oilon

OIL, GAS AND DUAL FUEL

Monoblock burners

CAPACITY 100–13,300 kW

Low-emission
combustion technology

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The art of clean combustion

Oilon is an international energy technology company whose products support sustainable development by directly and measurably reducing emissions. Oilon's goal is to promote sustainable development and set a good example in the fight against climate change. As a 60-year-old family business, we find it important to preserve nature for future generations as well.

Oilon is a pioneer in first-rate low emission burner technology. Our selection of burners supports the transition to even cleaner and renewable fuels.

The excellent performance and reliability as well as the low emissions of Oilon burners are the result of decades of experience and long development. Depending on the solution, our burners can achieve the most stringent emission requirements in the world. Additionally, we provide combustion solutions for hydrogen, biogases, bio-oils, and other renewable fuels.

We have wide-ranging experience in firing different liquid and gaseous fuels. Thanks to our global dealer network, local presence on five continents, and extensive product approval and certification, we can offer burners and combustion technology to different customers and a wide range of applications across the globe.

Our modern research and development center in Lahti, Finland is equipped with the latest technology for combustion research, testing and data collection. In addition to testing, we simulate combustion processes with computational fluid dynamics (CFD) modeling.

We are especially committed to reducing nitrogen oxide (NOx) and particulate emissions.

Oilon Burners

Oilon gas, oil, and dual fuel burners are fully automatic, safe, and reliable. The burners are equipped with the latest digital technology.

Design

Oilon burners are designed for easy operation and maintenance with a particular focus on safety and minimizing environmental loads.

Applications

Oilon burners are suitable for various applications, such as hot water boilers, steam boilers, air heaters and different process applications.

Fuels

Oilon burners are suitable for various liquid and gaseous fuels. Examples of suitable fuels include light fuel oil and heavy fuel oil (with a viscosity up to 700 mm^2/s at 50 °C) as well as natural gas and LPG (2nd family gases, groups H and E). Burners using other fuels are available on request.

Connectivity

Digital combustion management enables communication with external systems. Remote monitoring and diagnostics optimize operational efficiency.

Standards

Oilon gas burners are compliant with the EN 676 standard, oil burners with the EN 298 and EN 267 standard, and dual fuel burners with each of the above. The burners are EU type tested. Additionally, we offer burners that are compliant with marine classification society requirements, such as ABS, BV, CCS, DNV, GL, KR, LR, NKK, RINA, and RS.

An Oilon burner is your choice!

Choosing the burner

A. Procedure

1 Determine the technical details of the boiler and the application:
- boiler capacity and efficiency, or the required burner capacity
- furnace back pressure
- fuel/fuels to be used
- burner inlet fuel pressure
- burner capacity control method

2 Calculate the burner capacity. Burner capacity =

boiler capacity / efficiency

Example: boiler capacity 2,500 kW, efficiency 90% burner capacity = 2,500 kW / 0.9 = 2,780 kW

3 Gas burners: Required gas flow [m³n/h] = (burner capacity [kW] x 3.6) / calorific value of the gas [MJ/m³n].
Example: required burner capacity = 2,780 kW ⟶ required gas flow = (2,780 kW x 3.6) / 35.8 MJ/m³n = 280 m³n/h, where 35.8 MJ/m³n is the calorific value of natural gas.
Oil burners: Calculate the required oil flow [kg/h]. Required oil flow [kg/h] = (burner capacity [kW] x 3.6) / calorific value of the oil [MJ/kg]. Example: required burner capacity = 2,780 kW ⟶ required oil flow = (2,780 kW x 3.6) / 42.7 MJ/kg = 234 kg/h, where 42.7 MJ/kg is the calorific value of light oil.

4. Check the burner's operating range from working diagrams. The curves indicate the operating range for different burners. For example, at a 2,780 kW burner capacity, the boiler backpressure is 12 mbar. In the diagram, mark the required burner capacity on the horizontal axis. Mark the boiler's backpressure on the vertical axis. The point where the two lines meet determines the required burner type. For optimal performance, select a burner whose operating point is as close to the right edge of the curve as possible. Note that different fuels and capacity control methods require separate graphs.

5. Valve selection for gas and dual fuel burners: Select a suitable valve from the gas valve selection table. Note that the values in the valve selection table apply when the furnace back pressure is 0 mbar. Subtract the furnace back pressure from the actual gas inlet pressure and choose the valve based on this value. The ratings shown in the table apply to natural gas.

   Example: The gas inlet pressure of 70 mbar, the boiler backpressure 12 mbar, and the required burner capacity is 2,780 kW. Consequently, the effective pressure is 70 mbar – 12 mbar = 58 mbar. For a GP-280 M burner, for example, you need to choose a valve that provides a minimum burner capacity of 2,780 kW when the gas inlet pressure is 58 mbar valve DN 65.

6. Check that the outer dimensions of the burner are suitable for the application. Pay special attention to combustion head length.

7. Check the flame dimensions from the flame dimension table. Make sure that the flame does not come into contact with the walls of the furnace. When selecting a modulating light fuel oil burner without a deaerator, the capacity of the supply pumping unit must be at least equal to the burner's atomizing pump capacity +15%.

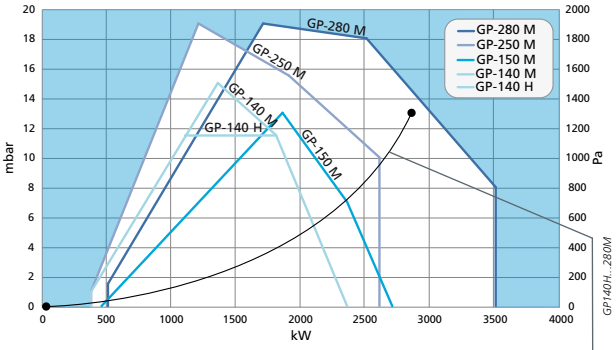
8. Consider the impact of optional equipment, such as the gas pressure regulator and oil pumping unit as well as boiler thermostats/pressostats.

B. Equations and rules of thumb

1. Burner capacity = boiler capacity / 0.9 (when boiler efficiency is 90%)
2. Steam boilers: 1 tonne/h steam ≈ 700 kW boiler capacity
3. Light oil: 1 kg/h ≈ 11.86 kW burner capacity with calorific value 42.7 MJ/kg
4. Heavy oil: 1 kg/h ≈ 11.22 kW burner capacity with calorific value 40.5 MJ/kg
5. Natural gas: 1 m³n/h ≈ 10 kW burner capacity with calorific value 35.84 MJ/m³n
6. The amount of combustion air:
   - Gas burners: 12–13 m³/h per 10 kW of burner capacity.
   - Oil burners: 13.5 m³/h per kg of oil burned [kg/h].

7. An oil pumping, filtering, and preheating unit is required for heavy fuel oil. The required minimum pump output [kg/h] can be calculated as follows: Required minimum output [kg/h] = (oil flow to be burned in kg/h + 150 to 200 kg/h)* 1.25 to 1.3. The expression inside the parentheses indicates the preheated oil flow to each burner.

An example of burner selection



Boiler pressure loss as a function of burner capacity.

The max. capacity of a hot water boiler is 2,500 kW, efficiency 0.9, and the corresponding burner capacity 2,500 kW / 0.9 = 2,780 kW. The diagram indicates that GP-280 M corresponds to the required capacity, as the pressure loss value for the boiler is inside the burner's operating envelope. GP-250 M can also be used for this application, provided that the full boiler capacity is not required. Remember to take efficiency into account when relating the boiler pressure loss information to the burner working diagram.

NOx emissions

Nitrogen oxides (NOx) are compounds of nitrogen and oxygen, the most important of which are NO and NO2. Small amounts of nitrogen oxides also occur in nature, but the majority of them originate from human actions, mainly from logistics and energy production.

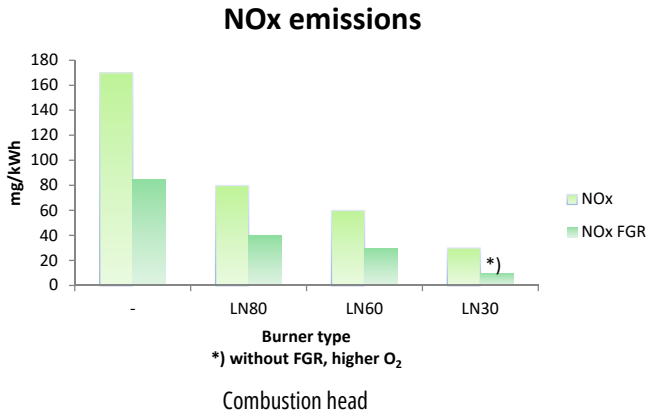
Nitrogen oxides are formed in all combustion processes when the nitrogen in the fuel or combustion air and the oxygen in the combustion air react at high temperatures.

Nitrogen oxides are harmful to humans and the environment in many ways. They are toxic and harmful to the respiratory system. Nitrogen oxides cause acidification and eutrophication of the environment, and they form ground-level ozone and harmful particulate emissions.

Governments around the world impose increasingly stringent emission limits to mitigate the adverse effects of nitrogen oxide emissions. Reducing nitrogen oxides is the key priority in lowering emissions from traffic and energy production.

We are especially committed to reducing nitrogen oxide (NOx) and particulate emissions. One of our most important goals when developing our products is to lower emission levels.

Effect of combustion head on NOx emissions, natural gas



Oilon Low-NOx natural gas burners (80 mg/kWh) meet the requirements of emission class 3 (EN 676). 60 mg/kWh natural gas burners meet the requirements of emission class 4 (EN676).

Our burners achieve low NOx emissions thanks to innovative gas and air distribution and staging in the combustion head.

Another method we use to reduce NOx emissions is internal or external flue gas recirculation, which reduces flame peak temperatures and slows down the rate of reaction during combustion. Emission values depend on the furnace geometry, the furnace load and the temperature of the boiler medium. Low NOx levels are mainly achieved in standard 2- or 3-pass boilers.

The maximum allowed NOx levels for burners are shown in the table below. The table applies to burners designed for firing 2nd or 3rd family gases or light fuel oil.

Class	NOx emissions in standard conditions, mg/kWh		
	Gas (EN676)		LFO (EN267)
	2nd family groups H, E and L	3rd family	–
1	≤ 170	≤ 230	≤ 250
2	≤ 120	≤ 180	≤ 185
3	≤ 80	≤ 140	≤ 120
4	≤ 60	≤ 110	–

Note that the NOx value calculated for 2nd family gases shall not exceed 170 mg/kWh. For 3rd family gases, the maximum limit is 230 mg/kWh.

FGR – flue gas recirculation

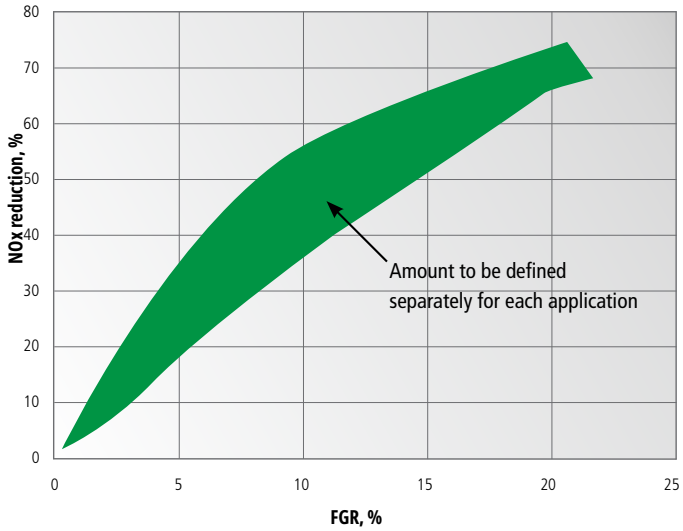
External flue gas recirculation, FGR, is an effective low-cost solution to achieve very low NOx emissions with various fuels.

A certain proportion of flue gas is led back to the furnace through the burner. This reduces peak temperatures in the flame and slows down combustion reactions, reducing NOx emissions.

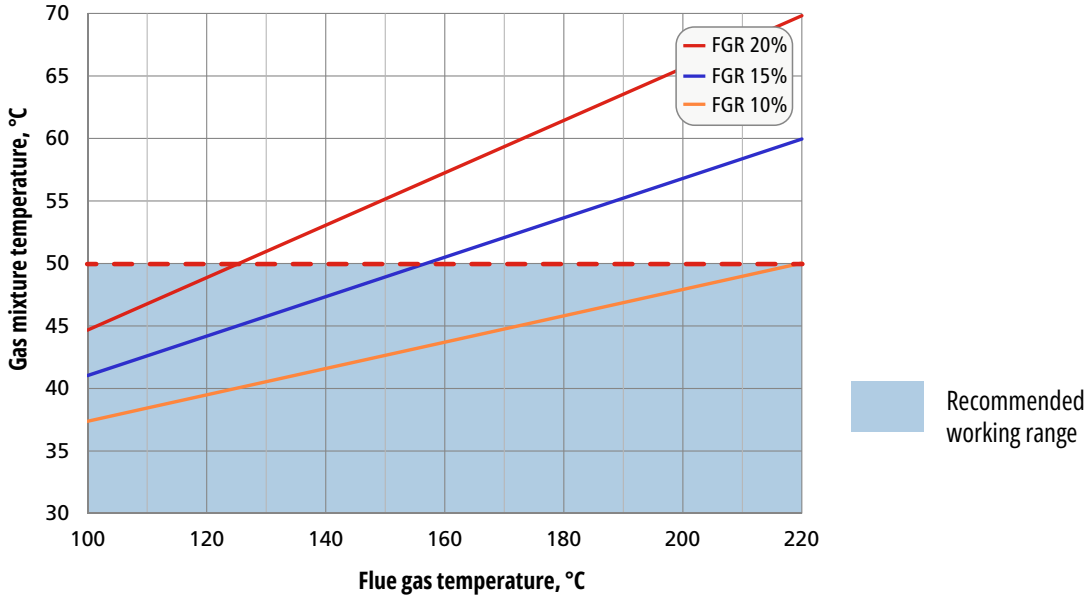
Achievable reduction depends on many factors, including burner type, boiler, combustion air temperature, and the amount of flue gas being recirculated (see the diagram). When designing the assembly, it is important to note that flue gas recirculation reduces the burner's maximum output depending on the FGR rate and flue gas temperature.

Flue gas recirculation is available as an option for new burners, or in many cases, as a retrofit to an existing burner.

The effect of FGR in natural gas combustion

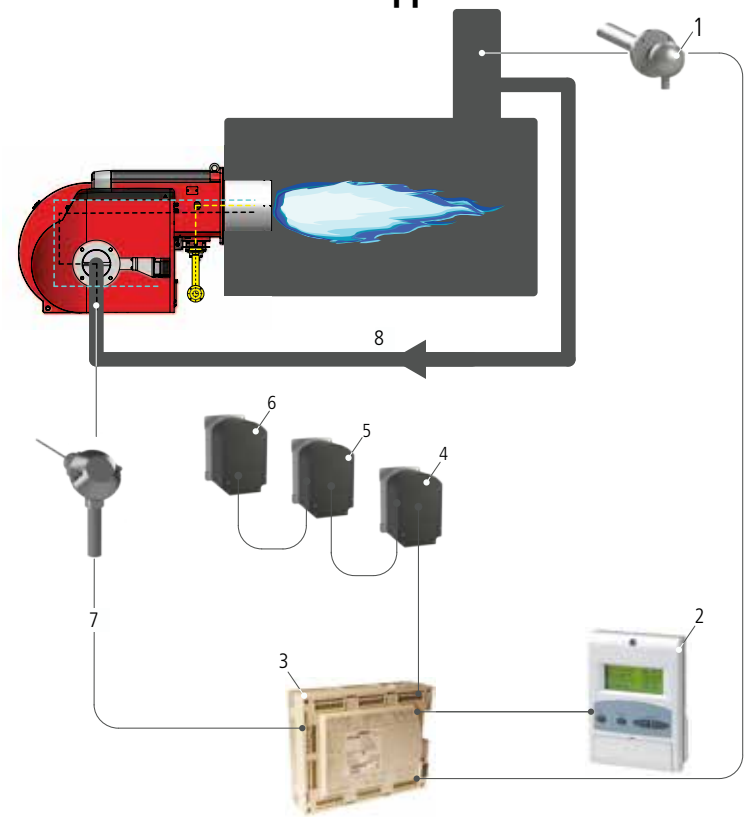


Gas mixture temperature in FGR, standard application



The diagram is valid when combustion air temperature is +30 °C.

An Oilon burner in an FGR application



Minimum required components:
- WD200 burner control system
- Flue gas damper with servomotor
- Flue gas inlet adapter
- Recirculation pipe (in customer scope)

1. O_2 sensor (option)
2. User interface
3. Control unit
4. Gas damper
5. Air damper
6. Flue gas damper
7. Temperature sensor
8. Recirculation pipe

Application example

Burner control systems

BURNER SERIES	CONTROL	INTERMITTENT USE	CONTINUOUS USE	GAS	OIL	DUAL FUEL
50 - 140 H	INTERNAL	X	–	LME	LMO	LME
50 - 90 M/MH	INTERNAL	X	X	WD3x	WD3x	WD3x
130 - 280 M/MH	INTERNAL	X	X	WD3x	WD3x	WD3x
	EXTERNAL	X	X	WDx00	WDx00	WDx00
140 - 280 M	INTERNAL	–	X	WD200i	–	–
	INTERNAL	X	–	WD600i	–	–
300 - 700 M-III	INTERNAL	X	X	WD3x	WD3x	WD3x
	EXTERNAL	X	X	WDx00	WDx00	WDx00
1000 M/1200 M	EXTERNAL	X	X	WDx00	WDx00	WDx00

Check burner-specific automation options on each burner's technical data page.

Oilon WiseDrive – High efficiency with advanced automation

Oilon WiseDrive is an electronic fuel/air ratio control system. In the WiseDrive system, combustion air dampers and control valves have their own actuators. The system can be expanded with additional actuators for combustion head control (to control air flow in the combustion head). The ratio between fuel, combustion air, and combustion head air flow is adjusted electronically. Additionally, the WiseDrive system takes care of burner control and safety functions.

High efficiency

Electronic fuel/air ratio control improves combustion efficiency and lowers emissions. The greatest benefits are achieved in dual fuel burners where the combustion of both the main and reserve fuel can be optimized through adjustment, especially when O_2 control is in use. Additionally, significant energy savings can be achieved by fitting a variable speed drive (VSD) for the combustion air fan.

A versatile system

The Oilon WiseDrive system can be connected to external systems via fieldbus connection. Data regarding burner status and combustion process can be read remotely. Additionally, the system supports remote control (start, stop, reset) and setting configuration (capacity controller, fuel selection) through a fieldbus.

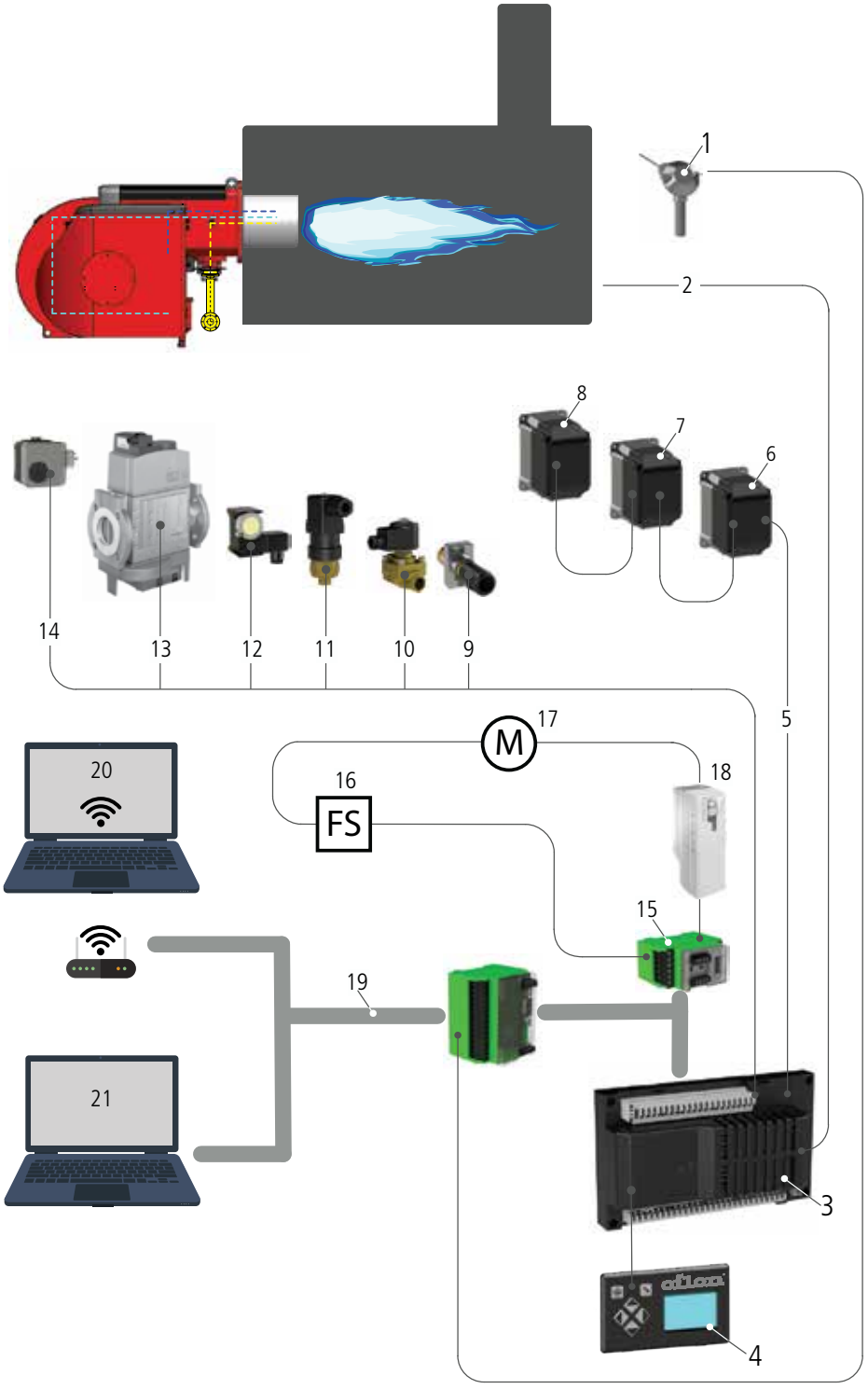
CONTROL SYSTEMS	WD33	WD34	WD100/WD100i	WD200/WD200i	WD600i
Operating principle	Electronic fuel/air	Electronic fuel/air	Electronic fuel/air	Electronic fuel/air	Electronic fuel/air
Control unit	Lamtec BT330	Lamtec BT340	Siemens LMV 51	Siemens LMV 52	Siemens LMV 60
Available for fuels	LFO (KP) – GAS (GP) – –	LFO (KP) – GAS (GP) GAS/LFO (GKP) –	LFO (KP) HFO (RP) GAS (GP) GAS/LFO (GKP) GAS/HFO (GRP)	LFO (KP) HFO (RP) GAS (GP) GAS/LFO (GKP) GAS/HFO (GRP)	– – GAS (GP) – –
O_2 control	Optional	Optional	Not available	Optional	Not available
CO control	Optional	Optional	Not available	Not available	Not available
VSD control	Optional	Optional	Not available	Standard	Not available
Control panel interface	Symbol display	Symbol display	Text display	Text display	Text display
External communication	Standard: Hardwired Optional: Modbus Profibus Profinet	Standard: Hardwired Optional: Modbus Profibus Profinet	Standard: Hardwired Modbus RTU Optional: Profibus Profinet	Standard: Hardwired Modbus RTU Optional: Profibus Profinet	Hardwired
Capacity control	Lamtec LCM100 4–20 mA output signal	Lamtec LCM100 4–20 mA output signal	Built in LMV51 4–20 mA output signal	Built in LMV52 4–20 mA output signal	Optional RWF 55
FGR	Not available	Not available	Not available	Available	Available

WiseDrive (WD) electronic regulator for controlling the fuel/air ratio – an energy-efficient and environmentally friendly solution

Electronic fuel/air ratio control lowers flue gas emissions, decreases energy consumption, and improves the technical characteristics of the burner through more accurate regulation.

The WiseDrive system provides control sequences, fuel/air ratio and capacity control, gas valve leak testing, and much more in a single package.

Example of Oilon WiseDrive WD34 + variable speed drive

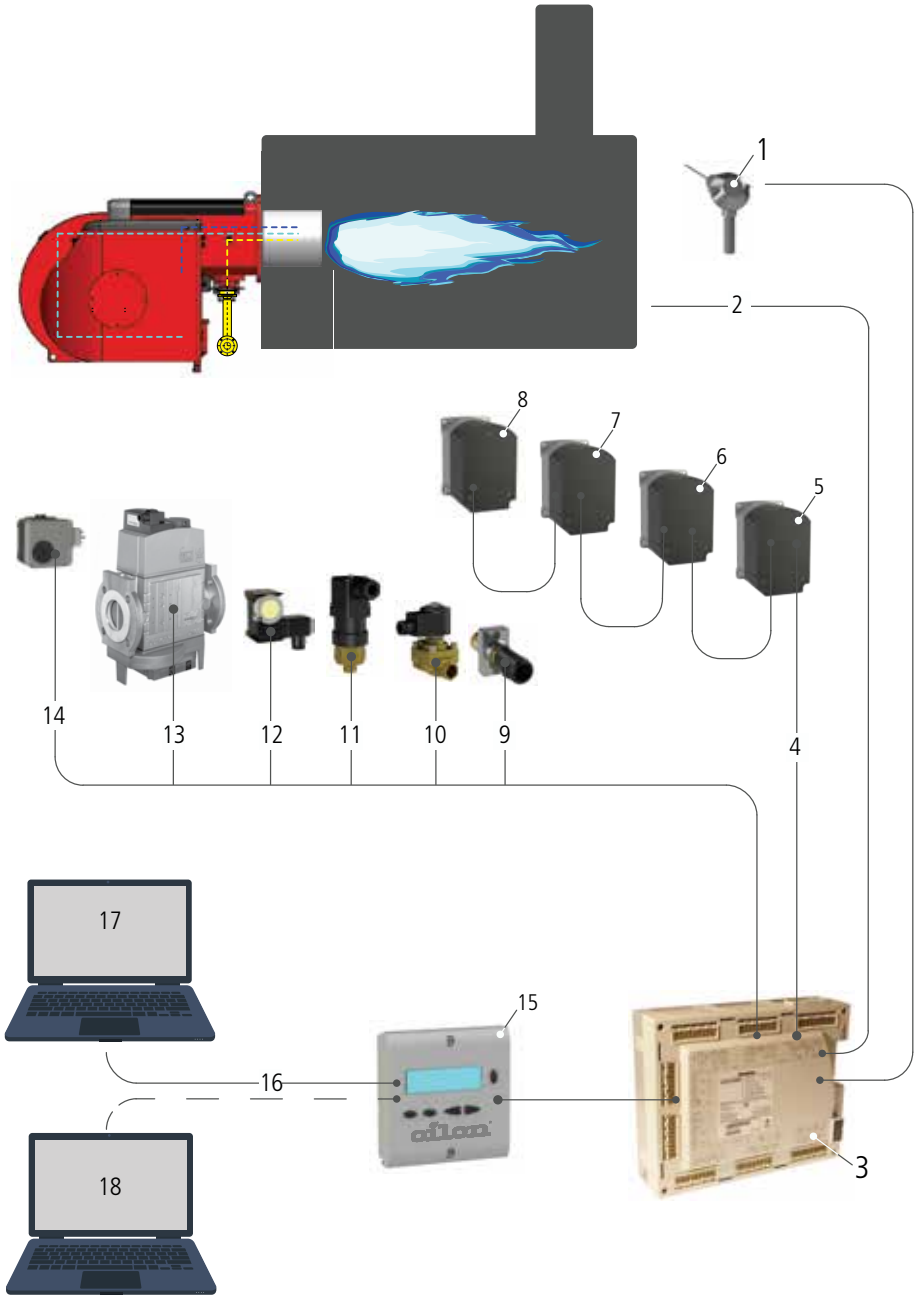


Examples of WiseDrive functions:

- Control sequences and safety functions
- Fuel/air ratio control
- Load control with built-in PID controller, support for control with an external 4–20 mA signal
- Can be connected to external plant automation via bus (option)
- Different access levels
- Parameter input via operating panel with text display or using a PC (check software and hardware requirements)

1. Boiler pressure/ boiler temperature
2. Safety devices
3. Control unit
4. User interface
5. CAN bus
6. Gas damper
7. Air damper
8. Oil regulator
9. Flame detector
10. Oil valves
11. Oil pressure switch
12. Gas pressure switch
13. Gas valves
14. Air pressure switch
15. VSM100
16. Motor
17. Speed sensor
18. Variable speed drive for speed control
19. SYSTEM-BUS
20. Remote Vision Control
21. Control System

Example of Oilon WiseDrive WD100 Electronic fuel/air ratio control system

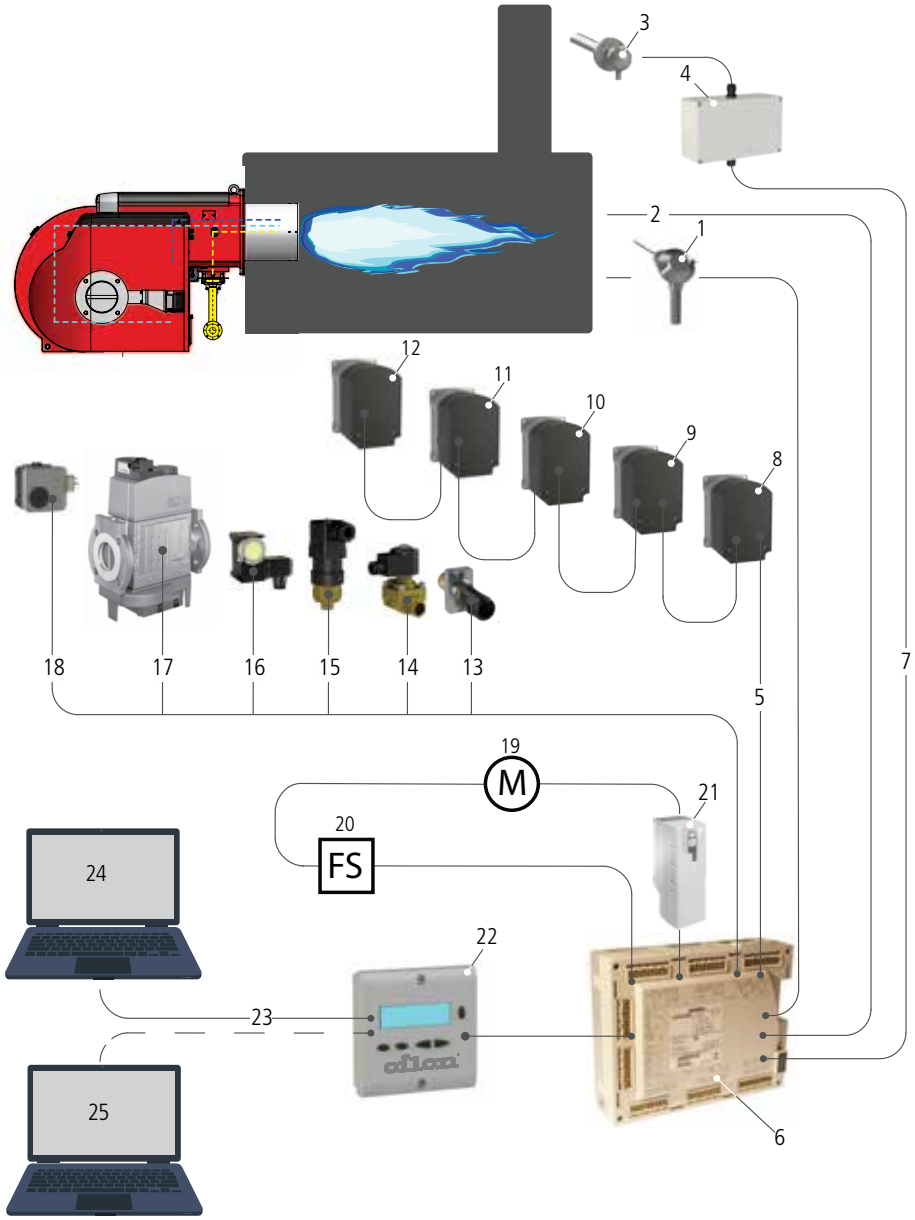


Examples of WiseDrive functions:

- Control sequences and safety functions
- Fuel/air ratio control
- Combustion head control (option)
- Load control with built-in PID controller, support for control with an external 4–20 mA signal
- Can be connected to external plant automation via bus. Modbus RTU as standard.
- Different access levels
- Parameter input via operating panel with text display or using a PC (check software and hardware requirements)

1. Boiler pressure/ boiler temperature
2. Safety devices
3. Control unit
4. CAN bus
5. Gas damper
6. Air damper
7. Oil regulator
8. Combustion head regulator – gas/oil diffuser disc positioning
9. Flame detector
10. Oil valves
11. Oil pressure switch
12. Gas pressure switch
13. Gas valves
14. Air pressure switch
15. User interface
16. Modbus
17. Control room
18. Service computer

Example of Oilon WiseDrive WD200/WD200i Electronic fuel/air ratio control system with O2 control and variable speed drive (VSD)

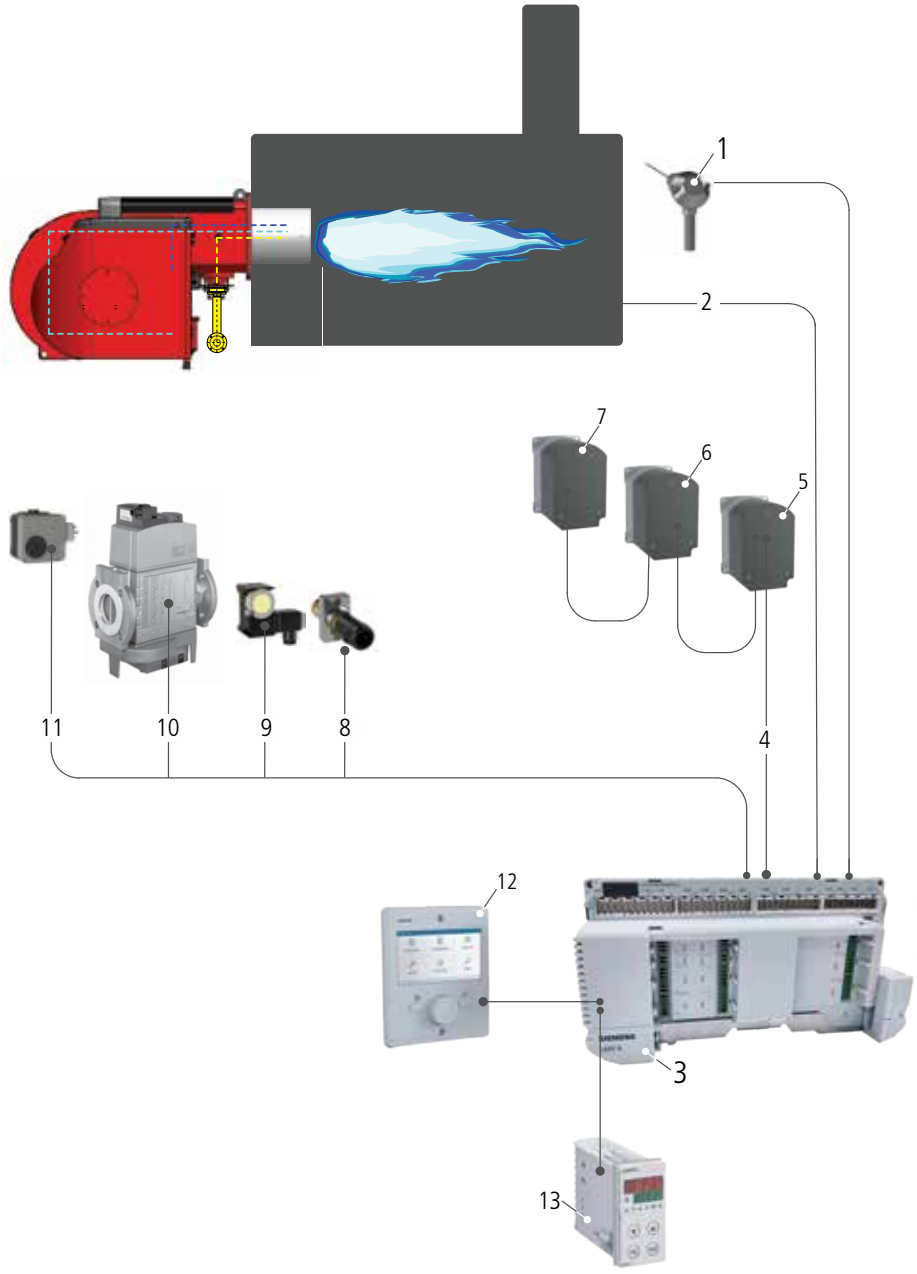


Examples of WiseDrive functions:

- Control sequences and safety functions
- Fuel/air ratio control
- Combustion head control (option)
- Load control with built-in PID controller, support for control with an external 4–20 mA signal
- Can be connected to external plant automation via bus. Modbus RTU as standard.
- Different access levels
- Parameter input via operating panel with text display or using a PC (check software and hardware requirements)
- Fuel consumption reading (requires flow meter)
- Variable speed drive control (requires rotation speed sensor)
- O_2 control (requires O_2 module and O_2 sensor)
- Flue gas temperature reading (requires temperature sensor)
- Combustion air temperature reading (requires temperature sensor)

1. Boiler temperature
2. Safety devices
3. O_2 sensor (option)
4. O_2 module (option)
5. CAN bus
6. Control unit
7. CAN bus
8. Gas damper
9. Oil regulator
10. Combustion head regulation – gas/oil diffuser disc positioning
11. Air damper
12. Flue gas damper
13. Flame detector
14. Oil valves
15. Oil pressure switch
16. Gas pressure switch
17. Gas valves
18. Air pressure switch
19. Motor
20. Speed sensor
21. Variable speed drive for speed control (option)
22. User interface
23. Modbus
24. Control room
25. Service computer

Example of Oilon WiseDrive WD600i Electronic fuel/air ratio control system



Examples of WiseDrive functions:

- Control sequences and safety functions
- Fuel/air ratio control
- Different access levels
- Parameter input via operating panel with text display

1. Boiler pressure/ boiler temperature
2. Safety devices
3. Control unit
4. CAN bus
5. Gas damper
6. Air damper
7. FGR regulator, optional
8. Flame detector
9. Gas pressure switch
10. Gas valves
11. Air pressure switch
12. User interface
13. RWF capacity controller, optional

Example of cost savings using O_2 control

Example values

– Boiler capacity	5 MW
– Average operating time	4,000 h/year
– Average capacity	60%
– Price of light fuel oil	0.55 €/l
– Price of natural gas	0.30 €/m³n
– Price of electricity	0.10 €/kWh

1. The effect of O2 control on combustion efficiency

In a traditional burner, the O2 level of flue gases is usually adjusted to about 4%. When using WD200, a 2% O_2 level can be reached. A two per cent reduction in O_2 level increases efficiency by 1%.

