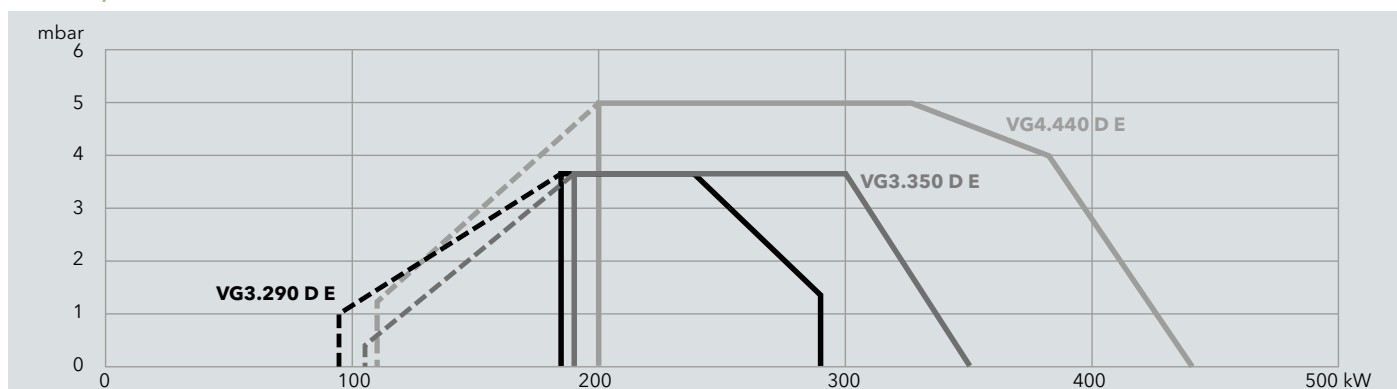
VG2 E



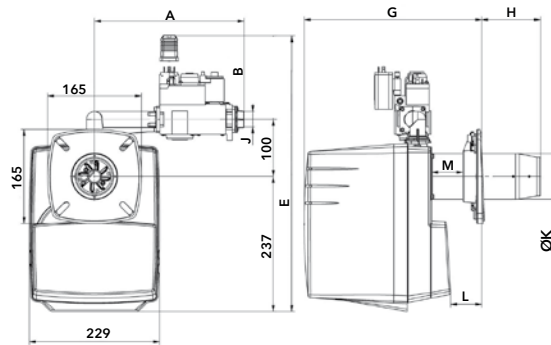
VG1 D E, VG2 D E



VG3 D E, VG4 D E



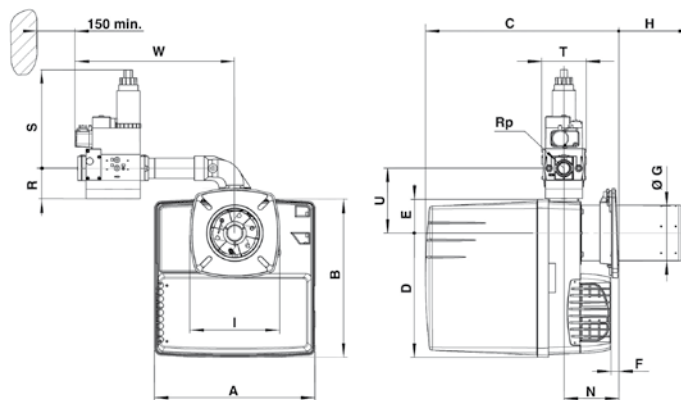
VG1 E
VG1 D E



<56 mg/kWh
(based on GCV)

Model	A	B	E	G		H		J	Ø K	L		M
				KN	KL	KN	KL			min	max	
VG1.40/55 E	263	147	484	297...337	297...387	70...110	70...200	Rp1/2"	80	21	61	48
VG1.105 E	282	140	477	300...355	300...390	70...138	70...228	Rp3/4"	90	15	83	52
VG1.105 D E	290	310	535	300...355	300...390	70...138	70...228	Rp3/4"	90	15	83	52

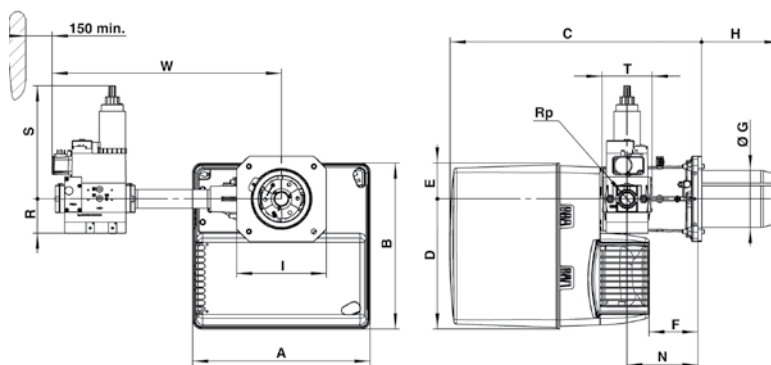
VG2 E
VG2 D E



<56 mg/kWh
(based on GCV)

Model	Gas train	A	B	C		D	E	F	ØG	H		I	N	P	Rp	R	S	T	U	W
VG2.140 E	d3/4"-Rp3/4"	331	325	KN 398...518	KL 398...638	256	69	15 min.	115	KN 30...150	KL 30...270	185	113 min.	179	3/4"	70	140	120	133	345
VG2.205 E	d3/4"-Rp3/4"								125					179	3/4"	70	140	120	133	345
	d1"1/4-Rp1"1/4								125					188	1"1/4	80	160	145	133	380
VG2.120 D E	d3/4"-Rp3/4"	331	325	KN 398...518	KL 398...638	256	69	15 min.	115	KN 30...150	KL 30...270	185	113 min.	179	3/4"	46	210	120	133	330
VG2.160 D E	d3/4"-Rp3/4"								115					179	3/4"	46	210	120	133	330
VG2.205 D E	d3/4"-Rp3/4"								125					179	3/4"	46	210	120	133	330
	d1"1/4-Rp1"1/4	125	188	1"1/4	55	260	145	133	360											

VG3 D E
VG4 D E



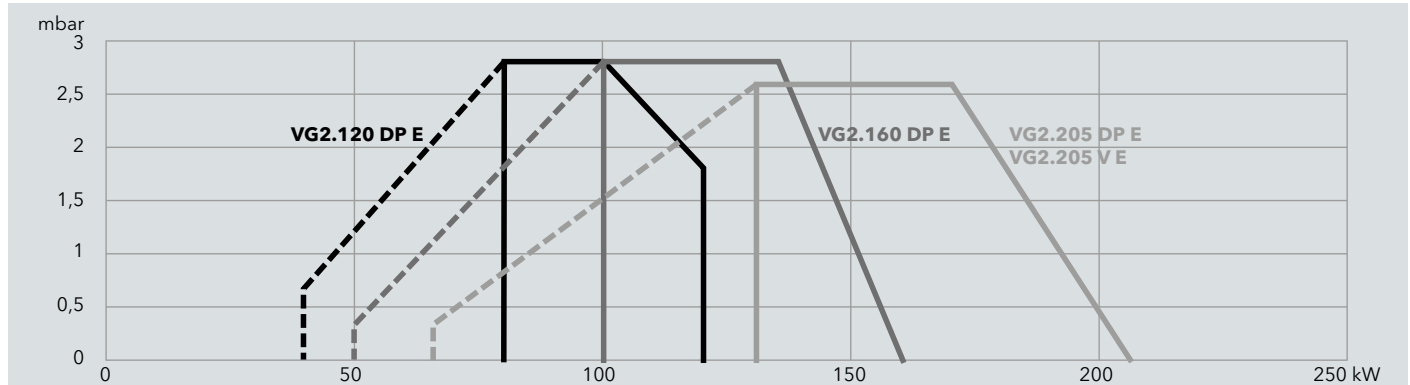
<56 mg/kWh
(based on GCV)

Model	Gas train	A	B	C	D	E	F	Ø G	H		I	N	Rp	R	S	T	W
VG3.290 D E VG3.350 D E	d1"1/2-Rp2"	406	379	576	297	82	120	130	KN 180	KL 320	195 x 205	170	2"	80	330	100	603
	d1"1/4-Rp1"1/4												1"1/4	55	260	145	526
	d3/4"-Rp3/4"												3/4"	46	210	120	479
VG4.440 D E	d1"1/2-Rp2"	465	475	640	377	97	149	157	KN 212	KL 352	245 x 245	195	2"	80	330	100	613
	d1"1/4-Rp1"1/4												1"1/4	55	260	145	536
	d3/4"-Rp3/4"												3/4"	46	210	120	489

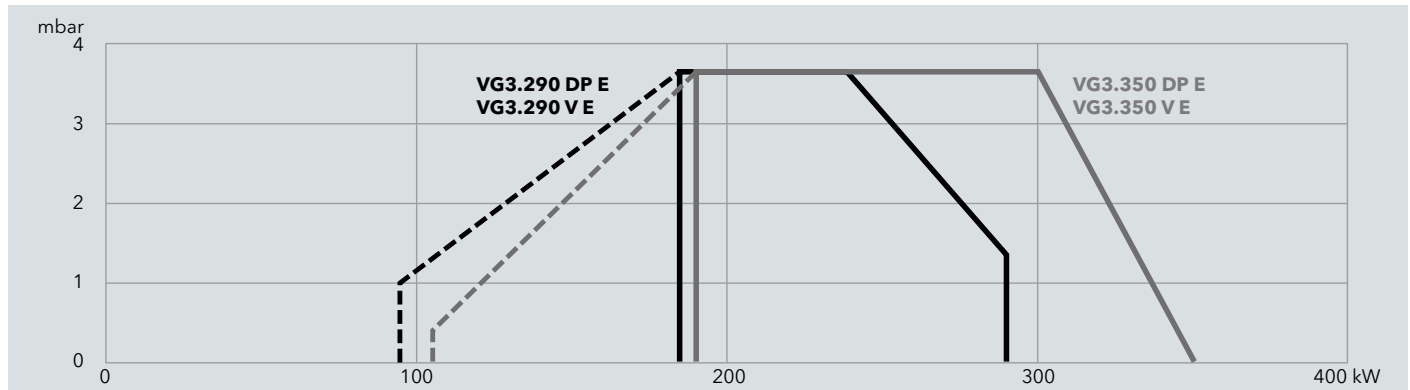
TECHNICAL DATA | GAS RANGE

VG2...4 DP E, VG2...4 V E

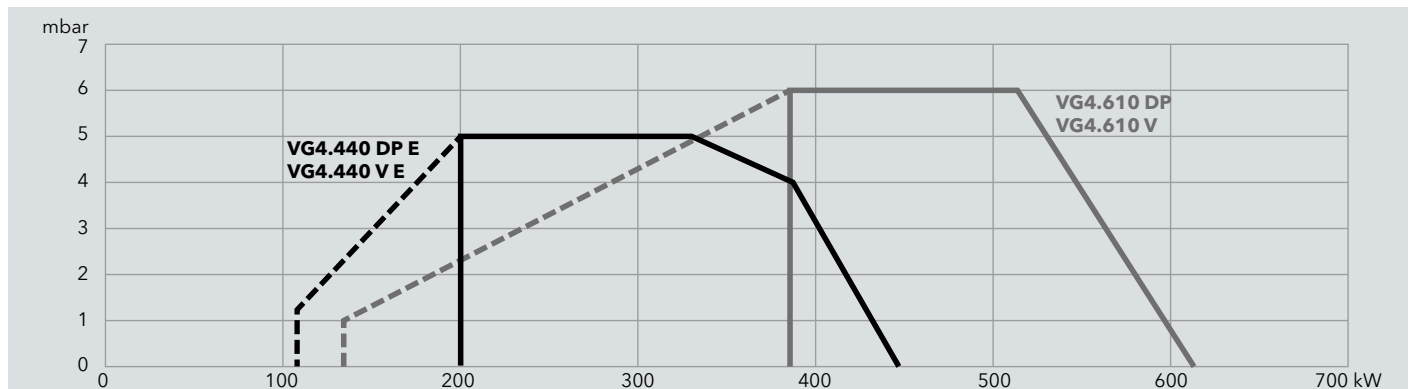
VG2 DP E, VG2 V E



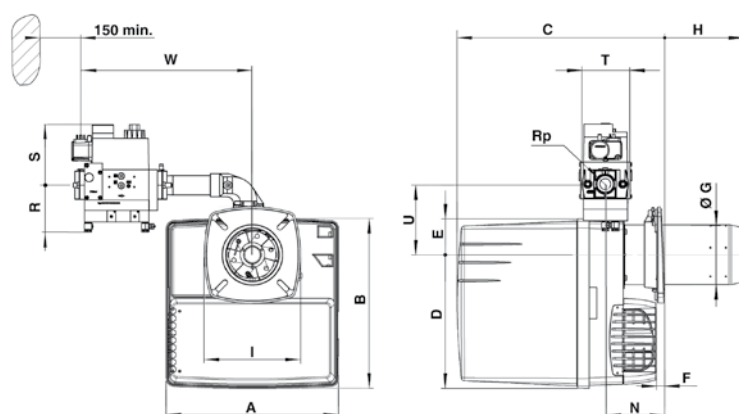
VG3 DP E, VG3 V E



VG4 DP E, VG4 V E



VG2 DP E VG2 V E

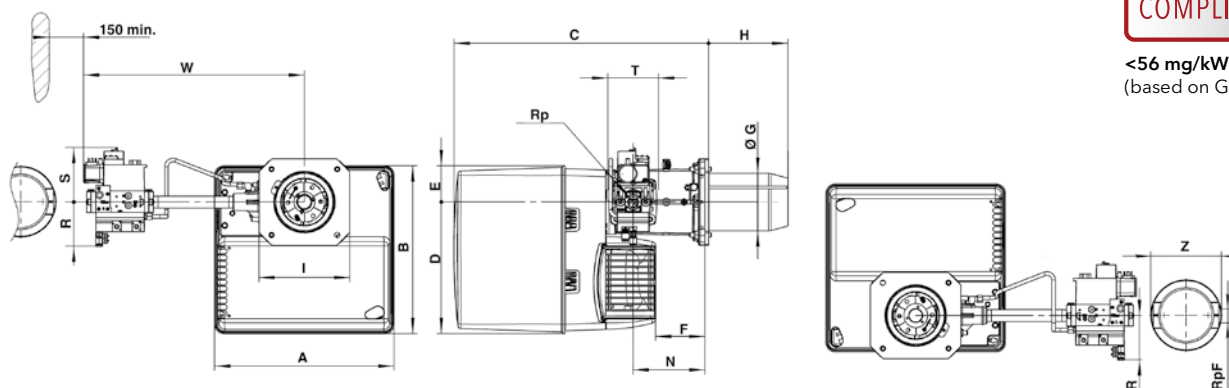


<56 mg/kWh
(based on GCV)

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

VG3, VG4 DP E VG3, VG4 V E

VG4 DP VG4 V



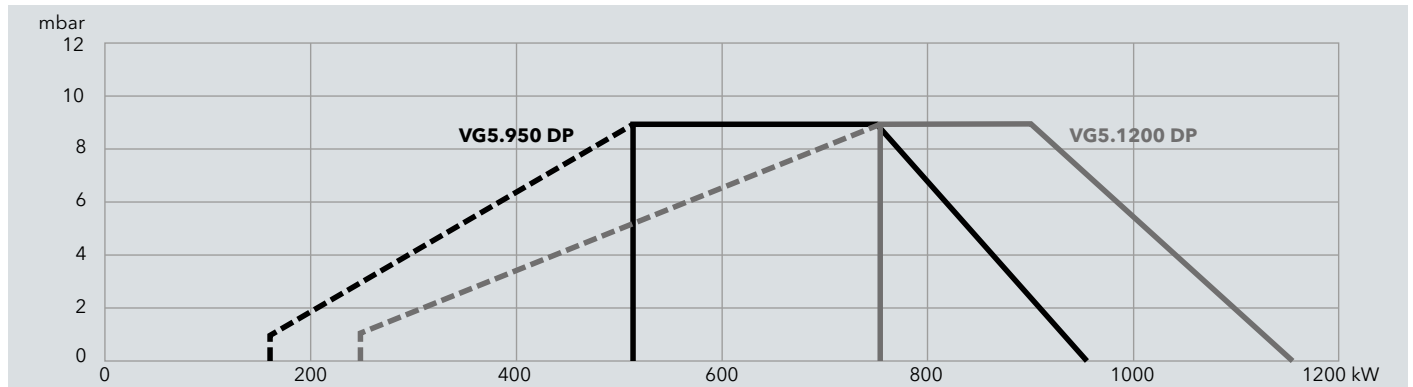
<56 mg/kWh
(based on GCV)