Resulting annual savings:
– EUR 6,550 with light fuel oil
– EUR 3,600 with natural gas

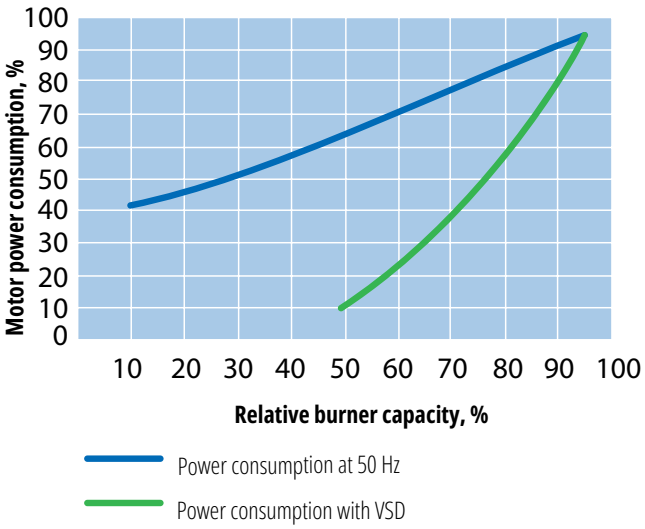
2. Reduced power consumption with burner motor speed control

Burner without a VSD:
– Electricity consumption 31,600 kWh/year
– Cost EUR 3,160
Burner equipped with a VSD:
– Electricity consumption 9,600 kWh/year
– Cost EUR 960
Annual savings: EUR 3,160 – EUR 960 = EUR 2,200

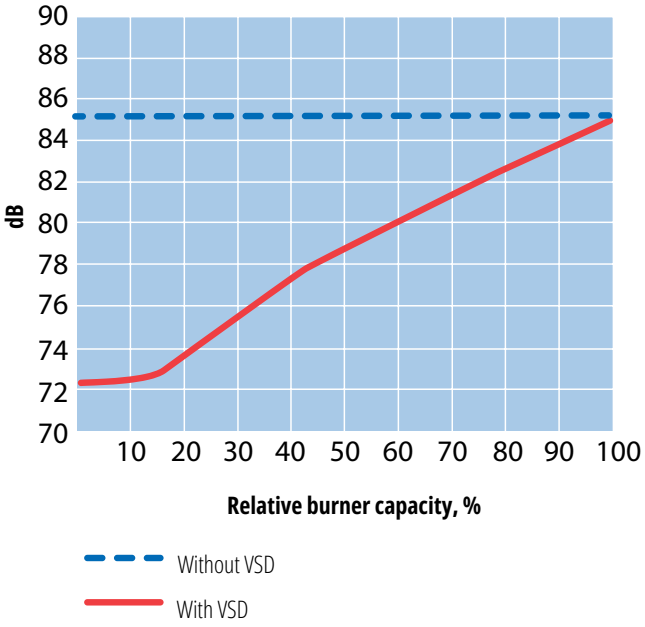
3. When using both O2 control and fan motor speed control, the annual savings are:

– EUR 8,750 with light fuel oil
– EUR 5,800 with natural gas

Motor power consumption, 5 MW burner



Noise level with VSD and without VSD



Type labeling

GKP-700 M-II WD200 LN80 C2

Fuel:
- GP = Gas
- GKP = Gas, light fuel oil
- KP = Light fuel oil
- RP = Heavy fuel oil
- GRP = Gas, heavy fuel oil

Burner frame size categorization:
- 50 - 1200

Method of control:
- H = Two-stage
- M = Modulating
- MH = Modulating gas, two-stage oil

Burner capacity size categorization:
- –
- I
- II
- III

Control system (additional code):
- –
- WD3x = Lamtec
- WDx00 = Siemens
- i = Integrated control cabinet

NOx emissions (additional code):
- –
- LN80 = 80 mg/kWh
- LN60 = 60 mg/kWh
- LN30 = 30 mg/kWh

Combustion head length (additional code):
- –
- C1
- C2

Gas burners

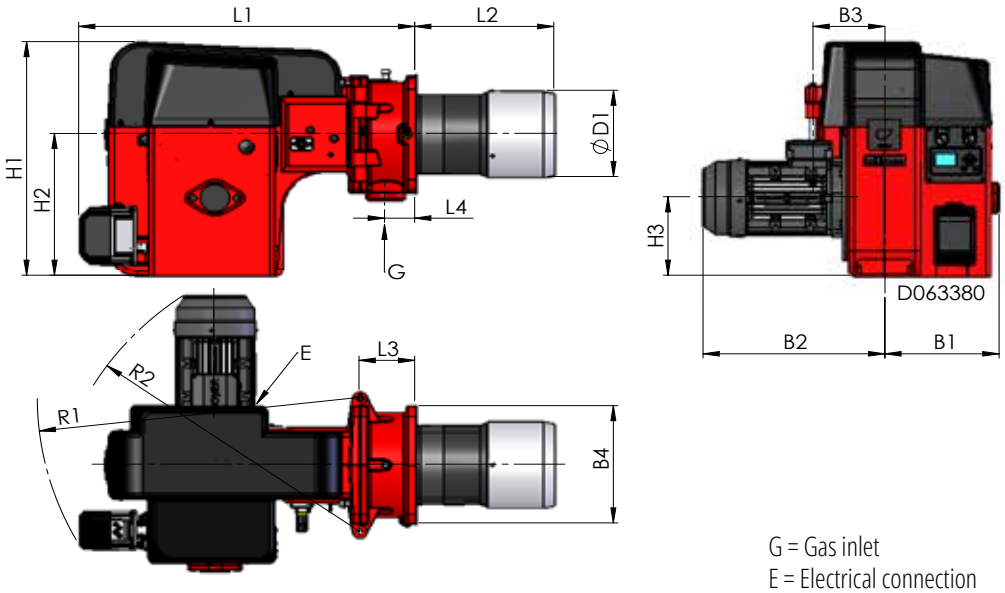
100–13,300 kW

GP-50 - 90 H/M

Technical data

BURNER	GP-50 H	GP-80 H	GP-90 H	GP-50 M	GP-90 M
Capacity, kW	200 - 800	350 - 1000	350 - 1500	100 - 800	250 - 1500
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 0.75 2.0 2900	 1.5 3.2 2900	 2.2 4.4 2900	 0.75 2.0 2900	 2.2 4.4 2900
Control unit	LME	LME	LME	WD33	WD33
NOx class	1	1	1	1	1
Weight, kg	40	63	63	40	63

Dimensions

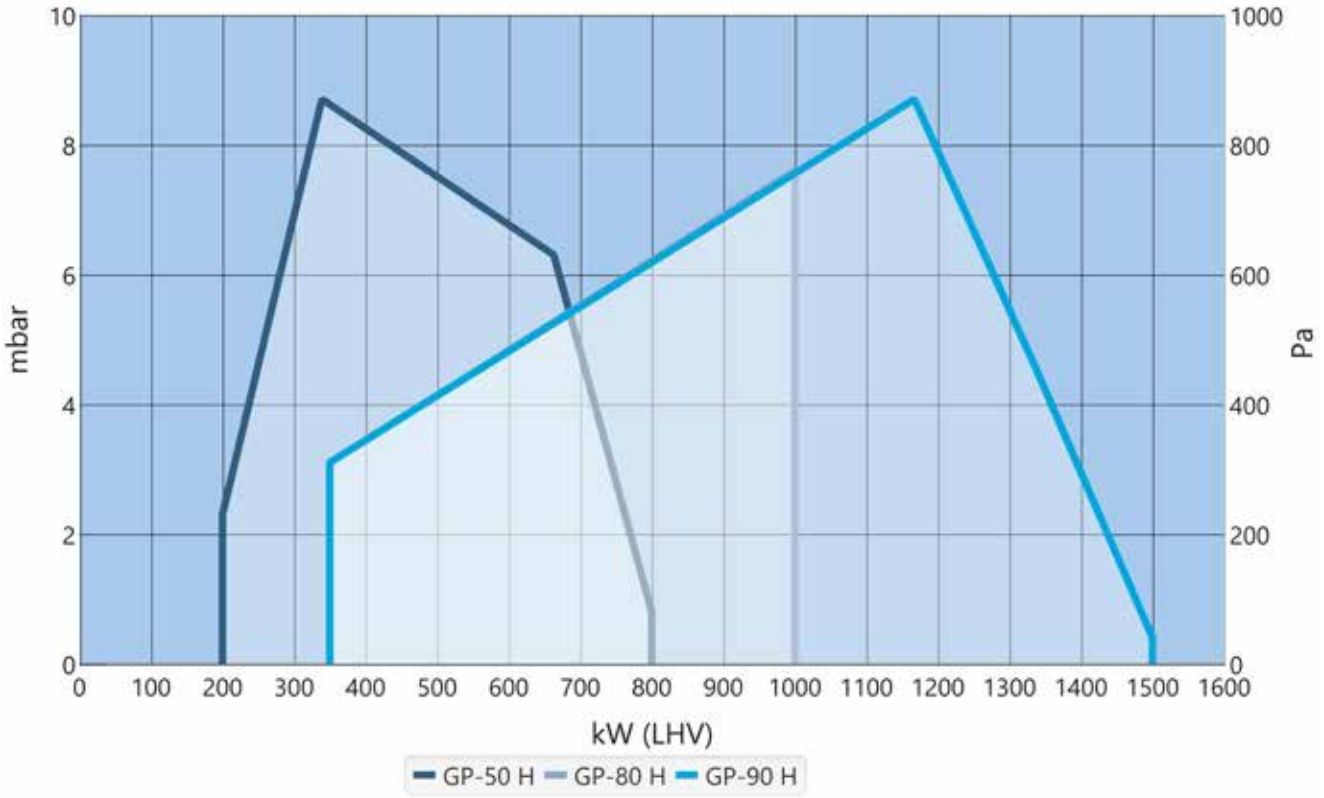


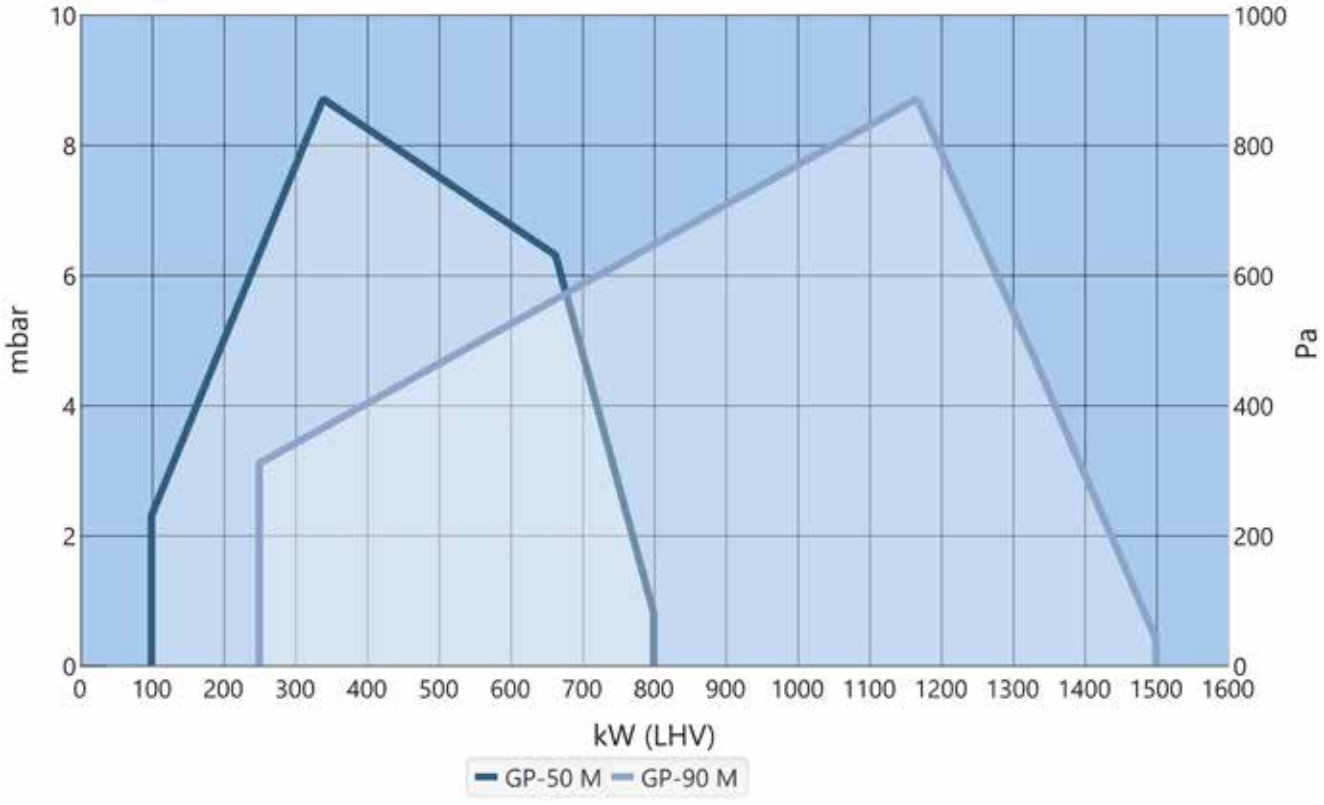
G = Gas inlet
E = Electrical connection

BURNER	L1	L2	L3	L4	H1	H2	H3	B1	B2	B3	B4	ØD1	R1	R2
GP-50 H	710	240	185	90	445	325	165	210	310	131	240	160	605	–
GP-80 H	690	300	120	65	480	330	182	246	360	155	272	200	665	640
GP-90 H	690	300	120	65	480	330	182	246	395	155	272	200	665	665
GP-50 M	745	240	185	90	510	325	165	210	310	131	240	160	635	–
GP-90 M	725	300	120	65	545	330	182	246	395	155	272	200	695	665

Dimensions in mm.

Working diagram



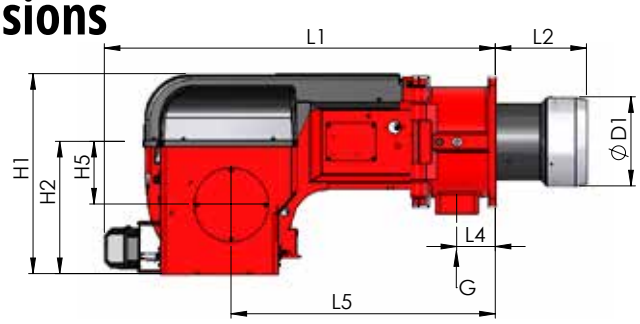


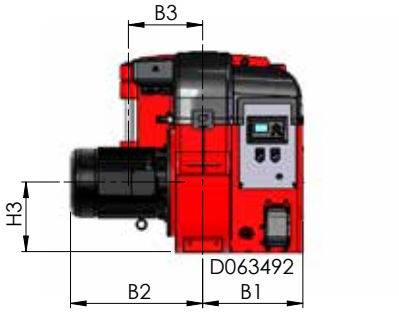
GP-140 - 280 M/H, GP-140 M - 280 M LN80

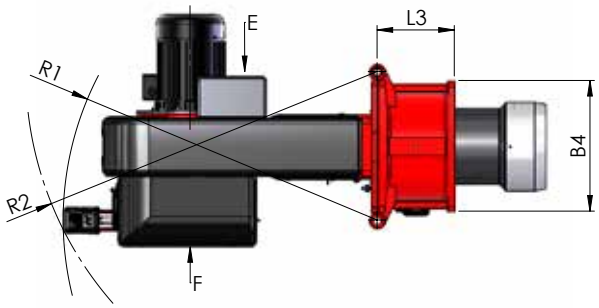
Technical data

BURNER	GP-140 H	GP-140 M	GP-150 M	GP-250 M	GP-280 M	GP-140 M LN80	GP-250 M LN80	GP-280 M LN80
Capacity, kW	410 - 2350	390 - 2350	450 - 2700	370 - 2600	500 - 3500	380 - 1700	350 - 2100	370 - 2700
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 4.0 7.2 2900	 4.0 7.2 2900	 5.5 9.8 2900	 5.5 9.8 2900	 7.5 13.0 2900	 4.0 7.2 2900	 7.5 13.0 2900	 7.5 13.0 2900
Control unit	LME	WD33/WDx00	WD33/WDx00	WD33/WDx00	WD33/WDx00	WD33/WDx00	WD33/WDx00	WD33/WDx00
NOx class	1	1	1	1	1	3	3	3
Weight, kg	110	121	130	160	210	125	165	215

Dimensions







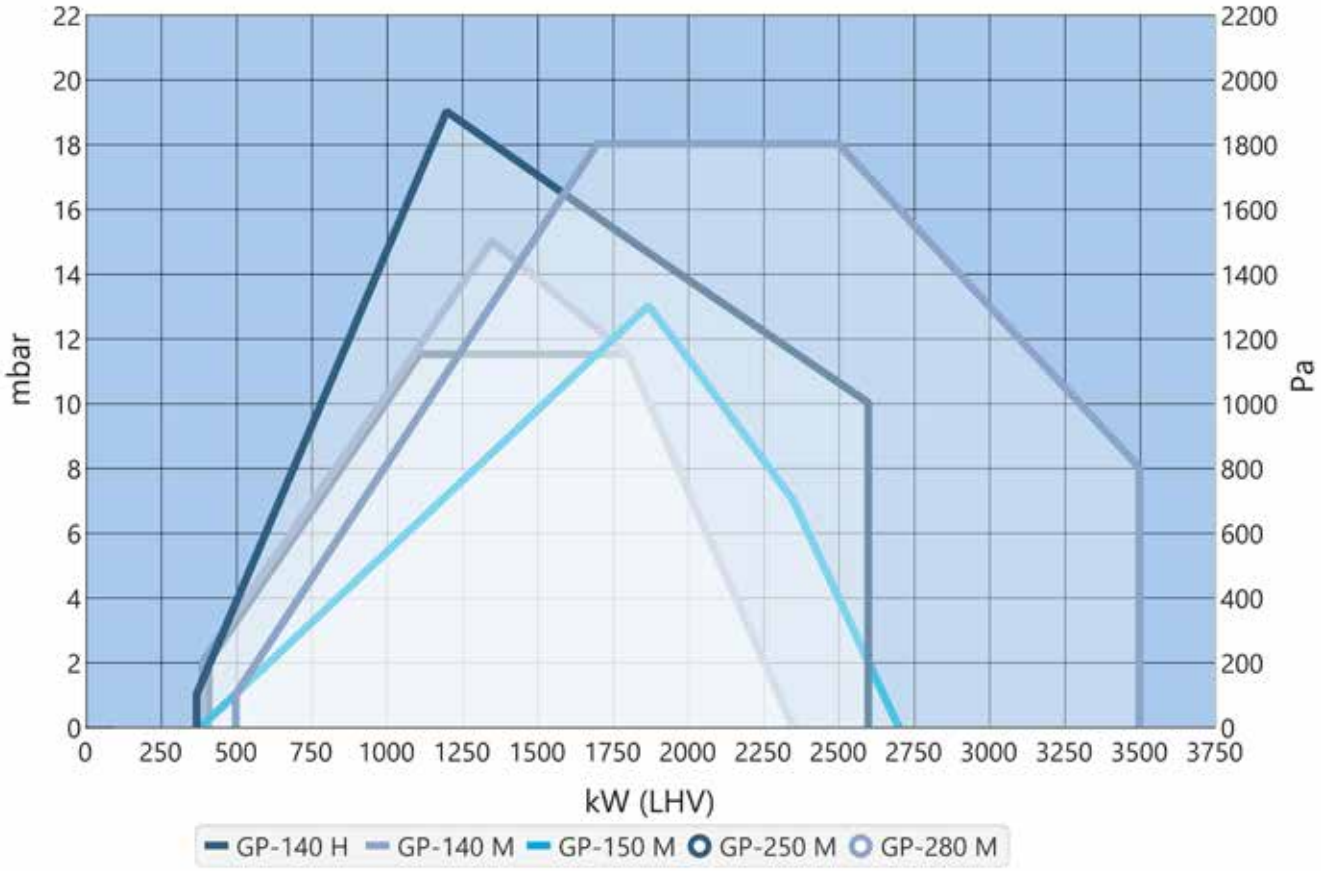
G = Gas inlet
E = Electrical connection
F = FGR – flue gas recirculation

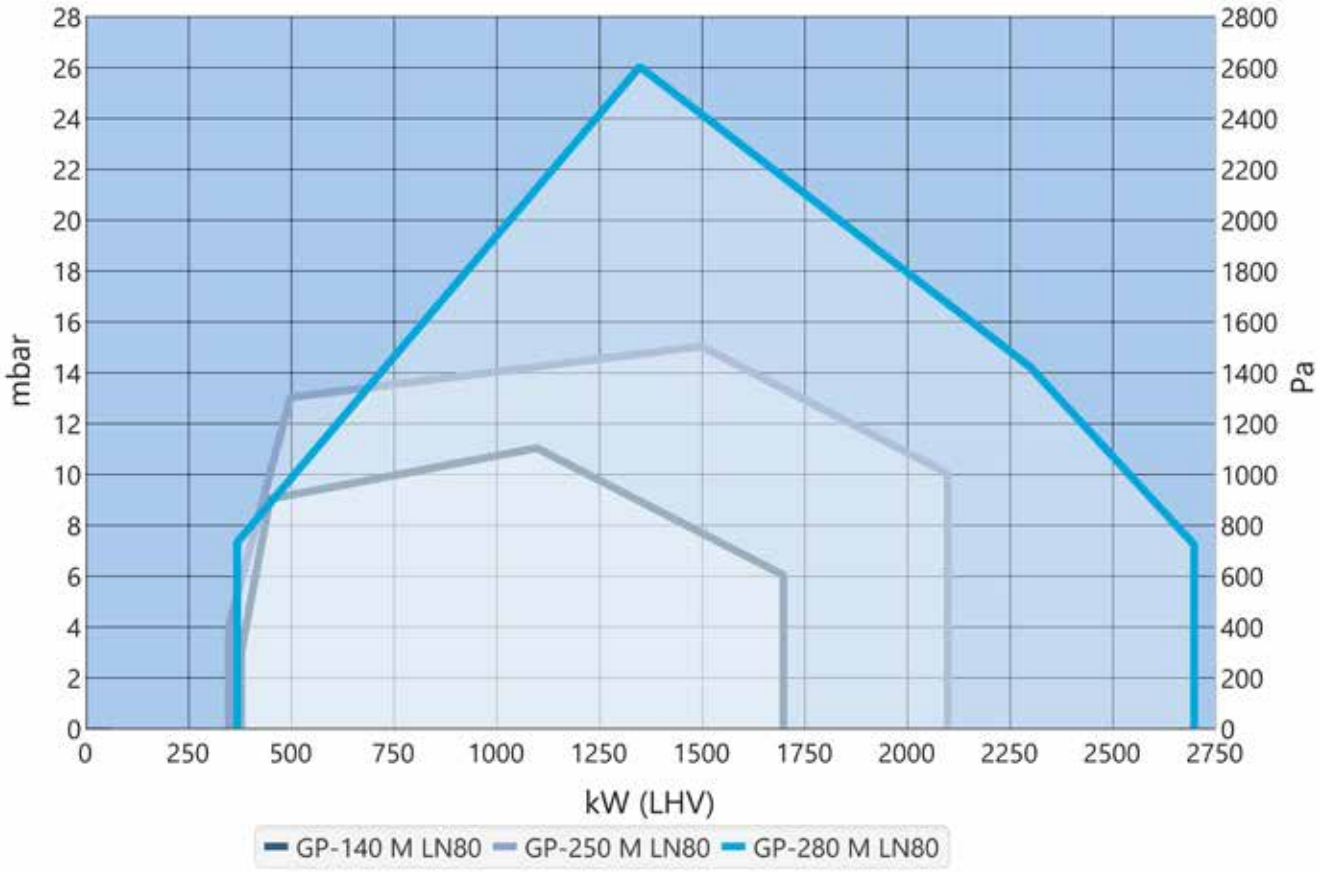
BURNER	L1	L2	L2		L3	L4	L5
			C1	C2			
GP-140 H	1230	220	–	–	260	129	880
GP-140 M	1285	220	–	–	260	129	880
GP-150 M	1285	230	–	–	260	129	880
GP-250 M	1320	300	–	–	260	130	890
GP-280 M	1320	312	–	–	260	130	890
GP-140 M LN80	1285	–	–	430	260	129	880
GP-250 M LN80	1320	–	420	550	260	130	890
GP-280 M LN80	1320	–	420	550	260	130	890

BURNER	H1	H2	H3	H5	B1	B2	B3	B4	ØD1	R1	R2
GP-140 H	625	400	210	195	305	430	210	360	240	1000	1000
GP-140 M	625	400	210	195	305	430	210	360	240	1050	1150
GP-150 M	625	400	210	195	305	480	210	360	270	1050	1150
GP-250 M	675	446	235	215	340	490	250	440	270	1100	1200
GP-280 M	675	446	235	215	340	490	250	440	300	1100	1200
GP-140 M LN80	625	400	210	195	305	430	210	360	240	1050	1150
GP-250 M LN80	675	446	235	215	340	490	250	440	256	1100	1200
GP-280 M LN80	675	446	235	215	340	490	250	440	276	1100	1200

Dimensions in mm.

Working diagram



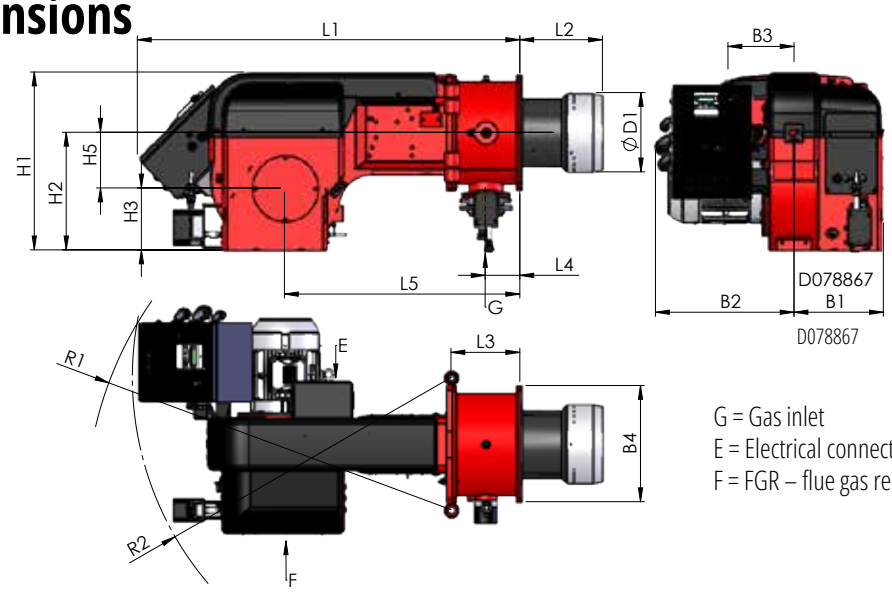


GP-140 M - 280 M, GP-140 M - 280 M LN80 with integrated control cabinet

Technical data

BURNER	GP-140 M	GP-150 M	GP-250 M	GP-280 M	GP-140 M LN80	GP-250 M LN80	GP-280 M LN80
Capacity, kW	390 - 2350	450 - 2700	370 - 2600	500 - 3500	380 - 1700	350 - 2100	370 - 2700
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 4.0 7.2 2900	 5.5 9.8 2900	 5.5 9.8 2900	 7.5 13.0 2900	 4.0 7.2 2900	 7.5 13.0 2900	 7.5 13.0 2900
Control unit	WD200i/WD600i	WD200i/WD600i	WD200i/WD600i	WD200i/WD600i	WD200i/WD600i	WD200i/WD600i	WD200i/WD600i
NOx class	1	1	1	1	3	3	3
Weight, kg	121	130	160	210	125	165	215

Dimensions



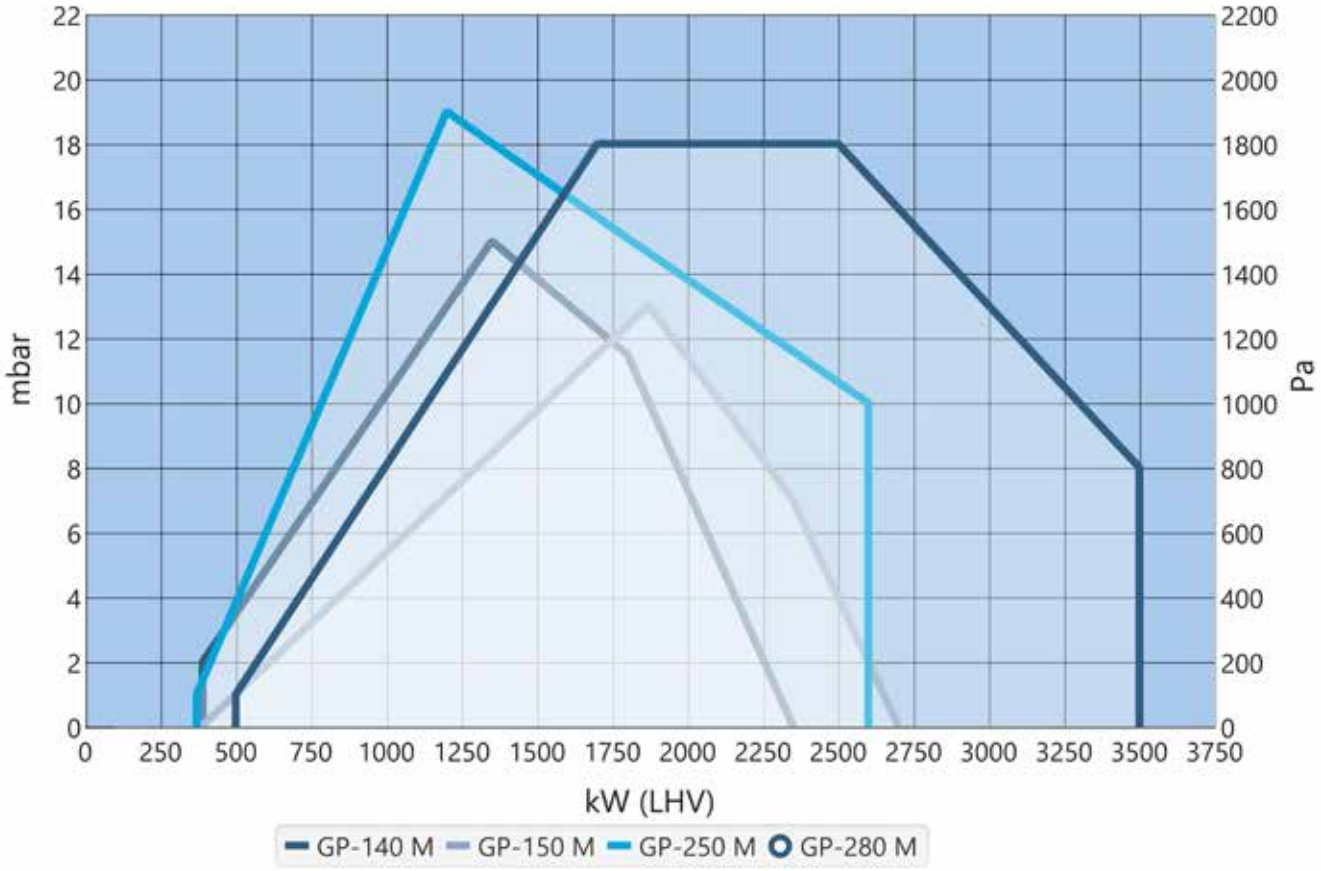
G = Gas inlet
E = Electrical connection
F = FGR – flue gas recirculation

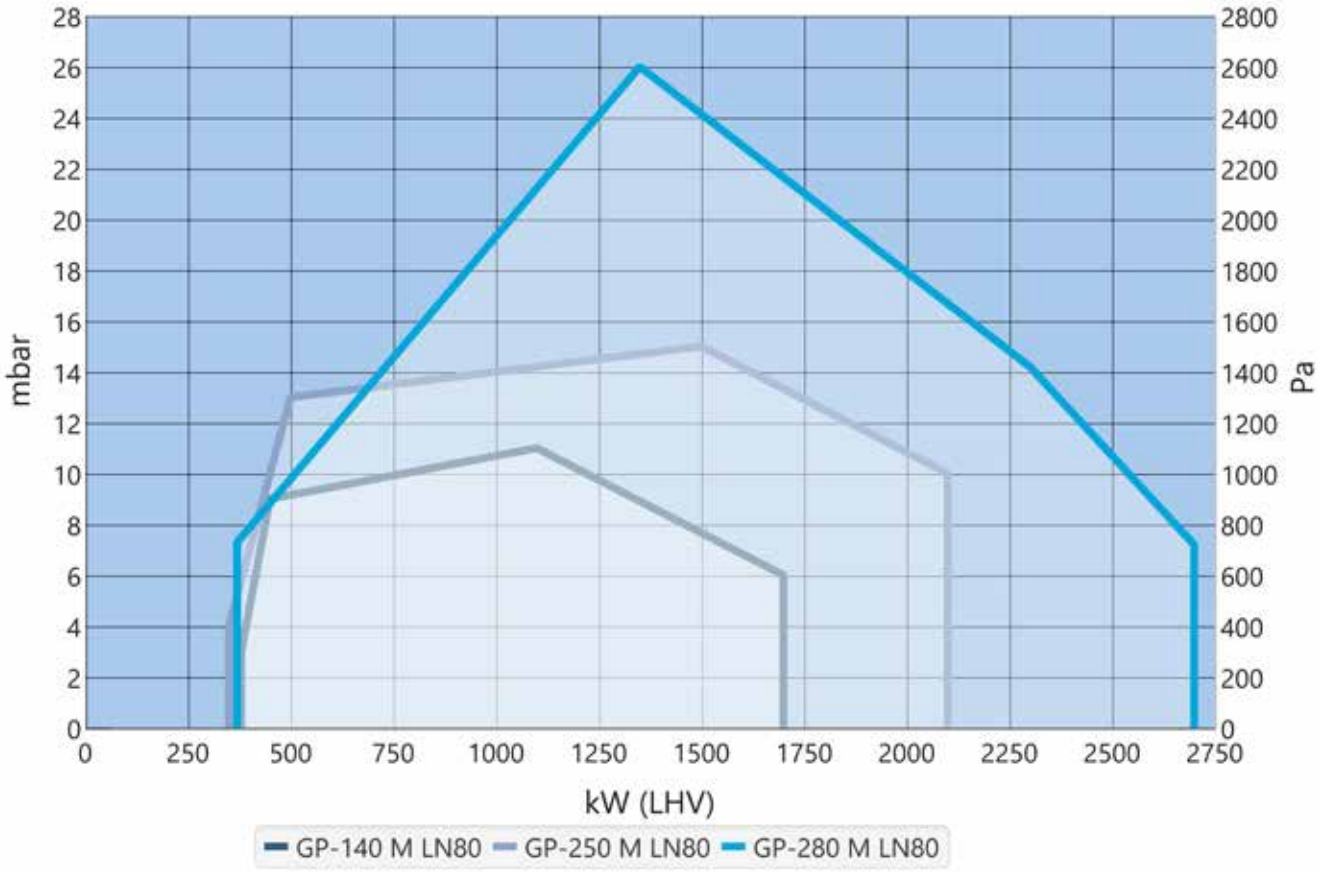
BURNER	L1	L2	L2		L3	L4	L5
			C1	C2			
GP-140 M	1390	220	–	–	260	129	880
GP-150 M	1390	230	–	–	260	129	880
GP-250 M	1450	300	–	–	260	130	890
GP-280 M	1450	312	–	–	260	130	890
GP-140 M LN80	1390	–	–	430	260	129	880
GP-250 M LN80	1450	–	420	550	260	130	890
GP-280 M LN80	1450	–	420	550	260	130	890

BURNER	H1	H2	H3	H5	B1	B2	B3	B4	ØD1	R1	R2
GP-140 M	625	400	210	195	305	465	210	360	240	1310	1155
GP-150 M	625	400	210	195	305	480	210	360	270	1310	1155
GP-250 M	670	446	235	215	340	490	250	440	270	1380	1205
GP-280 M	670	446	235	215	340	490	250	440	300	1380	1205
GP-140 M LN80	625	400	210	195	305	465	210	360	240	1270	1150
GP-250 M LN80	670	446	235	215	340	490	250	440	256	1320	1200
GP-280 M LN80	670	446	235	215	340	490	250	440	276	1320	1200

Dimensions in mm.

Working diagram





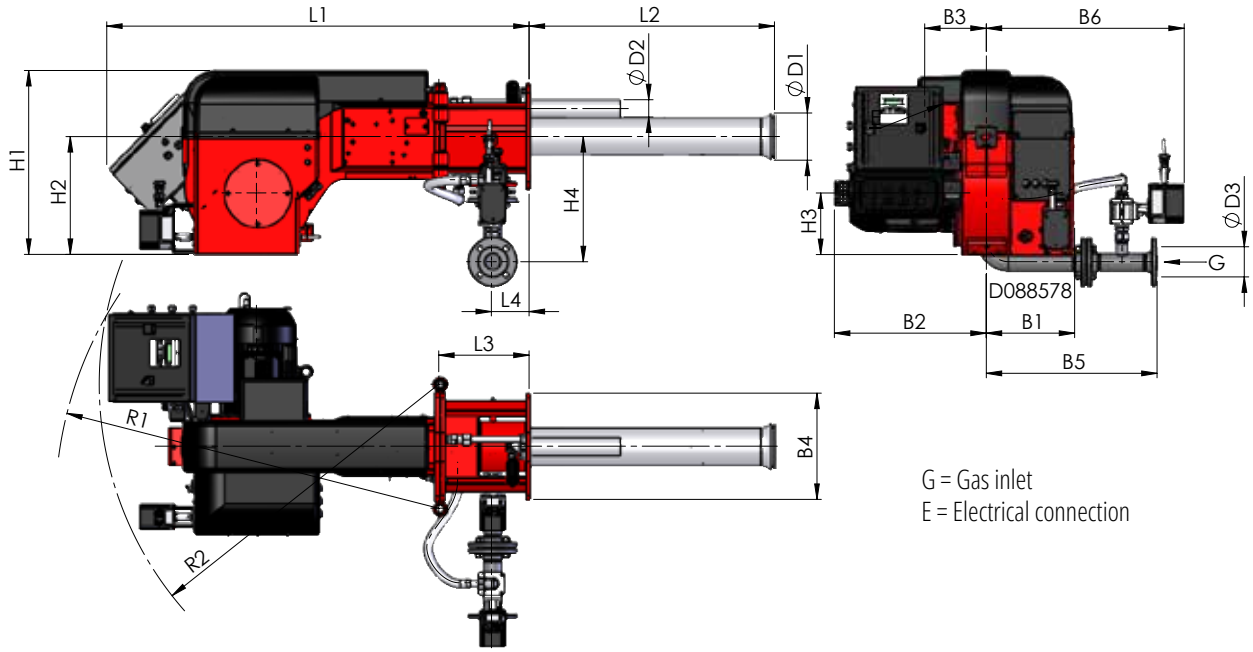
GP-130 M, GP-250 M LN30

Technical data

BURNER	GP-130 M LN30	GP-250 M LN30
Capacity, kW	260 - 915	495 - 1940
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Speed, rpm, max.*	 5.5 9.8 3520	 7.5 10.9 3520
Control unit	WD200i	WD200i
NOx class	4	4
Weight, kg	154	192

*Variable speed drive required

Dimensions



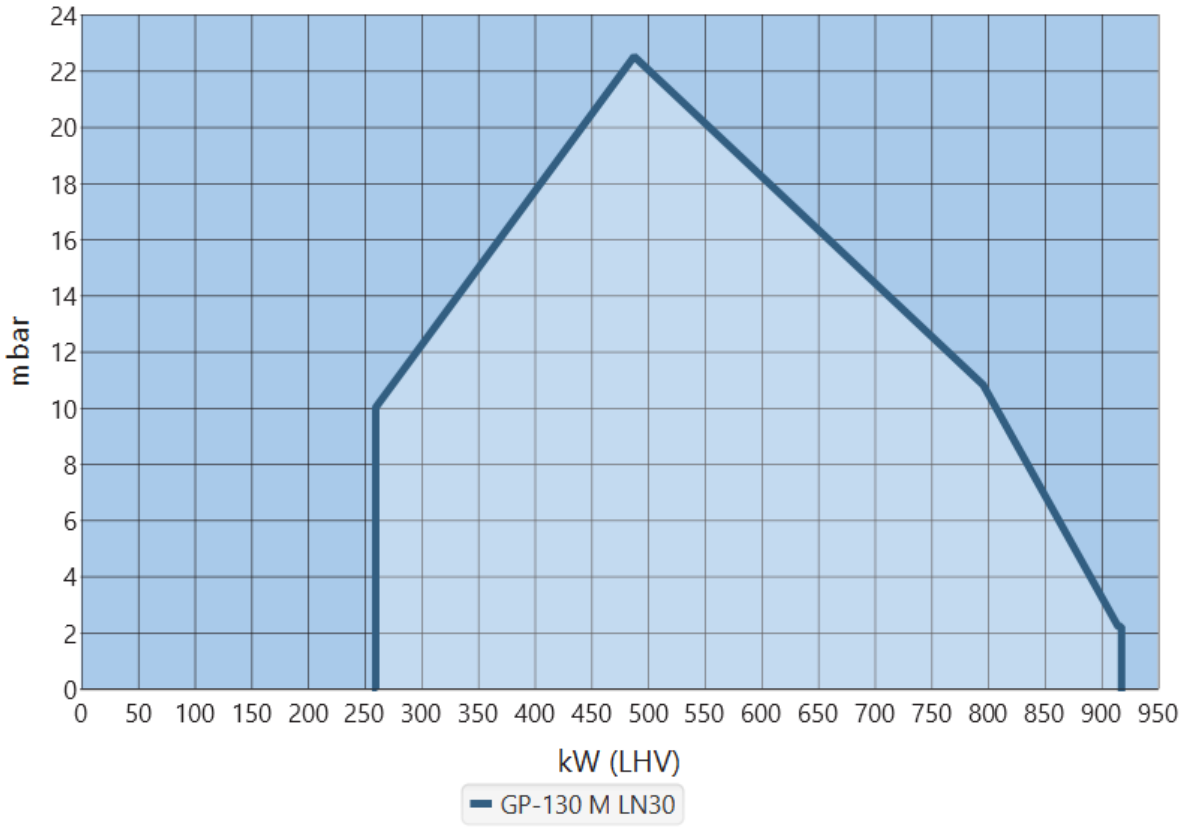
G = Gas inlet
E = Electrical connection

BURNER	L1	L2	L3	L4
GP-130 M LN30	1440	832	308	129
GP-250 M LN30	1500	1045	368	246

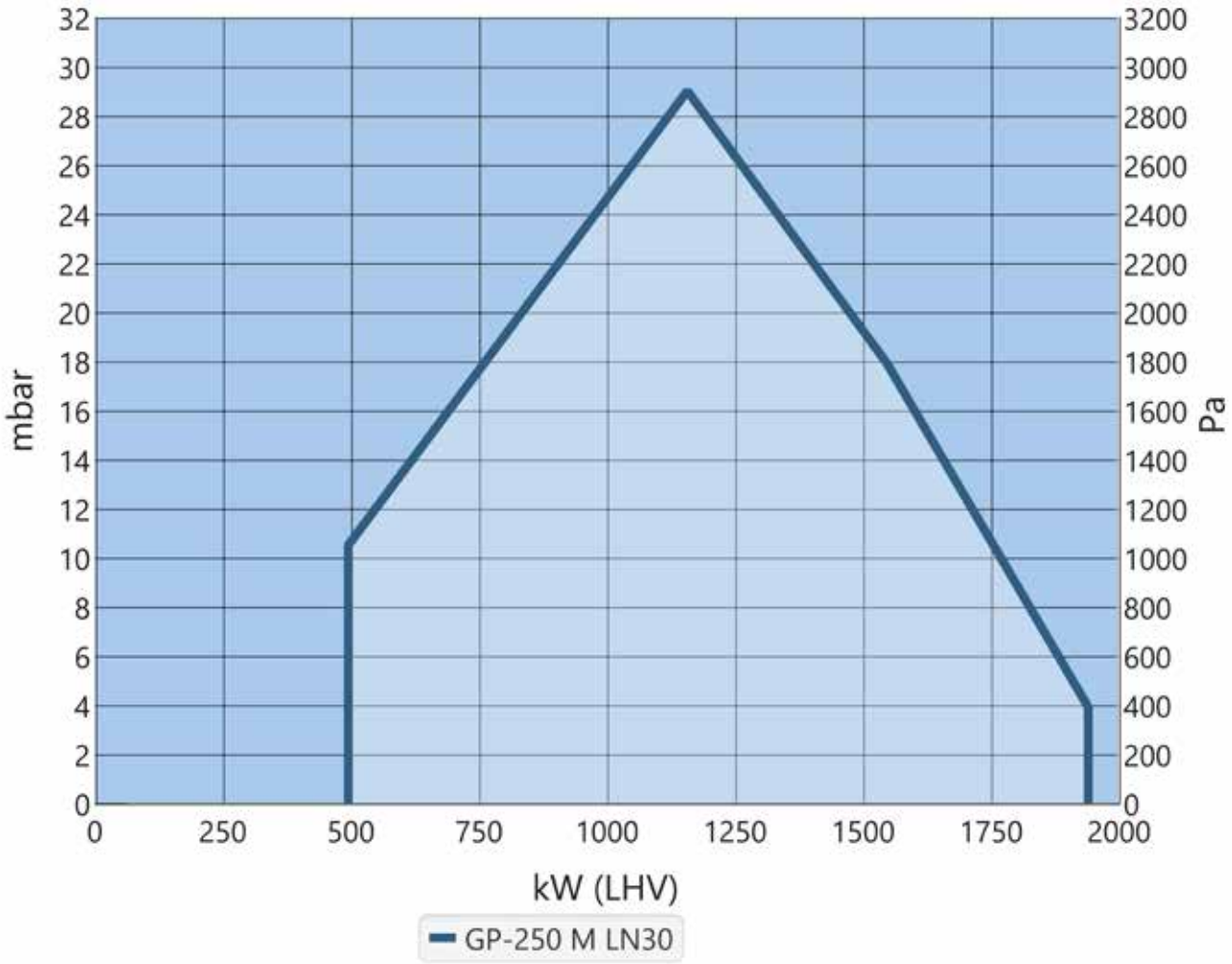
BURNER	H1	H2	H3	H4	B1	B2	B3	B4	B5	B6	ØD1	ØD2	ØD3	R1	R2
GP-130 M LN30	625	400	210	424	302	520	210	360	583	675	160	60	DN50	1310	1160
GP-250 M LN30	675	446	235	569	338	530	250	440	517	553	250	60	DN80	1360	1210

Dimensions in mm.

Working diagram



NO_x emissions, the required residual O2 level, and the working diagram vary depending on the conditions and the furnace geometry. Please check the detailed working diagram for your application from Oilon Selection Tool.



NO_x emissions, the required residual O2 level, and the working diagram vary depending on the conditions and the furnace geometry. Please check the detailed working diagram for your application from Oilon Selection Tool.

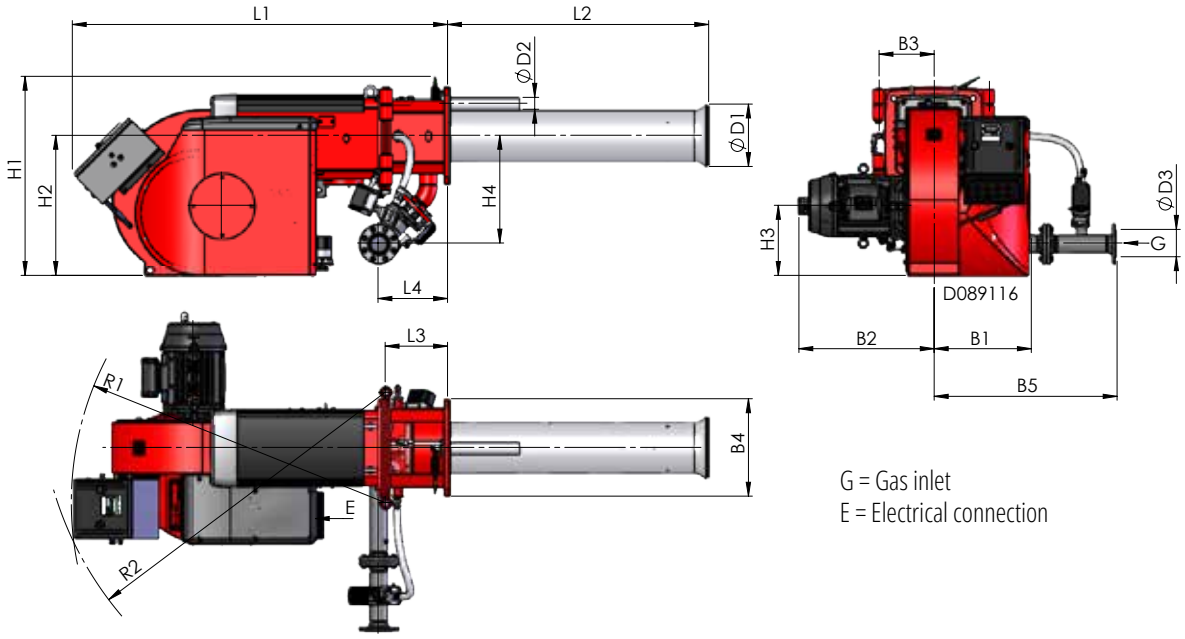
GP-320 M LN30

Technical data

BURNER	GP-320 M LN30
Capacity, kW	670 - 3130
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Speed, rpm, max.*	 11 19.5 3800
Control unit	WD200i
NOx class	4
Weight, kg	533

*Variable speed drive required

Dimensions



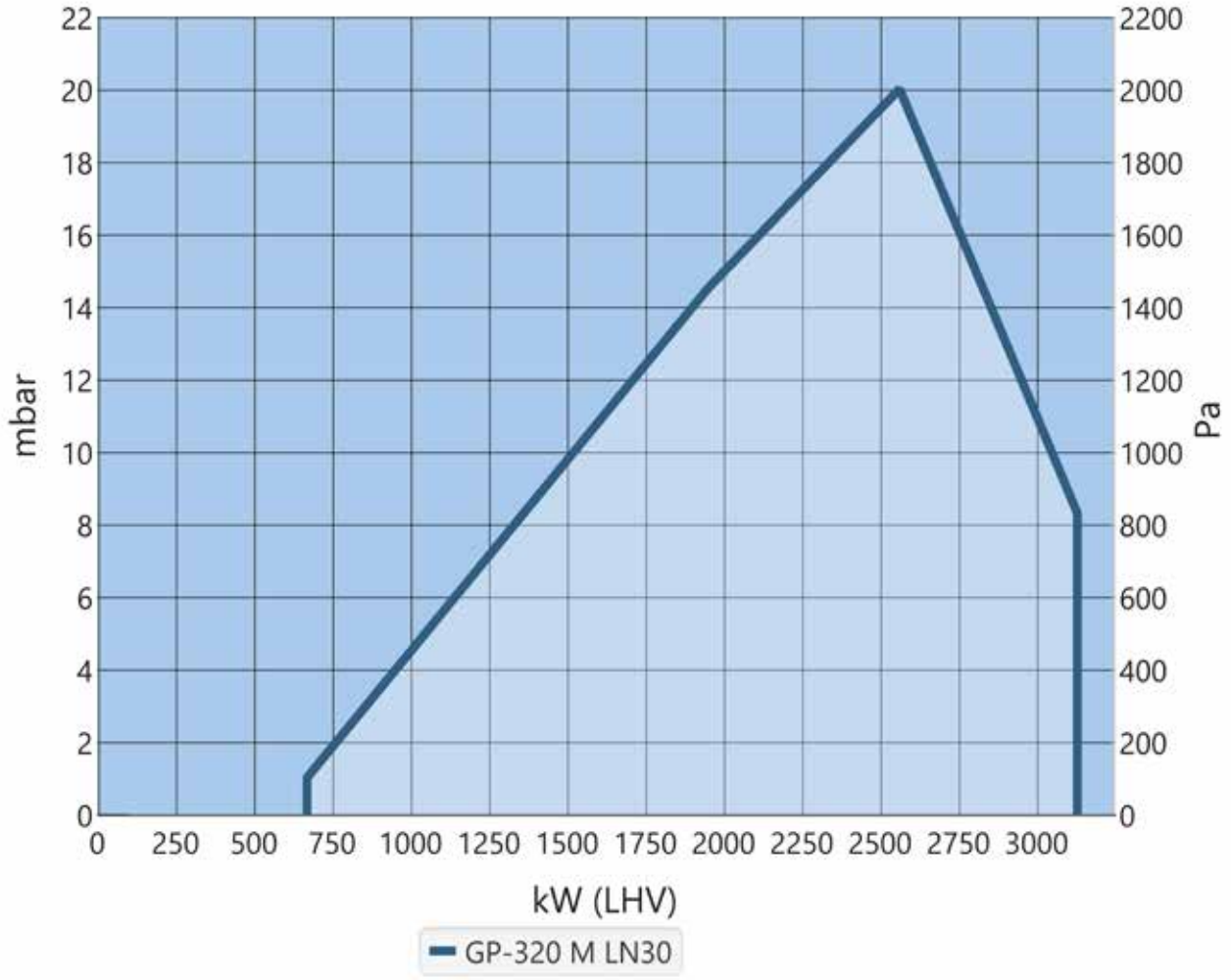
G = Gas inlet
E = Electrical connection

BURNER	L1	L2	L3	L4
GP-320 M LN30	1890	1315	314	350

BURNER	H1	H2	H3	H4	B1	B2	B3	B4	B5	ØD1	ØD2	ØD3	R1	R2
GP-320 M LN30	1005	705	355	542	490	685	278	490	920	314	60	DN80	1580	1740

Dimensions in mm.

Working diagram



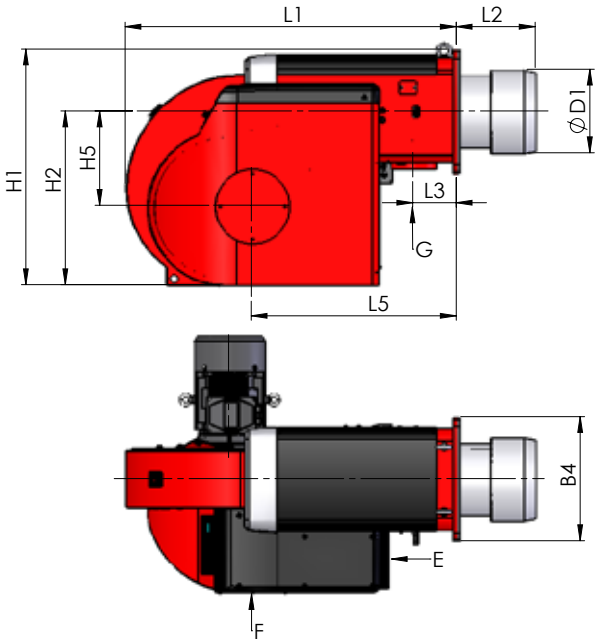
NO_x emissions, the required residual O2 level, and the working diagram vary depending on the conditions and the furnace geometry. Please check the detailed working diagram for your application from Oilon Selection Tool.

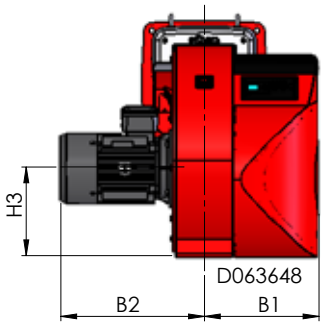
GP-350/450 M, GP-320 M - 450 M LN80

Technical data

BURNER	GP-350 M	GP-450 M	GP-320 M LN80	GP-350 M LN80	GP-450 M LN80
Capacity, kW	700 - 4250	850 - 5500	530 - 3200	910 - 4000	930 - 5200
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 7.5 13.0 2900	 11.0 19.5 2900	 7.5 13.0 2900	 7.5 13.0 2900	 15.0 26 2900
Control unit	WD33/WDx00	WD33/WDx00	WD33/WDx00	WD33/WDx00	WD33/WDx00
NOx class	2	1	3	3	3
Weight, kg	320	450	320	325	464

Dimensions



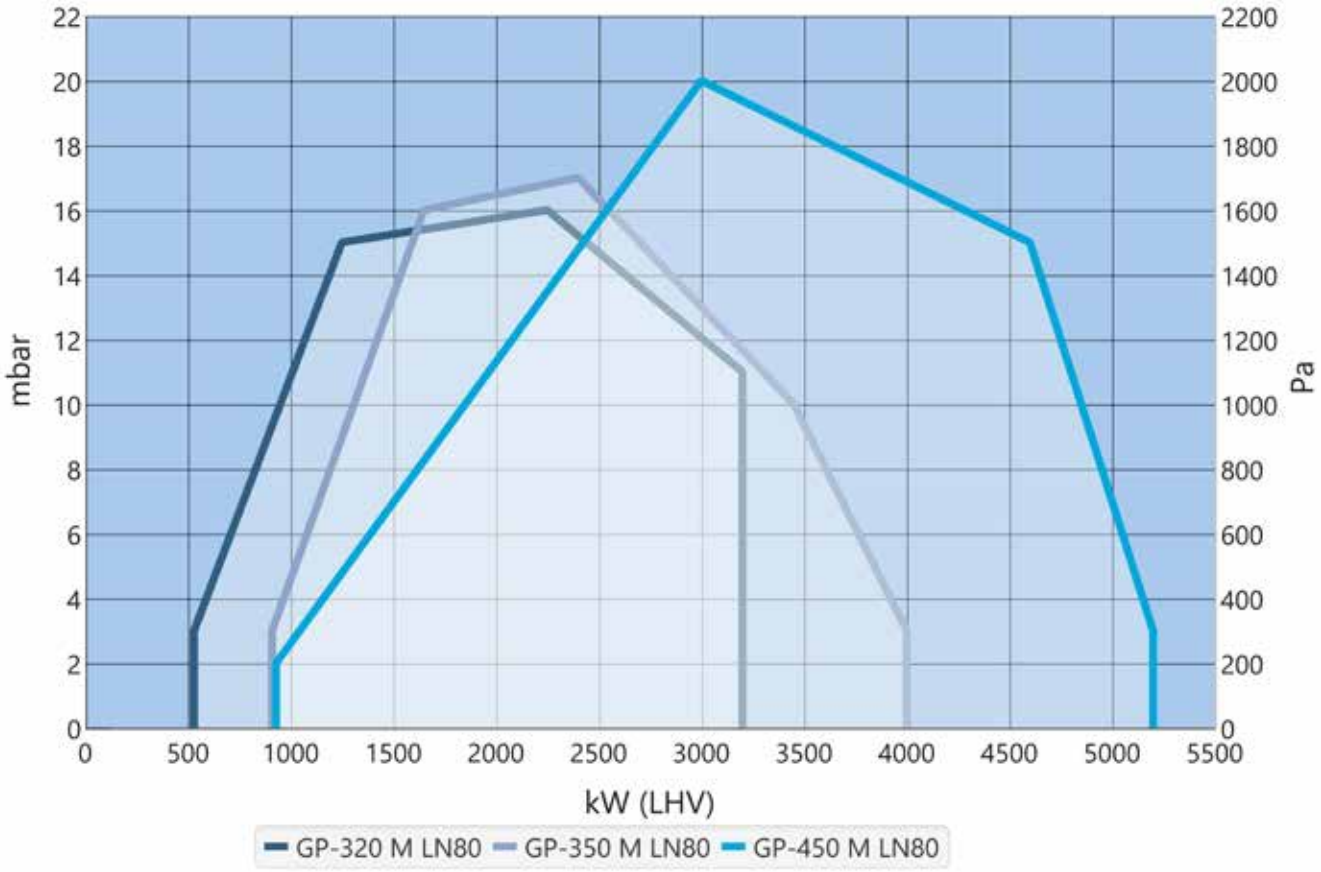


G = Gas inlet
E = Electrical connection
F = FGR – flue gas recirculation

BURNER	L1	L2	L3	L5	H1	H2	H3	H5	B1	B2	B4	ØD1
GP-350 M	1360	350	195	810	940	695	355	345	490	580	490	320
GP-450 M	1470	350	195	910	1050	770	395	420	510	650	550	370
GP-320 M LN80	1360	500	195	810	940	695	355	345	490	490	490	302
GP-350 M LN80	1360	480	195	810	940	695	355	345	490	580	490	324
GP-450 M LN80	1470	480	195	910	1050	770	395	420	510	650	550	324

Dimensions in mm.

Working diagram

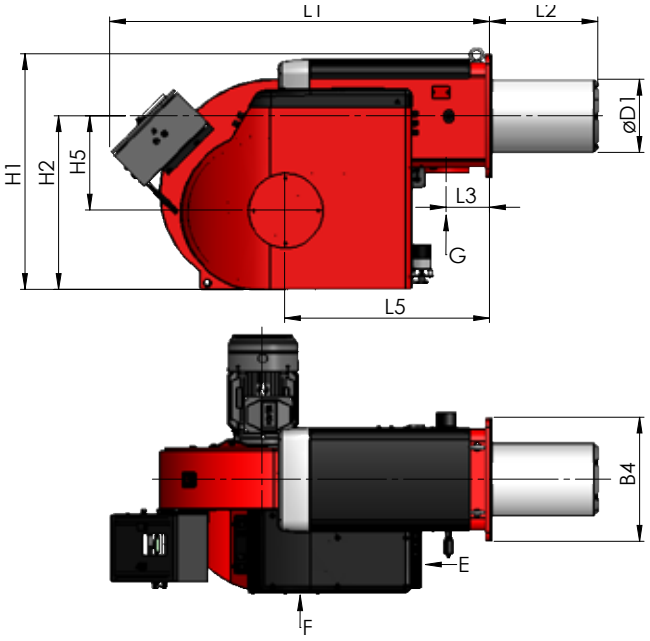


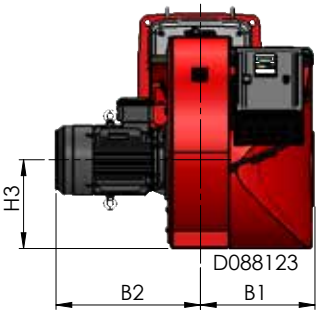
GP-320 M - 450 M LN80
integrated control cabinet

Technical data

BURNER	GP-320 M LN80	GP-350 M LN80	GP-450 M LN80
Capacity, kW	530 - 3200	910 - 4000	930 - 5200
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 7.5 13.0 2900	 7.5 13.0 2900	 15.0 26 2900
Control unit	WD200i/WD600i	WD200i/WD600i	WD200i/WD600i
NOx class	3	3	3
Weight, kg	320	325	464

Dimensions



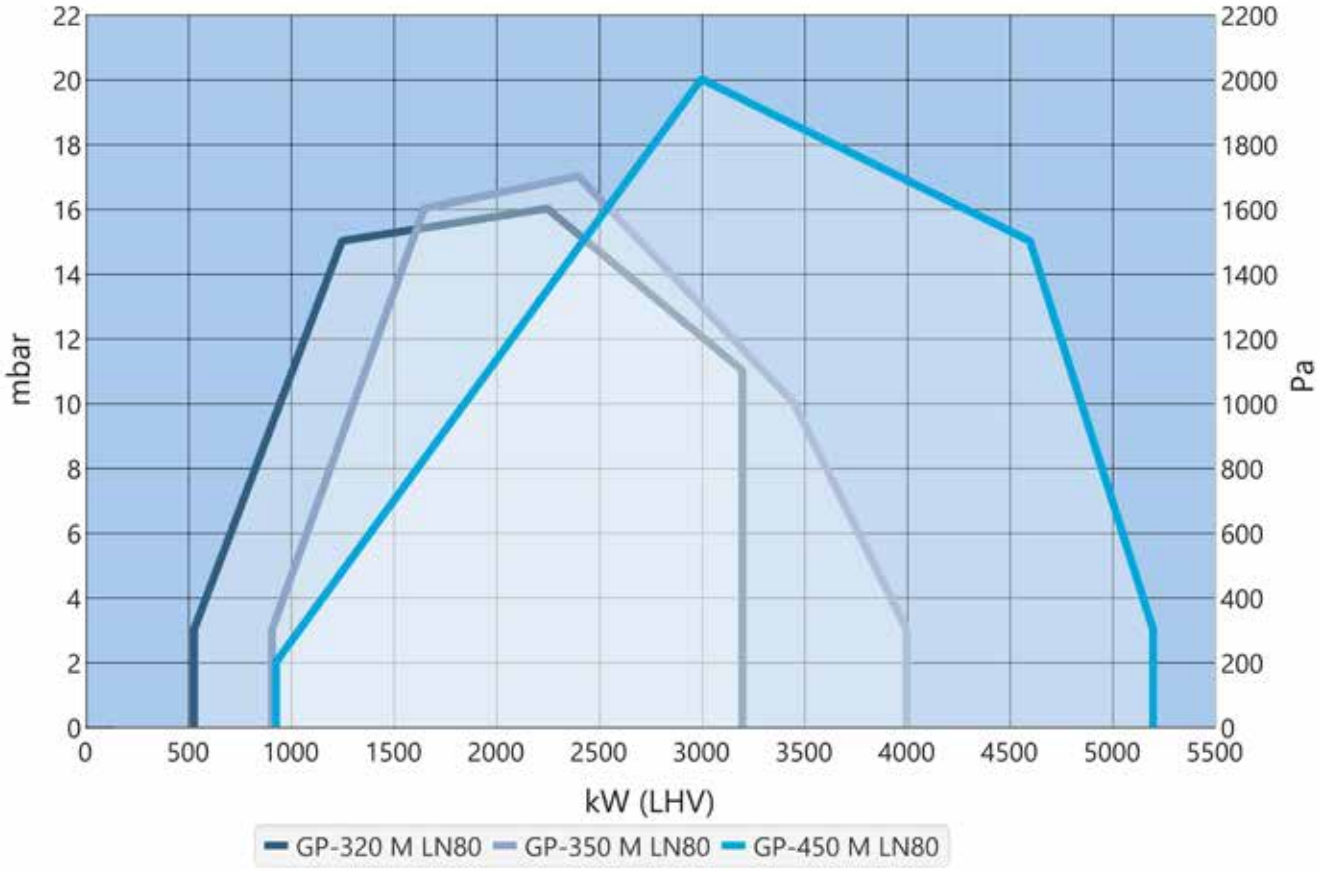


G = Gas inlet
E = Electrical connection
F = FGR – flue gas recirculation

BURNER	L1	L2	L3	L5	H1	H2	H3	H5	B1	B2	B4	ØD1
GP-320 M LN80	1550	500	195	810	940	695	355	345	490	490	490	302
GP-350 M LN80	1550	480	195	810	940	695	355	345	490	580	490	324
GP-450 M LN80	1685	480	195	910	1050	770	395	420	510	650	550	324

Dimensions in mm.

Working diagram

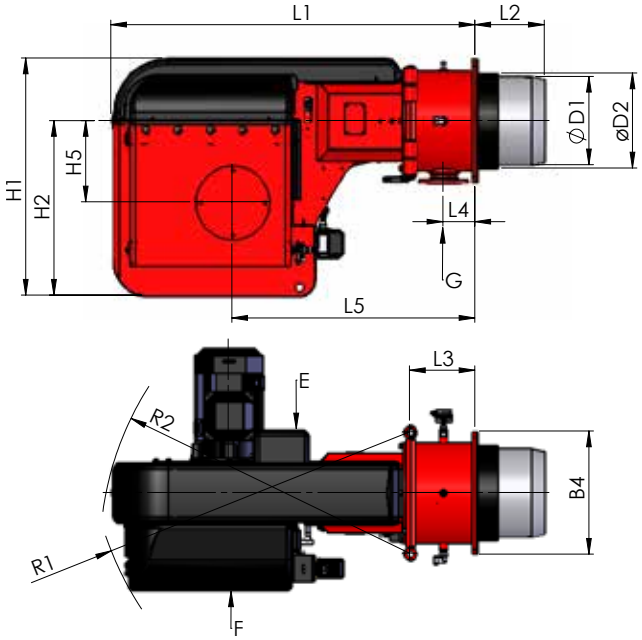


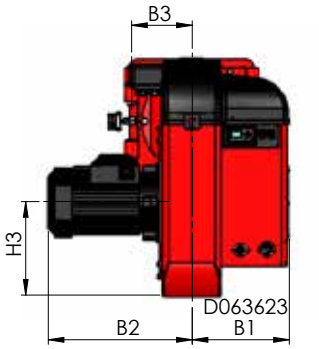
GP-500 M - 700 M-III

Technical data

BURNER	GP-500 M	GP-600 M	GP-700 M	GP-700 M-II	GP-700 M-III
Capacity, kW	870 - 6070	970 - 6750	1200 - 8400	1350 - 9500	1500 - 10500
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 11.0 19.5 2900	 15.0 26.0 2900	 18.5 34.0 2900	 22.0 38.0 2900	 30.0 52.0 2900
Control unit	WD33/WDx00	WD33/WDx00	WD33/WDx00	WD33/WDx00	WD33/WDx00
NOx class	1	1	1	1	1
Weight, kg	450	460	535	565	675

Dimensions





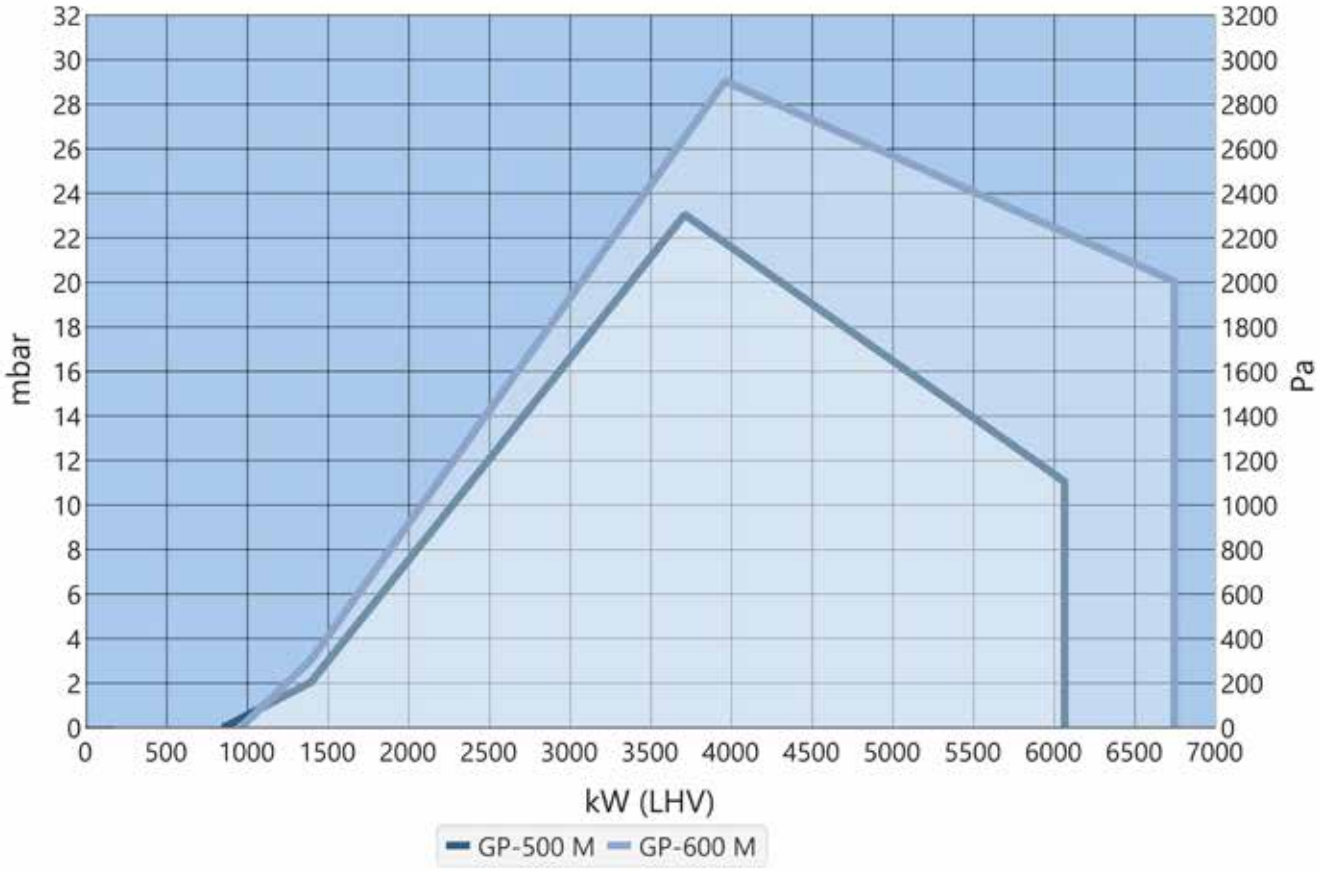
G = Gas inlet
E = Electrical connection
F = FGR – flue gas recirculation

BURNER	L1	L2	L3	L4	L5
GP-500 M	1650	290	295	145	1090
GP-600 M	1650	310	295	145	1090
GP-700 M	1650	310	295	145	1200
GP-700 M-II	1650	310	295	145	1200
GP-700 M-III	1650	400	295	145	1200

BURNER	H1	H2	H3	H5	B1	B2	B3	B4	ØD1	ØD2	R1	R2
GP-500 M	1060	780	420	365	435	645	270	550	370	425	1440	1400
GP-600 M	1060	780	420	365	435	645	270	550	395	425	1440	1400
GP-700 M	1060	780	420	335	490	700	270	550	395	425	1460	1400
GP-700 M-II	1060	780	420	335	490	760	270	550	395	425	1460	1400
GP-700 M-III	1060	780	420	335	490	845	270	550	425	–	1460	1400

Dimensions in mm.