Model	Gas train	A	B	C	D	E	F	ØG	H	I	N	Rp	R	S	T	W	RpF	Z	
VG3.290 DP E VG3.350 DP E	d1"1/2-Rp2"	406	379	576	297	82	120	130	KN 180	KL 320	195 x 205	170	2"	100	185	100	603	-	-
	d1"1/4-Rp1"1/4												1"1/4	80	175	145	526	-	-
	d3/4"-Rp1"												1"	70	160	120	479	1"	160
VG3.290 V E VG3.350 V E	d1"1/2-Rp2"	406	379	576	297	82	120	130	KN 180	KL 320	195 x 205	170	2"	100	185	100	603	-	-
	d1"1/4-Rp1"1/4												1"1/4	80	175	145	526	-	-
	d3/4"-Rp1"												1"	70	160	120	479	1"	160
VG4.440 DP E	d1"1/2-Rp2"	465	475	640	377	97	149	157	KN 212	KL 352	245 x 245	195	2"	100	185	100	613	-	-
	d1"1/4-Rp1"1/4												1"1/4	80	175	145	536	-	-
	d3/4"-Rp1"												1"	70	160	120	489	1"	160
VG4.440 V E	d1"1/2-Rp2"	465	475	640	377	97	149	157	KN 212	KL 352	245 x 245	195	2"	100	185	150	536	-	-
	d1"1/4-Rp1"1/4												1"1/4	80	175	151	489	-	-
	d3/4"-Rp1"												1"	70	160	132	489	1"	160
VG4.610 DP	d1"1/2-Rp2"	465	475	640	377	97	149	150	KN 220	KL 360	245 x 245	195	2"	100	185	100	613	-	-
	d1"1/4-Rp1"1/4												1"1/4	80	175	145	536	-	-
	d3/4"-Rp1"												1"	70	160	120	489	1"	160
VG4.610 V	d1"1/2-Rp2"	465	475	640	377	97	149	150	KN 220	KL 360	245 x 245	195	2"	100	185	100	613	-	-
	d1"1/4-Rp1"1/4												1"1/4	80	175	145	536	-	-
	d3/4"-Rp1"												1"	70	160	120	489	1"	160

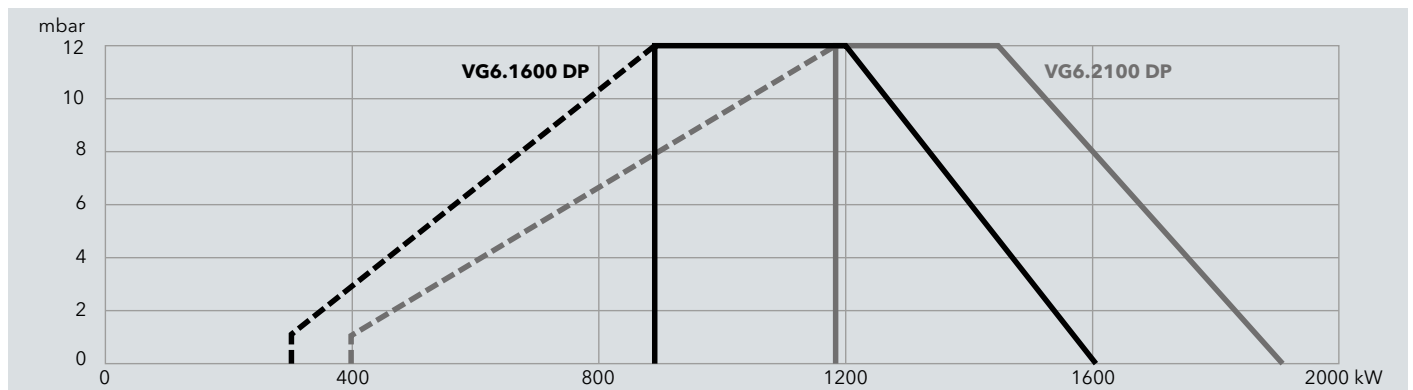
TECHNICAL DATA | GAS RANGE

VG5/6 DP, VG5/6 DP R

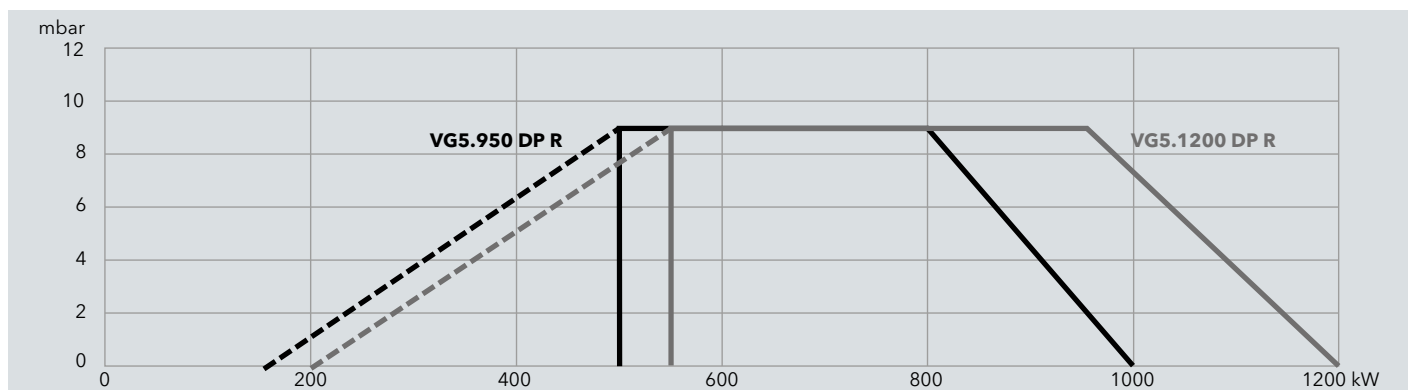
VG5 DP



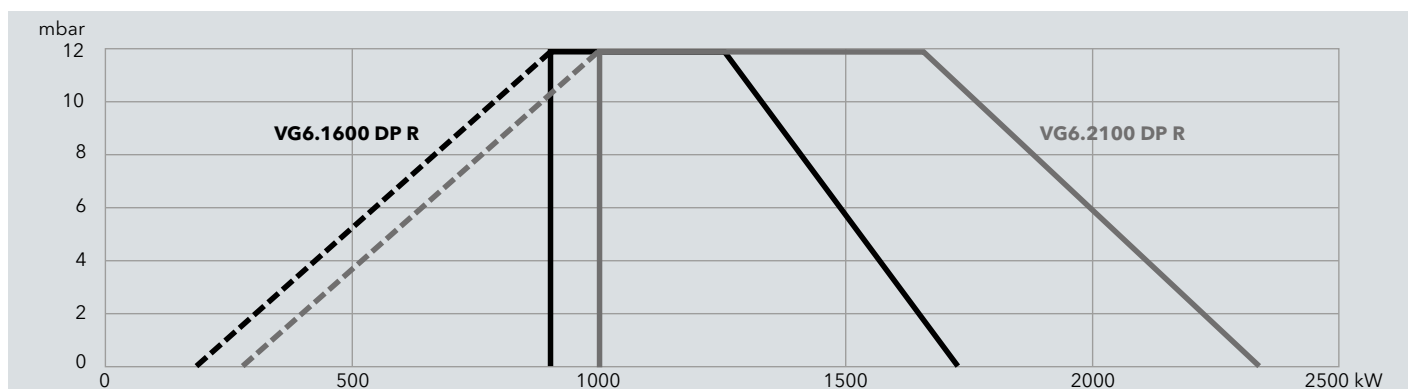
VG6 DP



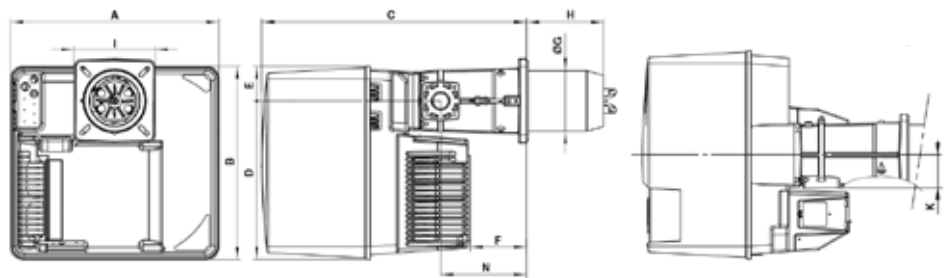
VG5 DP R



VG6 DP R

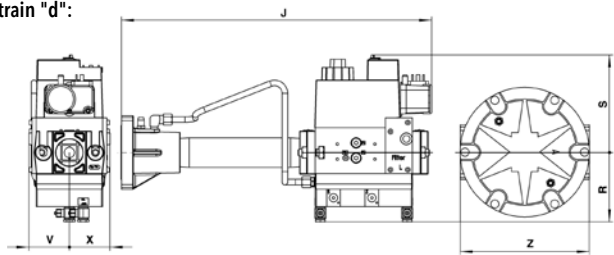


VG5 DP
VG5 DP R



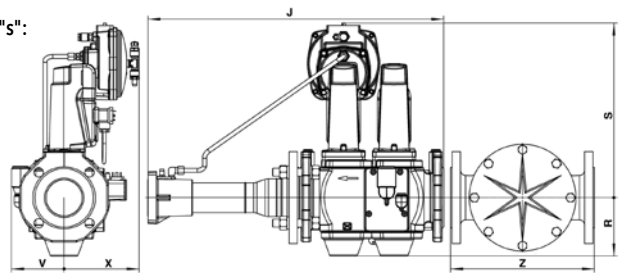
Model	A	B	C	D	E	F	ØG	H			I	K	N
VG5.950 VG5.1200	581	549	752	450	99	164	170	KN 215	KM 325	KL 435	230x238	89	244

Gas train "d":



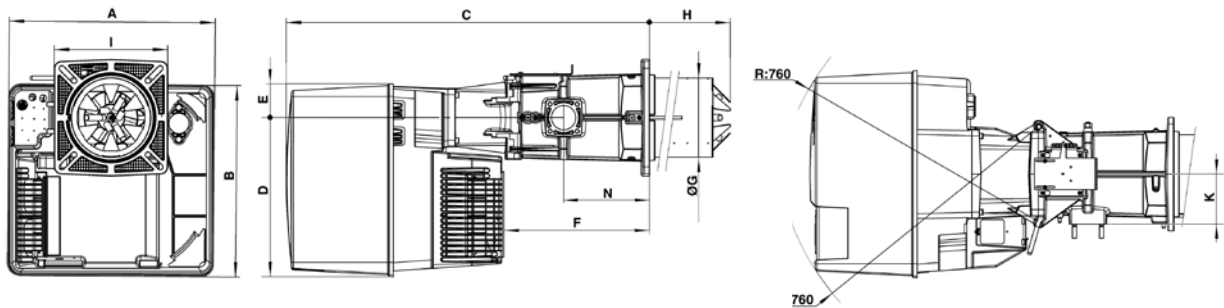
Model	J	R	S	V	X	Z
d1"1/2-Rp2"	540	123	190	55	55	-
d1"1/4-Rp2"	450	100	141	58	58	186
d3/4"-Rp1"	420	100	122	55	50	160

Gas train "s":



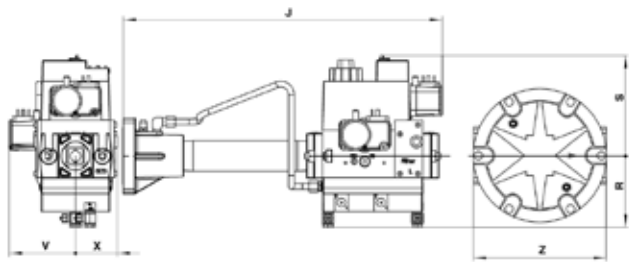
Model	J	R	S	V	X	Z
s65-DN65	600	135	360	110	150	290
s2"-Rp2"	612	103	330	110	150	186

VG6 DP
VG6 DP R



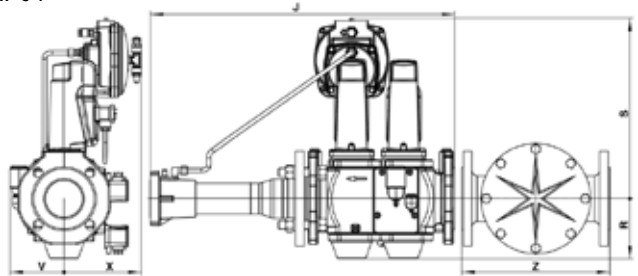
Model	A	B	C	D	E	F	Ø G	H			I	K	N
VG6.1600 DP VG6.2100 DP	592	553	1050	456	97	421	227	KN 360	KM 460	KL 560	326 x 335	144	247
VG6.1600 DP R VG6.2100 DP R	592	553	1050	456	97	421	227	KN 270	KM 370	KL 470	326 x 335	144	247

Gas train "d":



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

Gas train "s":

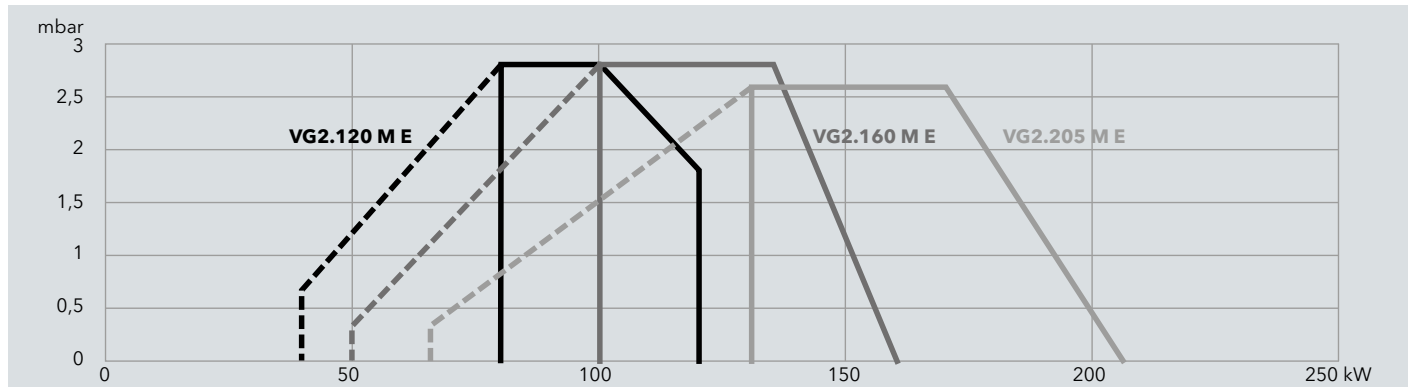


Model	J	R	S	V	X	Z
s80-DN80 /TC	600	120	350	110	150	290
s65-DN65 /TC	600	135	360	110	150	320
s2"-Rp2"	612	103	330	110	150	186