Working diagram



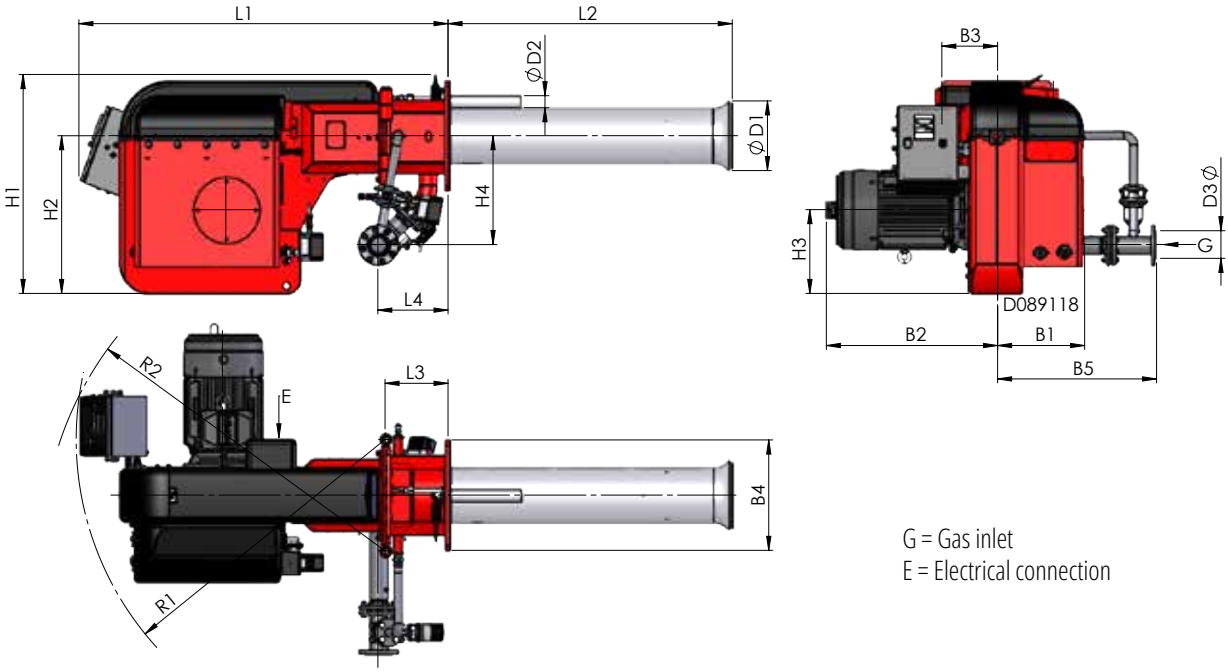
GP-600 M, GP-600 M-II LN30

Technical data

BURNER	GP-600 M LN30	GP-600 M-II LN30
Capacity, kW	1160 - 4850	1280 - 7020
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Speed, rpm, max.*	 22 38 3520	 37 65 4100
Control unit	WD200i	WD200i
NOx class	4	4
Weight, kg	500	660

*Variable speed drive required

Dimensions



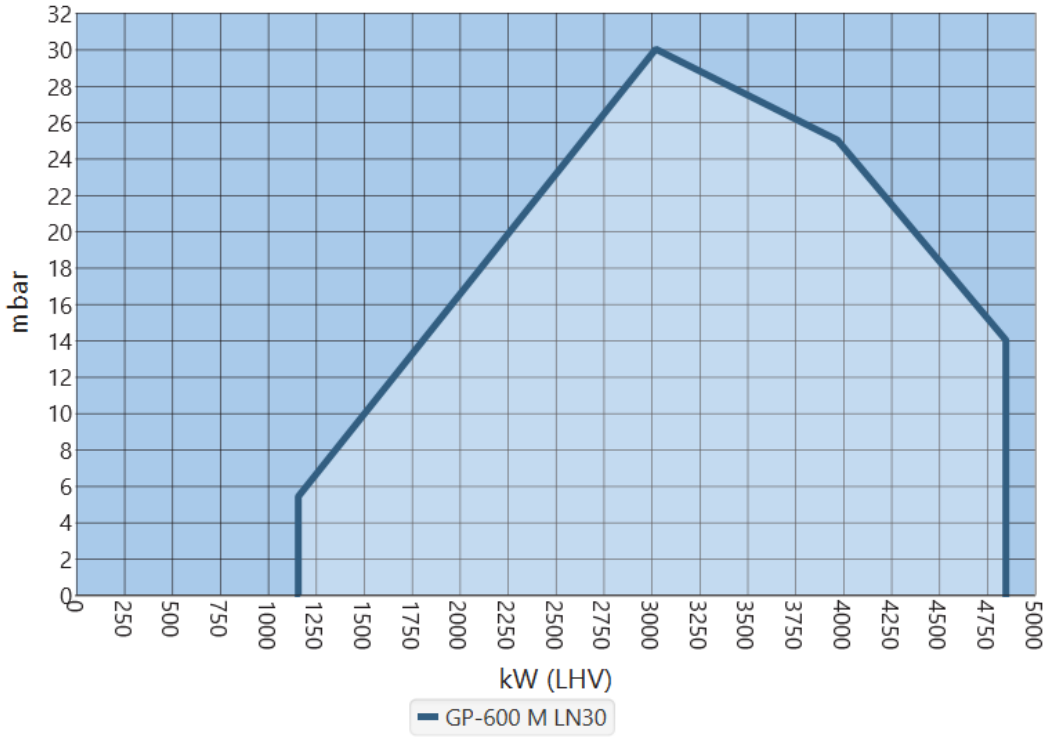
G = Gas inlet
E = Electrical connection

BURNER	L1	L2	L3	L4
GP-600 M LN30	1840	1417	314	350
GP-600 M-II LN30	1840	1417	314	350

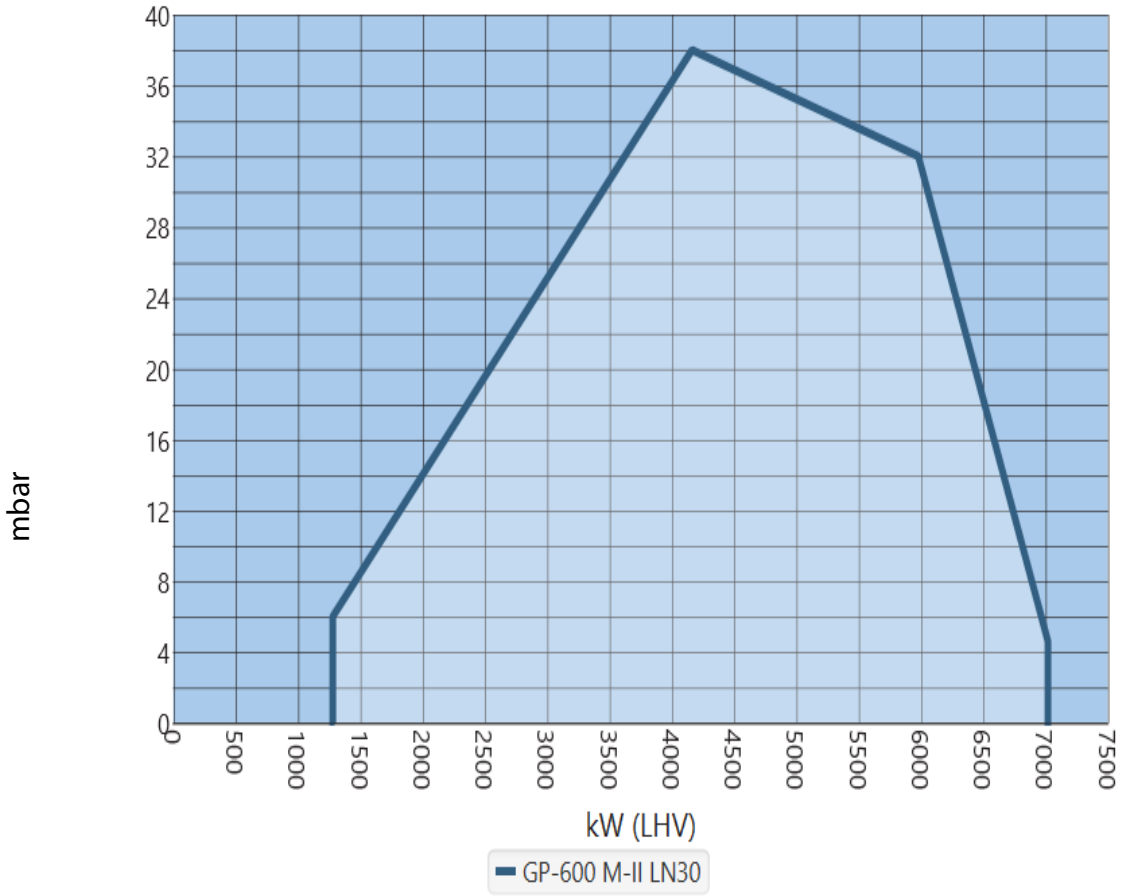
BURNER	H1	H2	H3	H4	B1	B2	B3	B4	B5	ØD1	ØD2	ØD3	R1	R2
GP-600 M LN30	1090	786	418	542	434	755	278	550	793	347	60	DN80	1540	1710
GP-600 M-II LN30	1090	786	418	542	434	855	278	550	793	347	60	DN80	1540	1710

Dimensions in mm.

Working diagram



NOx emissions, the required residual O2 level, and the working diagram vary depending on the conditions and the furnace geometry. Please check the detailed working diagram for your application from Oilon Selection Tool.



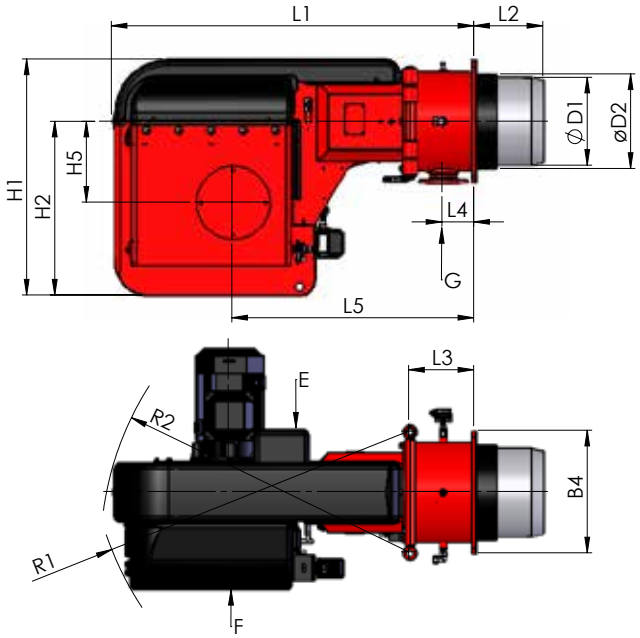
NOx emissions, the required residual O2 level, and the working diagram vary depending on the conditions and the furnace geometry. Please check the detailed working diagram for your application from Oilon Selection Tool.

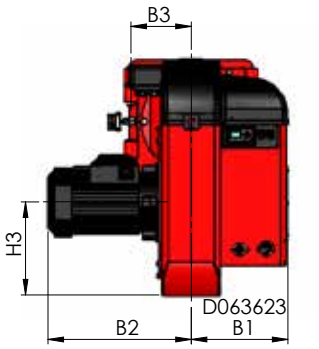
GP-600 M - 700 M-III LN60, GP-600 M - 700 M-III LN80

Technical data

BURNER	GP-600 M LN60	GP-700 M-III LN60	GP-600 M LN80	GP-700 M-II LN80	GP-700 M-III LN80
Capacity, kW	800 - 6500	1370 - 7500	950 - 6700	1200 - 7600	1500 - 8800
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 18.5 34.0 2900	 30.0 52.0 2900	 15.0 26.0 2900	 22.0 38.0 2900	 30.0 52.0 2900
Control unit	WDx00	WDx00	WD33/WDx00	WD33/WDx00	WD33/WDx00
NOx class	4	4	3	3	3
Weight, kg	485	685	465	680	700

Dimensions





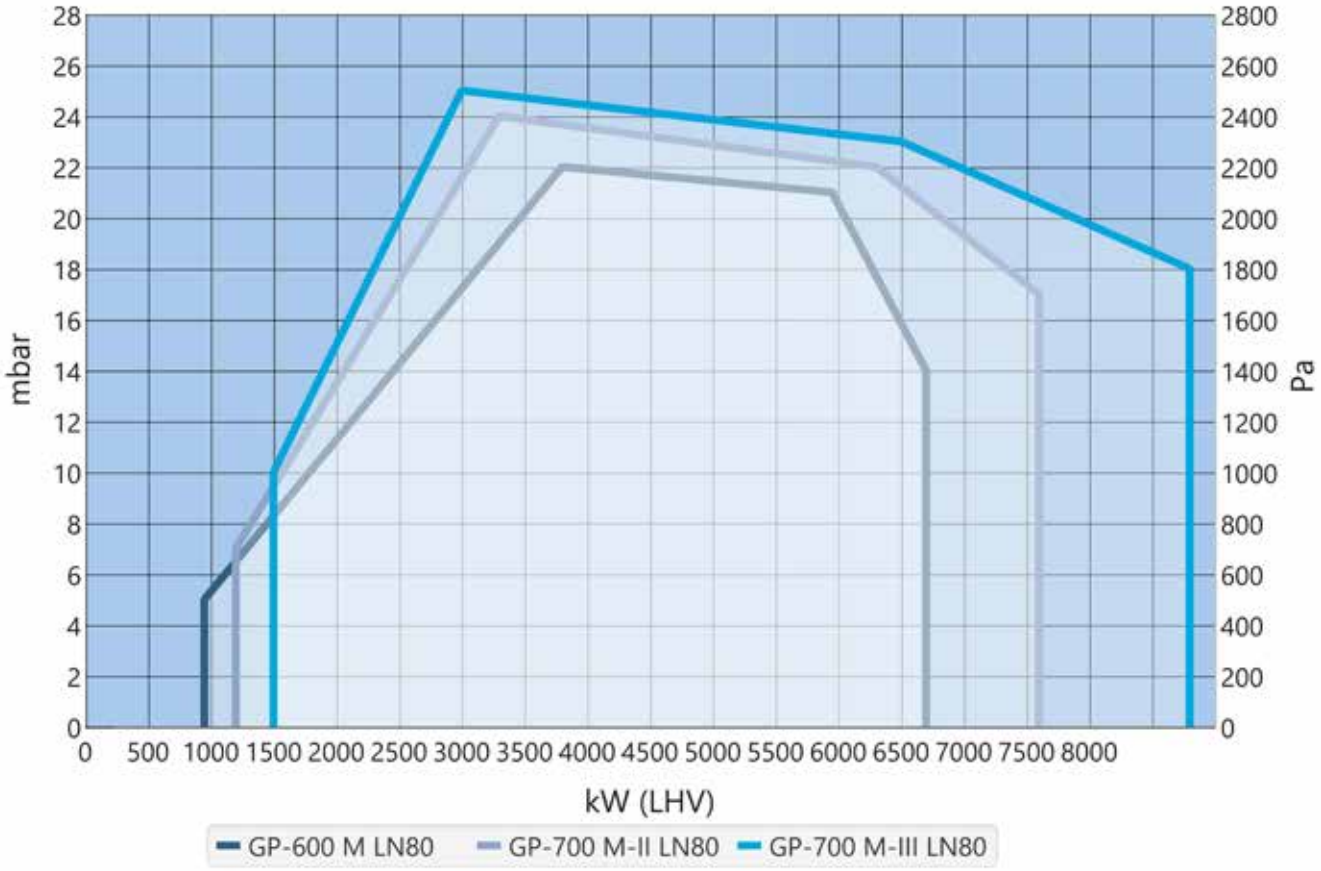
G = Gas inlet
E = Electrical connection
F = FGR – flue gas recirculation

BURNER	L1	L2	L3	L4	L5
GP-600 M LN60	1650	530	295	145	1090
GP-700 M-III LN60	1650	610	295	145	1200
GP-600 M LN80	1650	530	295	145	1090
GP-700 M-II LN80	1650	530	295	145	1200
GP-700 M-III LN80	1650	610	295	145	1200

BURNER	H1	H2	H3	H5	B1	B2	B3	B4	ØD1	ØD2	R1	R2
GP-600 M LN60	1060	780	420	365	435	645	270	550	408	–	1440	1400
GP-700 M-III LN60	1060	780	420	335	490	845	270	550	445	–	1460	1400
GP-600 M LN80	1060	780	420	365	435	645	270	550	384	–	1440	1400
GP-700 M-II LN80	1060	780	420	335	490	760	270	550	406	–	1460	1400
GP-700 M-III LN80	1060	780	420	335	490	845	270	550	406	–	1460	1400

Dimensions in mm.

Working diagram

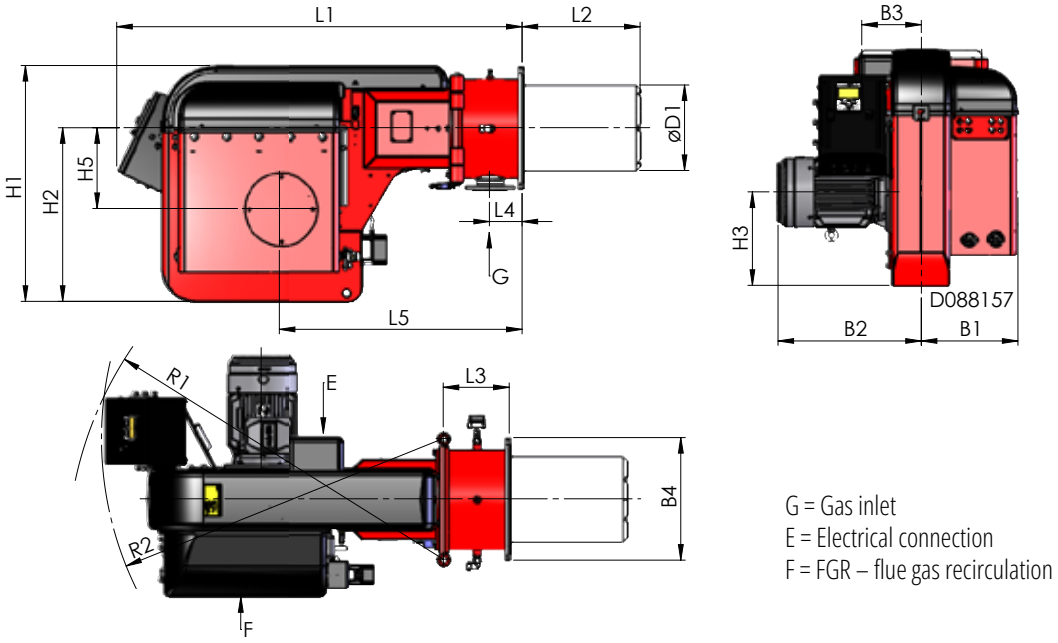


GP-600 M - 700 M-III LN60, GP-600 M - 700 M-III LN80 with integrated control cabinet

Technical data

BURNER	GP-600 M LN60	GP-700 M-III LN60	GP-600 M LN80	GP-700 M-II LN80	GP-700 M-III LN80
Capacity, kW	800 - 6500	1370 - 7500	950 - 6700	1200 - 7600	1500 - 8800
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 18.5 34.0 2900	 30.0 52.0 2900	 15.0 26.0 2900	 22.0 38.0 2900	 30.0 52.0 2900
Control unit	WD200i	WD200i	WD200i/WD600i	WD200i/WD600i	WD200i/WD600i
NOx class	4	4	3	3	3
Weight, kg	485	685	465	680	700

Dimensions



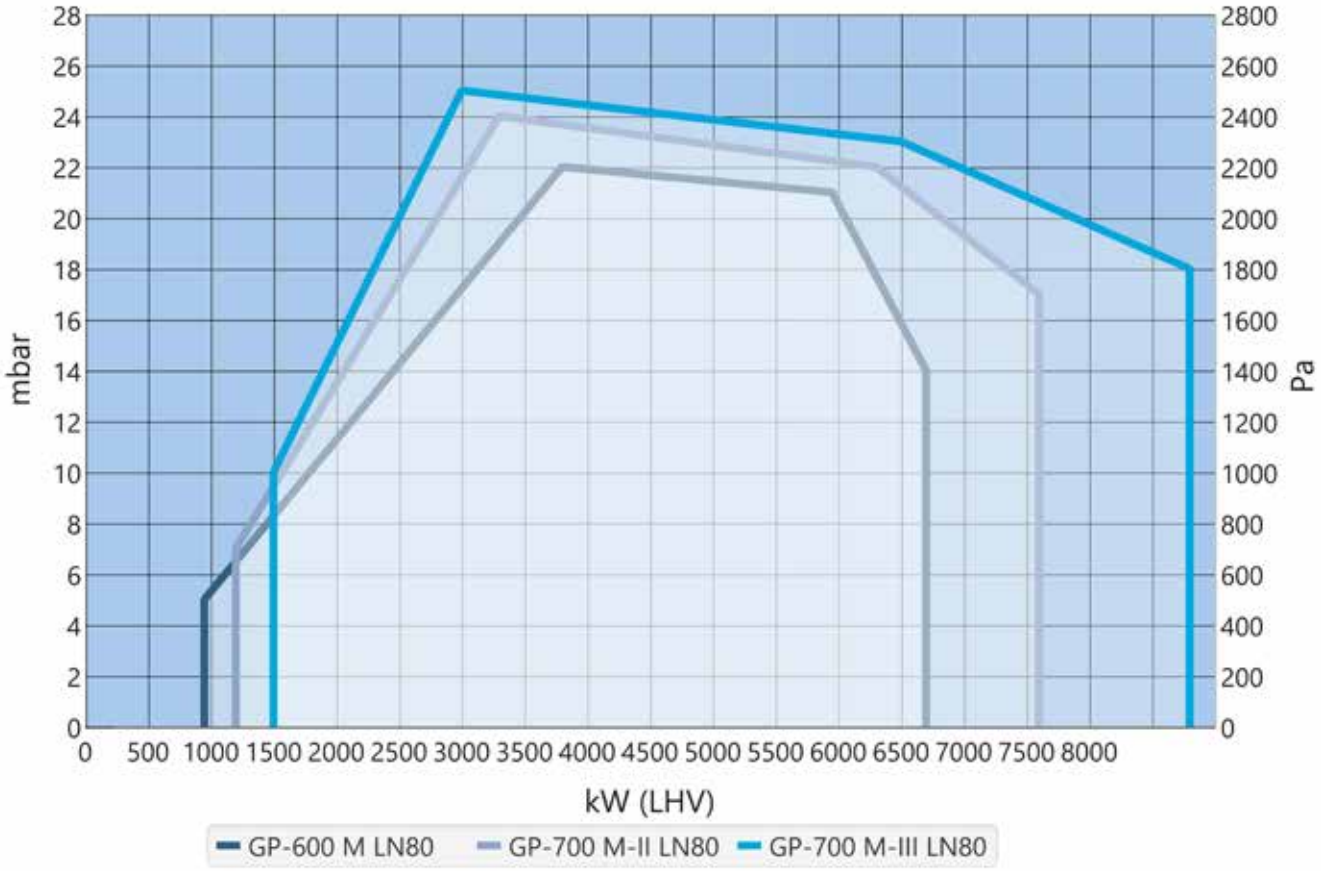
G = Gas inlet
E = Electrical connection
F = FGR – flue gas recirculation

BURNER	L1	L2	L3	L4	L5
GP-600 M LN60	1840	530	295	145	1090
GP-700 M-III LN60	1840	610	295	145	1200
GP-600 M LN80	1840	530	295	145	1090
GP-700 M-II LN80	1840	530	295	145	1200
GP-700 M-III LN80	1840	610	295	145	1200

BURNER	H1	H2	H3	H5	B1	B2	B3	B4	ØD1	ØD2	R1	R2
GP-600 M LN60	1060	780	420	365	435	645	270	550	408	–	1710	1550
GP-700 M-III LN60	1060	780	420	588	490	845	270	550	445	–	1710	1550
GP-600 M LN80	1060	780	420	365	435	645	270	550	384	–	1710	1550
GP-700 M-II LN80	1060	780	420	588	490	760	270	550	406	–	1710	1550
GP-700 M-III LN80	1060	780	420	588	490	845	270	550	406	–	1710	1550

Dimensions in mm.

Working diagram

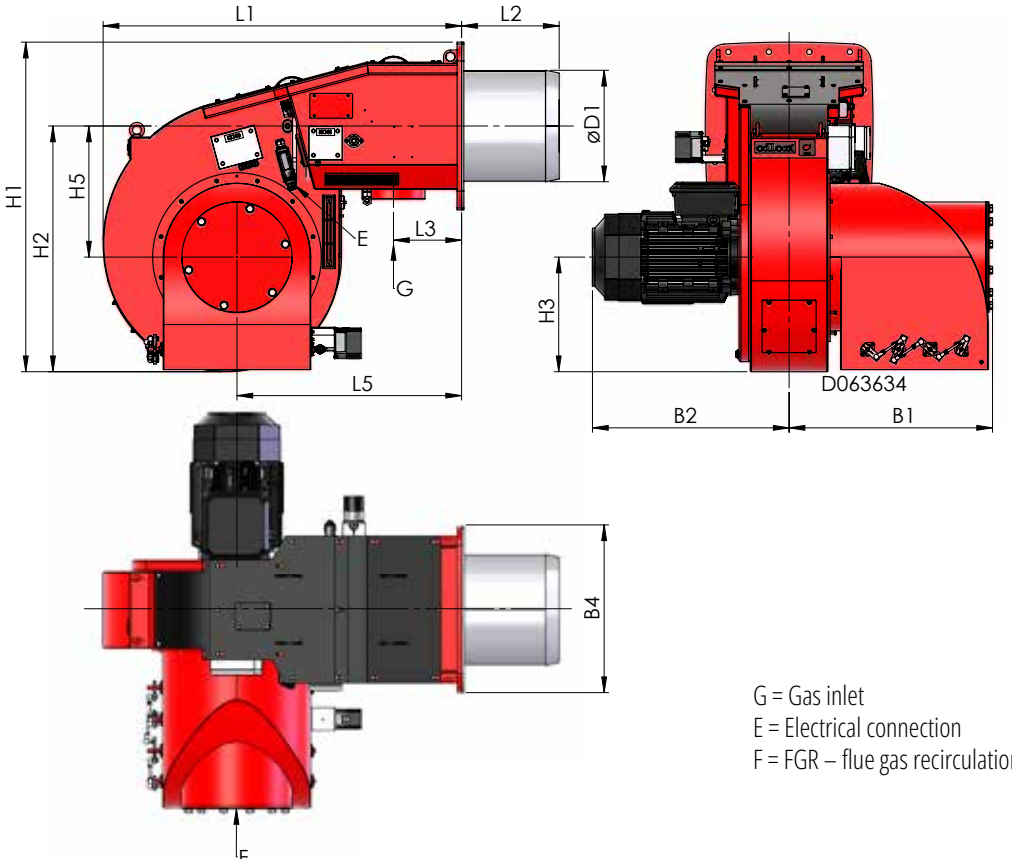


GP-1000 M, GP-1200 M, GP-1000 M LN80

Technical data

BURNER	GP-1000 M	GP-1200 M	GP-1000 M LN80
Capacity, kW	1800 - 11100	2200 - 13300	1800 - 11000
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 37 65 2900	 45 77 2900	 37 65 2900
Control unit	WDx00	WDx00	WDx00
NOx class	1	1	3
Weight, kg	780	830	790

Dimensions

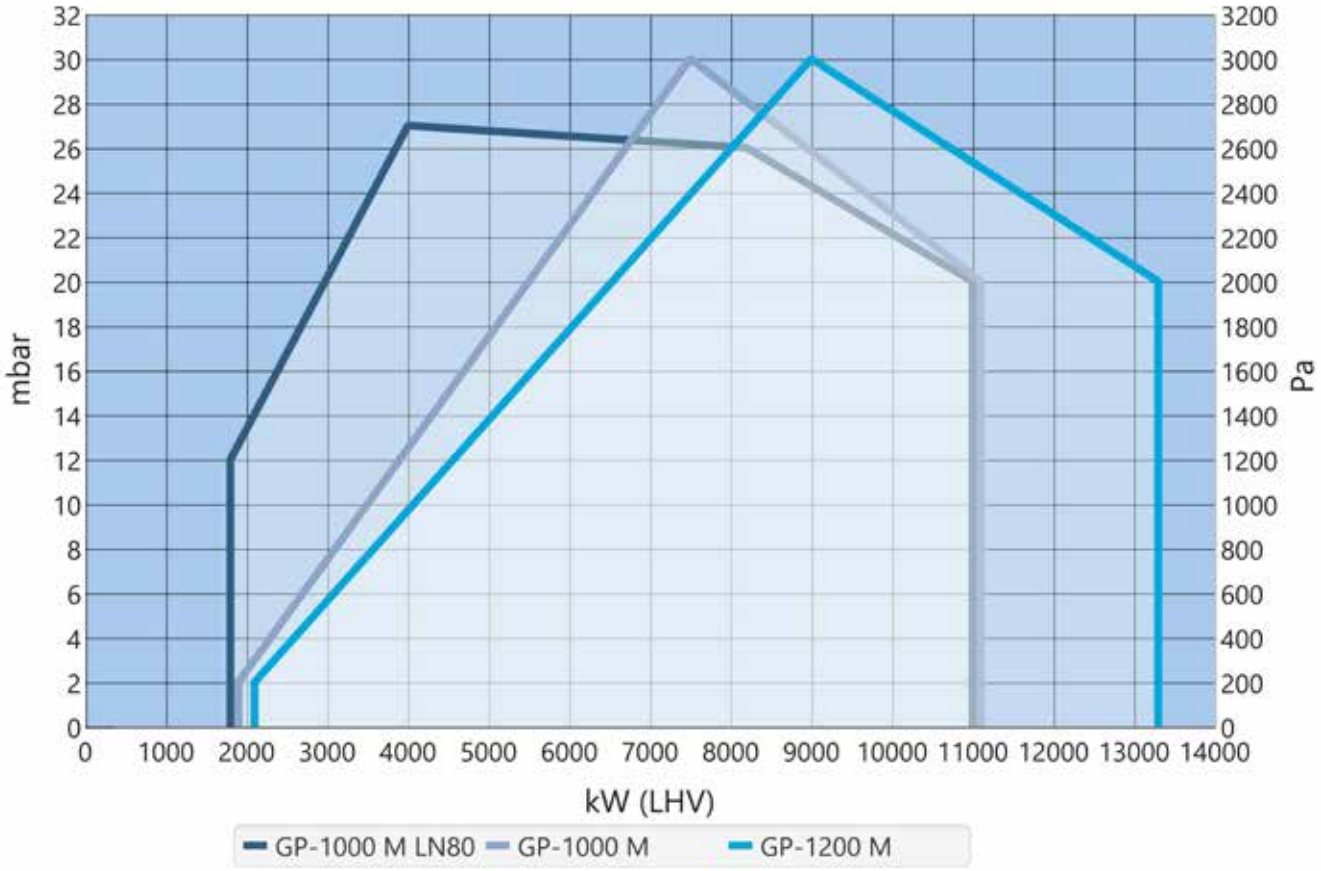


G = Gas inlet
E = Electrical connection
F = FGR – flue gas recirculation

BURNER	L1	L2	L3	L5	H1	H2	H3	H5	B1	B2	B4	ØD1
GP-1000 M	1600	434	303	1000	1470	1100	510	585	905	880	750	496
GP-1200 M	1600	434	303	1000	1470	1100	510	585	905	930	750	520
GP-1000 M LN80	1600	650	303	1000	1470	1100	510	585	905	880	750	454

Dimensions in mm.

Working diagram



Scope of delivery, GP-50 - 1200

	50/80 H	90/140 H	50/90 M	130 - 280 M	320 - 450 M	500 - 700 M	1000/1200 M
Hinge flange with limit switch	•	•	•	•	–	•	–
Burner flange gasket	•	•	•	•	•	•	•
WiseDrive (electronic ratio control) *	–	–	•	•	•	•	•
Ignition transformer	•	•	•	•	•	•	•
Ignition cables and electrodes	•	•	•	•	•	•	•
Flame detector:							
– LME/QRC	•	•	–	–	–	–	–
– WD3x/Ionization electrode (continuous operation)	–	–	•	•	•	–	–
– WD3x/QRA (intermittent operation)	–	–	–	–	–	•	–
– WDx00/QRI (continuous operation)	–	–	–	•	•	•	•
– WDx00/QRI+ionization electrode, LN60 burners (continuous operation)	–	–	–	–	–	•	–
– WD3x/KLC, LN30 burners (intermittent operation)	–	–	–	•	–	–	–
– WD3x/FFS08, LN30 burners (continuous operation)	–	–	–	–	•	•	–
– WD200i/QRI (continuous operation)	–	–	–	•	–	–	–
– WD600i/QRA (intermittent operation)	–	–	–	•	–	–	–
Built-in combustion air fan	•	•	•	•	•	•	•
Air damper with servomotor	•	•	•	•	•	•	•
Combustion head optimizer with servomotor, WDx00	–	–	–	–	–	•	–
Gas damper with servomotor	–	–	•	•	•	•	•
Gas nozzle	•	•	•	•	•	•	•
Connection for measuring the pressure in gas nozzle	•	•	•	•	•	•	•
Gas pressure switch, max.	–	–	•***	•	•	•	•
Differential air pressure switch	•	•	•	•	•	•	•
Gas elbow, 90°	•	•	•	•	•	•	•
Double solenoid valve for gas	•	•	•	•	•	•	•
Pressure regulation valve for gas:							
– MB-ZRDLE valve	•	•	–	–	–	–	–
– DMV valve	–	–	–	–	–	–	–
– VGD valve	–	–	•	•	•	•	•
Ignition gas valve and piping **	–	–	–	–	–	•	•
Pressure switch for gas, min.	•	•	•	•	•	•	•
Automatic valve leak testing for gas	–	•	•	•	•	•	•
Operation and maintenance manual	•	•	•	•	•	•	•

• Standard * For more information, see chapter Oilon WiseDrive. ** Ignition gas valve and piping: always in LN80 burners and 450 M burners, not present in LN60 burners *** Not standard with VGD valves

Options:

	50/80 H	90/140 H	50/90 M	130 - 280 M	320 - 450 M	500 - 700 M	1000/1200 M
FGR equipment	–	–	–	•	•	•	•
Fan pressure gauge	•	•	•	•	•	•	•
Continuous operation, WD3x	–	–	–	–	–	•	–
VSD equipment	–	–	•	•***	•	•	•
Extended combustion head *	•	•	•	•	•	•	–
Ignition gas valve and piping **	–	–	•	•	•	–	–
Gas pressure switch, max.	•	•	–	–	–	–	–
Gas pressure gauge	–	–	–	•	•	•	•
LPG gas nozzle	•	•	•	•	•	•	•

* Not in LN80 and LN60 burners ** Always in LN80 burners and 450 M burners *** Not present in WD600i burners

Dual fuel burners
Gas/light fuel oil

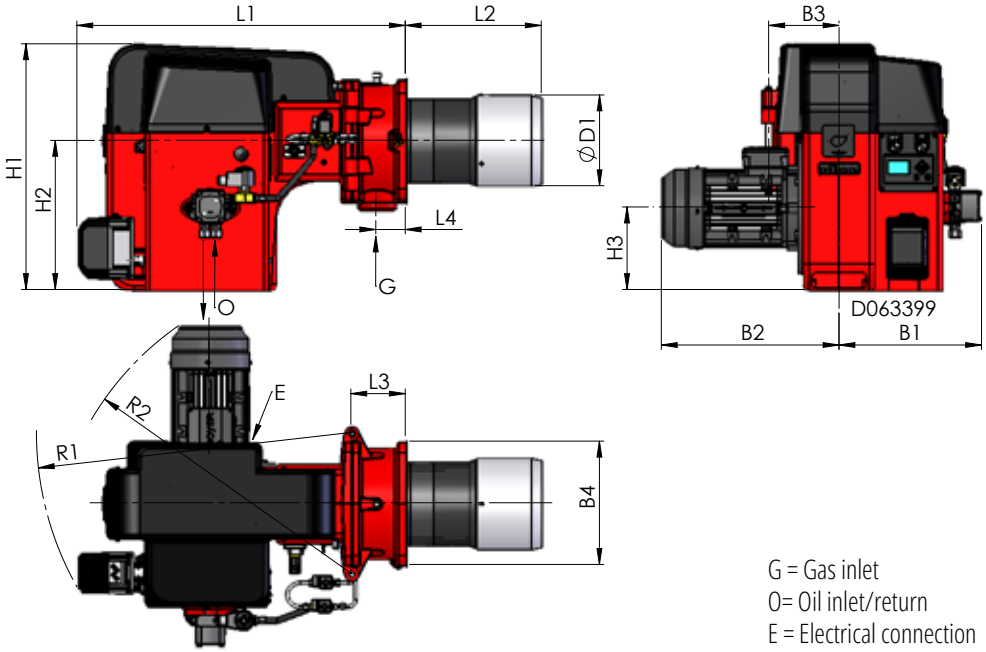
100–13,300 kW

GKP-50/90 H, GKP-50/90 MH

Technical data

BURNER	GKP-50 H	GKP-90 H	GKP-50 MH	GKP-90 MH
Capacity, oil, kg/h	17 - 68	30 - 130	17 - 68	30 - 130
oil, kW	200 - 800	350 - 1500	200 - 800	350 - 1500
gas, kW	200 - 800	350 - 1500	100 - 800	250 - 1500
Fan motor 3~ 400 V 50 Hz				
Output, kW	0.75	2.2	0.75	2.2
Current, A	2.0	4.4	2.0	4.4
Nominal speed, rpm	2900	2900	2900	2900
Oil hose connection				
– suction	R ⅜"	R ½"	R ⅜"	R ½"
– return	R ⅜"	R ½"	R ⅜"	R ½"
Oil pump	AJ4	AJ6	AJ4	AJ6
Control unit	LME	LME	WD34	WD34
NOx class				
oil	1	1	1	1
gas	1	1	1	1
Weight, kg	44	65	44	65