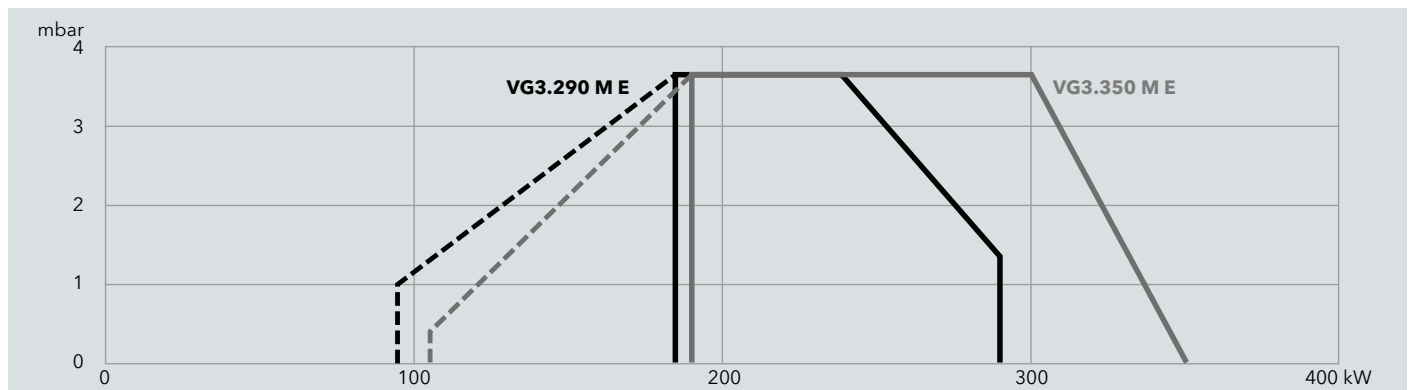
TECHNICAL DATA | GAS RANGE

VG2...4 M E

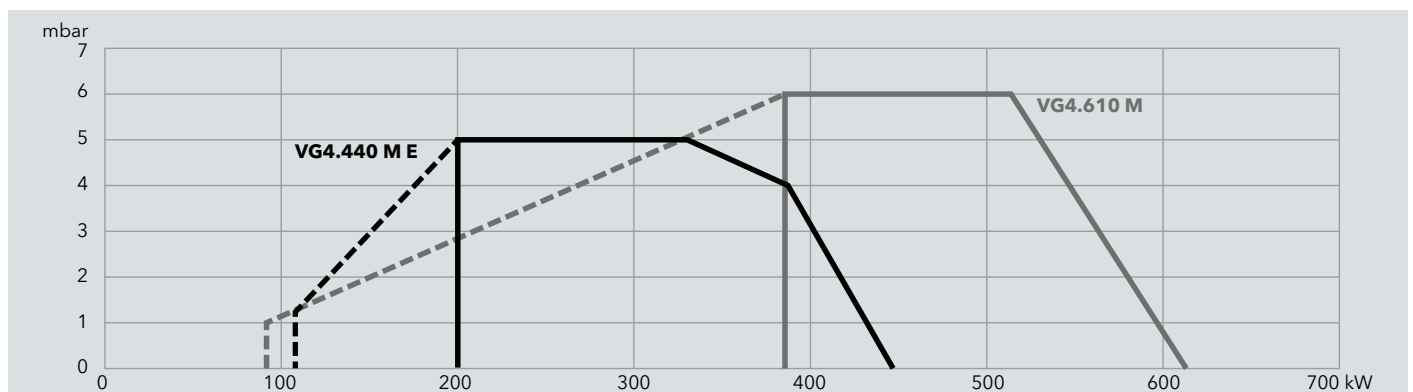
VG2 M E



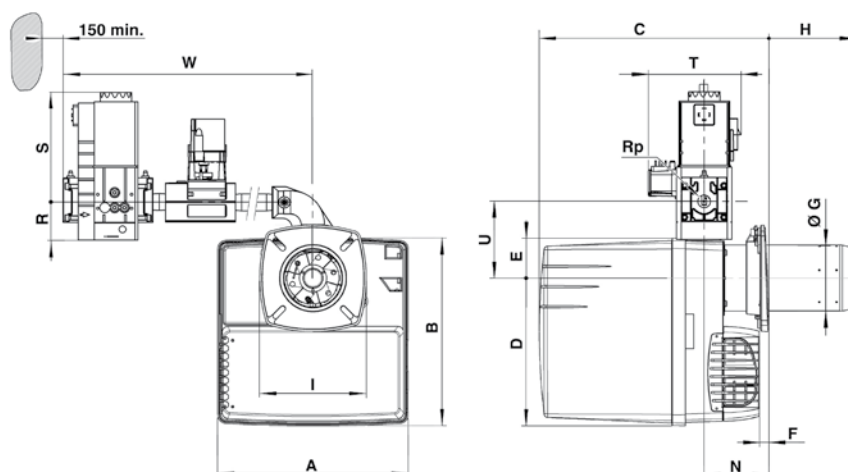
VG3 M E



VG4 M E



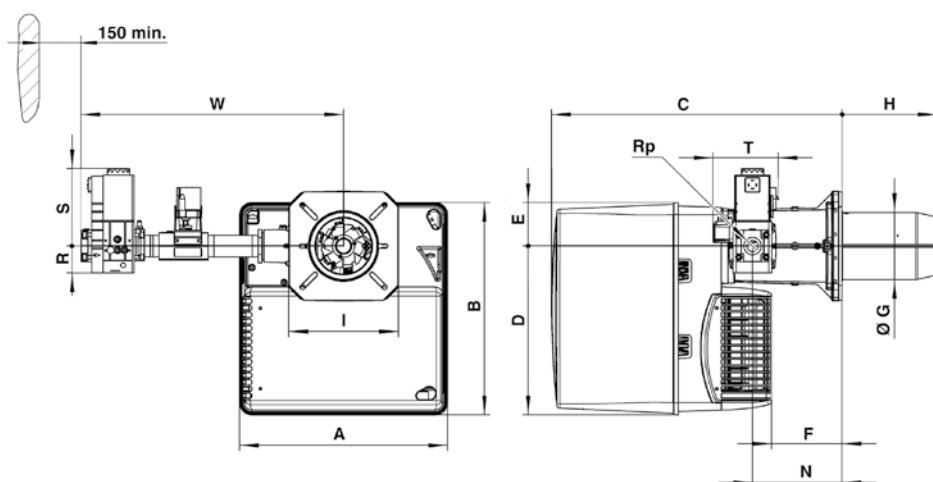
VG2 M E



<56 mg/kWh
(based on GCV)

Model	Gas train	A	B	C		D	E	F	Ø G	H		I	N	P	Rp	R	S	T	U	W
VG2.120 M E	d3/4"-Rp3/4"/TC	331	325	KN 398...518	KL 398...638	256	69	min 15	115	KN 30...150	KL 30...270	185	113 min.	193	3/4"	60	173	146	133	455
VG2.160 M E	d3/4"-Rp3/4"/TC								115											
VG2.205 M E	d3/4"-Rp3/4"/TC								125											

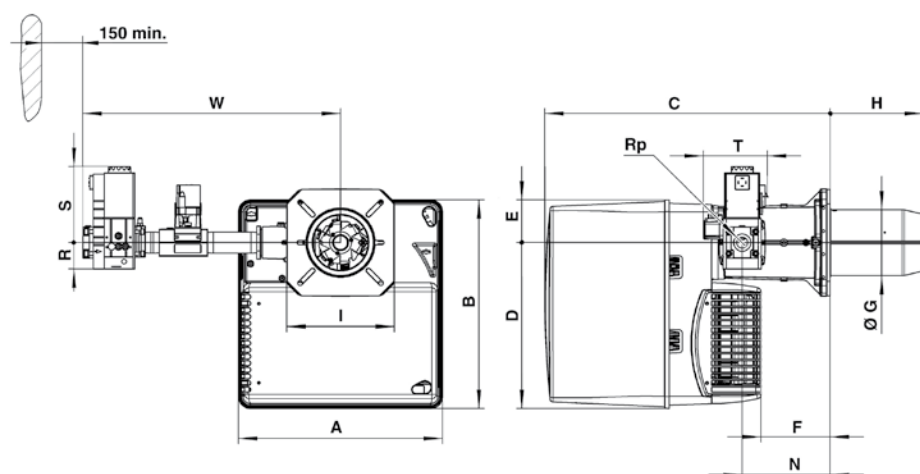
VG3 M E



<56 mg/kWh
(based on GCV)

Model	Gas train	A	B	C	D	E	F	Ø G	H		I	N	Rp	R	S	T	W
VG3.290 M E	d3/4"-Rp1 1/4"/TC	406	379	576	297	82	120	130	KN 180	KL 320	195 x 205	170	1 1/4"	60	173	146	577
VG3.350 M E	d1 1/2"-Rp1 1/2"/TC												1 1/2"	80	185	160	638

VG4 M VG4 M E



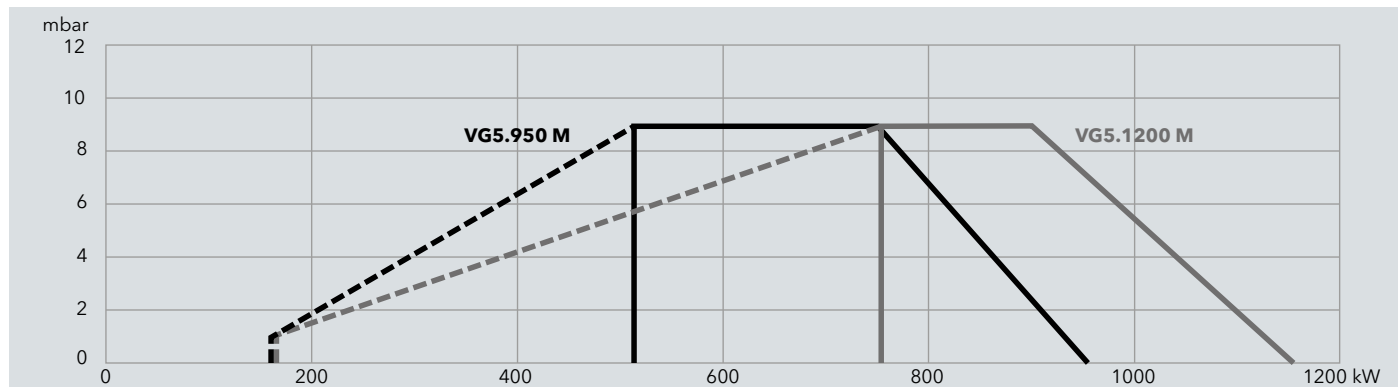
<56 mg/kWh
(based on GCV)

Model	Gas train	A	B	C	D	E	F	Ø G	H		I	N	Rp	R	S	T	W
VG4.440 M E	d3/4"-Rp1"1/4 /TC	465	475	640	377	97	149	157	KN	KL	245	195	1"1/4	60	173	146	587
	d1"1/2-Rp1"1/2 /TC								212	352			1"1/2	80	185	160	649
VG4.610 M	d3/4"-Rp1"1/4 /TC	465	475	640	377	97	149	150	KN	KL	245	195	1"1/4	60	173	146	587
	d1"1/2-Rp1"1/2 /TC								220	360			1"1/2	80	185	160	649