Dimensions

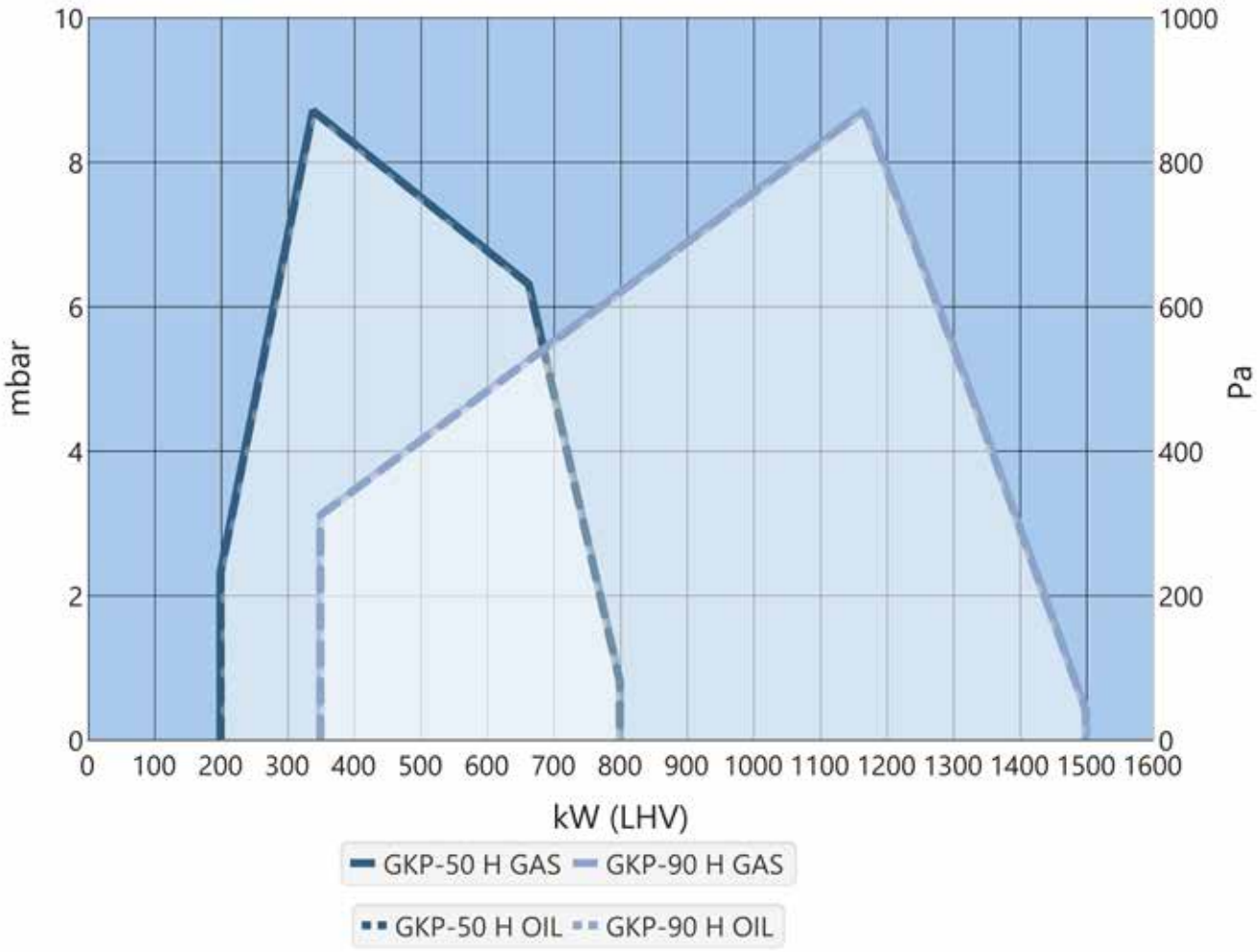


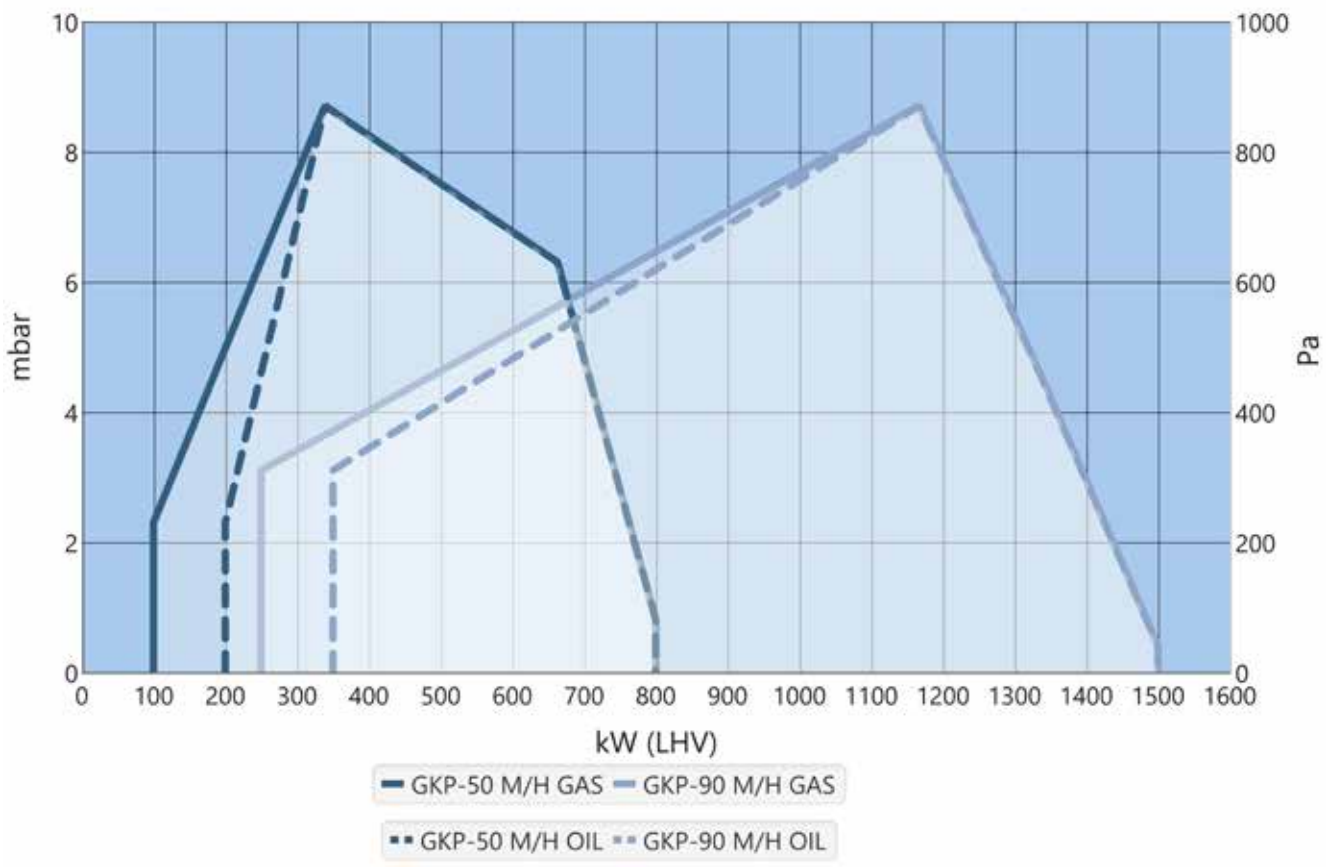
G = Gas inlet
O= Oil inlet/return
E = Electrical connection

BURNER	L1	L2	L3	L4	H1	H2	H3	B1	B2	B3	B4	ØD1	R1	R2
GKP-50 H	745	240	185	90	510	325	165	275	310	131	240	160	635	–
GKP-90 H	725	300	120	65	545	330	182	315	395	155	272	200	695	665
GKP-50 MH	745	240	185	90	510	325	165	275	310	131	240	160	635	–
GKP-90 MH	725	300	120	65	545	330	182	315	395	155	272	200	695	665

Dimensions in mm.

Working diagram



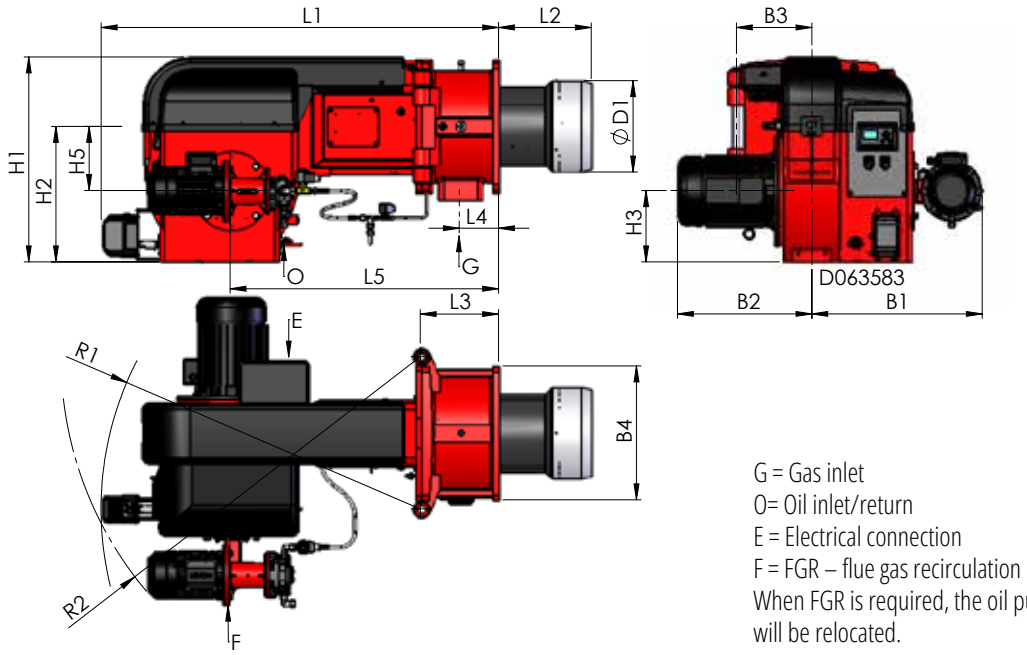


GKP-140 - 280 M

Technical data

BURNER	GKP-140 M	GKP-150 M	GKP-250 M	GKP-280 M
Capacity, oil, kg/h oil, kW gas, kW	47 - 200 550 - 2350 410 - 2350	56 - 227 660 - 2700 450 - 2700	55 - 220 650 - 2600 370 - 2600	76 - 295 900 - 3500 500 - 3500
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 4.0 7.2 2900	 5.5 9.8 2900	 5.5 9.8 2900	 7.5 13.0 2900
Control unit	WD34/WDx00	WD34/WDx00	WD34/WDx00	WD34/WDx00
NOx class oil gas	 1 1	 1 1	 1 1	 1 1
Oil hose connection – suction – return	 R ½" R ½"	 R ½" R ½"	 R ¾" R ½"	 R ¾" R ½"
Oil pump – Motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	TAR2 1.5 3.2 2900	TAR2 1.5 3.2 2900	TAR3 1.5 3.2 2900	TAR3 1.5 3.2 2900
Weight, kg	162	164	270	278

Dimensions



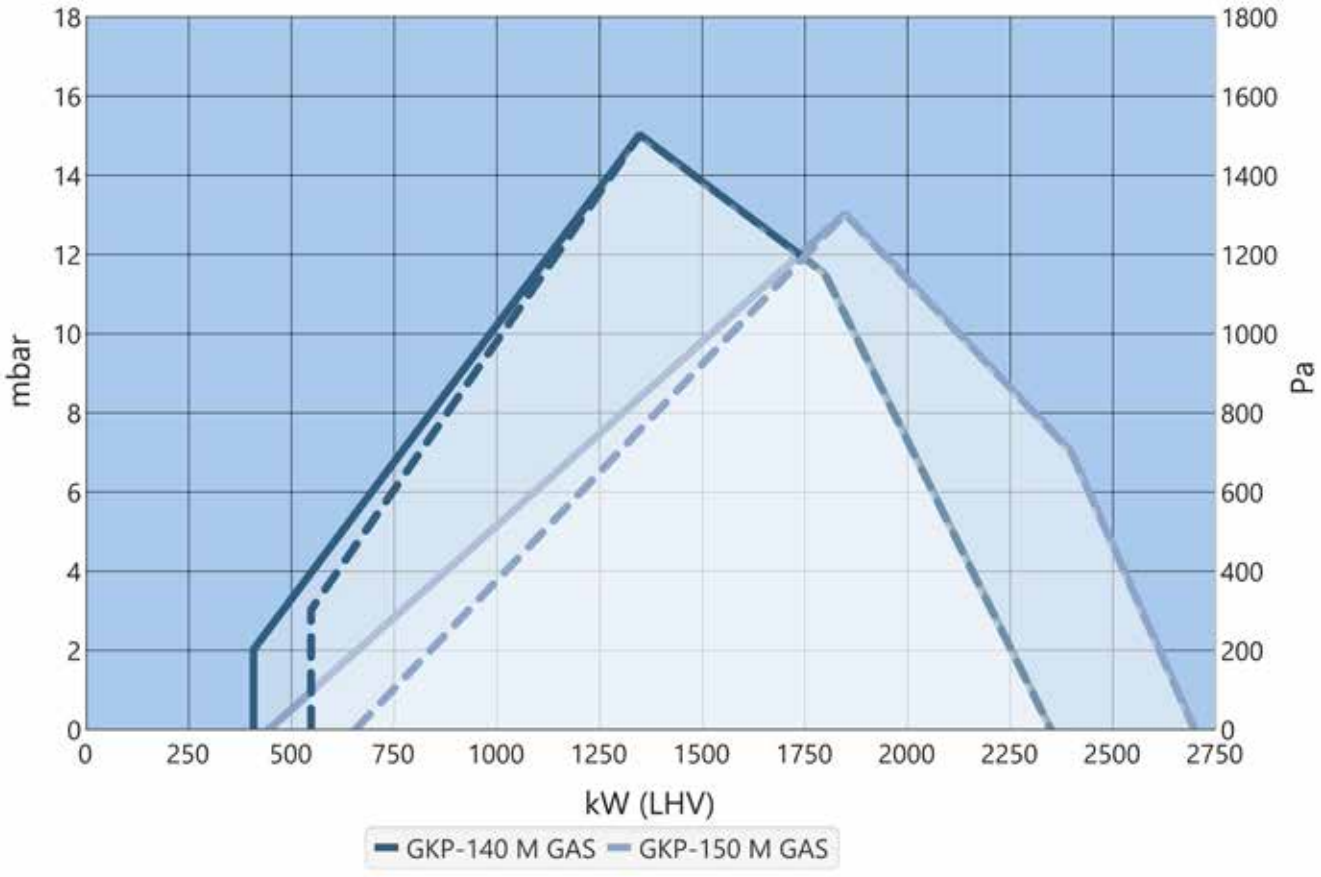
G = Gas inlet
O= Oil inlet/return
E = Electrical connection
F = FGR – flue gas recirculation
When FGR is required, the oil pump unit will be relocated.

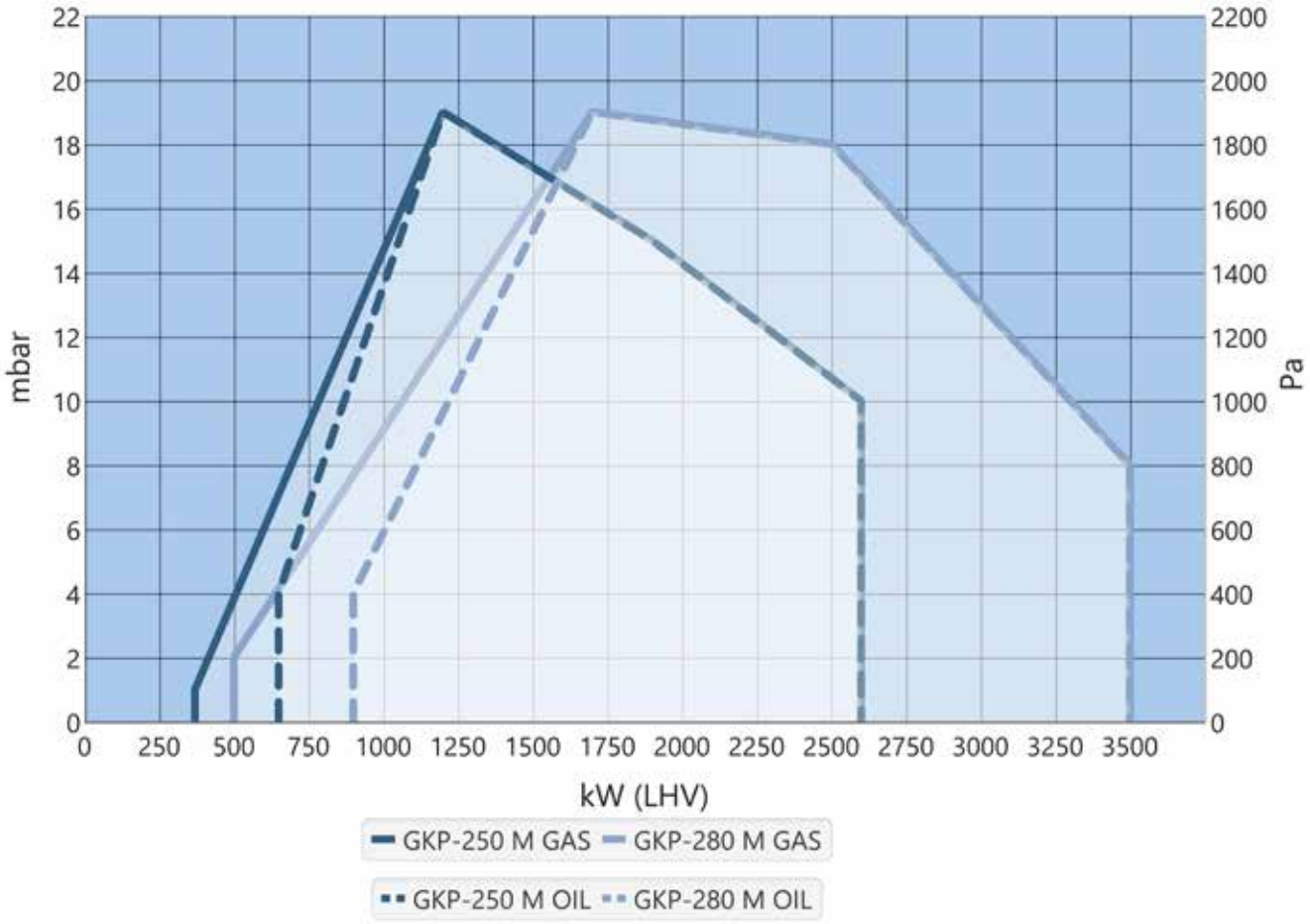
BURNER	L1	L2	L3	L4	L5
GKP-140 M	1285	220	260	129	880
GKP-150 M	1285	230	260	129	880
GKP-250 M	1320	300	260	130	890
GKP-280 M	1320	312	260	130	890

BURNER	H1	H2	H3	H5	B1	B2	B3	B4	ØD1	R1	R2
GKP-140 M	625	400	210	195	570	430	210	360	240	1050	1150
GKP-150 M	625	400	210	195	570	480	210	360	270	1050	1150
GKP-250 M	675	446	235	215	605	490	250	440	270	1100	1200
GKP-280 M	675	446	235	215	605	490	250	440	300	1100	1200

Dimensions in mm.

Working diagram



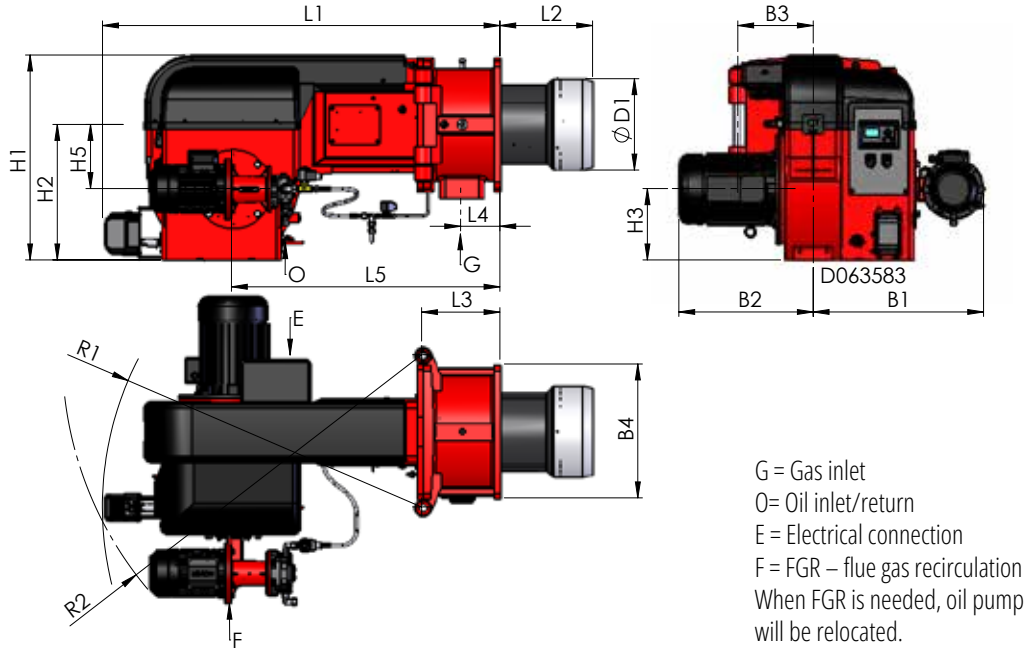


GKP-140 MH - 280 MH, GKP-140 M - 280 M LN80

Technical data

BURNER	GKP-140 MH	GKP-150 MH	GKP-250 MH	GKP-280 MH	GKP-140 M LN80	GKP-250 M LN80	GKP-280 M LN80
Capacity, oil, kg/h	47 - 200	56 - 227	55 - 220	76 - 295	32 - 143	68 - 177	67 - 277
oil, kW	550 - 2350	660 - 2700	650 - 2600	900 - 3500	380 - 1700	800 - 2100	790 - 2700
gas, kW	410 - 2350	450 - 2700	370 - 2600	500 - 3500	380 - 1700	350 - 2100	370 - 2700
Fan motor							
3~ 400 V 50 Hz							
Output, kW	4.0	5.5	5.5	7.5	4.0	7.5	7.5
Current, A	7.2	9.8	9.8	13.0	7.2	13.0	13.0
Nominal speed, rpm	2900	2900	2900	2900	2900	2900	2900
Control unit	WD34	WD34	WD34	WD34	WDx00	WDx00	WDx00
NOx class							
oil	1	1	1	1	1	1	1
gas	1	1	1	1	3	3	3
Oil hose connection							
– suction	R ½"	R ½"	R ¾"	R ¾"	R ½"	R ¾"	R ¾"
– return	R ½"	R ½"	R ½"	R ½"	R ½"	R ½"	R ½"
Oil pump	J7	J7	J7	TAR2	TAR2	TAR3	TAR3
– Motor 3~ 400 V 50 Hz							
Output, kW	0.75	0.75	0.75	0.75	1.5	1.5	1.5
Current, A	2.0	2.0	2.0	2.0	3.2	3.2	3.2
Nominal speed, rpm	2900	2900	2900	2900	2900	2900	2900
Weight, kg	162	164	270	278	165	274	284

Dimensions



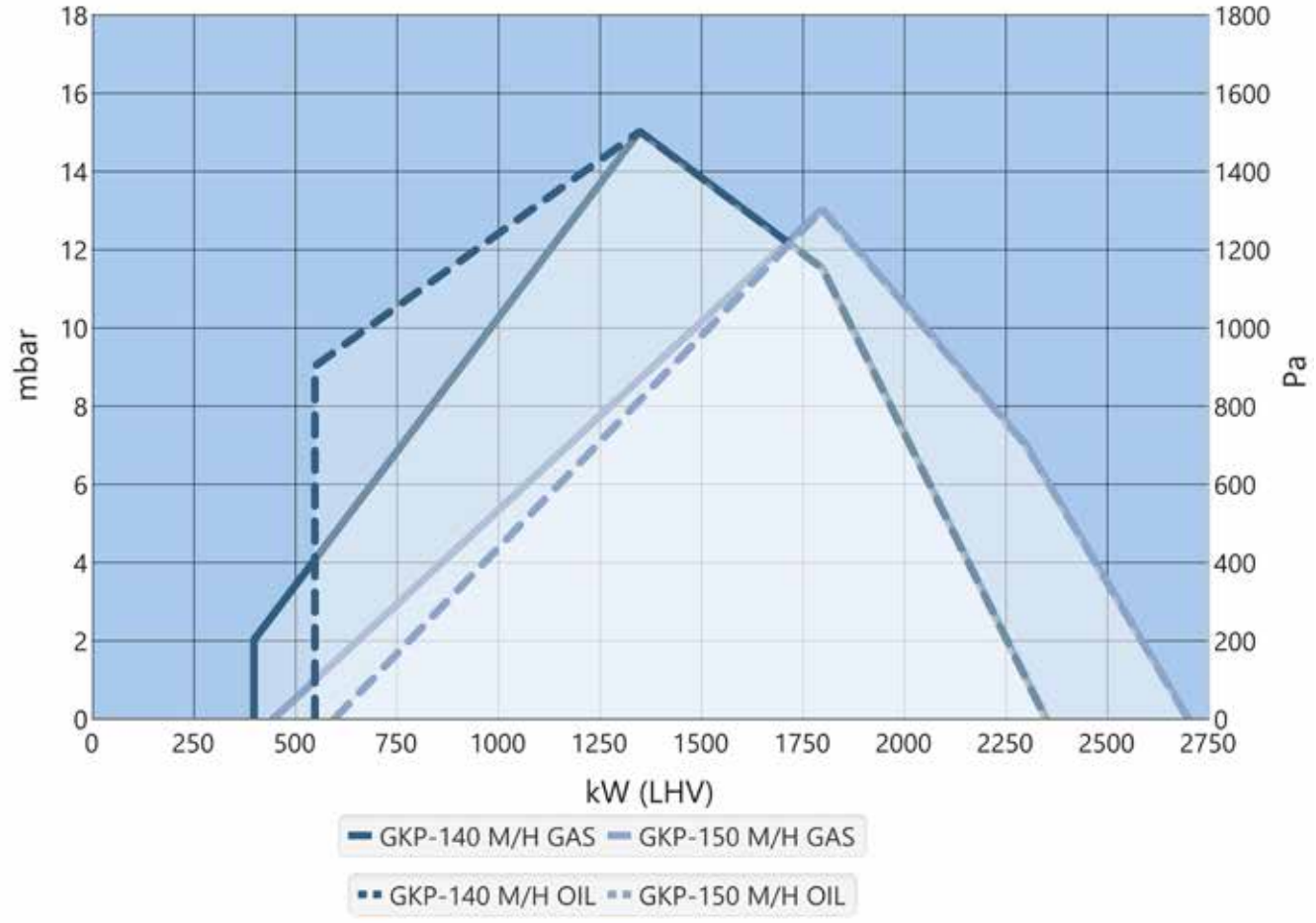
G = Gas inlet
O= Oil inlet/return
E = Electrical connection
F = FGR – flue gas recirculation
When FGR is needed, oil pump unit will be relocated.

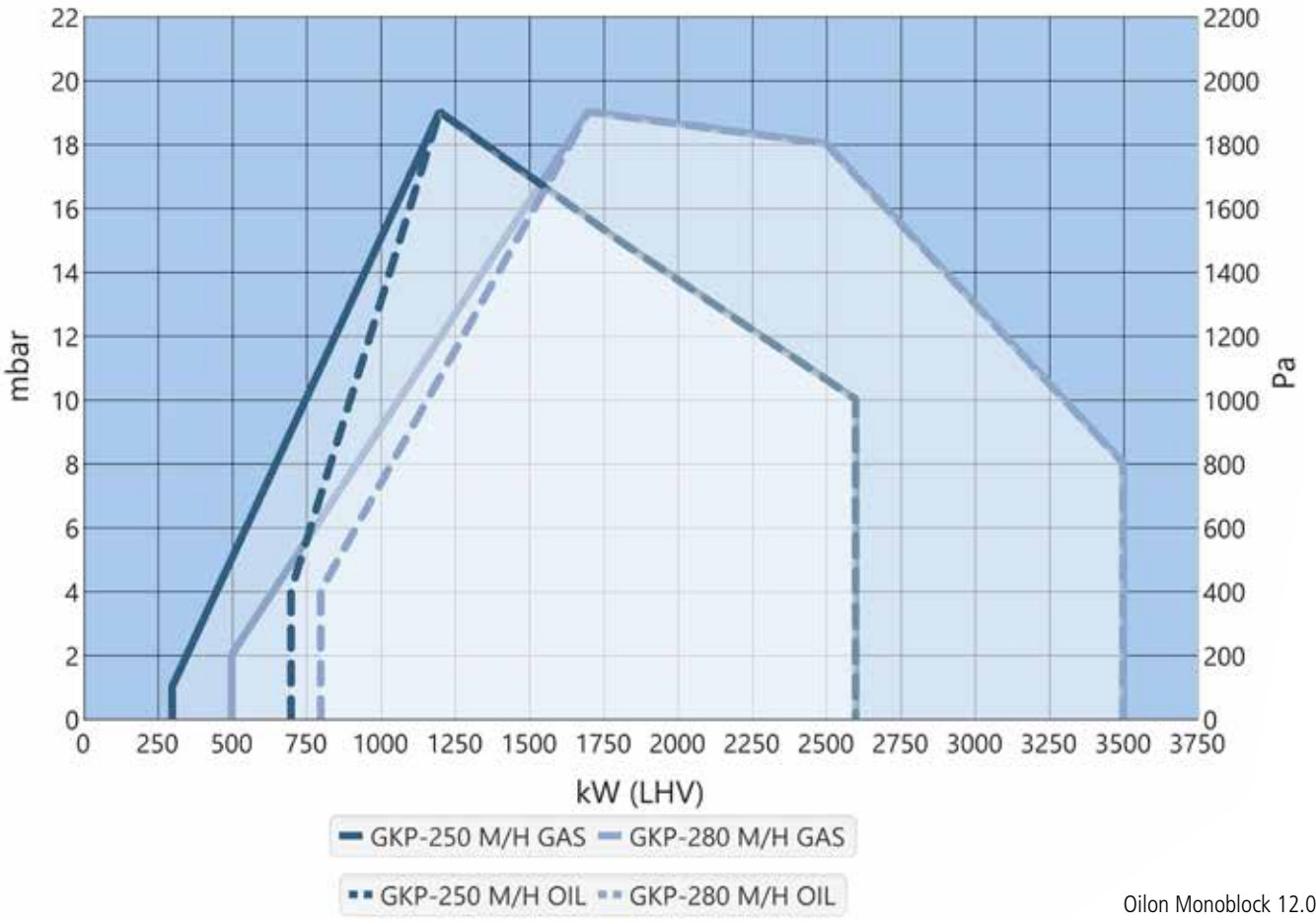
BURNER	L1	L2	L2		L3	L4	L5
			C1	C2			
GKP-140 MH	1285	220	–	–	260	129	880
GKP-150 MH	1285	230	–	–	260	129	880
GKP-250 MH	1320	300	–	–	260	130	890
GKP-280 MH	1320	312	–	–	260	130	890
GKP-140 M LN80	1285	430	–	–	260	129	880
GKP-250 M LN80	1320	–	420	550	260	130	890
GKP-280 M LN80	1320	–	420	550	260	130	890

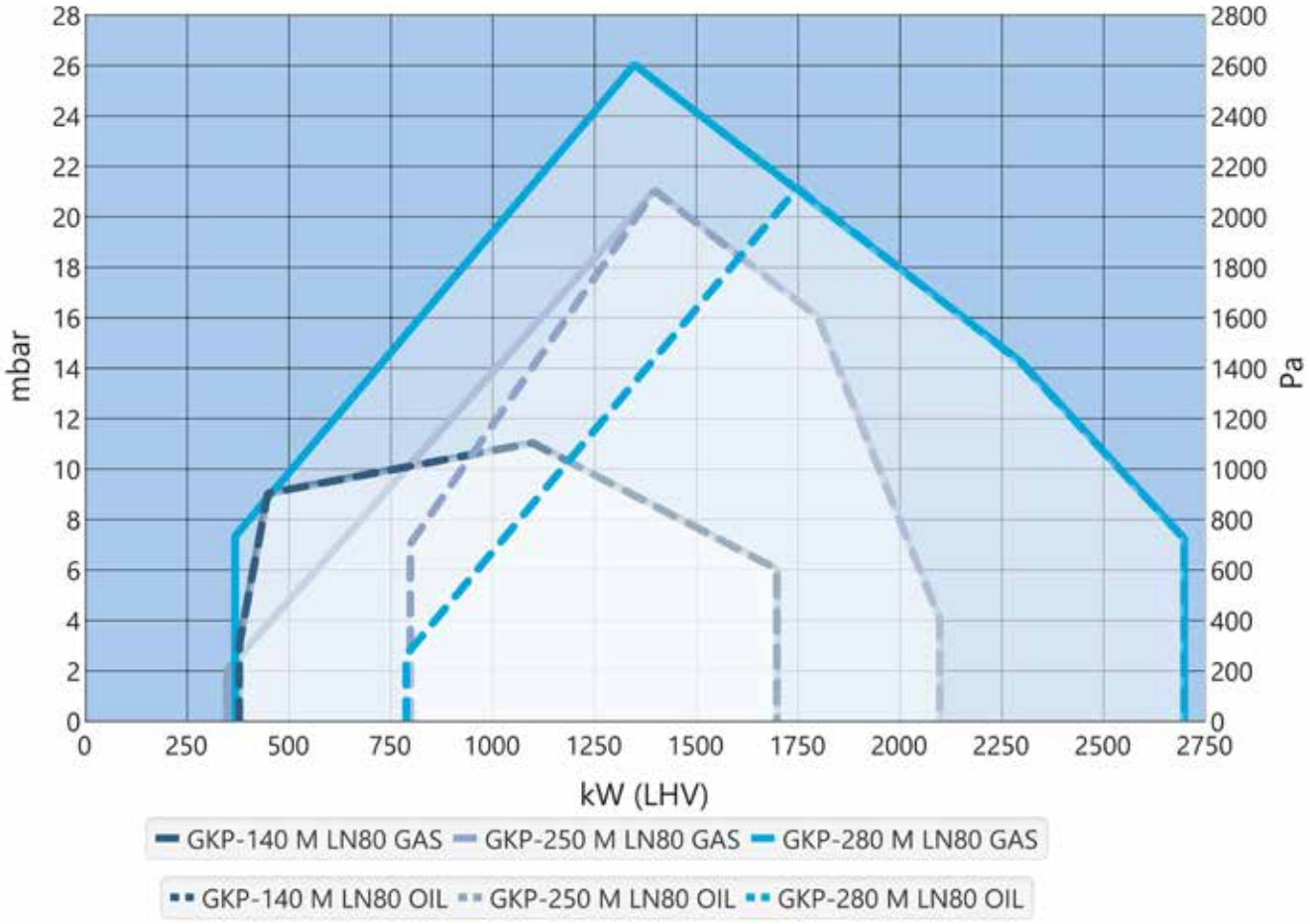
BURNER	H1	H2	H3	H5	B1	B2	B3	B4	ØD1	R1	R2
GKP-140 MH	625	400	210	195	570	430	210	360	240	1050	1150
GKP-150 MH	625	400	210	195	570	480	210	360	270	1050	1150
GKP-250 MH	675	446	235	215	605	490	250	440	270	1100	1200
GKP-280 MH	675	446	235	215	605	490	250	440	300	1100	1200
GKP-140 M LN80	625	400	210	195	570	430	210	360	240	1050	1150
GKP-250 M LN80	675	446	235	215	605	490	250	440	256	1100	1200
GKP-280 M LN80	675	446	235	215	605	490	250	440	276	1100	1200

Dimensions in mm.

Working diagram



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750
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1250
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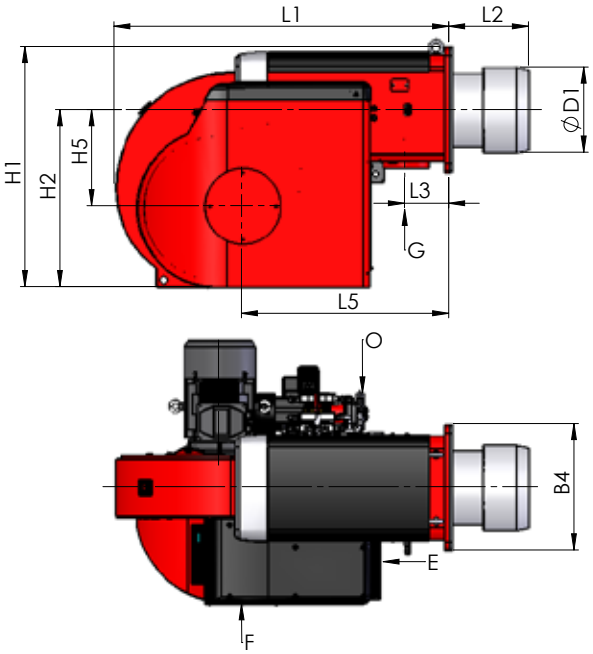
1750
2000
2250
2500
2750
GKP-140 M LN80 GAS
GKP-250 M LN80 GAS
GKP-280 M LN80 GAS
GKP-140 M LN80 OIL
GKP-250 M LN80 OIL
GKP-280 M LN80 OIL

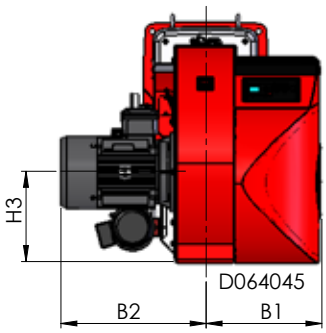
GKP-350 M, GKP-450 M, GKP-320 M - 450 M LN80

Technical data

BURNER	GKP-350 M	GKP-450 M	GKP-320 M LN80	GKP-350 M LN80	GKP-450 M LN80
Capacity, oil, kg/h oil, kW gas, kW	135 - 360 1600 - 4250 700 - 4250	185 - 460 2200 - 5500 850 - 5500	70 - 270 830 - 3200 530 - 3200	85 - 335 1000 - 4000 910 - 4000	125 - 435 1500 - 5200 930 - 5200
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 7.5 13.0 2900	 11.0 19.5 2900	 7.5 13.0 2900	 7.5 13.0 2900	 15.0 26.0 2900
Oil hose connection – suction – return	 R 1" R 1"	 R 1" R 1"	 R 1" R 1"	 R 1" R 1"	 R 1" R 1"
Oil pump – Motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	TAR4 1.5 3.2 2900	TAR4 1.5 3.2 2900	TAR4 1.5 3.2 2900	TAR4 1.5 3.2 2900	TAR4 1.5 3.2 2900
Control unit	WD34/WDx00	WD34/WDx00	WDx00	WDx00	WDx00
NOx class oil gas	 1 1	 1 1	 1 3	 1 3	 1 3
Weight, kg	390	505	395	395	510

Dimensions



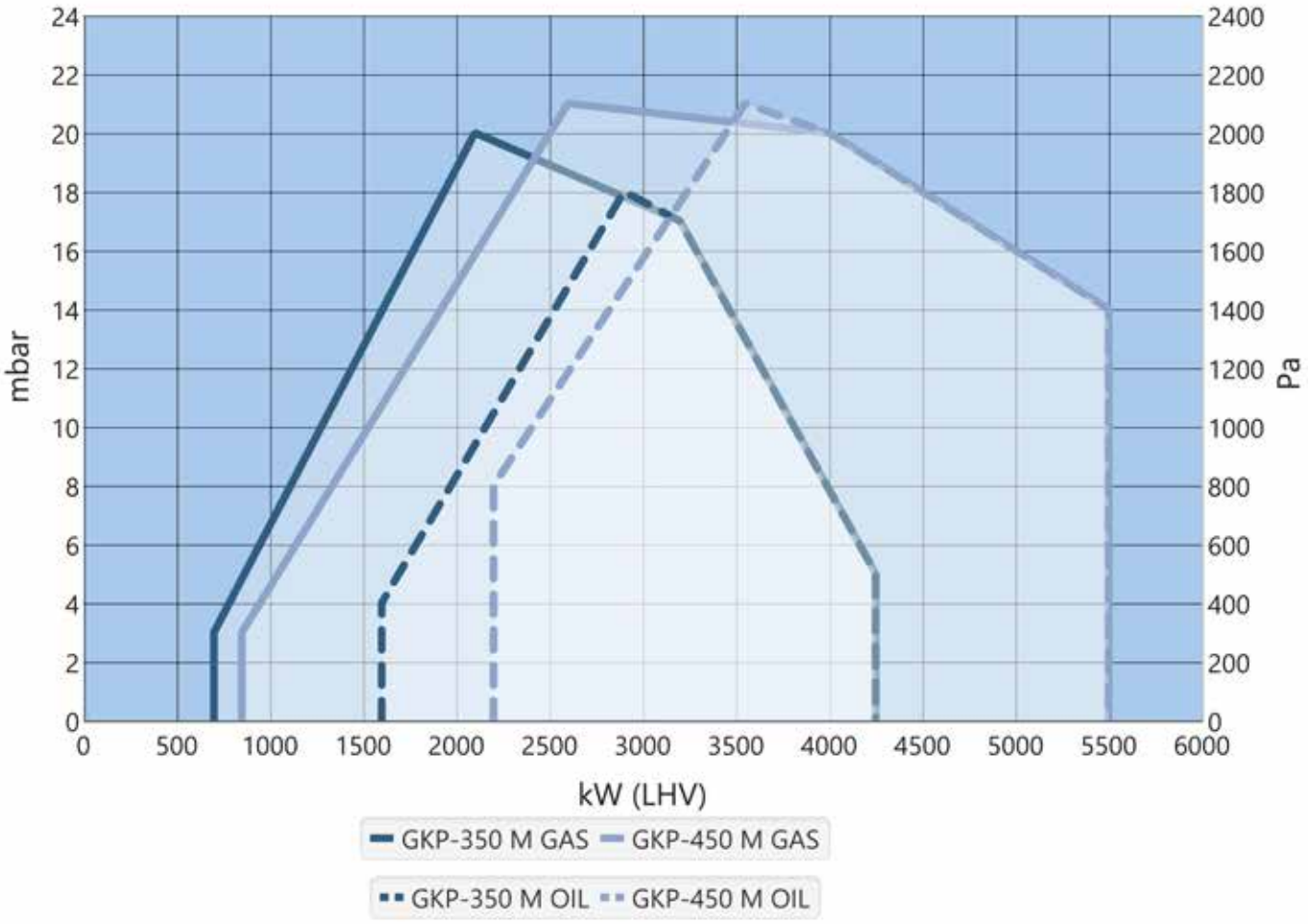


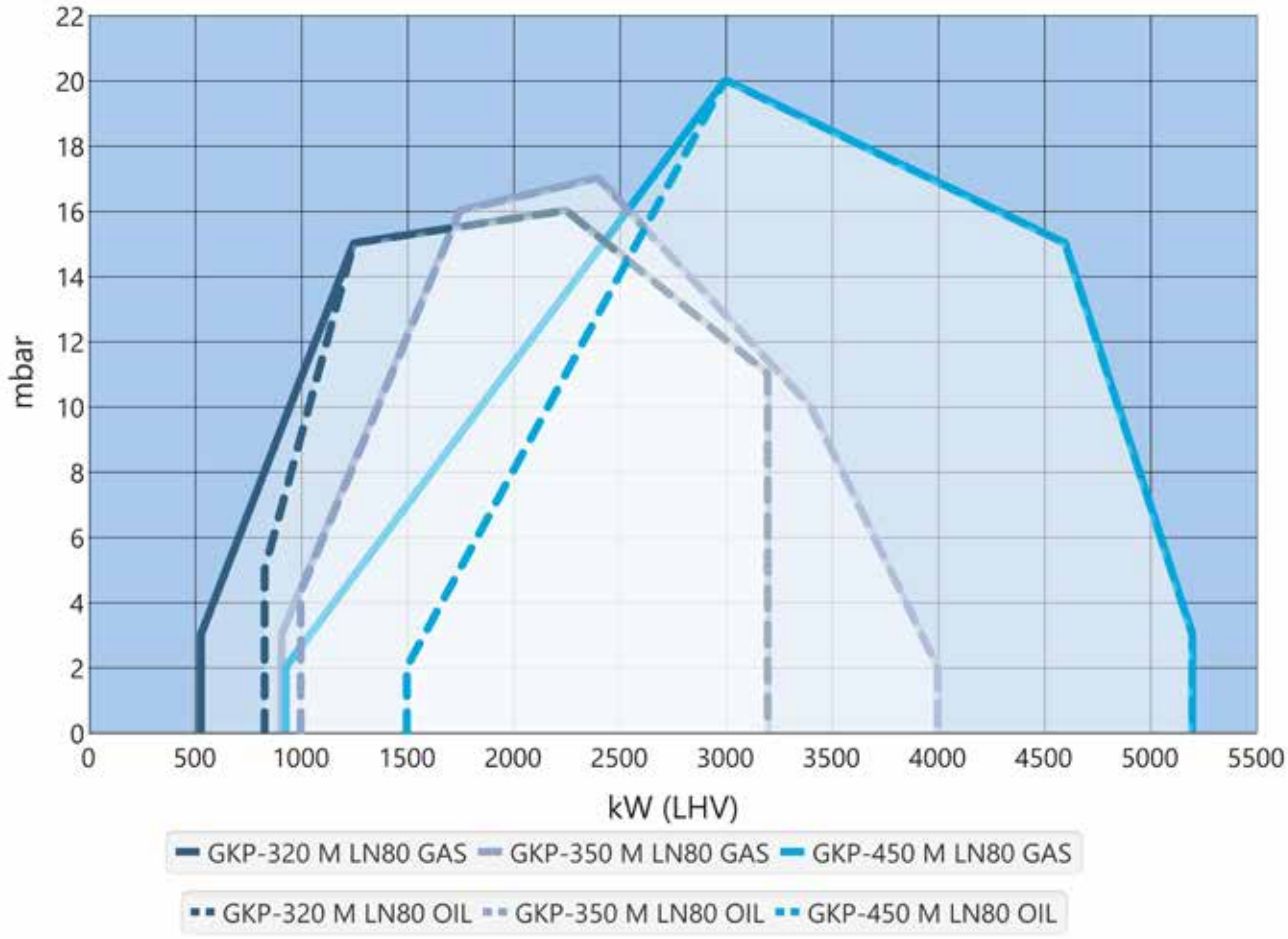
G = Gas inlet
O= Oil inlet/return
E = Electrical connection
F = FGR – flue gas recirculation

BURNER	L1	L2	L3	L5	H1	H2	H3	H5	B1	B2	B4	ØD1
GKP-350 M	1360	350	195	810	940	695	355	345	490	580	490	320
GKP-450 M	1470	350	195	910	1050	770	395	420	510	650	550	370
GKP-320 M LN80	1360	500	195	810	940	695	355	345	490	580	490	302
GKP-350 M LN80	1360	480	195	810	940	695	355	345	490	580	490	324
GKP-450 M LN80	1470	480	195	910	1050	770	395	420	510	650	550	324

Dimensions in mm.

Working diagram



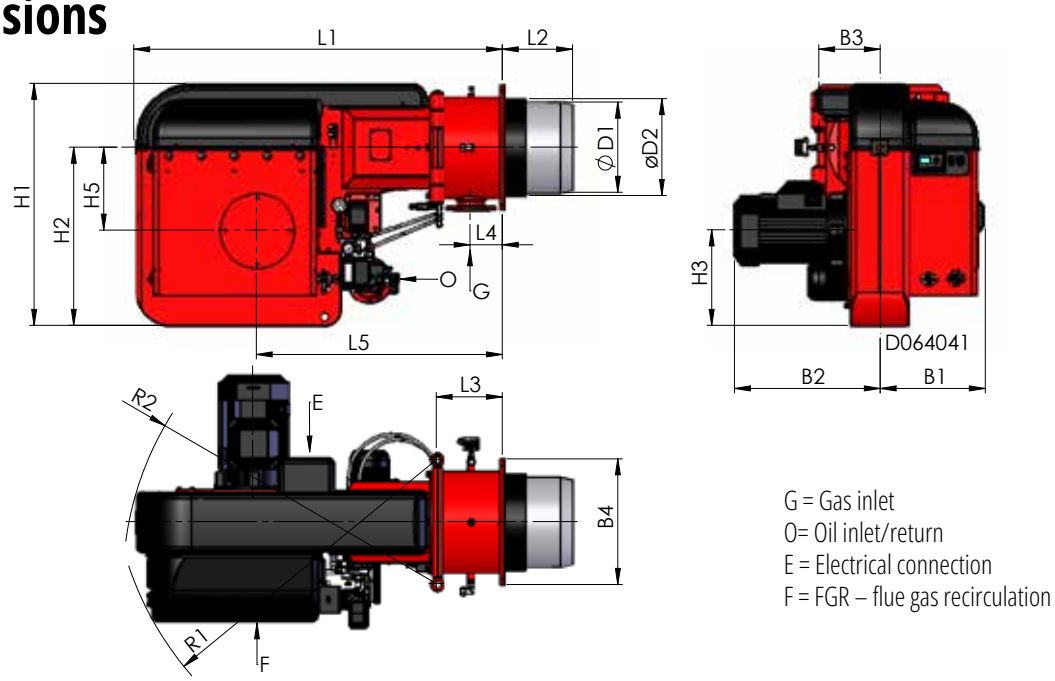


GKP-500 M - 700 M-III

Technical data

BURNER	GKP-500 M	GKP-600 M	GKP-700 M	GKP-700 M-II	GKP-700 M-III
Capacity, oil, kg/h	120 - 515	120 - 570	170 - 710	180 - 821	230 - 868
oil, kW	1400 - 6070	1400 - 6750	2000 - 8400	2100 - 9500	2100 - 10500
gas, kW	870 - 6070	970 - 6750	1200 - 8400	1350 - 9500	1500 - 10500
Fan motor					
3~ 400 V 50 Hz					
Output, kW	11.0	15.0	18.5	22.0	30.0
Current, A	19.5	26.0	34.0	38.0	52.0
Nominal speed, rpm	2900	2900	2900	2900	2900
Oil hose connection					
– suction	R 1"	R 1"	R 1"	R 1"	R 1"
– return	R 1"	R 1"	R 1"	R 1"	R 1"
Oil pump	TAR5	TAR5	T3	T4	T4
– Motor					
3~ 400 V 50 Hz					
Output, kW	2.2	2.2	4.0	4.0	4.0
Current, A	4.4	4.4	7.2	7.2	7.2
Nominal speed, rpm	2900	2900	2900	2900	2900
Regulating valve	–	–	TV4001	TV4001	TV4001
Control unit	WD34/WDx00	WD34/WDx00	WD34/WDx00	WD34/WDx00	WD34/WDx00
NOx class					
oil	1	1	1	1	1
gas	1	1	1	1	1
Weight, kg	510	520	565	680	685

Dimensions



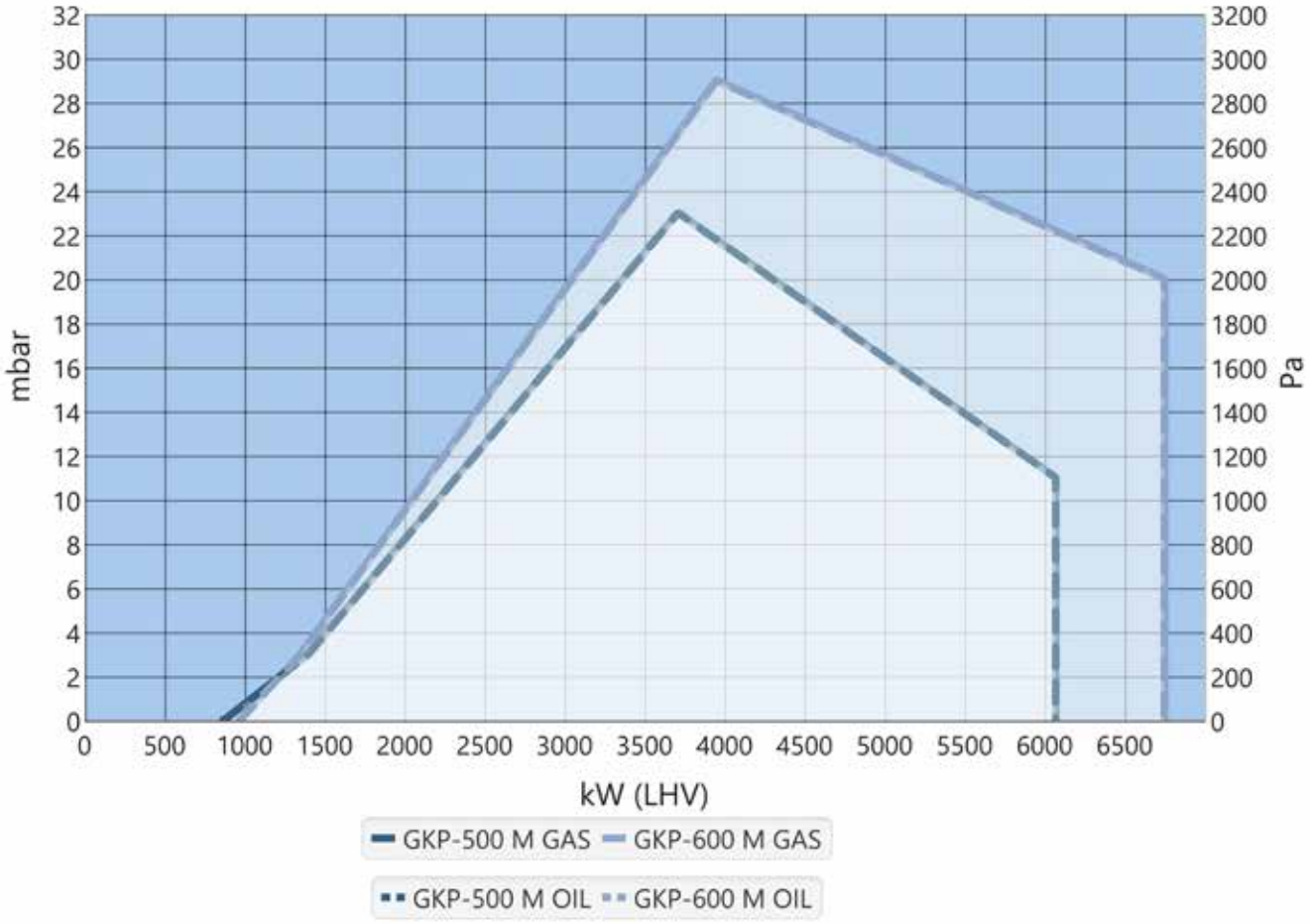
G = Gas inlet
O= Oil inlet/return
E = Electrical connection
F = FGR – flue gas recirculation

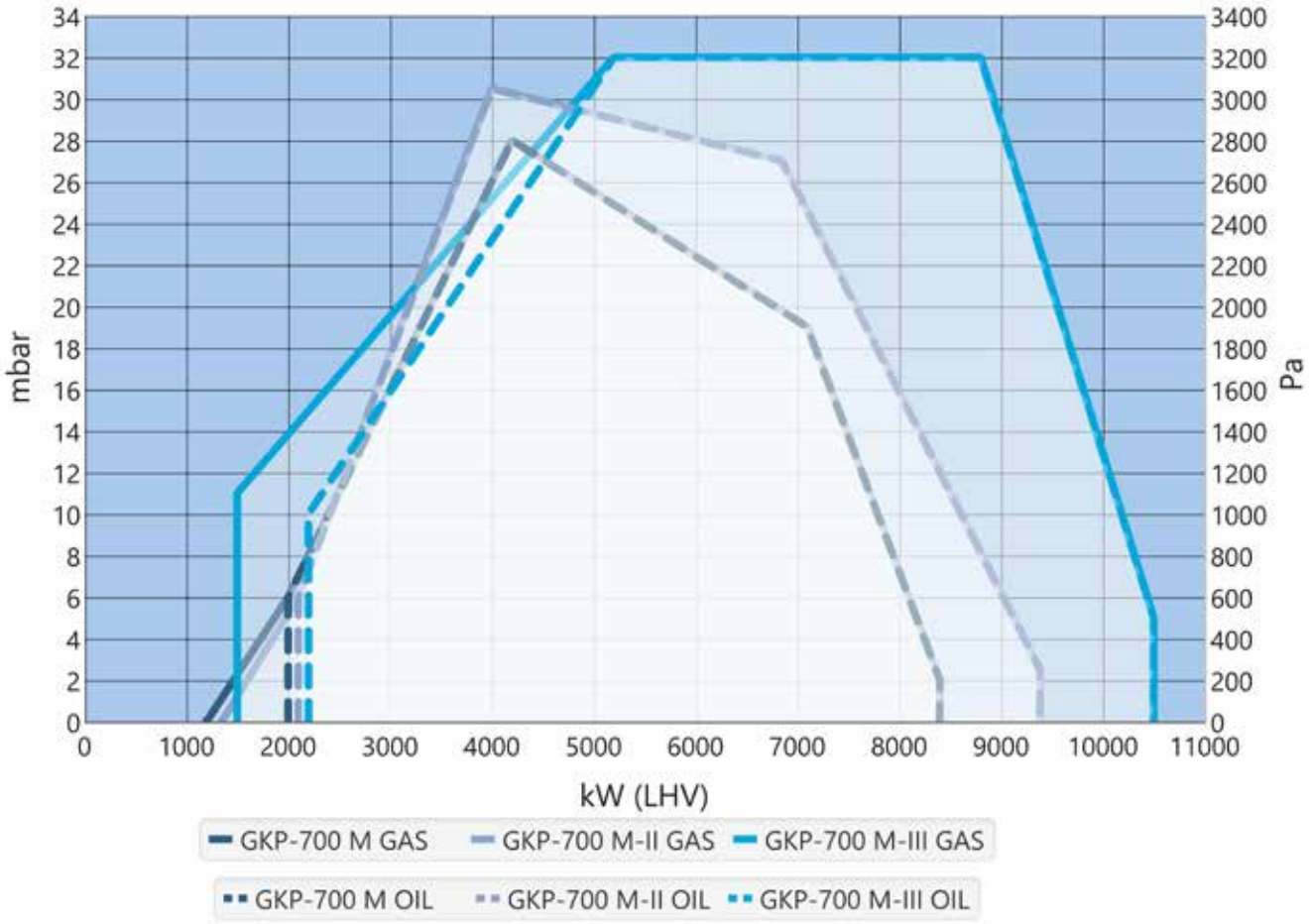
BURNER	L1	L2	L3	L4	L5
GKP-500 M	1650	290	295	145	1090
GKP-600 M	1650	310	295	145	1090
GKP-700 M	1650	310	295	145	1200
GKP-700 M-II	1650	310	295	145	1200
GKP-700 M-III	1650	400	295	145	1200

BURNER	H1	H2	H3	H5	B1	B2	B3	B4	ØD1	ØD2	R1	R2
GKP-500 M	1060	780	420	365	465	645	270	550	370	425	1440	1400
GKP-600 M	1060	780	420	365	465	645	270	550	395	425	1440	1400
GKP-700 M	1060	780	420	335	515	700	270	550	395	425	1460	1400
GKP-700 M-II	1060	780	420	335	515	760	270	550	395	425	1460	1400
GKP-700 M-III	1060	780	420	335	515	845	270	550	425	–	1460	1400

Dimensions in mm.

Working diagram



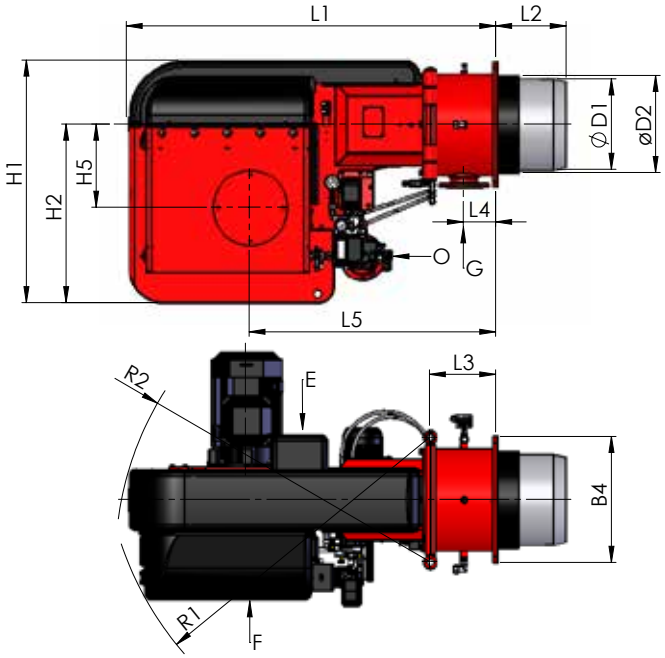


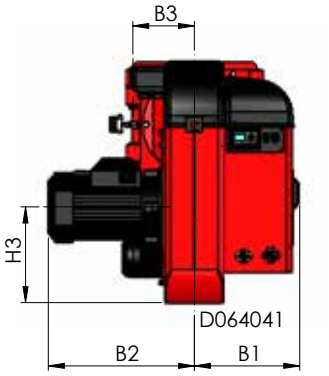
GKP-600 M - GKP-700 M-III LN80

Technical data

BURNER	GKP-600 M LN80	GKP-700 M-II LN80	GKP-700 M-III LN80
Capacity, oil, kg/h	130 - 565	100 - 640	140 - 742
oil, kW	1550 - 6700	1180 - 7600	1670 - 8800
gas, kW	1000 - 6450	1200 - 7600	1500 - 8800
Fan motor			
3~ 400 V 50 Hz			
Output, kW	18.5	22.0	30.0
Current, A	34.0	38.0	52.0
Nominal speed, rpm	2900	2900	2900
Oil hose connection			
– suction	R 1"	R 1"	R 1"
– return	R 1"	R 1"	R 1"
Oil pump	TAR5	T4	T4
– Motor			
3~ 400 V 50 Hz			
Output, kW	2.2	4.0	4.0
Current, A	4.4	7.2	7.2
Nominal speed, rpm	2900	2900	2900
Regulating valve	–	TV4001	TV4001
Control unit	WDx00	WDx00	WDx00
NOx class			
oil	1	1	1
gas	3	3	3
Weight, kg	625	785	805

Dimensions





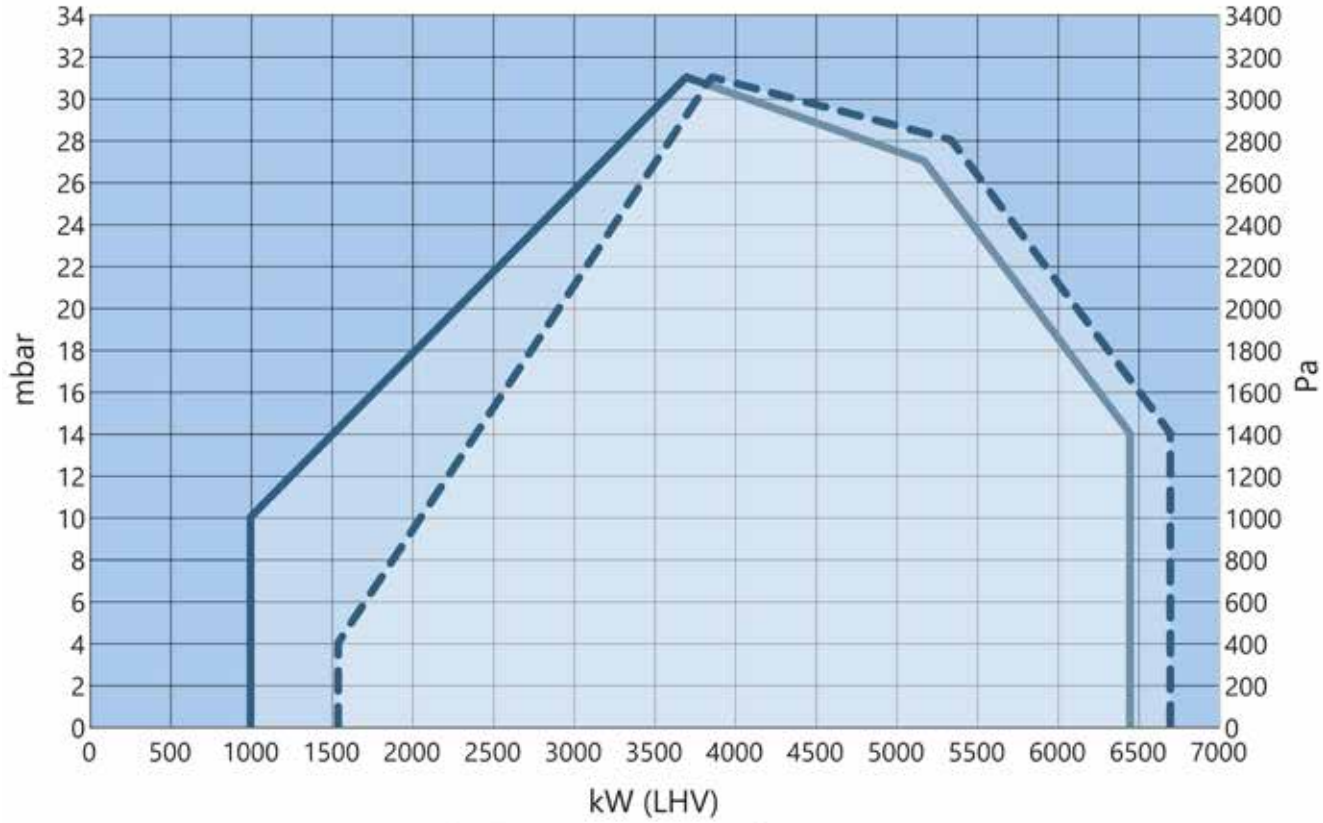
G = Gas inlet
O= Oil inlet/return
E = Electrical connection
F = FGR – flue gas recirculation

BURNER	L1	L2	L3	L4	L5
GKP-600 M LN80	1650	530	295	145	1090
GKP-700 M-II LN80	1650	530	295	145	1200
GKP-700 M-III LN80	1650	610	295	145	1200

BURNER	H1	H2	H3	H5	B1	B2	B3	B4	ØD1	ØD2	R1	R2
GKP-600 M LN80	1060	780	420	365	465	645	270	550	384	–	1440	1400
GKP-700 M-II LN80	1060	780	420	335	515	760	270	550	406	–	1460	1400
GKP-700 M-III LN80	1060	780	420	335	515	845	270	550	406	–	1460	1400

Dimensions in mm.

Working diagram

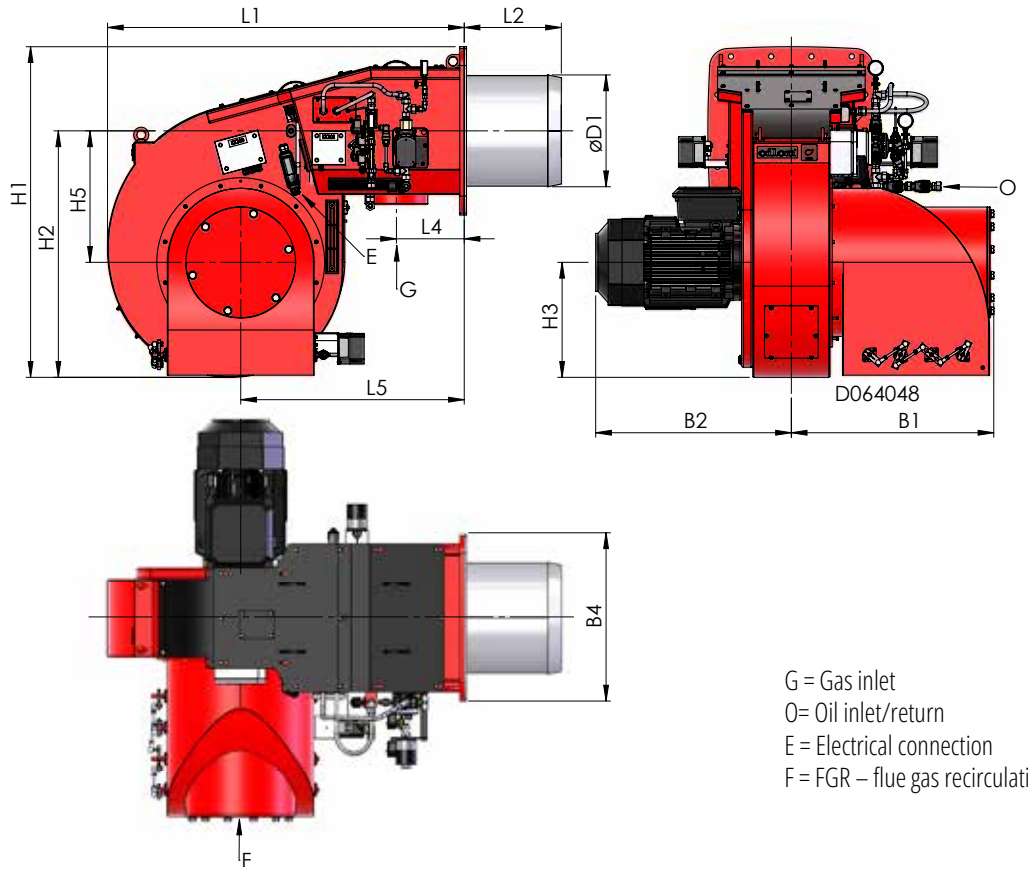


GKP-1000 M, GKP-1200 M

Technical data

BURNER	GKP-1000 M	GKP-1200 M
Capacity, oil, kg/h oil, kW gas, kW	152 - 935 1800 - 11100 1800 - 11100	185 - 1120 2200 - 13300 2200 - 13300
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 37.0 65.0 2900	 45.0 77.0 2900
Oil pipe connections	2 x Ø 22	2 x Ø 22
Control unit	WDx00	WDx00
NOx class oil gas	 1 1	 1 1
Weight, kg	780	830

Dimensions

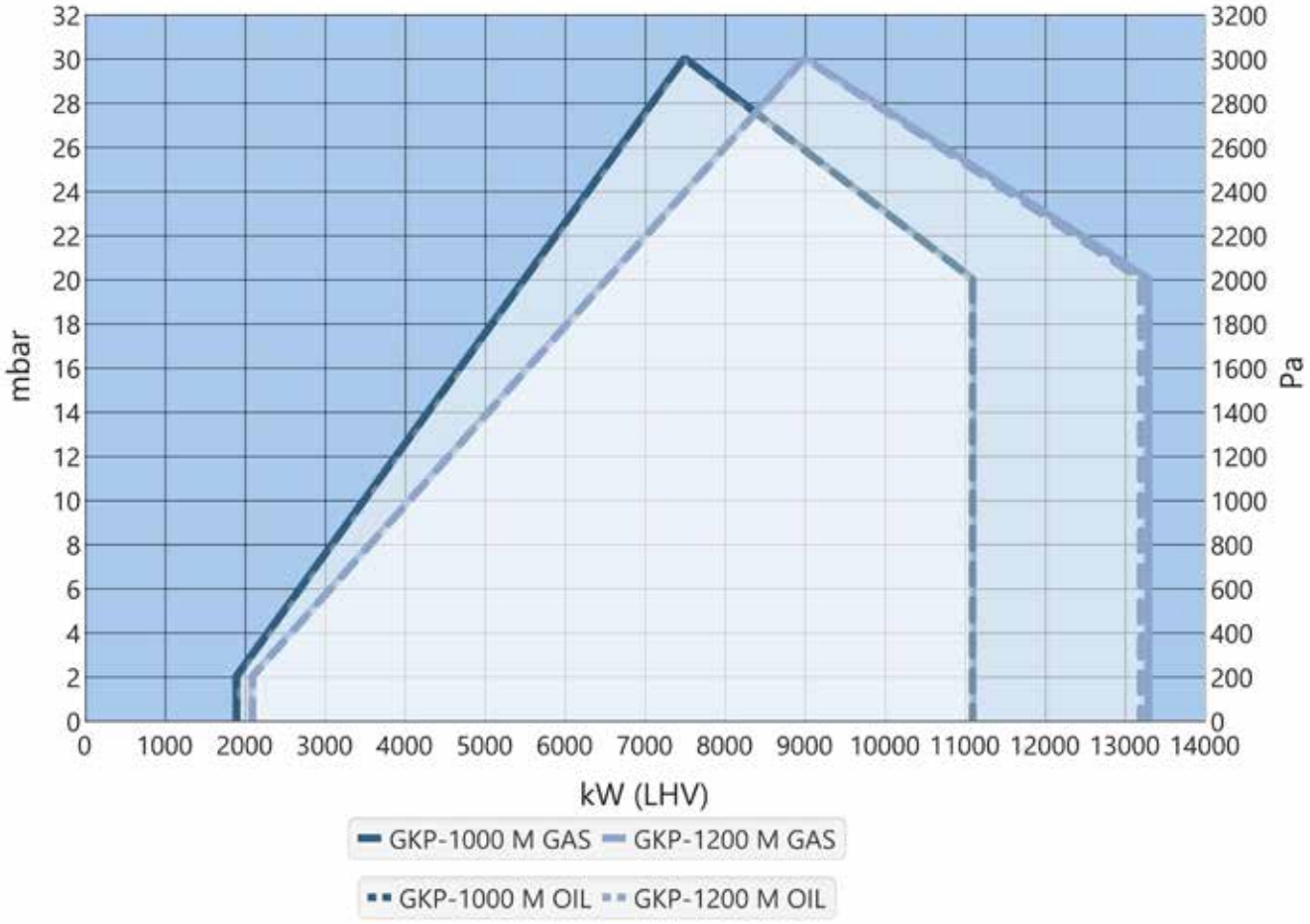


G = Gas inlet
O= Oil inlet/return
E = Electrical connection
F = FGR – flue gas recirculation

BURNER	L1	L2	L4	L5	H1	H2	H3	H5	B1	B2	B4	ØD1
GKP-1000 M	1600	434	303	1000	1470	1100	510	585	905	880	750	496
GKP-1200 M	1600	434	303	1000	1470	1100	510	585	905	930	750	520

Dimensions in mm.