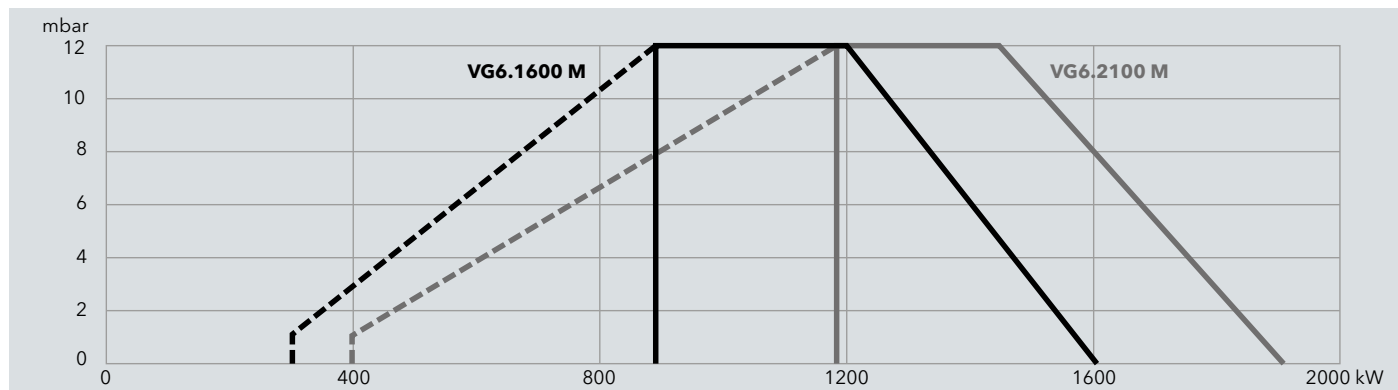
TECHNICAL DATA | GAS RANGE

VG5/6 M, VG5/6 M R

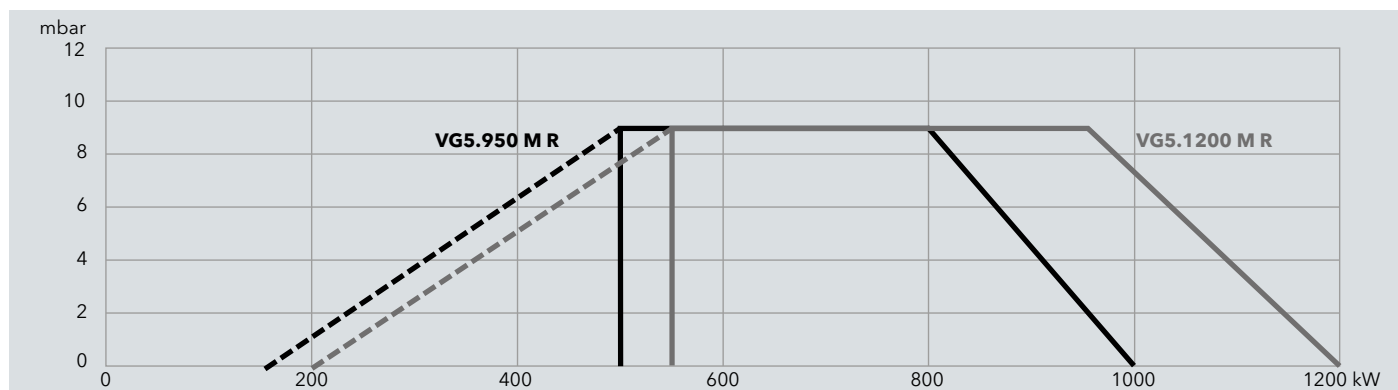
VG5 M



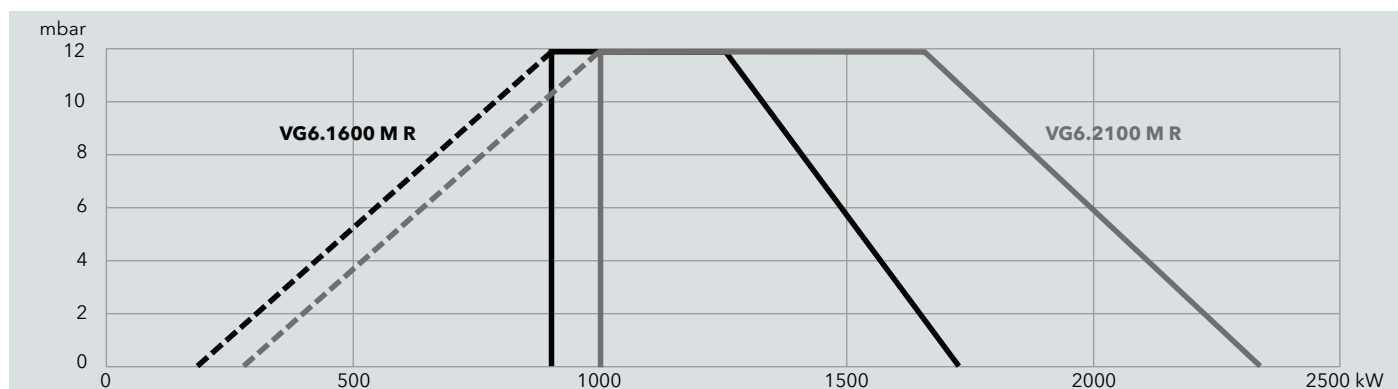
VG6 M



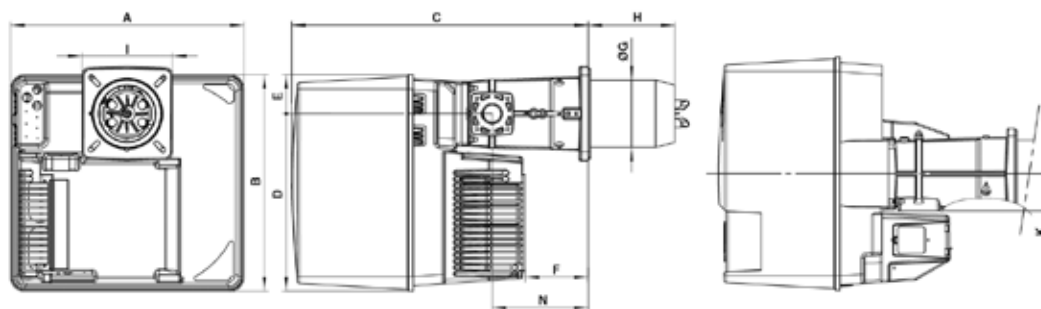
VG5 M R



VG6 M R

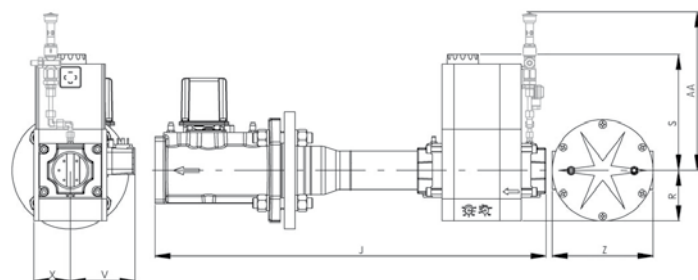


VG5 M VG5 M R



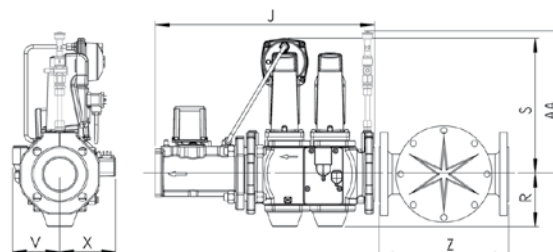
Model	A	B	C	D	E	F	Ø G	H			I	K	N
VG5.950 VG5.1200	581	549	752	450	99	164	170	KN 215	KM 325	KL 435	230 x 238	89	244

Gas train "d":



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

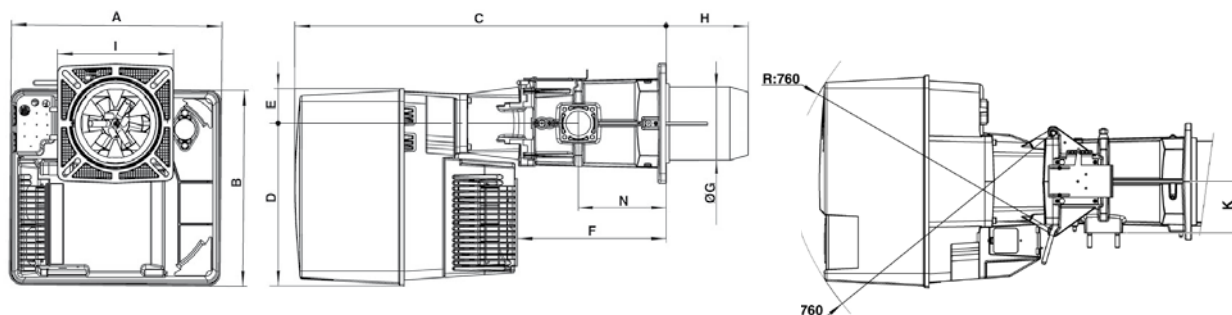
Gas train "s":



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

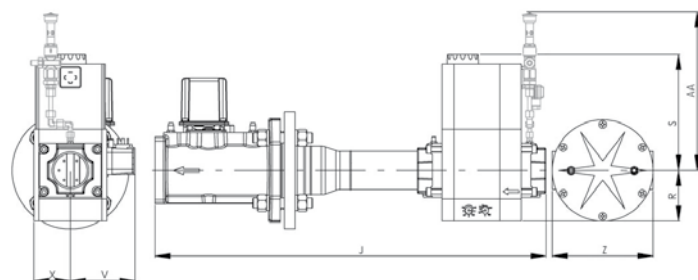
*: for PED configuration

VG6 M VG6 M R



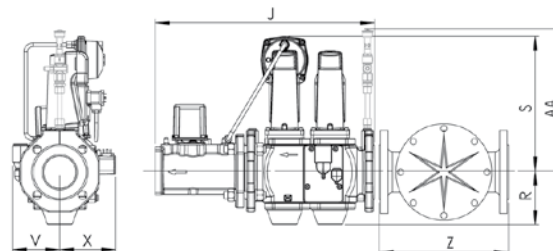
Model	A	B	C	D	E	F	Ø G	H			I	K	N
VG6.1600 M VG6.2100 M	592	553	1050	456	97	421	227	KN 360	KM 460	KL 560	326 x 335	144	247
VG6.1600 M R VG6.2100 M R	592	553	1050	456	97	421	227	KN 270	KM 370	KL 470	326 x 335	144	247

Gas train "d":



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

Gas train "s":



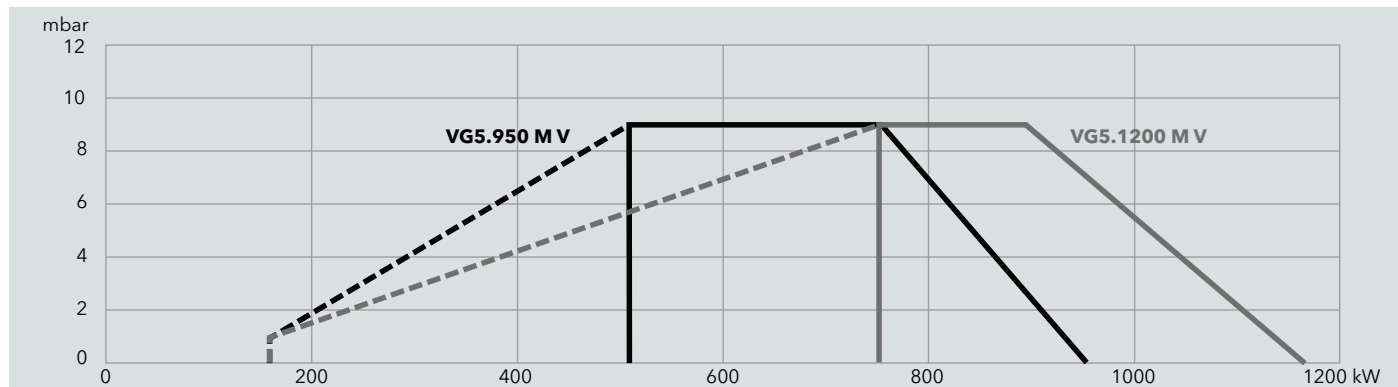
Model	J	R	S	V	X	Z	AA*
s65-DN65 /TC	490	118	300	106	126	290	365

*: for PED configuration

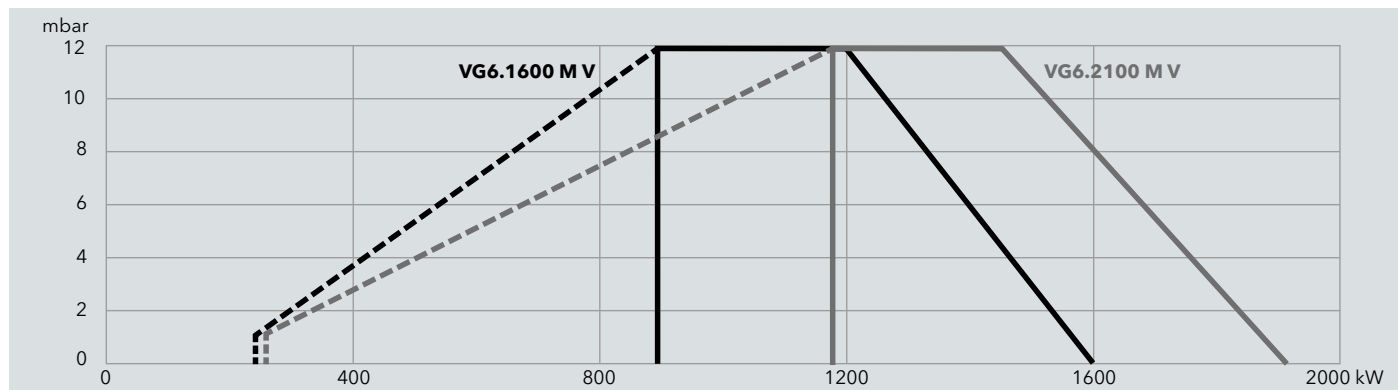
TECHNICAL DATA | GAS RANGE

VG5/6 M V and VG5/6 M V R

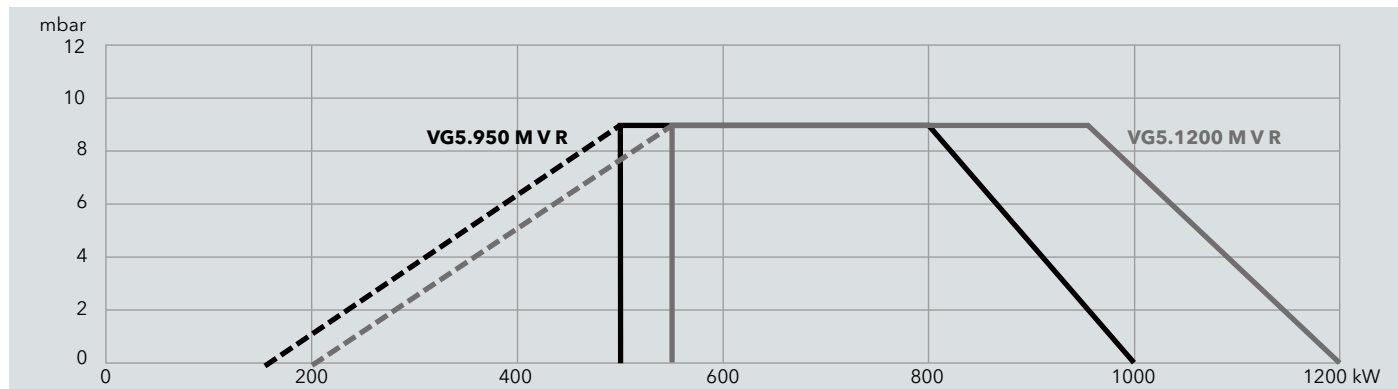
VG5 M V



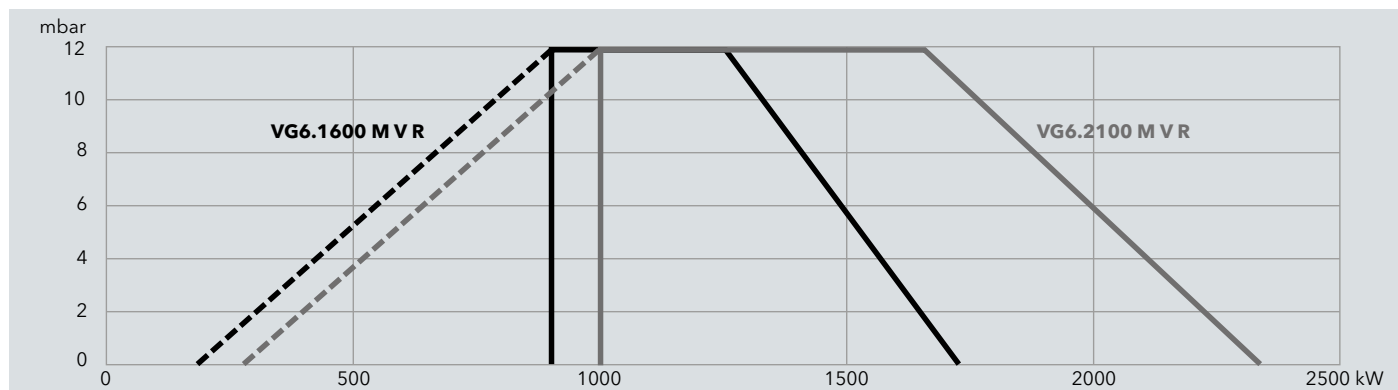
VG6 M V



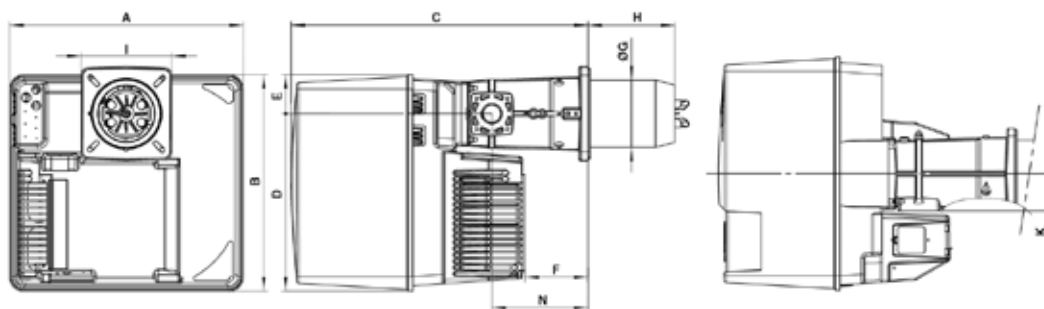
VG5 M V R



VG6 M V R

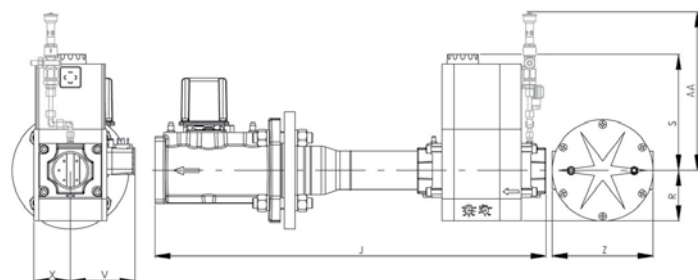


VG5 M V VG5 M V R



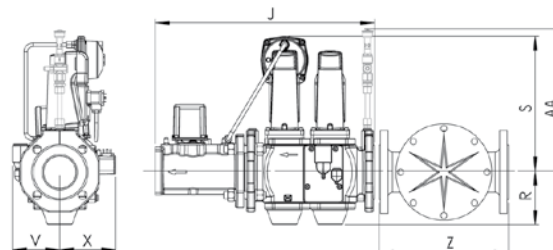
Model	A	B	C	D	E	F	Ø G	H	I	K	N
VG5.950 VG5.1200	581	549	752	450	99	164	170	KN 215	KM 325 KL 435	230 x 238	89 244

Gas train "d":



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

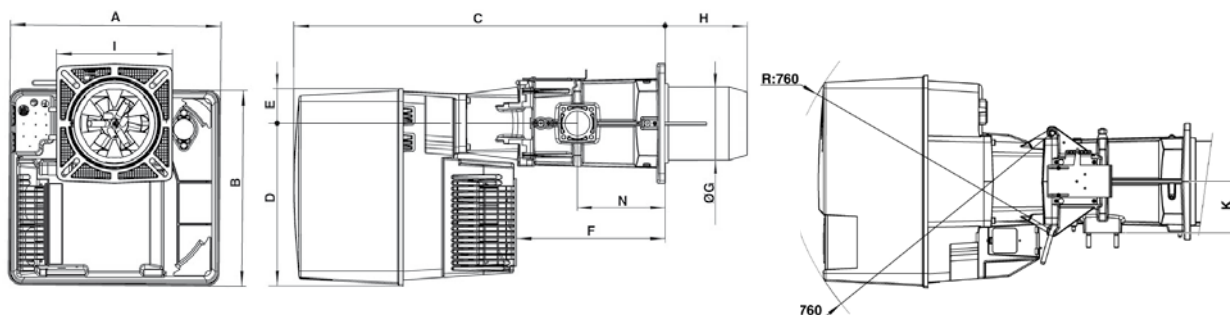
Gas train "s":