Working diagram



Scope of delivery, GKP-50 - 1200

	50 H	90 H	50/90 MH	140 - 280 MH	140 - 280 M	320 - 450	500 - 700	1000 - 1200 ****
Hinge flange with limit switch	•	•	•	•	•	–	•	–
Burner flange gasket	•	•	•	•	•	•	•	•
WiseDrive (electronic ratio control) *	–	–	•	•	•	•	•	•
Ignition transformer	•	•	•	•	•	•	•	•
Ignition cables and electrodes	•	•	•	•	•	•	•	•
Flame detector: – LME/QRC – WD3x/QRA (intermittent operation) – WDx00/QRI (continuous operation)	 • – –	 • – –	 – • –	 – • –	 – • •	 – • •	 – • •	 – – •
Built-in combustion air fan	•	•	•	•	•	•	•	•
Air damper with servomotor	•	•	•	•	•	•	•	•
Combustion head optimizer with servomotor, WDx00	–	–	–	–	–	–	•	•
Gas damper with servomotor	–	–	•	•	•	•	•	•
Gas nozzle	•	•	•	•	•	•	•	•
Connection for measuring the pressure in gas nozzle	•	•	•	•	•	•	•	•
Gas pressure switch, max.	–	–	•***	•	•	•	•	•
Differential air pressure switch	•	•	•	•	•	•	•	•
Gas elbow, 90°	•	•	•	•	•	•	•	•
Double solenoid valve for gas	•	•	•	•	•	•	•	•
Pressure regulation valve for gas: – MB-ZRDLE valve – DMV valve – VGD valve	 • – –	 • – –	 – – •	 – – •	 – – •	 – – •	 – – •	 – – •
Ignition gas valve and piping **	–	–	–	–	–	–	•	•
Pressure switch for gas, min.	•	•	•	•	•	•	•	•
Automatic valve leak testing for gas	–	•	•	•	•	•	•	•
Oil nozzle	•	•	•	•	•	•	•	•
Solenoid valves for oil	•	•	•	•	•	•	•	•
Oil pump with pressure regulation valve	•	•	•	•	•	•	•	–
Oil regulating valve with servomotor	–	–	–	–	–	•	•	•
Separate motor for oil pump	–	–	–	•	•	•	•	–
Pressure gauge or gauges for oil	–	–	–	–	•	•	•	•
Pressure switch for return oil	–	–	–	–	•	•	•	•
Oil hoses, 2 pcs – 1,000 mm – 2,000 mm	•	•	•	 •	 •	 •	 •	 – –
Oil filter	•	•	•	•	•	•	•	–
Operation and maintenance manual	•	•	•	•	•	•	•	•

• Standard
* For more information, see chapter Oilon WiseDrive.
** Always in LN80 burners and 450 M burners
*** Not standard with VGD valves
**** Separate booster unit PKYK, accessory

Options:

	50/90 H	50/90 MH	140 - 280 MH	140 - 280 M	320 - 450	500 - 700	1000 - 1200
FGR equipment	–	–	–	•	•	•	•
Fan pressure gauge	•	•	•	•	•	•	•
Continuous operation, WD3x	–	–	•	•	•	•	–
VSD equipment	–	–	•	•	•	•	•
Extended combustion head *	•	•	•	•	•	•	–
Ignition gas valve and piping **	–	–	•	•	•	–	–
Gas pressure switch, max.	•	–	–	–	–	–	–
Gas pressure gauge	–	–	•	•	•	•	•
LPG gas nozzle	•	•	•	•	•	•	•
Deaerator for oil	–	–	•	•	•	•	–
Pressure gauge for monitoring of inlet oil pressure	–	–	•	•	•	•	•
Pressure switch for monitoring of inlet oil pressure	–	–	•	•	•	•	•
Oil pressure (nozzle and return) transmitter	–	–	–	•	•	•	•

* Not in LN80 and LN60 burners
** Always in LN80 burners and 450 M burners

Light Fuel Oil Burners

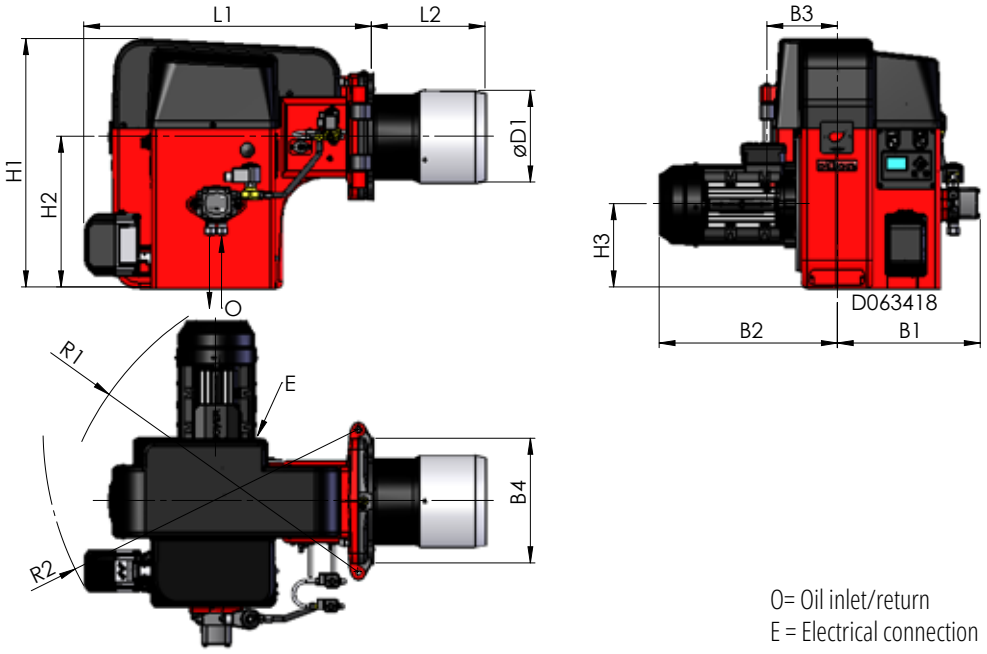
200–13,300 kW

KP-50 H, KP-90 H

Technical data

BURNER	KP-50 H	KP-90 H
Capacity, kg/h kW	17 - 68 200 - 800	30 - 130 350 - 1540
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 0.75 2.0 2900	 2.2 4.4 2900
Oil hose connection – suction – return	 R ⅜" R ⅜"	 R ½" R ½"
Oil pump	AJ4	AJ6
Control unit	LMO	LMO
NOx class	1	1
Weight, kg	32	51

Dimensions

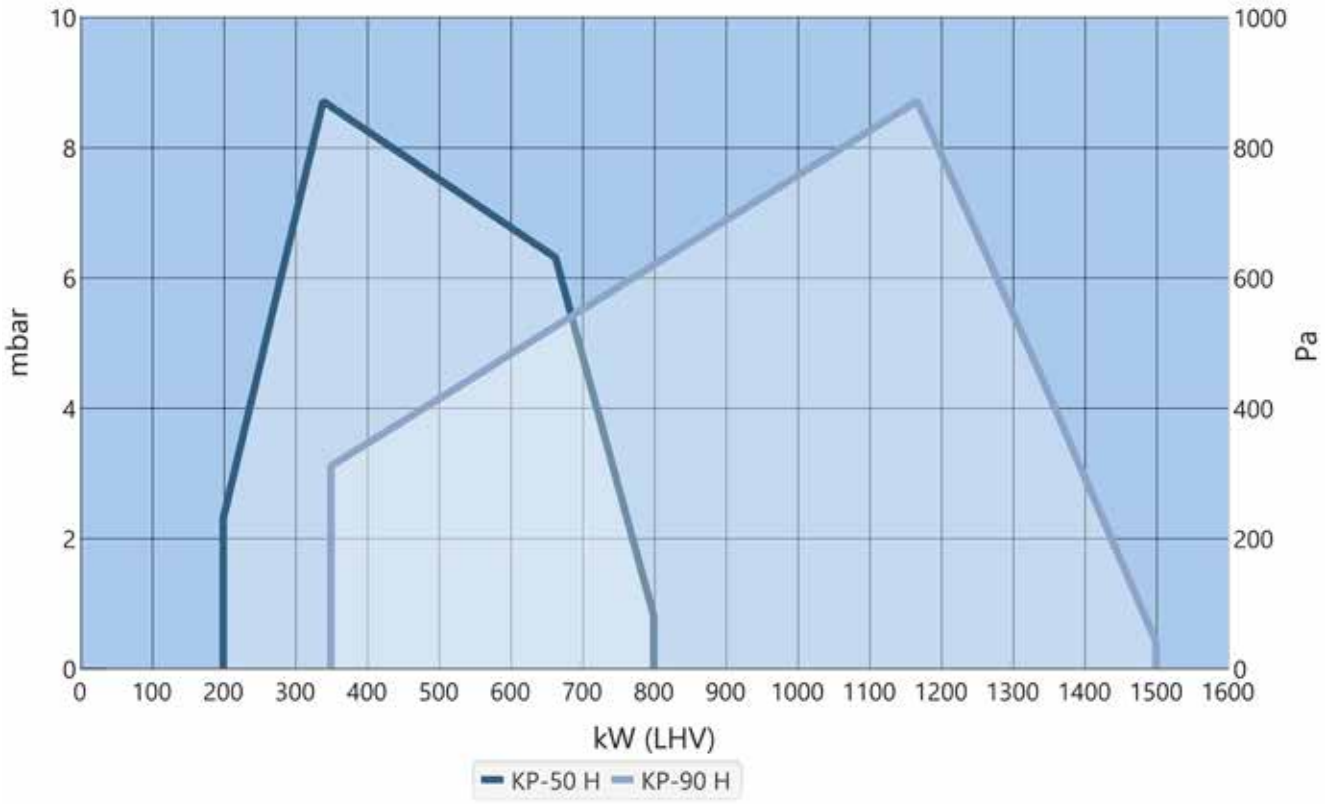


O= Oil inlet/return
E = Electrical connection

BURNER	L1	L2	H1	H2	H3	B1	B2	B3	B4	ØD1	R1	R2
KP-50 H	590	160	510	325	165	275	310	110	225	160	605	–
KP-90 H	635	250	545	330	185	315	395	155	272	200	665	695

Dimensions in mm.

Working diagram

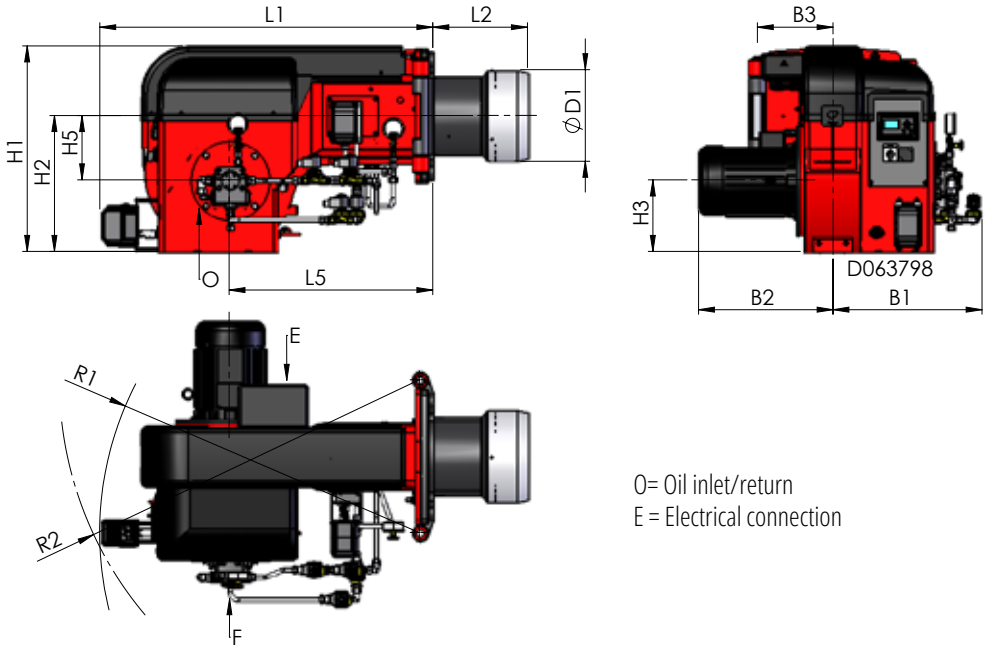


KP-140 H, KP-140 M, KP-150 M

Technical data

BURNER	KP-140 H	KP-140 M	KP-150 M
Capacity, kg/h kW	47 - 200 550 - 2350	47 - 200 550 - 2350	56 - 240 660 - 2850
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 4.0 7.2 2900	 4.0 7.2 2900	 5.5 9.8 2900
Oil hose connection – suction – return	 R ½" R ½"	 R ½" R ½"	 R ½" R ½"
Oil pump	J7	TAR2	TAR2
Control unit	LMO	WD33	WD33
NOx class	1	1	1
Weight, kg	107	118	128

Dimensions

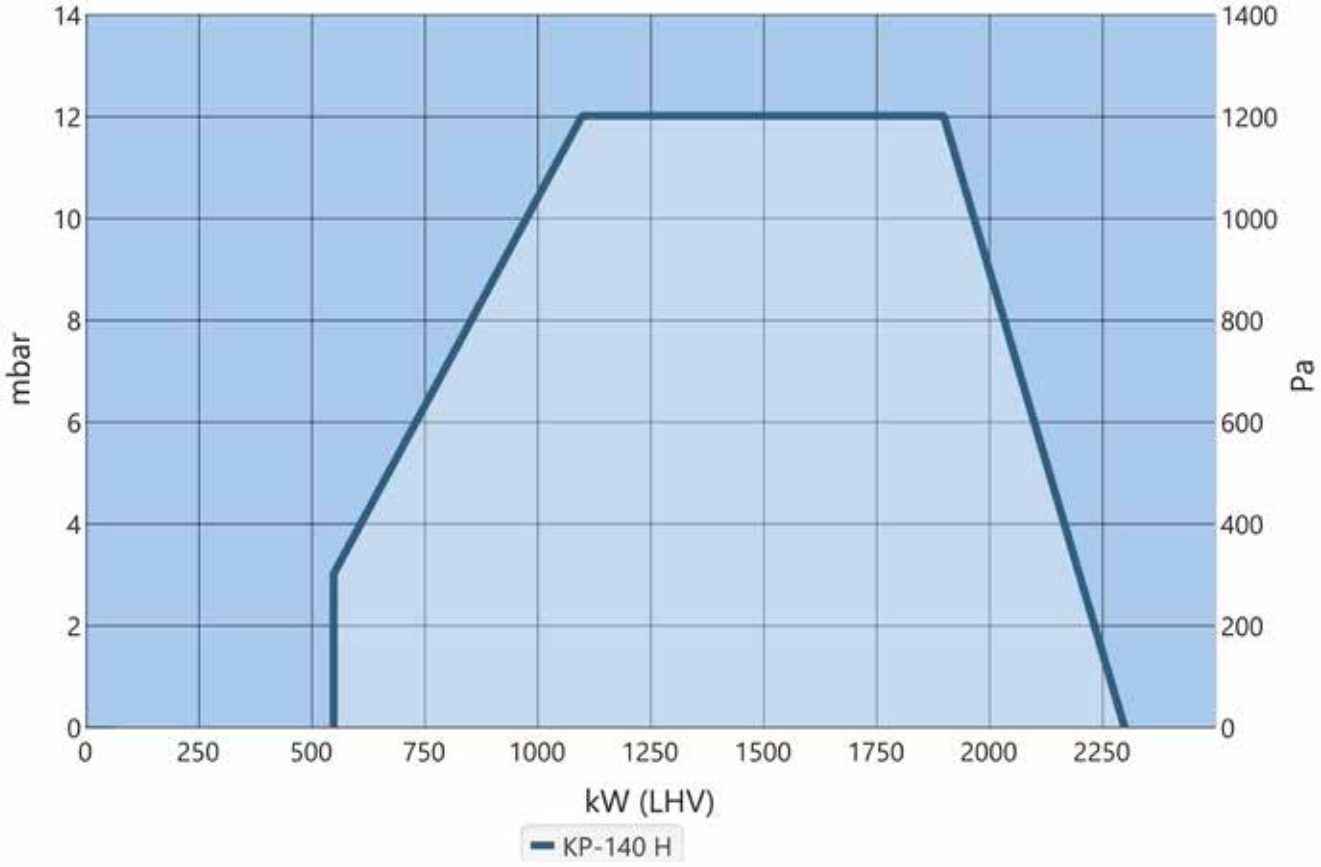


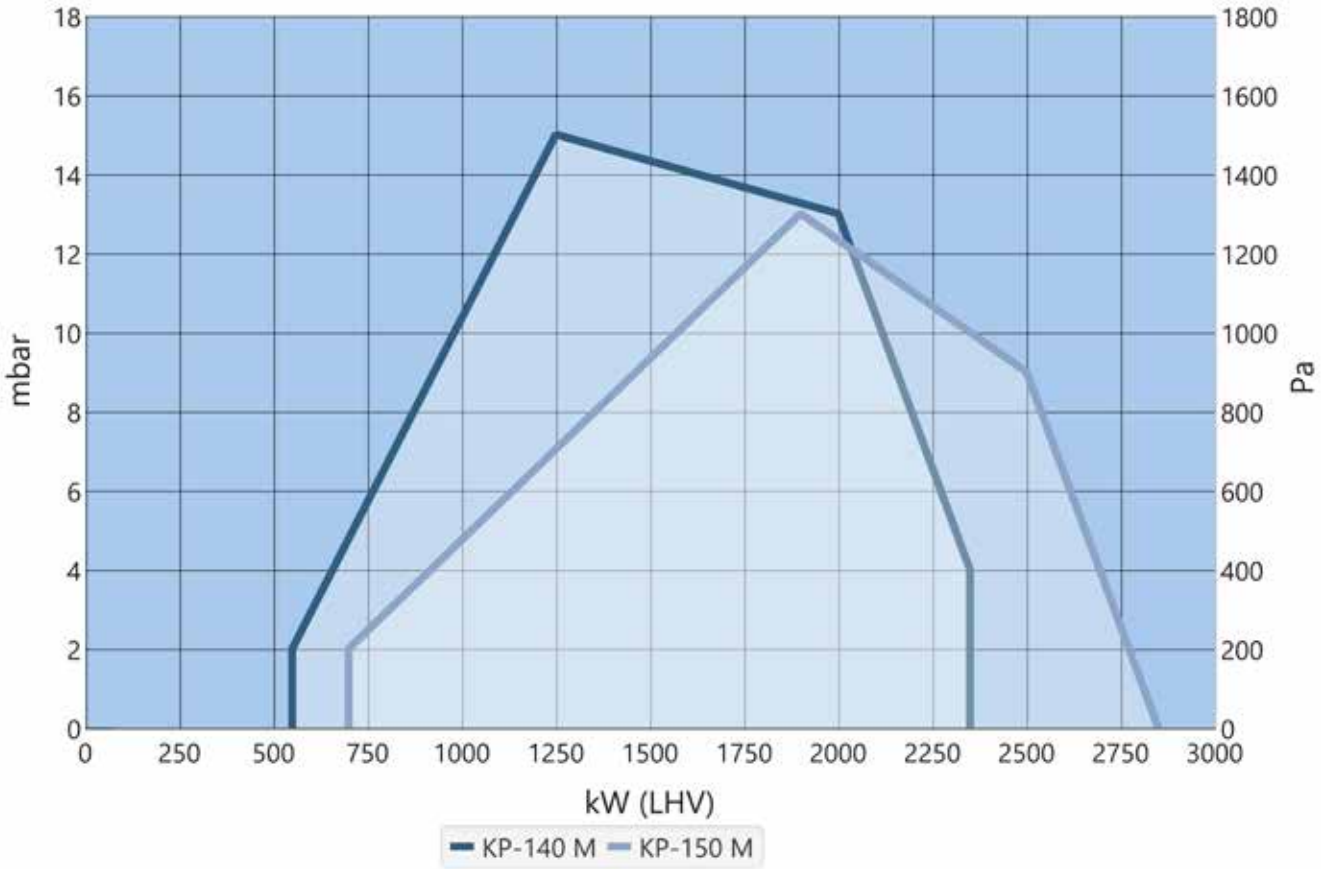
O= Oil inlet/return
E = Electrical connection

BURNER	L1	L2	L5	H1	H2	H3	H5	B1	B2	B3	ØD1	R1	R2
KP-140 H	1075	220	668	625	400	210	195	410	430	210	240	1030	1150
KP-140 M	1075	220	668	625	400	210	195	410	430	210	240	1030	1150
KP-150 M	1075	230	668	625	400	210	195	410	480	210	270	1030	1150

Dimensions in mm.

Working diagram



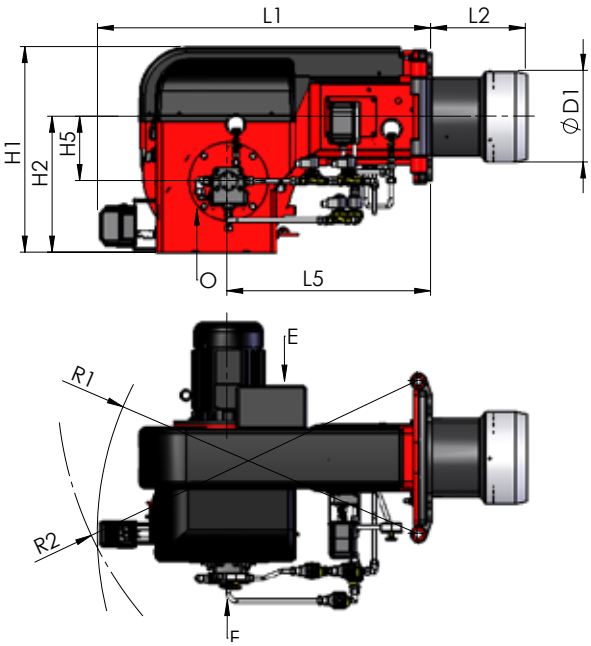


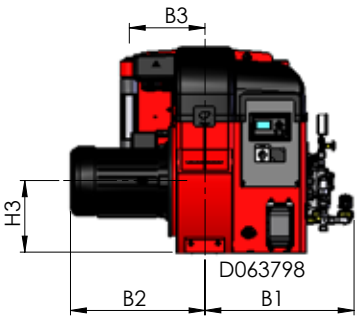
KP-250/280 M

Technical data

BURNER	KP-250 M	KP-280 M
Capacity, kg/h kW	55 - 220 655 - 2600	76 - 295 900 - 3500
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 7.5 13.0 2900	 7.5 13.0 2900
Oil hose connection – suction – return	 R ¾" R ½"	 R ¾" R ½"
Oil pump	TAR3	TAR3
Control unit	WD33	WD33
NOx class	1	1
Weight, kg	146	150

Dimensions



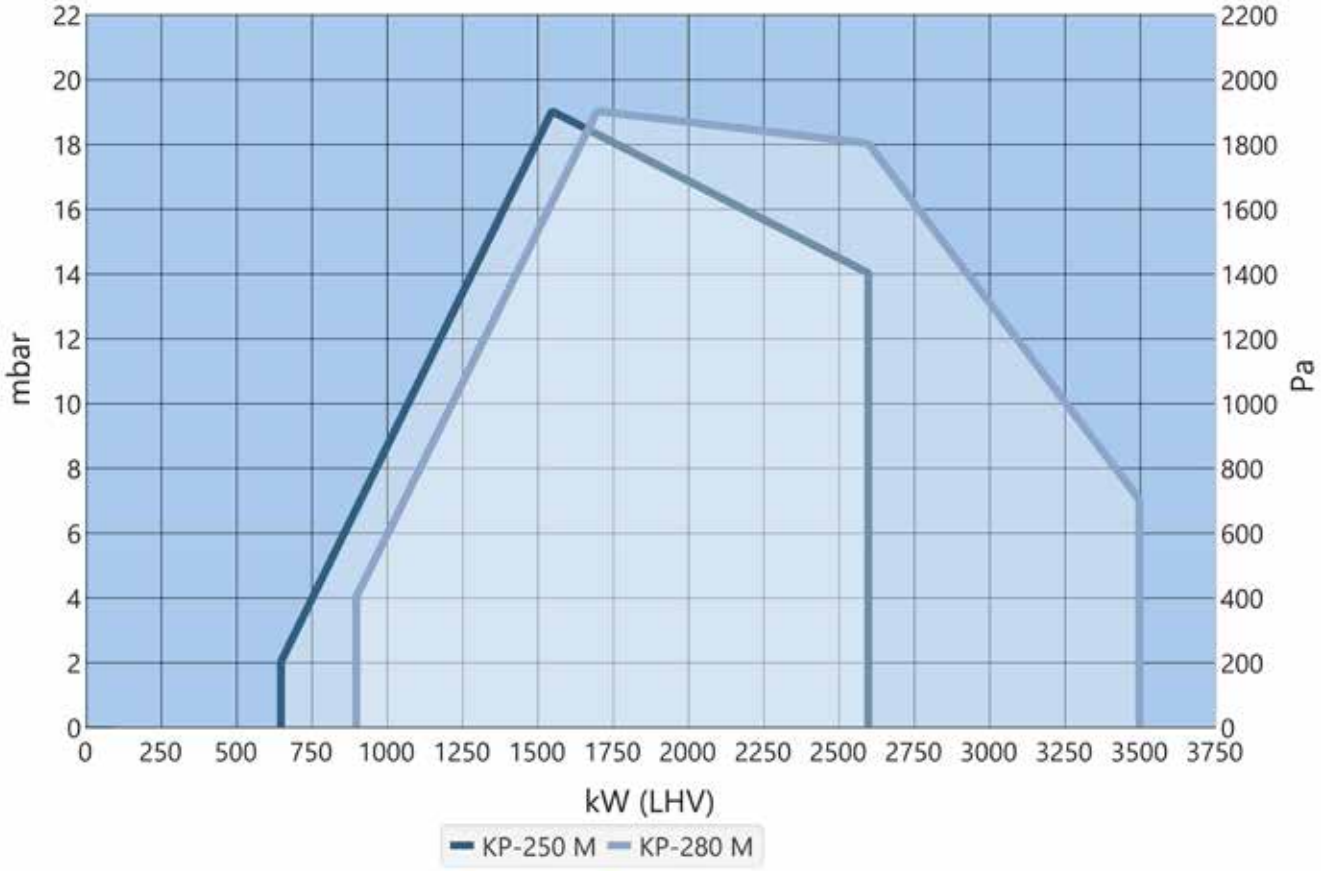


O= Oil inlet/return
E = Electrical connection

BURNER	L1	L2	L5	H1	H2	H3	H5	B1	B2	B3	ØD1	R1	R2
KP-250 M	1100	300	675	675	446	235	215	495	490	250	270	1050	1200
KP-280 M	1100	312	675	675	446	235	215	495	490	250	300	1050	1200

Dimensions in mm.

Working diagram

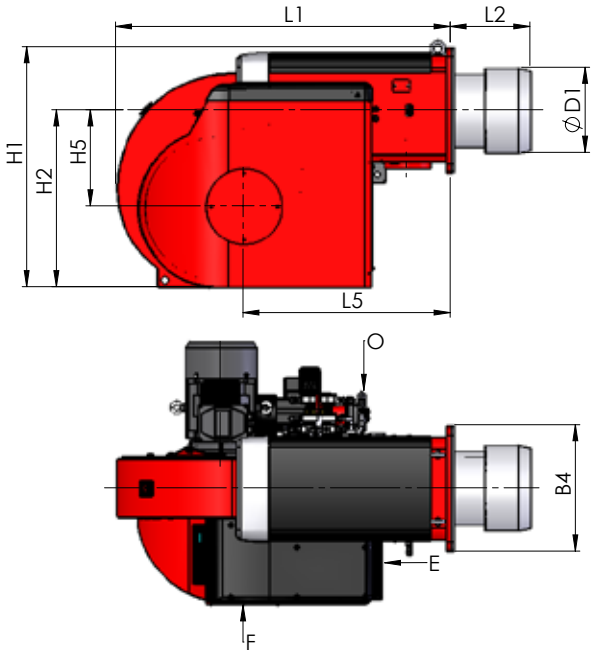


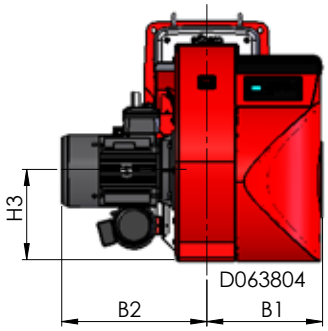
KP-350, -450 M

Technical data

BURNER	KP-350 M	KP-450 M
Capacity, kg/h kW	135 - 360 1600 - 4250	185 - 460 2200 - 5500
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 7.5 13.0 2900	 11.0 19.5 2900
Oil hose connection – suction – return	 R 1" R 1"	 R 1" R 1"
Oil pump – Motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	TAR4 1.5 3.2 2900	TAR4 1.5 3.2 2900
Control unit	WD33	WD33
NOx class	1	1
Weight, kg	340	470

Dimensions





O= Oil inlet/return
E = Electrical connection
F = FGR – flue gas recirculation

BURNER	L1	L2	L5	H1	H2	H3	H5	B1	B2	B4	ØD1
KP-350 M	1360	350	810	940	695	355	345	490	530	490	320
KP-450 M	1470	350	910	1050	770	395	420	510	650	550	370

Dimensions in mm.

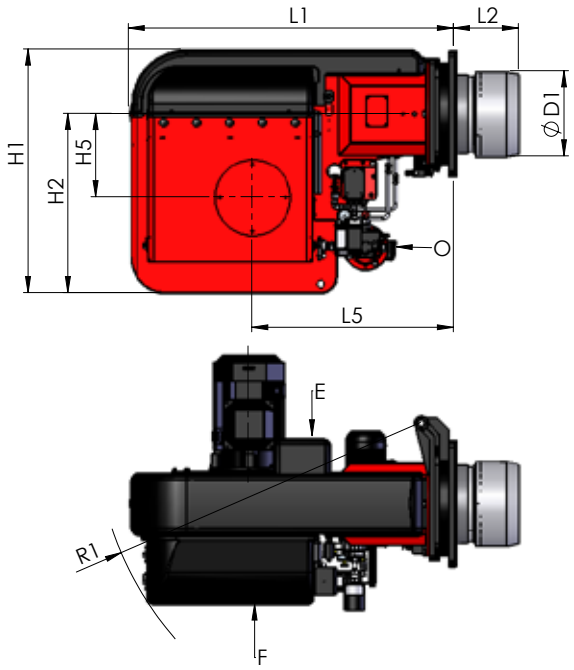
Working diagram

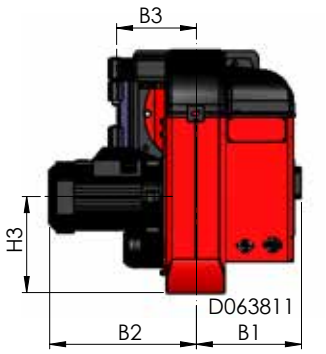
KP-500 M - 700 M-II

Technical data

BURNER	KP-500 M	KP-600 M	KP-700 M	KP-700 M-II
Capacity, kg/h kW	120 - 515 1400 - 6070	120 - 570 1400 - 6750	170 - 710 2000 - 8400	170 - 821 2000 - 9700
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 11.0 19.5 2900	 15.0 26.0 2900	 18.5 34.0 2900	 22.0 38.0 2900
Oil hose connection – suction – return	 R 1" R 1"	 R 1" R 1"	 R 1" R 1"	 R 1" R 1"
Oil pump – Motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	TAR5 2.2 4.4 2900	TAR5 2.2 4.4 2900	T3 4.0 7.2 2900	T4 4.0 7.2 2900
Control unit	WD33	WD33	WD33	WD33
NOx class	1	1	1	1
Weight, kg	470	480	500	535

Dimensions





O= Oil inlet/return
E = Electrical connection
F = FGR – flue gas recirculation

BURNER	L1	L2	L5	H1	H2	H3	H5	B1	B2	B3	ØD1	R1
KP-500 M	1450	264	885	1060	780	420	365	440	640	350	340	1450
KP-600 M	1450	290	885	1060	780	420	365	440	640	350	370	1450
KP-700 M	1450	310	985	1075	800	420	335	520	700	350	395	1450
KP-700 M-II	1450	310	985	1075	800	420	335	520	765	350	395	1450

Dimensions in mm.

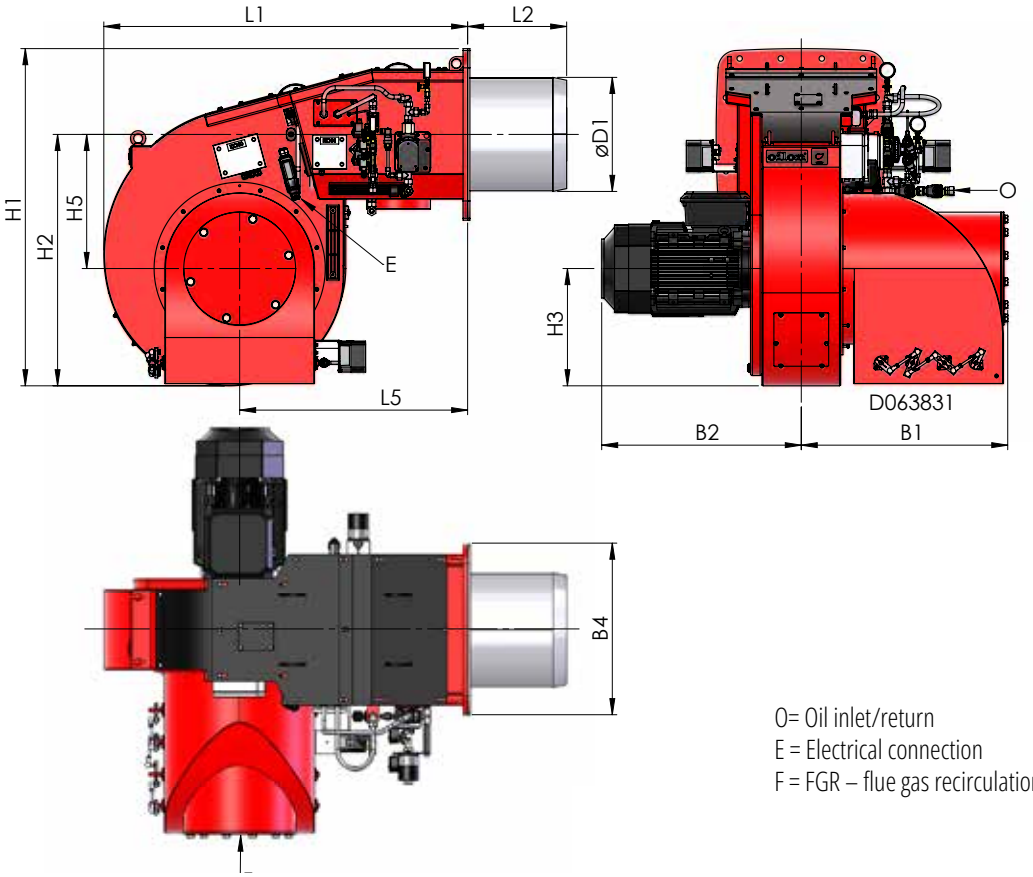
Working diagram

KP-1000/1200 M

Technical data

BURNER	KP-1000 M	KP-1200 M
Capacity, kg/h kW	152 - 935 1800 - 11100	185 - 1120 2200 - 13300
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 37.0 65.0 2900	 45.0 77.0 2900
Oil hose connection	2xØ22	2xØ22
Control unit	WDx00	WDx00
NOx class	1	1
Weight, kg	780	830

Dimensions

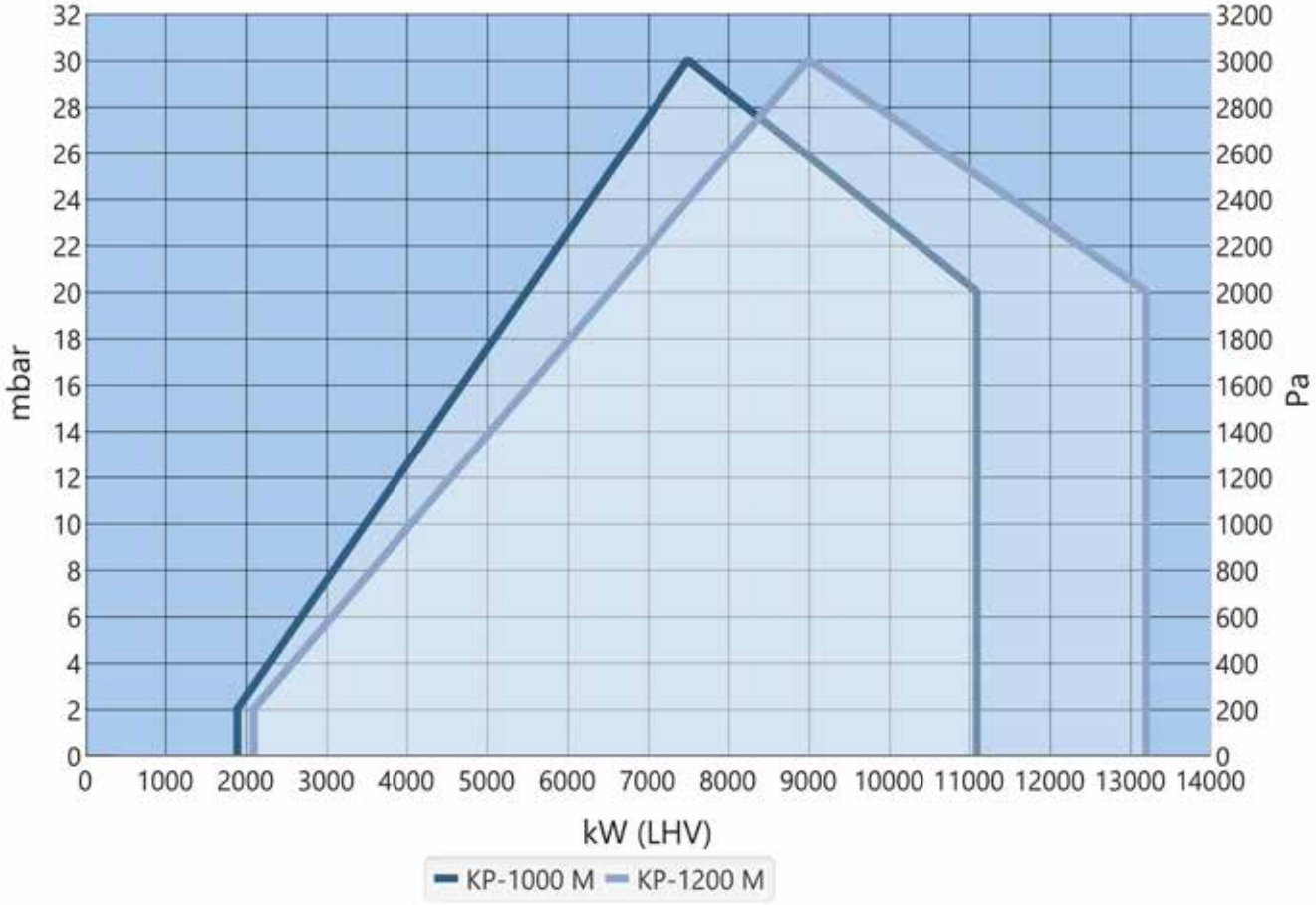


O= Oil inlet/return
E = Electrical connection
F = FGR – flue gas recirculation

BURNER	L1	L2	L5	H1	H2	H3	H5	B1	B2	B4	ØD1
KP-1000 M	1600	434	1000	1470	1100	510	585	905	880	750	496
KP-1200 M	1600	434	1000	1470	1100	510	585	905	930	750	520

Dimensions in mm.