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

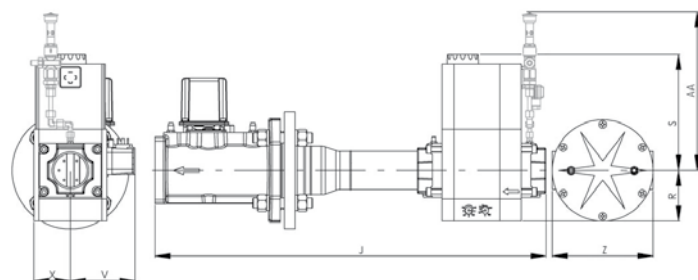
*: for PED configuration

VG6 M V VG6 M V R



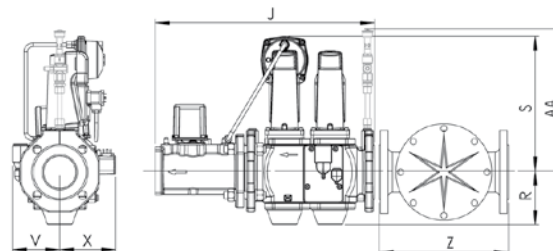
Model	A	B	C	D	E	F	Ø G	H	I	K	N
VG6.1600 M VG6.2100 M	592	553	1050	456	97	421	227	KN 360	KM 460 KL 560	326 x 335	144 247
VG6.1600 M R VG6.2100 M R	592	553	1050	456	97	421	227	KN 270	KM 370 KL 470	326 x 335	144 247

Gas train "d":



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

Gas train "s":



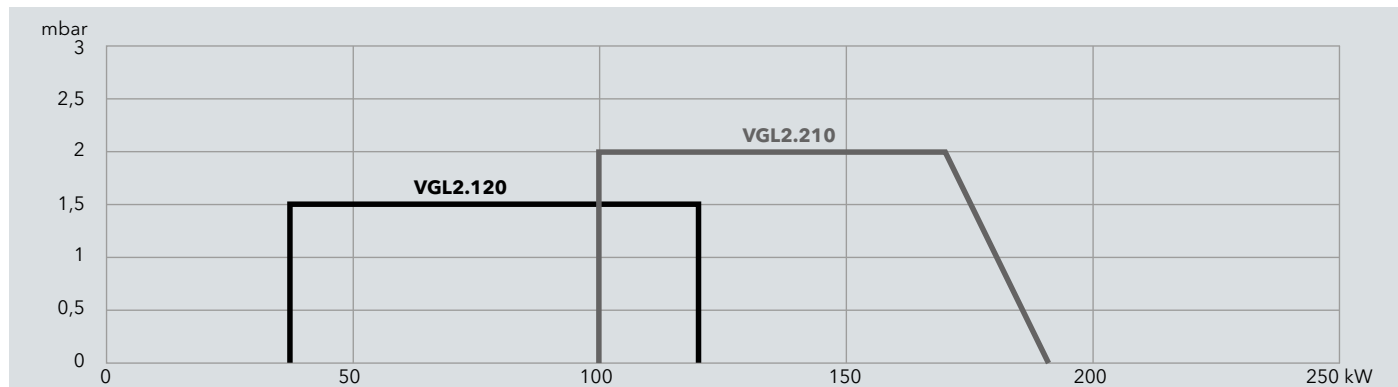
Model	J	R	S	V	X	Z	AA*
s65-DN65 /TC	490	118	300	106	126	290	365

*: for PED configuration

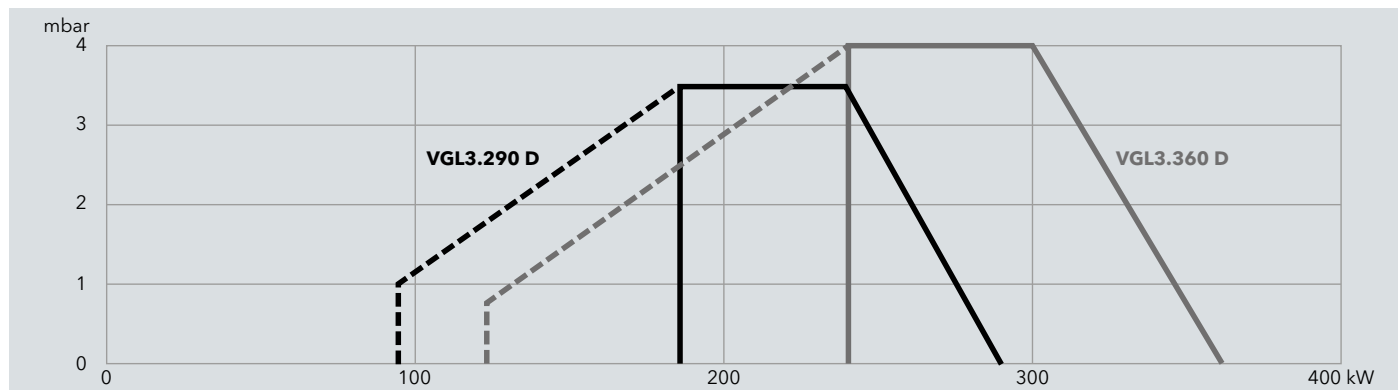
TECHNICAL DATA | DUAL FUEL RANGE

VGL2, VGL3 D, VGL4 DP

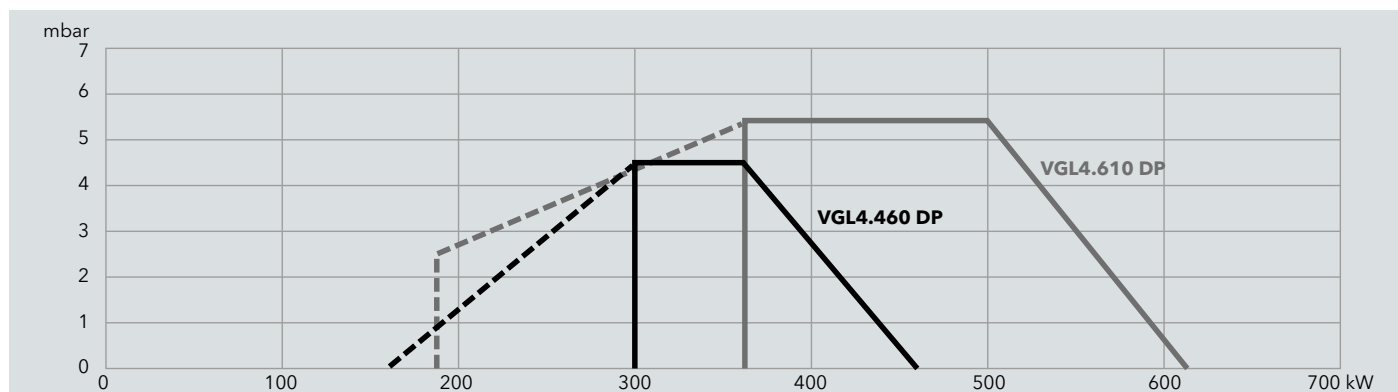
VGL2



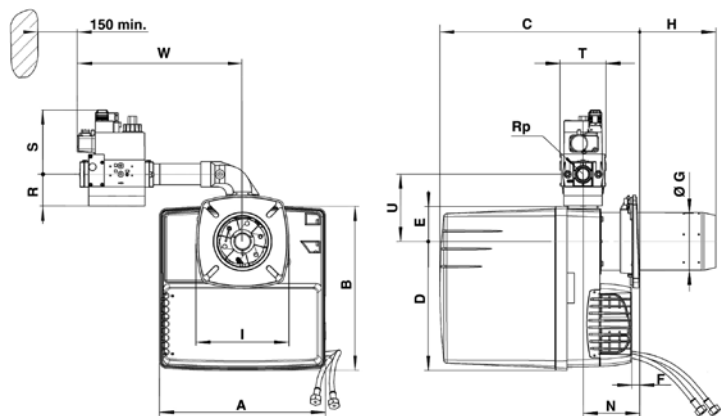
VGL3 D



VGL4 DP

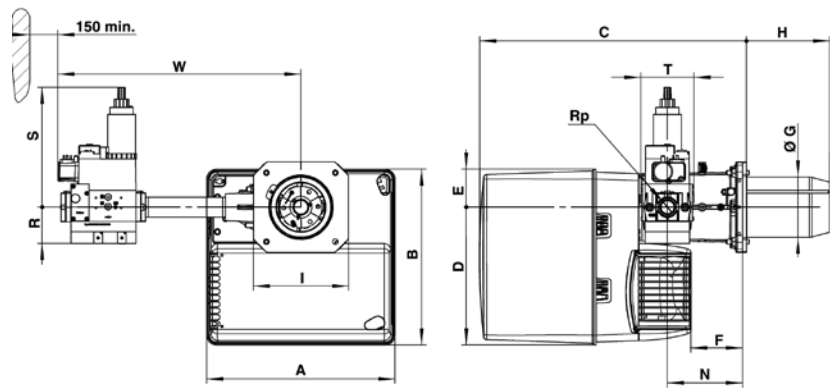


VGL2



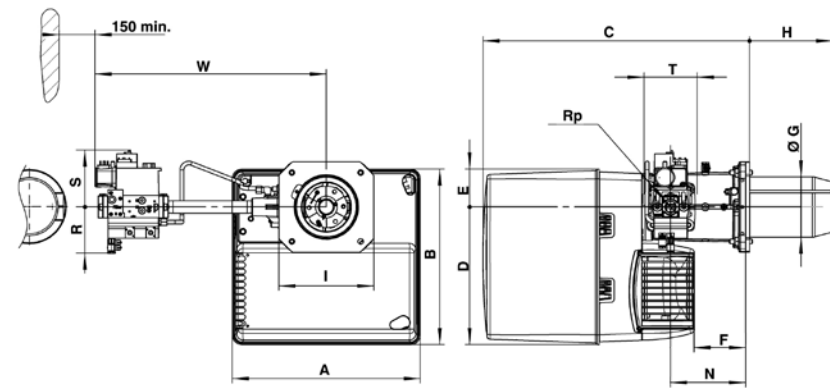
Model	A	B	C	D	E	F	Ø G	H	I	N	P	Rp	R	S	T	U	W
VGL2.120 VGL2.210	331	325	KL 398...638	256	69	15 min	115	KL 30...270	185 x 185	113 min	115	3/4"	46	140	120	133	330

VGL3 D



Model	Gas train	A	B	C	D	E	F	Ø G	H		I	N	Rp	R	S	T	W
VGL3.290 D VGL3.360 D	d3/4"-Rp3/4"	406	379	576	297	82	120	130	KN 180	KL 320	195 x 205	170	3/4"	46	210	120	479
	d1"1/4-Rp1"1/4												1"1/4	55	260	145	526
	d1"1/2-Rp2"												2"	80	330	100	603

VGL4 DP

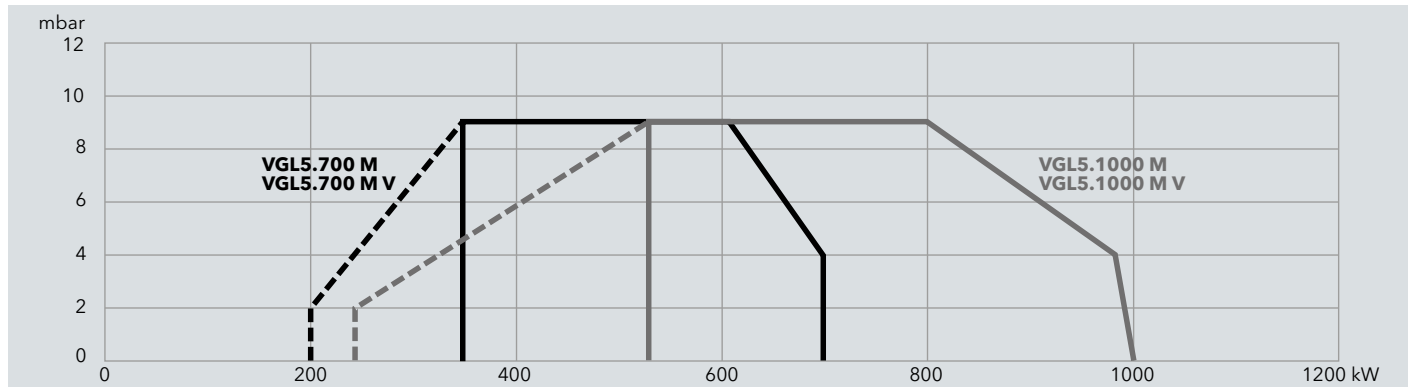


Model	Gas train	A	B	C	D	E	F	Ø G	H		I	N	Rp	R	S	T	W	RpF	Z
VGL4.460 DP VGL4.610 DP	d3/4"-Rp1"	465	475	640	377	97	149	150	KN 220	KL 360	245 x 245	195	1"	70	160	120	489	1"	160
	d1"1/4-Rp1"1/4												1"1/4	80	175	145	536	-	-
	d1"1/2-Rp2"												2"	100	185	100	613	-	-

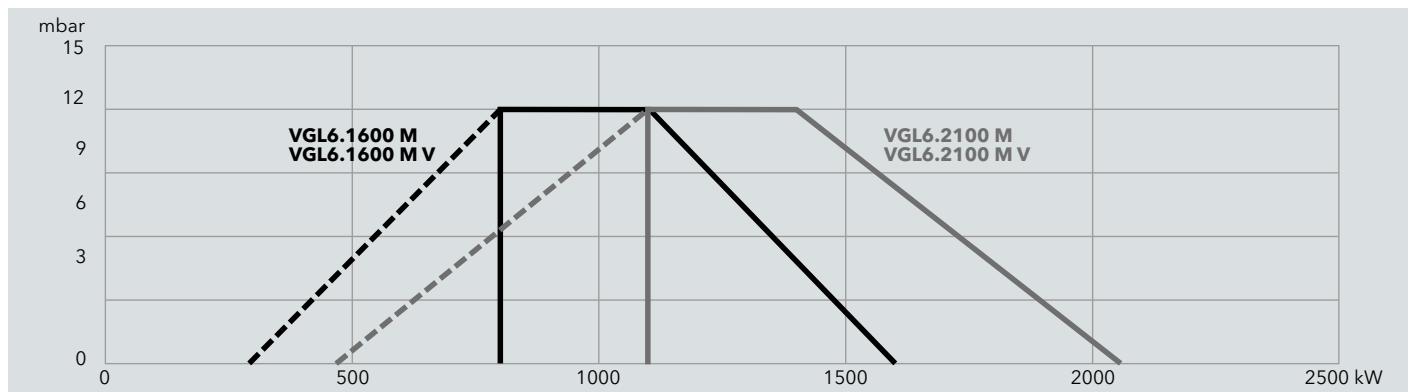
TECHNICAL DATA | DUAL FUEL RANGE

VGL5/6 M and VGL5/6 M V

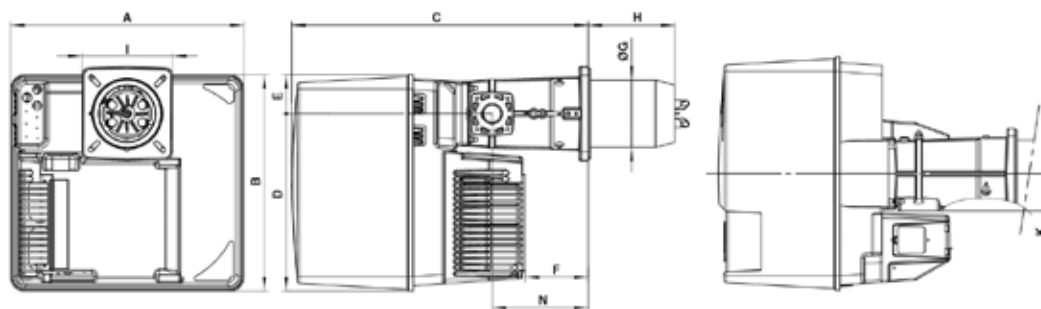
VGL5 M, VGL5 M V



VGL6 M, VGL6 M V

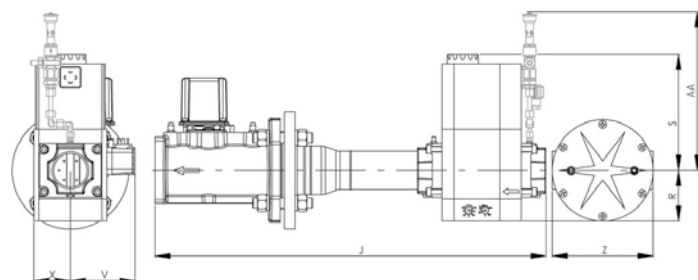


VGL5 M VGL5 M V



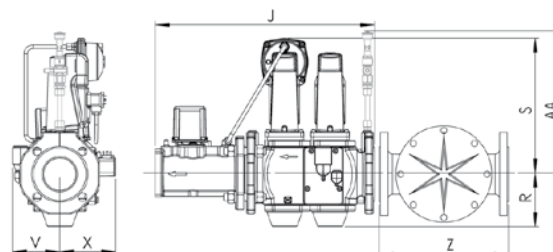
Model	A	B	C	D	E	F	Ø G	H			I	K	N
VGL5.700 VGL5.1000	581	549	752	450	99	164	170	KN 215	KM 325	KL 435	230 x 238	89	244

Gas train "d":



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

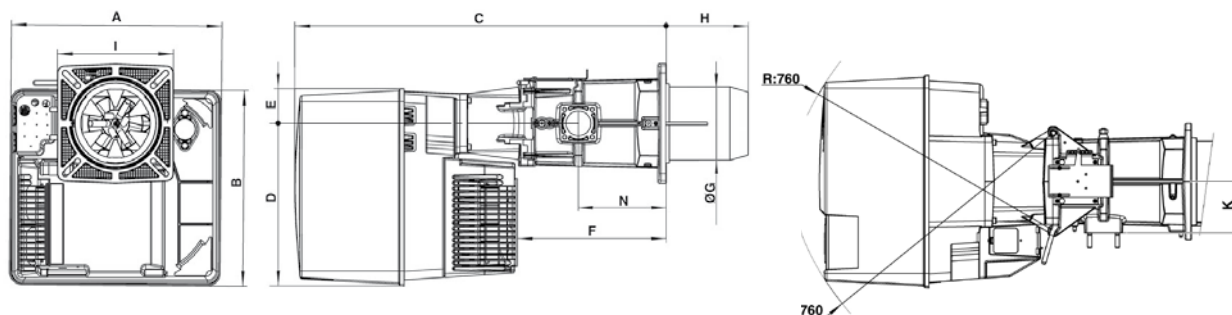
Gas train "s":



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

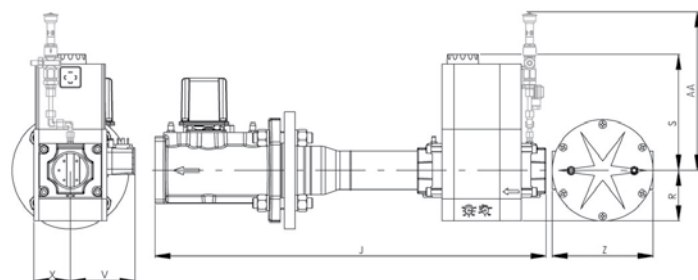
*: for PED configuration

VGL6 M VGL6 M V



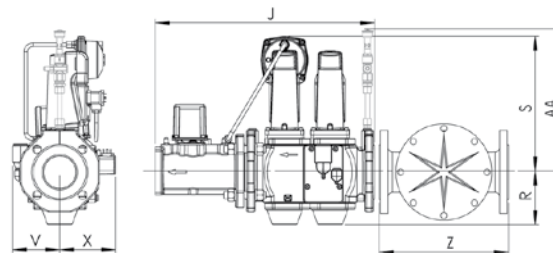
Model	A	B	C	D	E	F	Ø G	H			I	K	N
VGL6.1600 M VGL6.2100 M V	592	553	1050	456	97	421	227	KN 270	KM 370	KL 470	326 x 335	144	247

Gas train "d":



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

Gas train "s":



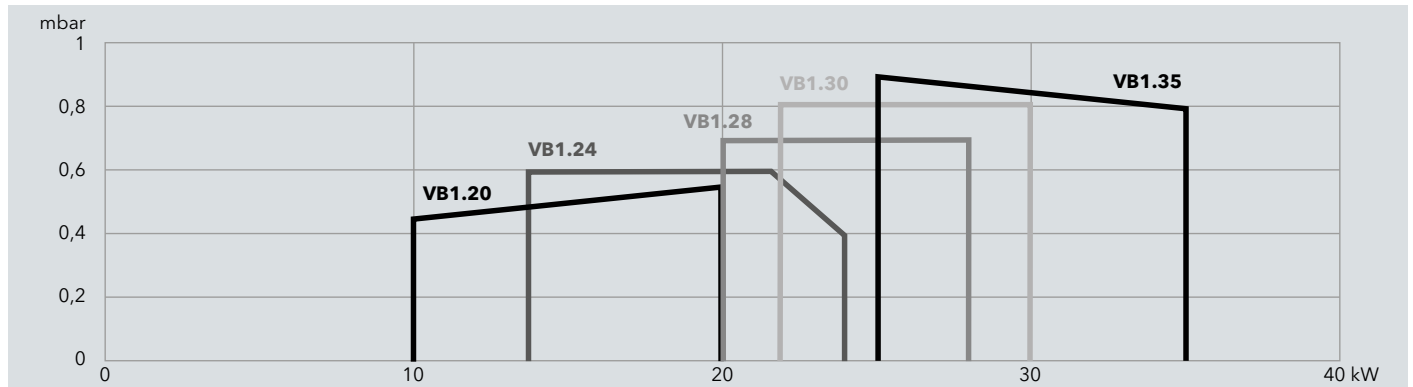
Model	J	R	S	V	X	Z	AA*
s65-DN65 /TC	490	118	300	106	126	290	365

*: for PED configuration

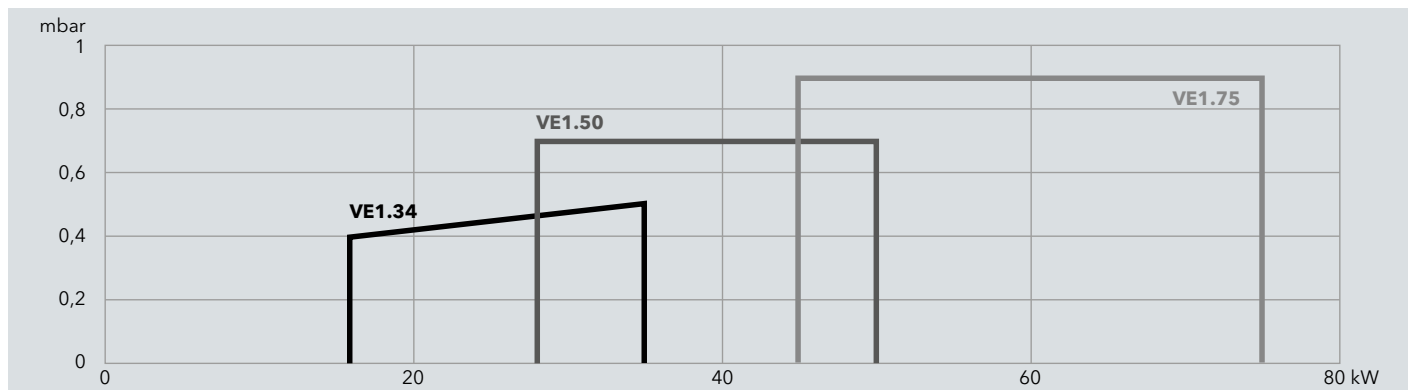
TECHNICAL DATA | LIGHT OIL RANGE

VB1, VE1, VL1, VL2

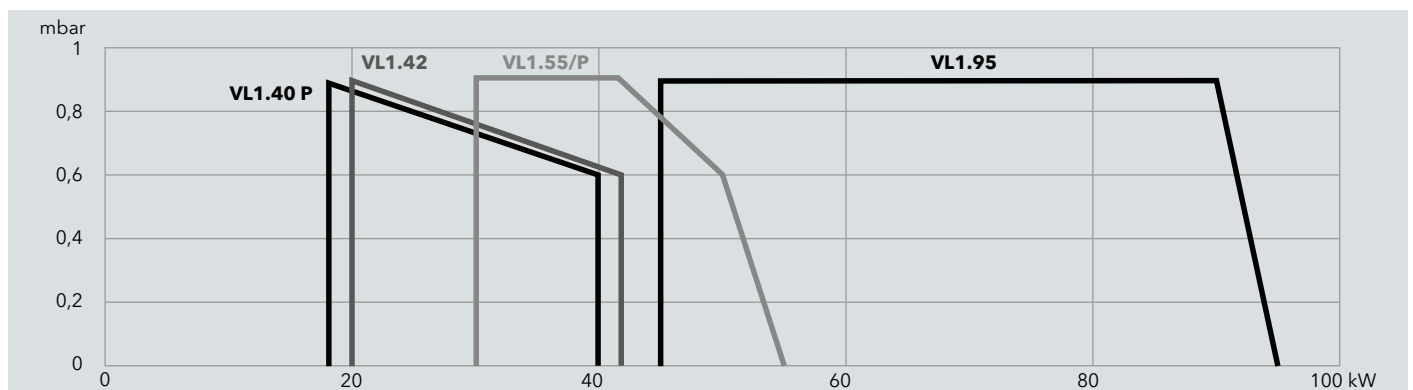
VB1



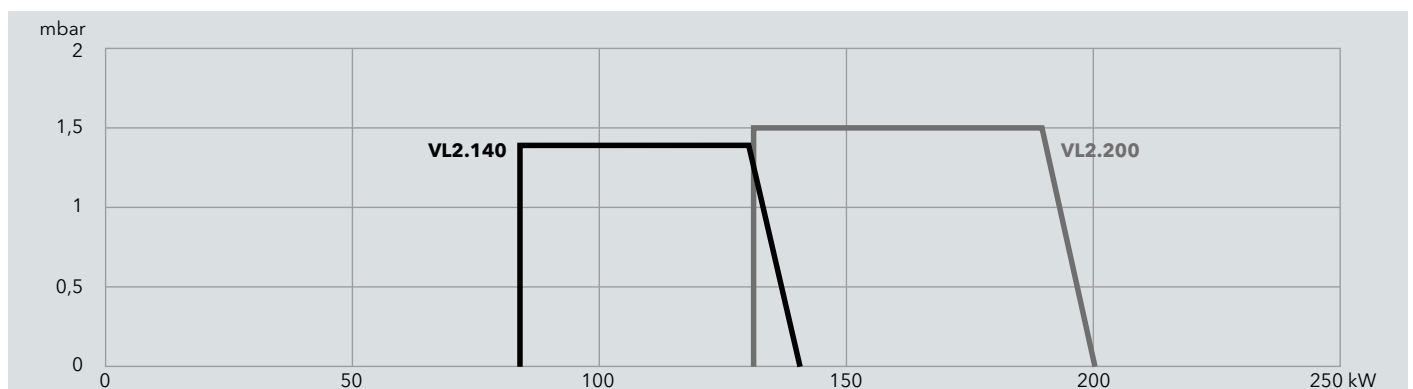
VE1



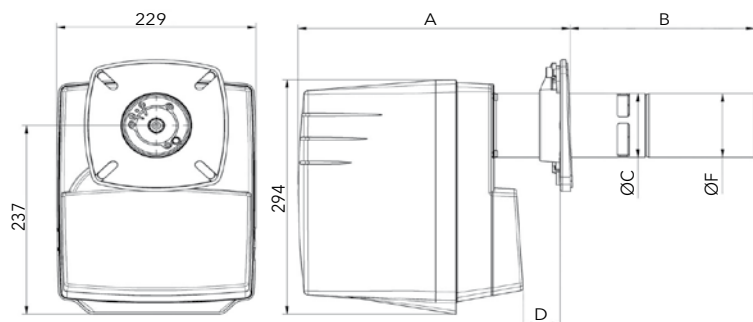
VL1



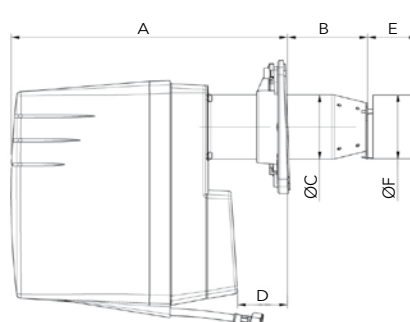
VL2



VB1



VE1

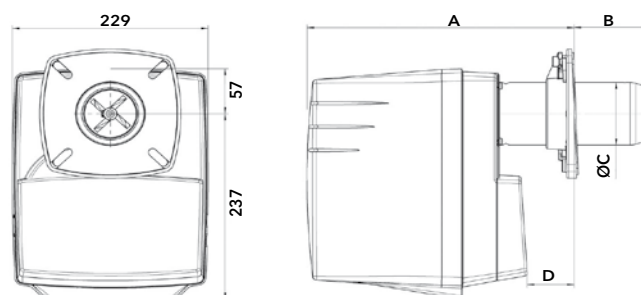


<100 mg/kWh
(based on NCV)

Model	A		B		Ø C	D		Ø F
	min	max	min	max		min	max	
VB 1.20/24	269	284	234	249	80	12	27	80
VB 1.28	269	284	234	249	80	12	27	100
VB 1.30	269	284	244	259	80	12	27	100
VB 1.35	269	284	294	309	80	12	27	120

Model	A		B		Ø C	D		E	Ø F
	min	max	min	max		min	max		
VE 1.34	264	329	70	135	80	12	77	63	79
VE 1.50	264	344	70	150	90	12	92	56	84
VE 1.75	297	357	70	138	90	15	83	56	84

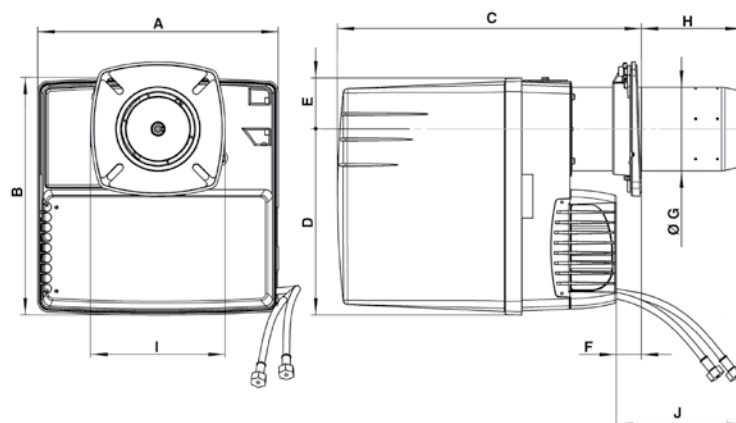
VL1



<120 mg/kWh
(based on GCV)

Model	A		B		Ø C	D	
	min	max	min	max		min	max
VL 1.40/55 P	270	310	70	120	80	21	71
VL 1.42/55							
VL 1.95	297	357	70	138	90	15	83

VL2



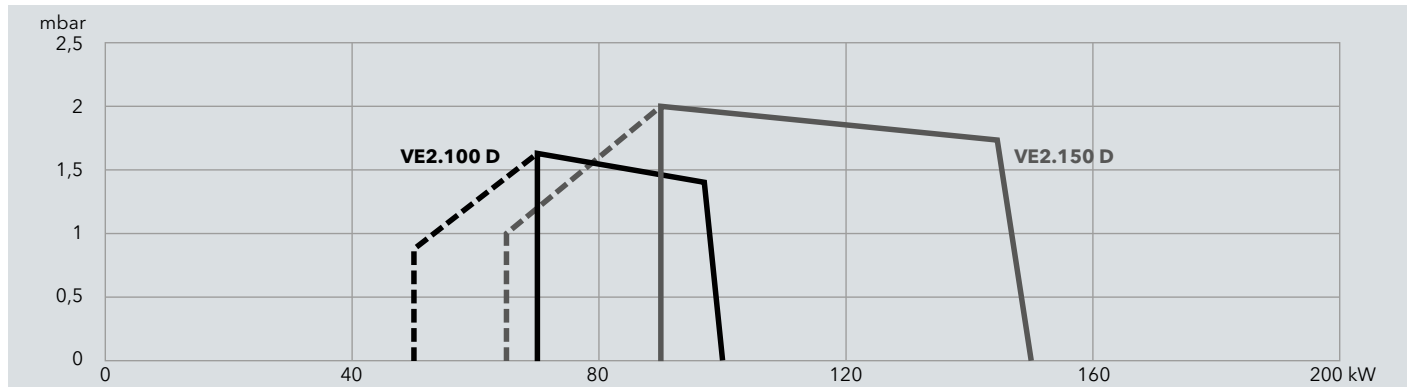
<120 mg/kWh
(based on GCV)

Model	A	B	C		D	E	F	Ø G	H		I	J
VL2.140	331	326	KN 398...518	KL 398...638	256	69	15 min	100	KN 30...150	KL 30...270	185 x 185	1200
VL2.200	331	326	KN 398...518	KL 398...638	256	69	15 min	115	KN 30...150	KL 30...270	185 x 185	1200

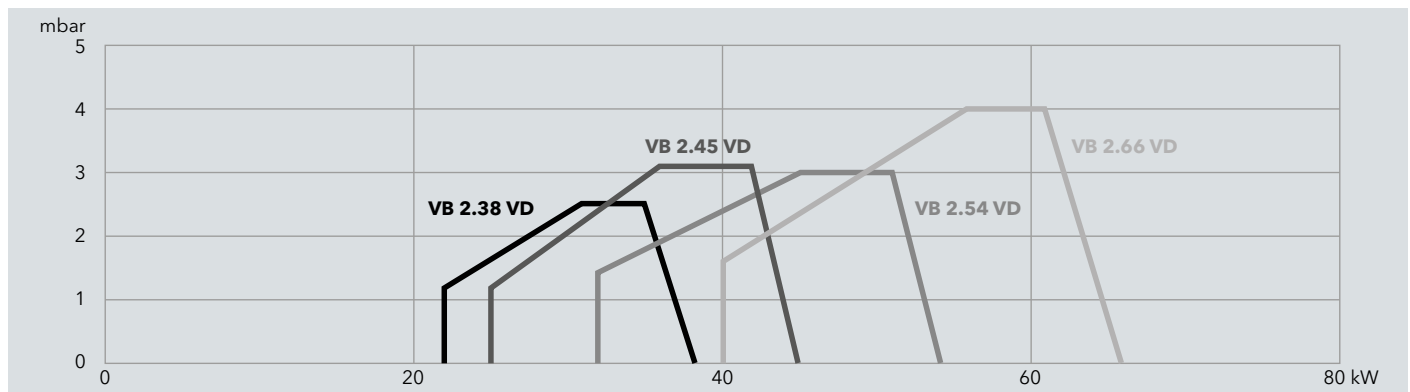
TECHNICAL DATA | LIGHT OIL RANGE

VE2 D, VB2 VD, VL2 D

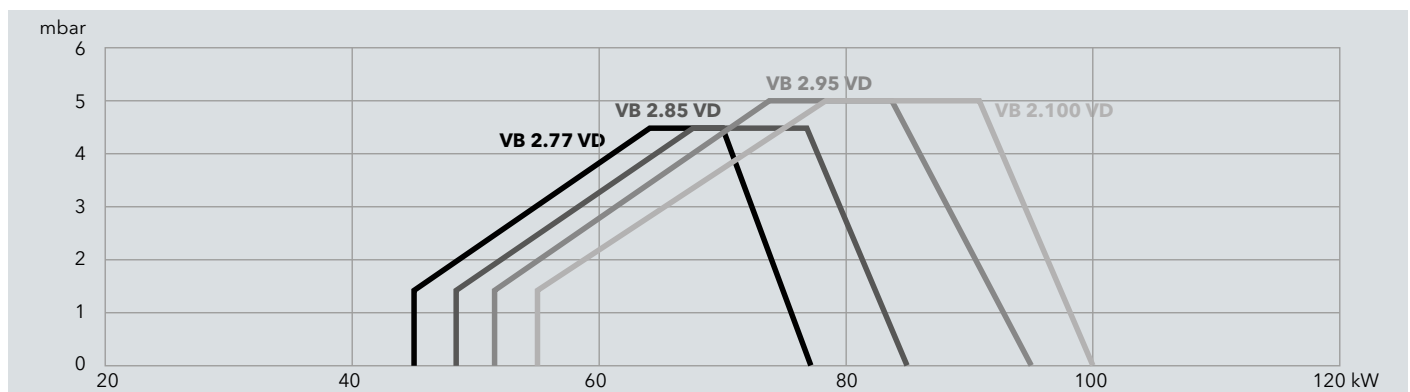
VE2 D



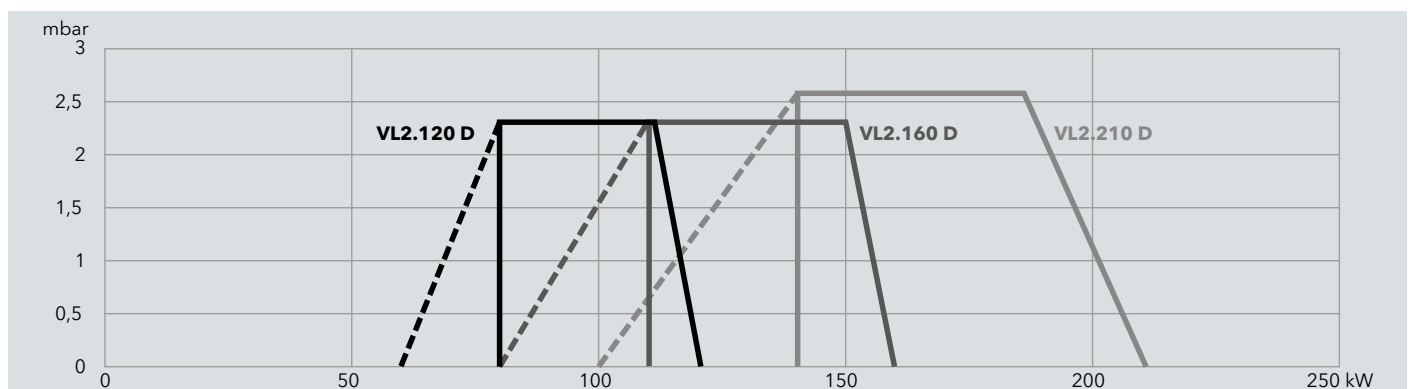
VB2 VD



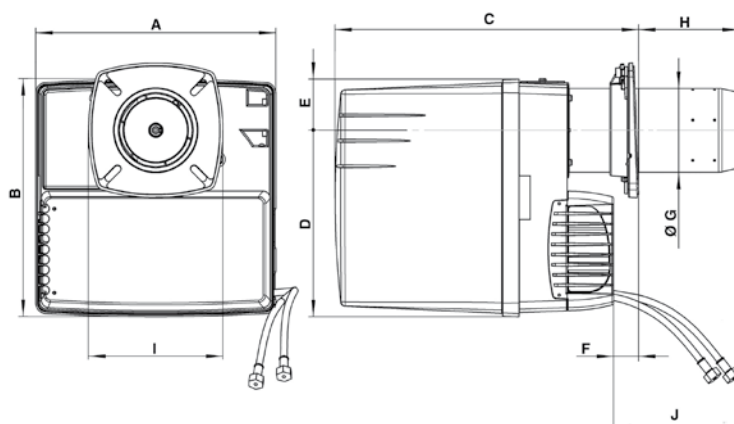
VB2 VD



VL2 D



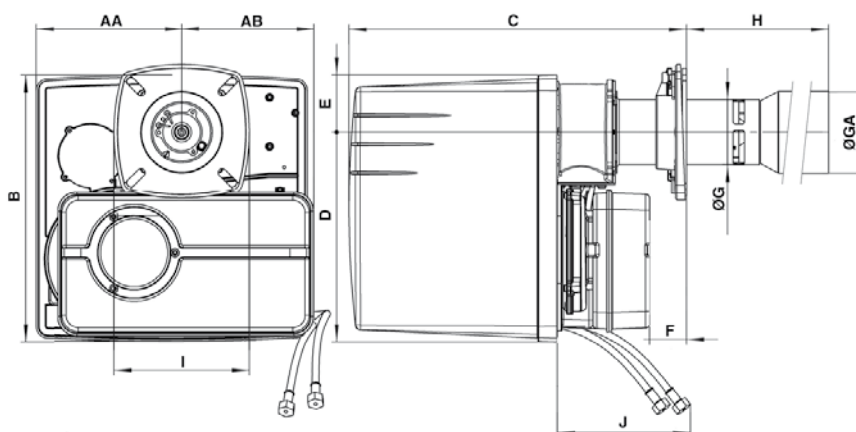
VE2 D



<100 mg/kWh
(based on NCV)

Model	A	B	C	D	E	F	Ø G	H	J
VE2.100 D VE2.150 D	331	326	398...518	256	133	15 min	115	264 max	700

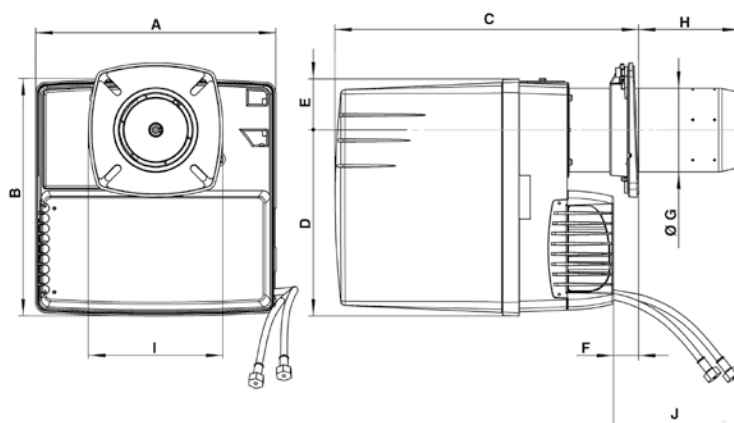
VB2 VD



<100 mg/kWh
(based on GCV)

Model	AA	AB	B	C	D	E	F	Ø G	Ø GA	H	I	J
VB2.38 VD	178	161	325	390...450	256	69	15...75	80	100	245...185	165x165	1200
VB2.45/54 VD	178	153	325	390...450	256	69	15...75	80	100	245...185	165x165	1200
VB2.66/75/85/95/100 VD	178	153	325	390...450	256	69	15...75	100	120	300...240	185x185	1200

VL2 D



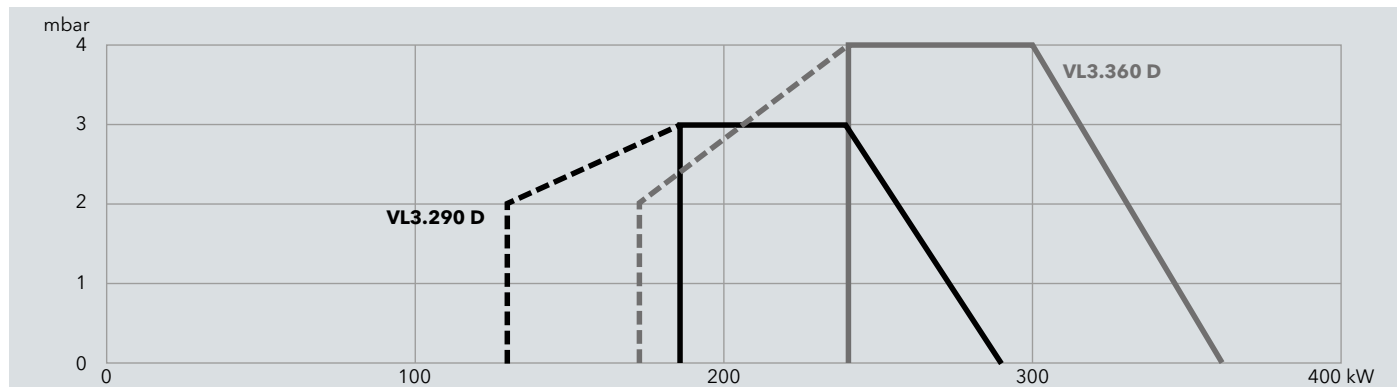
<120 mg/kWh
(based on GCV)

Model	A	B	C	D	E	F	Ø G	H	I	J
VL2.120 D VL2.160 D VL2.210 D	331	326	KN 398...518 KL 398...638	256	69	15 min	115	KN 30...150 KL 30...270	185 x 185	1200

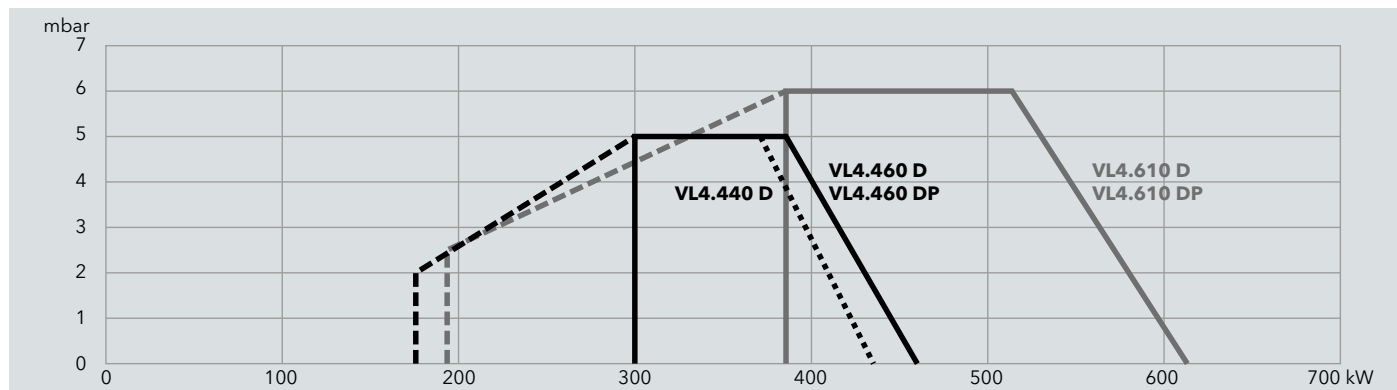
TECHNICAL DATA | LIGHT OIL RANGE

VL3...5 D, VL4...6 DP

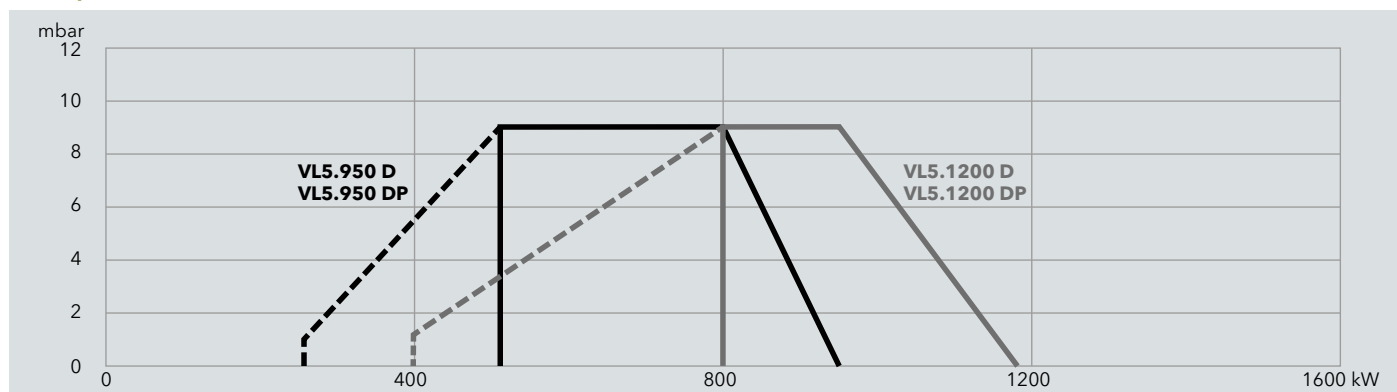
VL3 D



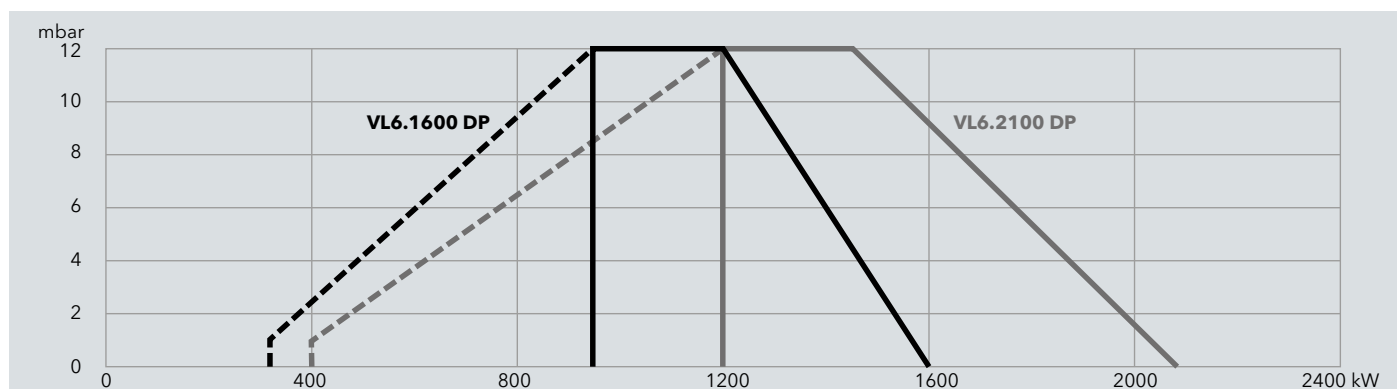
VL4 D, VL4 DP



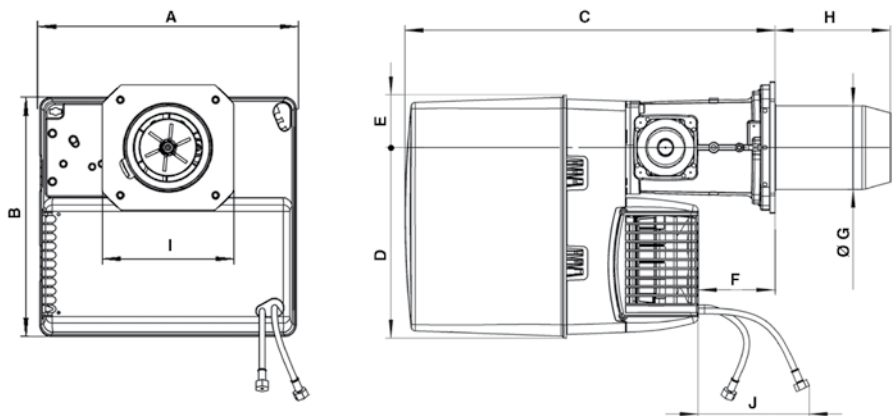
VL5 D, VL5 DP



VL6 DP



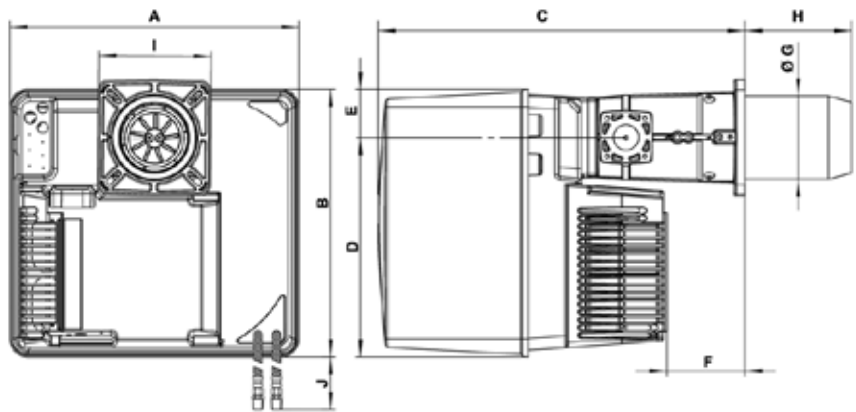
VL3 D
VL4 D
VL4 DP



<120 mg/kWh
(based on GCV)

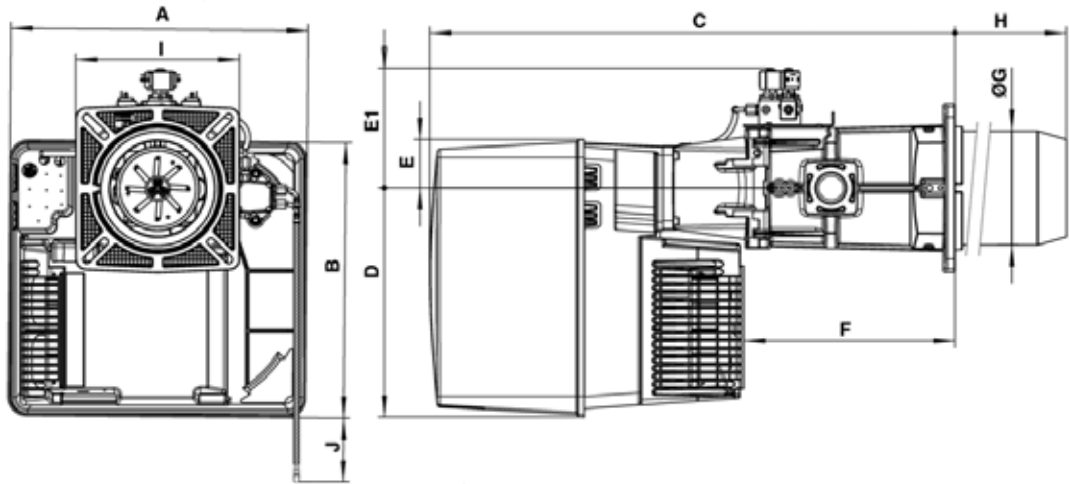
Model	A	B	C	D	E	F	Ø G	H			I	J
VL3.290 D VL3.360 D	406	379	576	297	82	120	130	KN 180	KL 320		195 x 205	1000
VL4.440/460/610 D VL4.460/610 DP	465	475	640	377	97	149	150	KN 220	KL 360		245 x 245	1000

VL5 D
VL5 DP



Model	A	B	C	D	E	F	Ø G	H			I	J
VL5.950 D / VL5.1200 D VL5.950 DP / VL5.1200 DP	581	549	752	450	99	164	170	KN 215	KM 325	KL 435	230 x 238	950

VL6 DP



Model	A	B	C	D	E	E1	F	Ø G	H			I	J
VL6.1600 DP VL6.2100 DP	592	553	1050	456	97	239	421	227	KN 270	KM 370	KL 470	326 x 335	850

TECHNICAL DATA

FGR VERSIONS

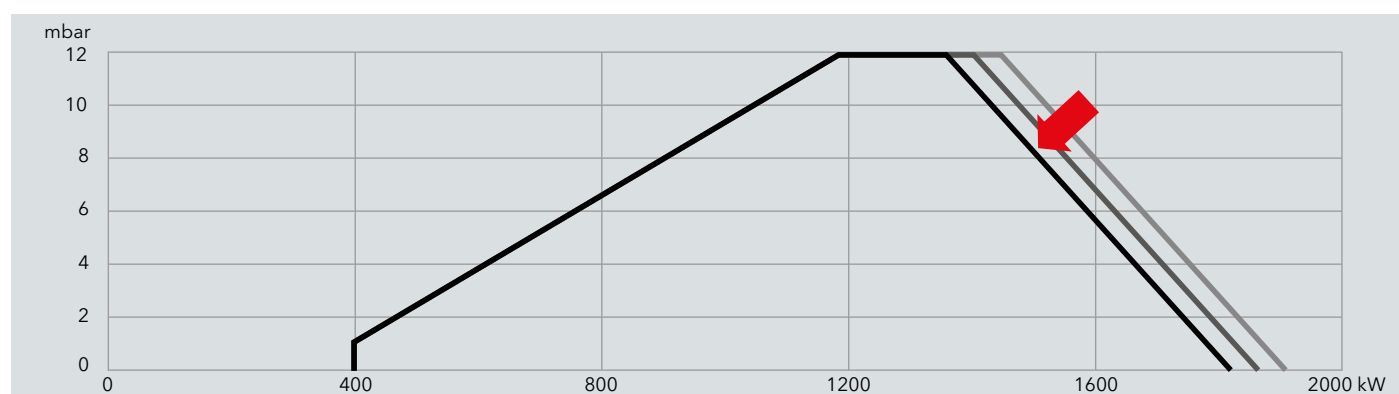


The external recirculation sends a mixture of air and flue gas to the burner combustion head. For monoblock units the gases are mixed upline of the combustion process by the burner fan.

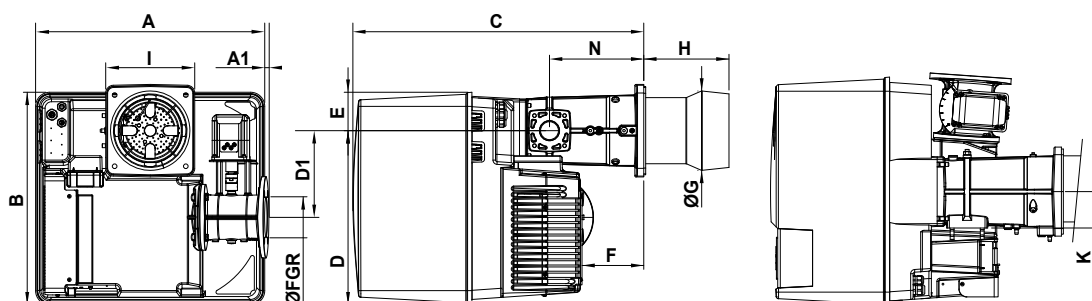
The effect in terms of NO_x emissions is the result of numerous factors, the most important of which are: burners technical characteristics, fuel, type of generator, comburent air temperature, vector fluid temperature, thermal load of the combustion chamber.

When the FGR technology is applied to further reduce the NO_x level, another parameter comes into play: the flue gas recirculation flow. The amount of recirculation, which is generally no more than 20% of the total flow generated by the fan, is calibrated for each application in relation to the target value and the system performance without recirculation.

There is not a single percentage value which suits all applications, because of the many factors in play and their interactions, but in any case the flue gas recirculation reduces the power of all monoblock burners, since part of the fresh comburent air is replaced by flue gas. This results in a lower O₂ content and hence reduces the combustion of fuel. The outcome is that the working diagram is reduced proportionately:

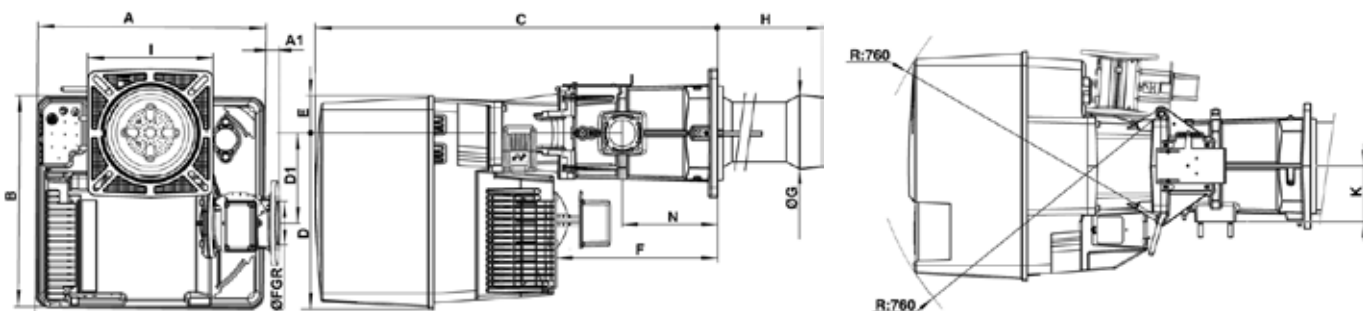


VG5 M FGR



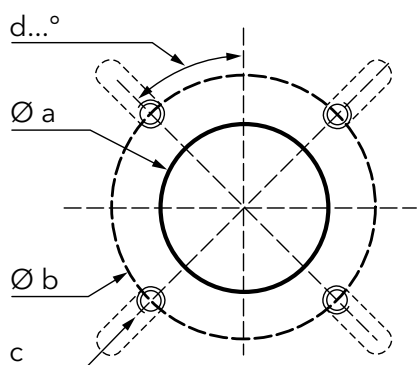
Model	A	B	C	D	E	F	Ø G	H			I	K	N	A1	D1	Ø FGR
VG5.950 FGR	581	549	752	450	99	164	205	KN 215	KM 325	KL 435	230 x 238	89	244	10	223	80
VG5.1200 FGR																

VG6 M FGR



Model	A	B	C	D	E	F	Ø G	H			I	K	N	A1	D1	Ø FGR
VG6.1600 FGR	592	553	1050	456	97	421	224	KN 410	KM 510	KL 610	326 x 335	144	247	13	227	100
VG6.2100 FGR																

CONNECTING FLANGE



Gas range

	$\varnothing a$	$\varnothing b$	c	d
VG1.40/55	85...104	150...170	M8	45°
VG1.105	95...104	150...170	M8	45°
VG1.140	120...135	150...185	M8	45°
VG2.120/160	120...135	150...185	M8	45°
VG2.205	130...145	160...185	M8	45°
VG3	155...190	175...220	M10	45°
VG4.440	190...240	200...270	M10	45°
VG4.610	180...240	200...270	M10	45°
VG5	195	220...260	M10	45°
VG6	250	300...400	M12	45°

Dual fuel range

	$\varnothing a$	$\varnothing b$	c	d
VGL2	130...140	172...184	M8	45°
VGL3	155...190	175...220	M10	45°
VGL4	180...240	200...270	M10	45°
VGL5	195	220...260	M10	45°
VGL6	250	300...400	M12	45°

Light oil range

	$\varnothing a$	$\varnothing b$	c	d
VB1, VL1.40/55	85...104	150...170	M8	45°
VE1, VL1.105	95...104	150...170	M8	45°
VB2.35/45/54 VD	85...104	150...170	M8	45°
VB2.66...100 VD	110...135	150...184	M8	45°
VL2, VE2	120...135	150...184	M8	45°
VL3	155...190	175...220	M10	45°
VL4.440	190...240	200...270	M10	45°
VL4.460/610	180...240	200...270	M10	45°
VL5	195	220...260	M10	45°
VL6	250	300...400	M12	45°

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