Working diagram



Scope of delivery, KP-50 - 1200

	50 - 150 H	140 - 280	350 - 450	500 - 700	1000 - 1200*
Hinge flange with limit switch	•	•	–	•	–
Burner flange gasket	•	•	•	•	•
WiseDrive (electronic ratio control) **	–	•	•	•	•
Ignition transformer	•	•	•	•	•
Ignition cables and electrodes	•	•	•	•	•
Flame detector: – LMO/QRB – WD3x/QRA (intermittent operation) – WDx00/QRI (continuous operation)	 • – –	 – • –	 – • –	 – • •	 – – •
Built-in combustion air fan	•	•	•	•	•
Air damper with servomotor	•	•	•	•	•
Combustion head optimizer with servomotor, WDx00	–	–	–	•	–
Differential air pressure switch	–	•	•	•	•
Oil nozzle	•	•	•	•	•
Solenoid valves for oil	•	•	•	•	•
Oil pump with pressure regulation valve	•	•	•	•	–
Oil regulating valve with servomotor	–	•	•	•	•
Separate motor for oil pump	–	–	•	•	–
Pressure gauge or gauges for oil	–	•	•	•	•
Pressure switch for return oil	–	•	•	•	•
Oil hoses, 2 pcs – 1,000 mm – 2,000 mm	 •	 •	 •	 •	 – –
Oil filter	•	•	•	•	–
Operation and maintenance manual	•	•	•	•	•

• Standard
* Separate booster unit PKYK, accessory
** For more information, see chapter Oilon WiseDrive.

Options:

	50 - 150 H	140 - 280	350 - 450	500 - 700	1000 - 1200
FGR equipment	–	–	•	•	•
Fan pressure gauge	•	•	•	•	•
Continuous operation, WD3x	–	•	•	•	–
VSD equipment	–	•	•	•	•
Extended combustion head	•	•	•	•	–
Deaerator for oil	–	•	•	•	–
Pressure gauge for monitoring of inlet oil pressure	–	•	•	•	•
Pressure switch for monitoring of inlet oil pressure	–	•	•	•	•
Oil pressure (nozzle and return) transmitter	–	•	•	•	•

Heavy fuel oil burners

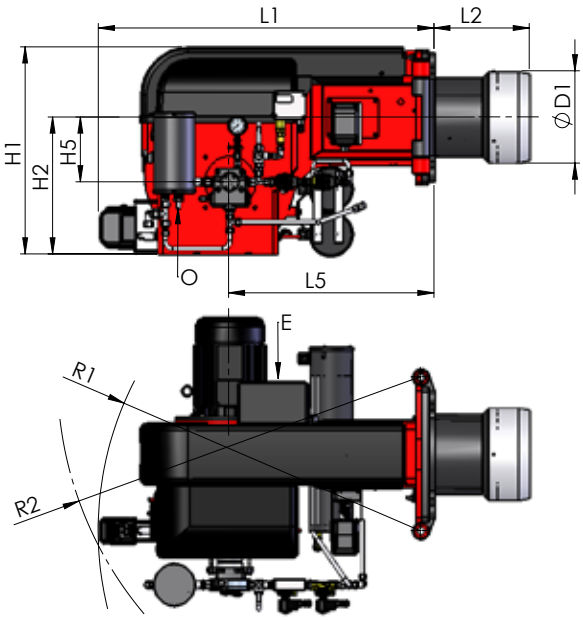
390–9,500 kW

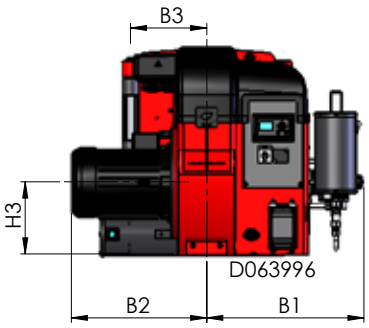
RP-130 M - 280 M

Technical data

BURNER	RP-130 M	RP-140 M	RP-150 M	RP-250 M	RP-280 M
Capacity, kg/h kW	34 - 121 390 - 1370	50 - 180 560 - 2040	60 - 240 680 - 2700	58 - 230 650 - 2600	80 - 308 900 - 3500
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 3.0 5.6 2900	 4.0 7.2 2900	 5.5 9.8 2900	 7.5 13.0 2900	 7.5 13.0 2900
Oil hose connection – suction – return	 R ½" R ½"	 R ½" R ½"	 R ½" R ½"	 R ¾" R ½"	 R ¾" R ½"
Oil pump	TAR2	TAR2	TAR2	TAR3	TAR3
Preheater 3~ 400 V 50 Hz Output, kW	 6	 6	 12	 12	 12
Control unit	WDx00	WDx00	WDx00	WDx00	WDx00
Weight, kg	115	139	167	195	196

Dimensions



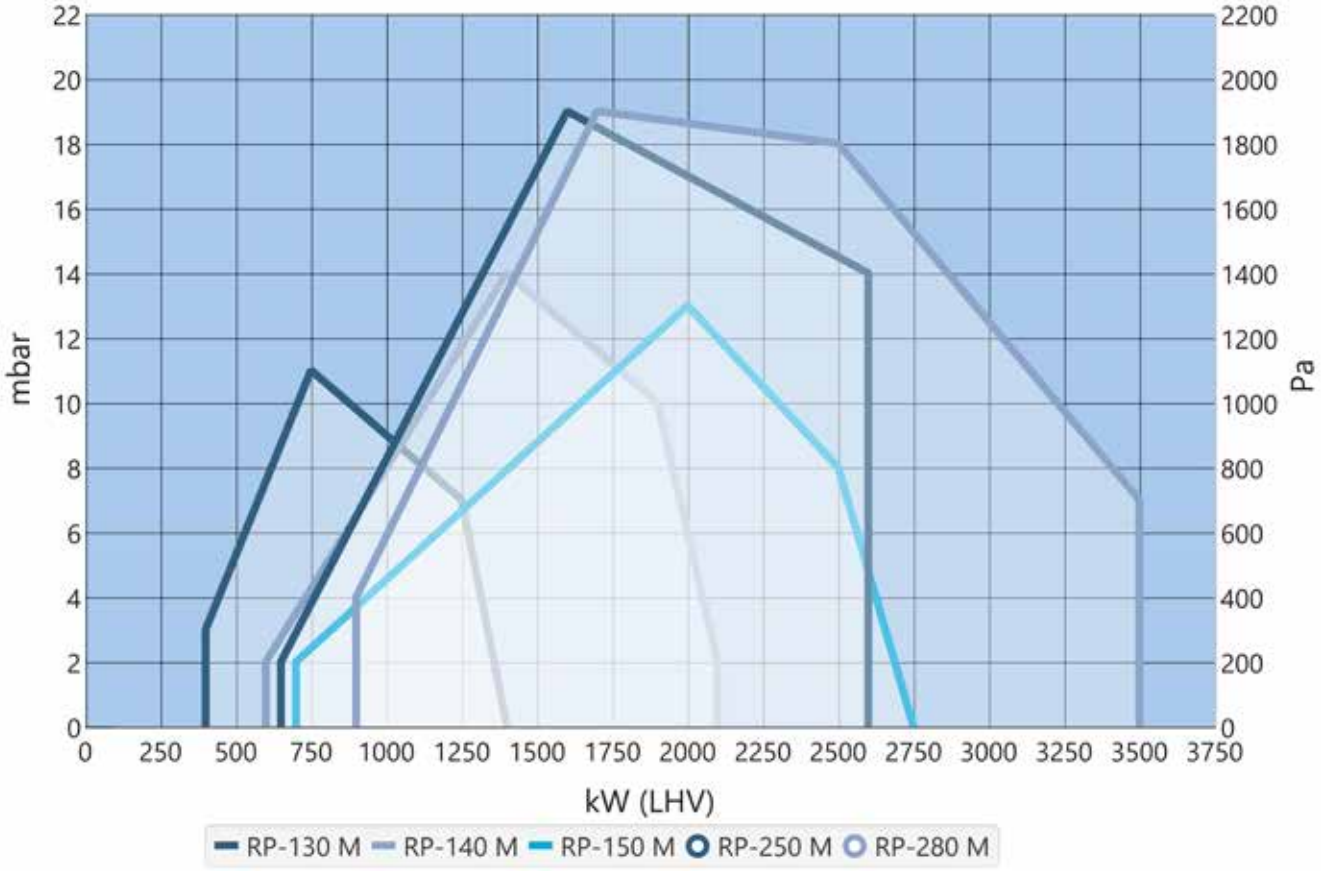


O= Oil inlet/return
E = Electrical connection

BURNER	L1	L2	L5	H1	H2	H3	H5	B1	B2	B3	ØD1	R1	R2
RP-130 M	1075	200	668	625	400	210	195	500	430	210	200	1030	1150
RP-140 M	1075	220	668	625	400	210	195	500	430	210	240	1030	1150
RP-150 M	1075	230	668	700	470	230	195	500	480	210	270	1030	1150
RP-250 M	1100	300	675	675	450	235	215	540	490	250	270	1050	1200
RP-280 M	1100	312	675	675	450	235	215	540	490	250	300	1050	1200

Dimensions in mm.

Working diagram

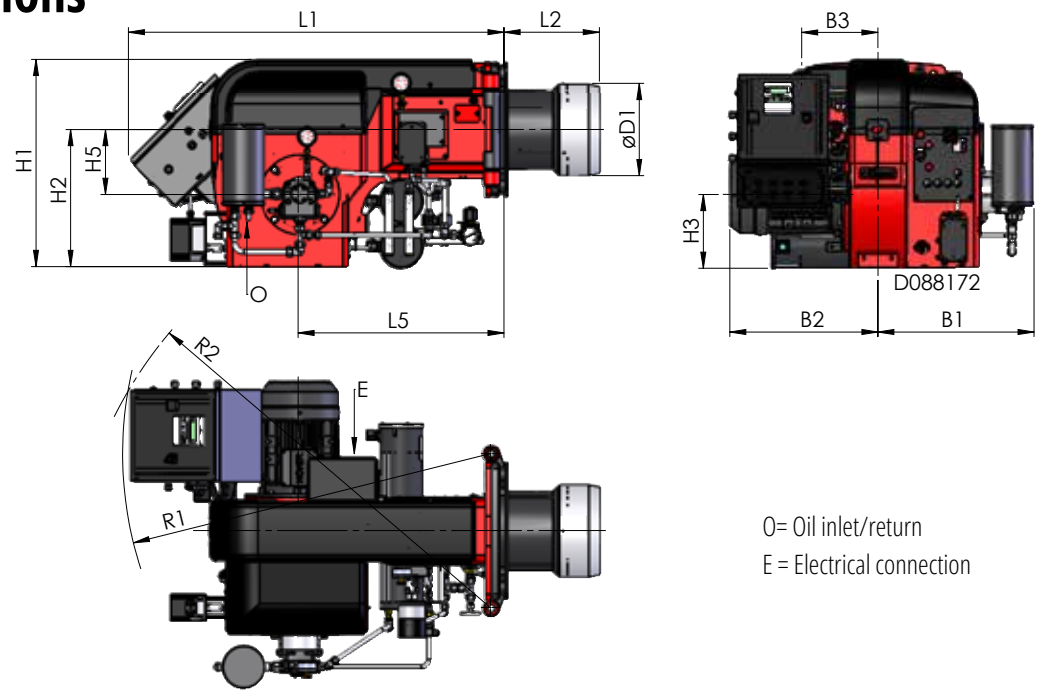


RP-130 M - 280 M
with integrated control cabinet

Technical data

BURNER	RP-130 M	RP-140 M	RP-150 M	RP-250 M	RP-280 M
Capacity, kg/h kW	34 - 121 390 - 1370	50 - 180 560 - 2040	60 - 240 680 - 2700	58 - 230 650 - 2600	80 - 308 900 - 3500
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 3.0 5.6 2900	 4.0 7.2 2900	 5.5 9.8 2900	 7.5 13.0 2900	 7.5 13.0 2900
Oil hose connection – suction – return	 R ½" R ½"	 R ½" R ½"	 R ½" R ½"	 R ¾" R ½"	 R ¾" R ½"
Oil pump	TAR2	TAR2	TAR2	TAR3	TAR3
Preheater 3~ 400 V 50 Hz Output, kW	 6	 6	 12	 12	 12
Control unit	WDx00i	WDx00i	WDx00i	WDx00i	WDx00i
Weight, kg	115	139	167	195	196

Dimensions

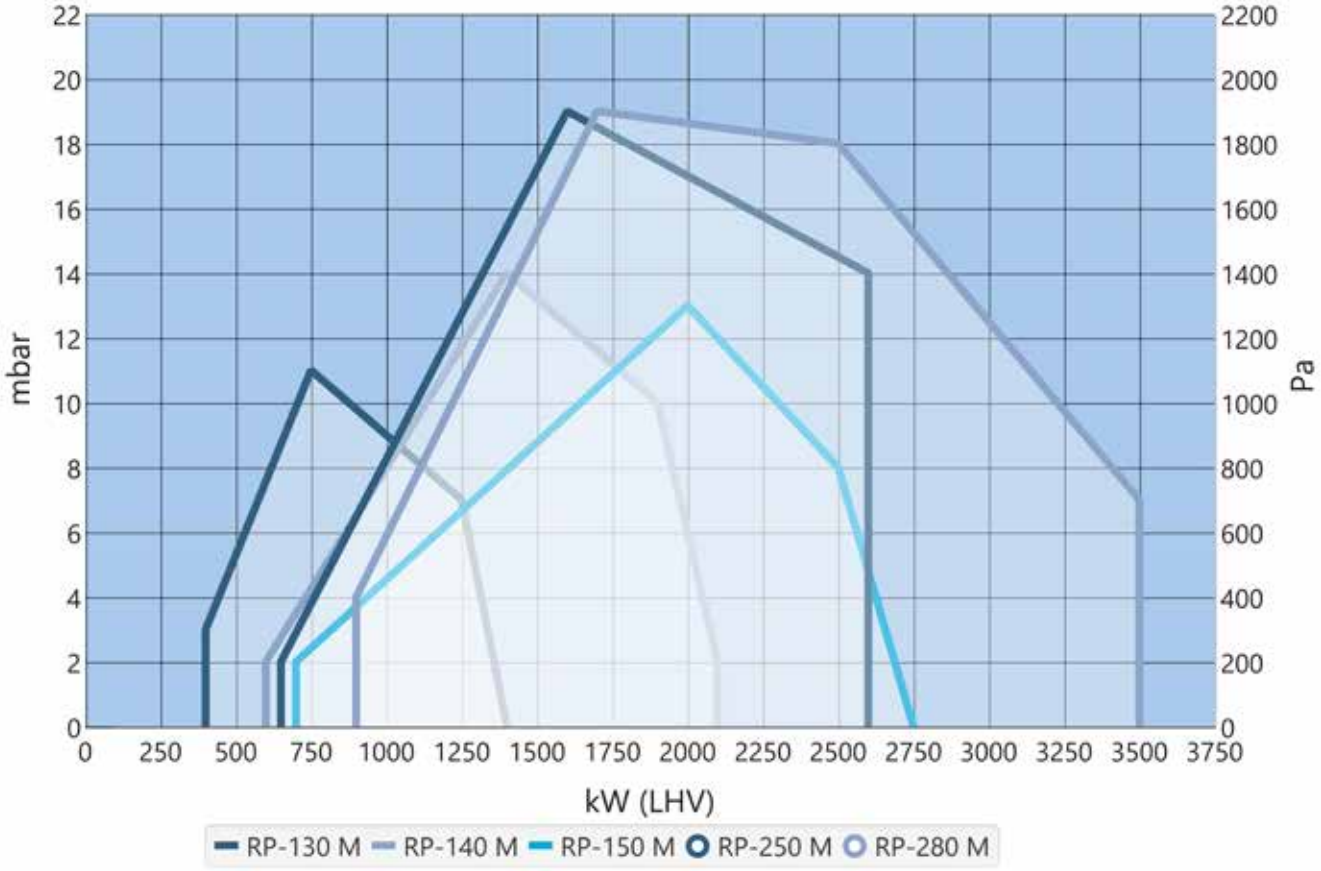


O= Oil inlet/return
E = Electrical connection

BURNER	L1	L2	L5	H1	H2	H3	H5	B1	B2	B3	ØD1	R1	R2
RP-130 M	1180	200	668	625	400	210	195	500	430	210	200	1155	1310
RP-140 M	1180	220	668	625	400	210	195	500	430	210	240	1155	1310
RP-150 M	1180	230	668	700	470	230	195	500	480	210	270	1155	1310
RP-250 M	1230	300	675	675	450	235	215	540	490	250	270	1205	1380
RP-280 M	1230	312	675	675	450	235	215	540	490	250	300	1205	1380

Dimensions in mm.

Working diagram

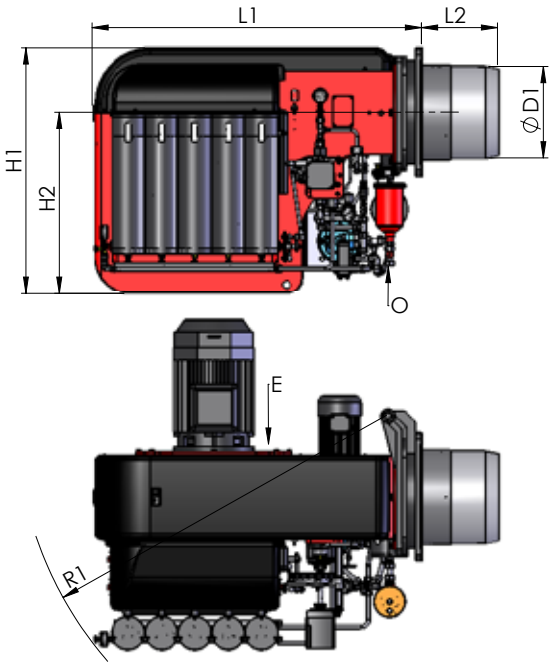


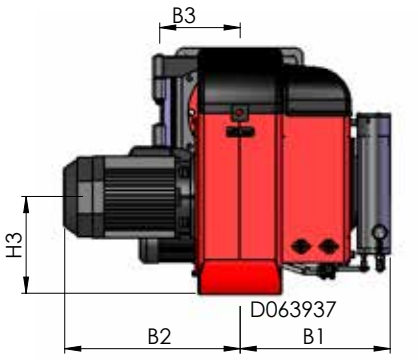
RP-300 M-II - 700 M-II

Technical data

BURNER	RP-300 M-II	RP-400 M-I	RP-500 M	RP-600 M	RP-700 M	RP-700 M-II
Capacity, kg/h kW	76 - 405 850 - 4500	110 - 420 1300 - 4700	140 - 535 1585 - 6060	125 - 600 1400 - 6750	170 - 710 1900 - 7900	170 - 850 1900 - 9500
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 7.5 13.0 2900	 11.0 19.5 2900	 11.0 19.5 2900	 15.0 26.0 2900	 18.5 34.0 2900	 22.0 38.0 2900
Oil hose connection – suction – return	 R 1" R ½"	 R 1" R ½"	 R 1" R ½"	 R 1" R ½"	 R 1" R ½"	 R 1" R ½"
Oil pump – Motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	TAR4 1.5 3.2 2900	TAR5 2.2 4.4 2900	TAR5 2.2 4.4 2900	TAR5 2.2 4.4 2900	T3 4.0 4.4 2900	T4 4.0 4.4 2900
Preheater 3~ 400 V 50 Hz Output, kW	 12	 18	 18	 18	 24	 30
Control unit	WDx00	WDx00	WDx00	WDx00	WDx00	WDx00
Weight, kg	390	540	540	545	610	655

Dimensions



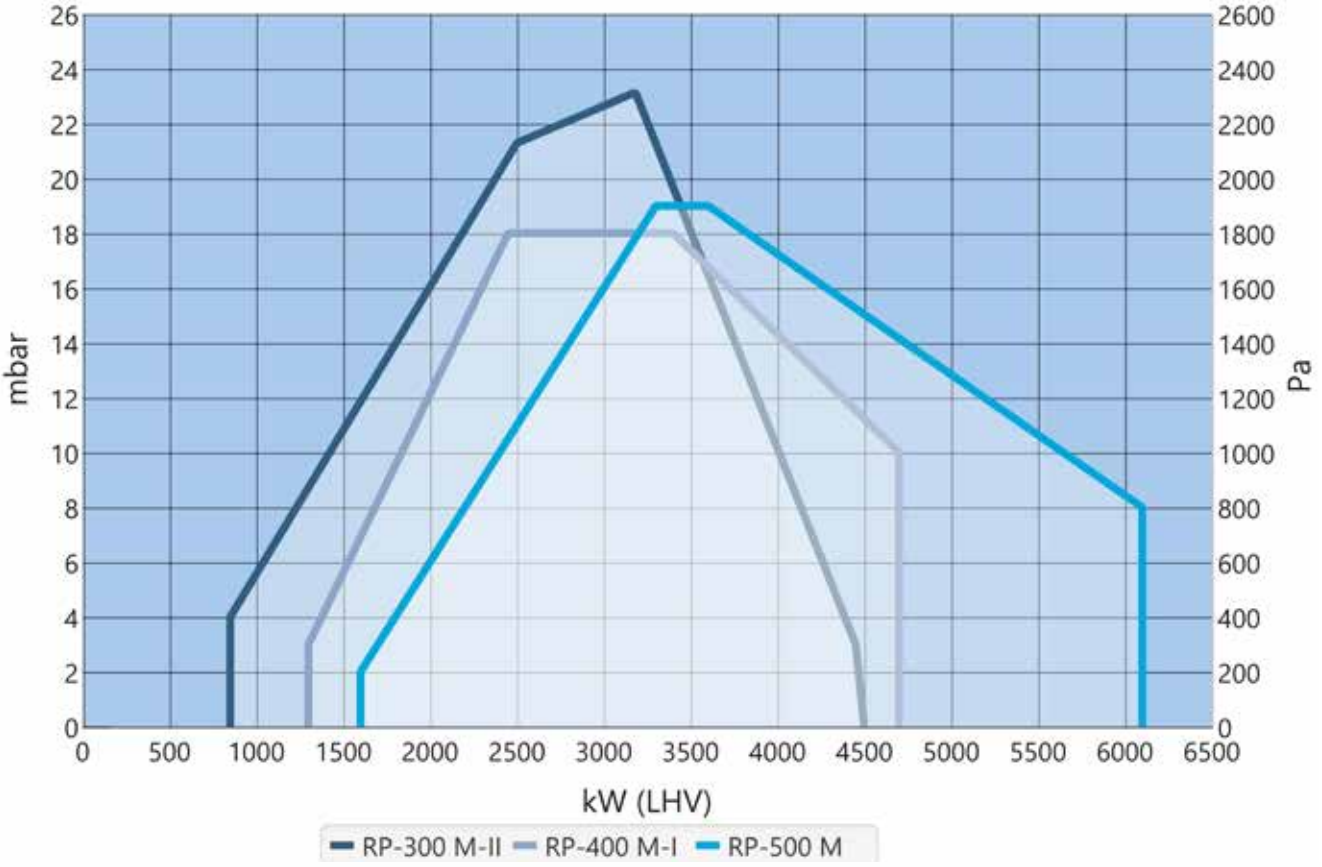


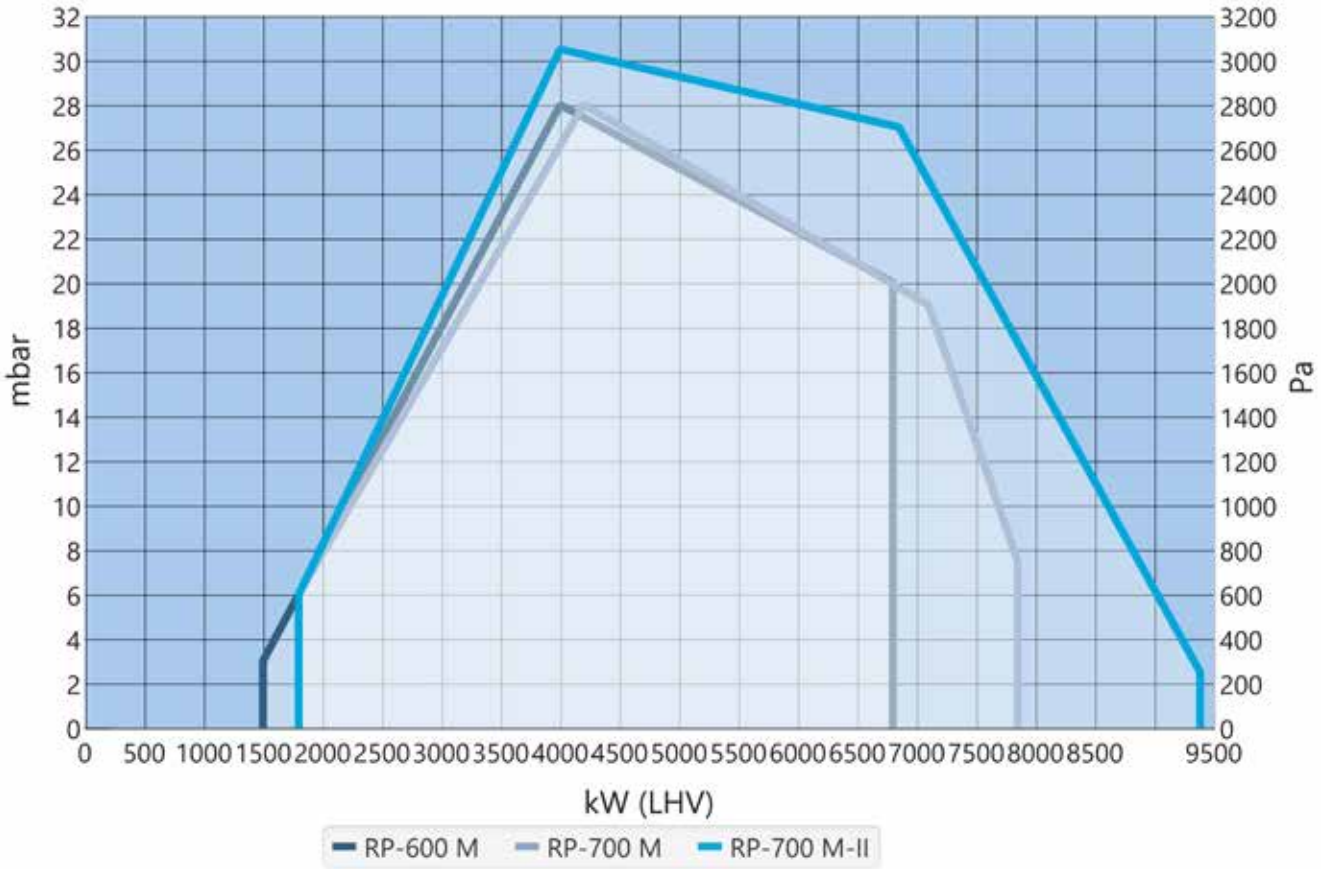
O= Oil inlet/return
E = Electrical connection

BURNER	L1	L2	H1	H2	H3	B1	B2	B3	ØD1	R1
RP-300 M-II	1350	222	925	665	360	590	580	300	300	1400
RP-400 M-I	1450	264	1060	780	420	655	640	350	340	1450
RP-500 M	1450	264	1060	780	420	655	640	350	340	1450
RP-600 M	1450	290	1060	780	420	655	640	350	370	1450
RP-700 M	1450	310	1060	780	420	655	730	350	395	1470
RP-700 M-II	1450	310	1060	780	420	655	765	350	395	1620

Dimensions in mm.

Working diagram





Scope of delivery, RP-130 - 700

	130 - 280	300 - 700
Hinge flange with limit switch	•	•
Burner flange gasket	•	•
WiseDrive (electronic ratio control) *	•	•
Ignition transformer	•	•
Ignition cables and electrodes	•	•
Flame detector: – WDx00/QRI (continuous operation)	•	•
Built-in combustion air fan	•	•
Air damper with servomotor	•	•
Combustion head optimizer with servomotor, WDx00	–	•
Oil nozzle	•	•
Solenoid valves for oil	•	•
Oil pump with pressure regulation valve	•	•
Oil regulating valve with servomotor	•	•
Separate motor for oil pump	–	•
Non-return valve	•	•
Pressure gauge or gauges for oil	•	•
Pressure switch for return oil	•	•
2 oil hoses, 2,000 mm	•	•
Oil filter	•	•
Deaerator for oil	•	•
Heating cartridge for solenoid valve	•	•
Thermometer	•	•
Electric preheater incl: limit thermostat, temperature sensor	•	•
Operation and maintenance manual	•	•

• Standard
* For more information, see chapter Oilon WiseDrive.

Optional equipment:

	130 - 280	300 - 700
Fan pressure gauge	•	•
Continuous operation, WD3x	–	–
VSD equipment	•	•
Extended combustion head	•	•
Pressure gauge for monitoring of inlet oil pressure	•	•
Pressure switch for monitoring of inlet oil pressure	•	•
Oil pressure (nozzle and return) transmitter	•	•
Oil temperature (nozzle and return) transmitter	•	•

Options:

	130 - 280	300 - 700
Heating cartridge for oil nozzle and oil pump	•	•
Electric trace heating for oil pipeline	•	•
Electric trace heating for oil hoses	•	•

Dual fuel burners
Gas/heavy fuel oil

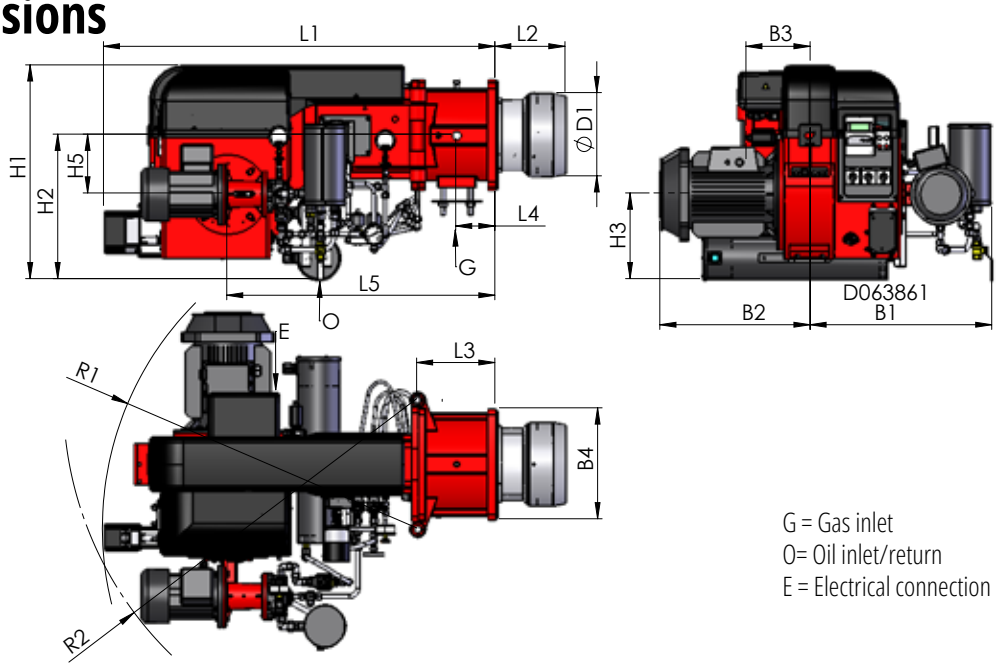
370–9,500 kW

GRP-130 - 280 M

Technical data

BURNER	GRP-130 M	GRP-140 M	GRP-150 M	GRP-250 M	GRP-280 M
Capacity, oil, kg/h oil, kW gas, kW	34 - 132 390 - 1500 390 - 1500	50 - 180 560 - 2040 410 - 2040	60 - 240 680 - 2700 450 - 2700	58 - 230 650 - 2600 370 - 2600	80 - 308 900 - 3500 500 - 3500
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 3.0 5.6 2900	 4.0 7.2 2900	 5.5 9.8 2900	 5.5 9.8 2900	 7.5 13.0 2900
Oil hose connection – suction – return	 R ½" R ½"	 R ½" R ½"	 R ½" R ½"	 R ¾" R ½"	 R ¾" R ½"
Oil pump – Motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	TAR2 1.5 3.2 2900	TAR2 1.5 3.2 2900	TAR2 1.5 3.2 2900	TAR3 1.5 3.2 2900	TAR3 1.5 3.2 2900
Preheater 3~ 400 V 50 Hz Output, kW	 6	 6	 12	 12	 12
Control unit	WDx00	WDx00	WDx00	WDx00	WDx00
NOx class gas	 1	 1	 1	 1	 1
Weight, kg	167	174	198	233	238

Dimensions



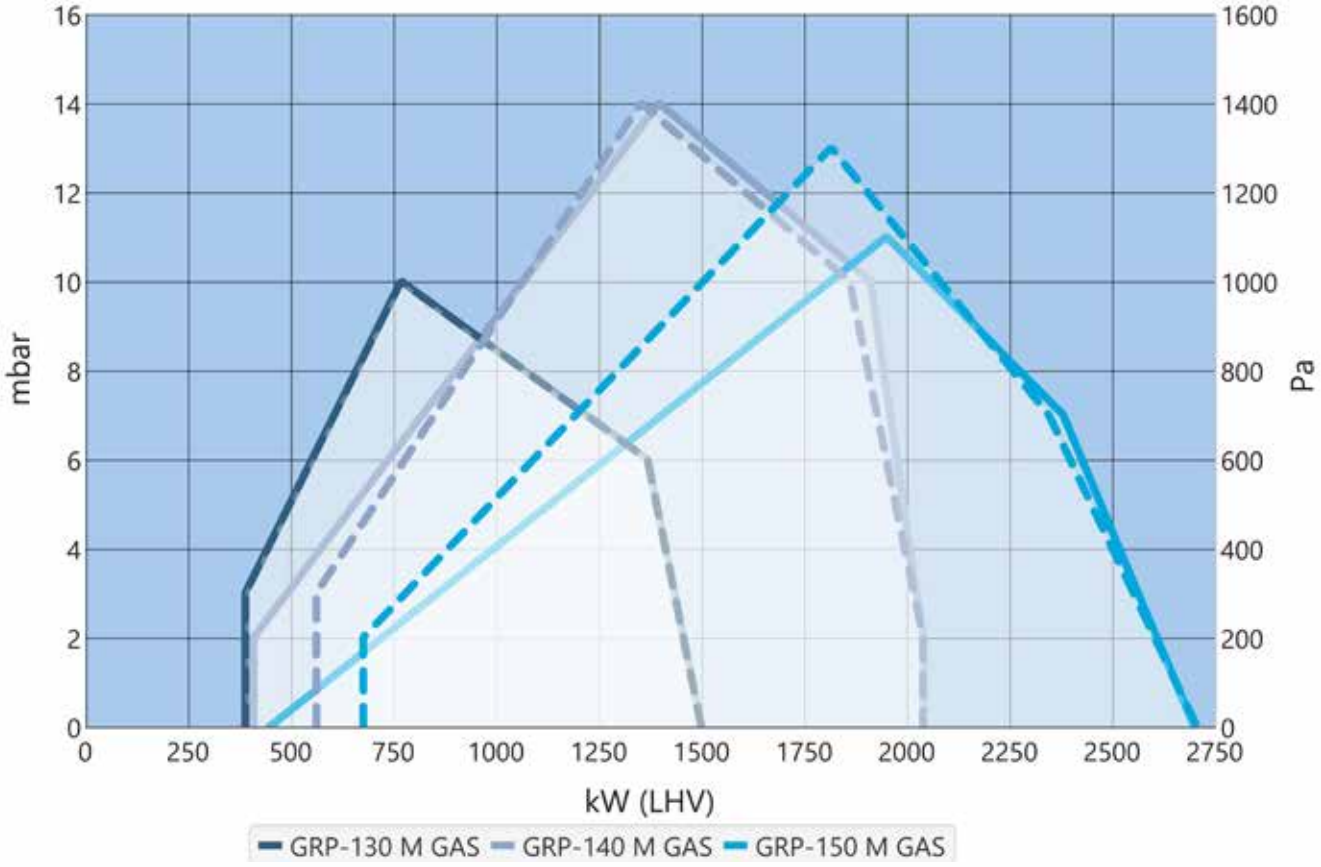
G = Gas inlet
O= Oil inlet/return
E = Electrical connection

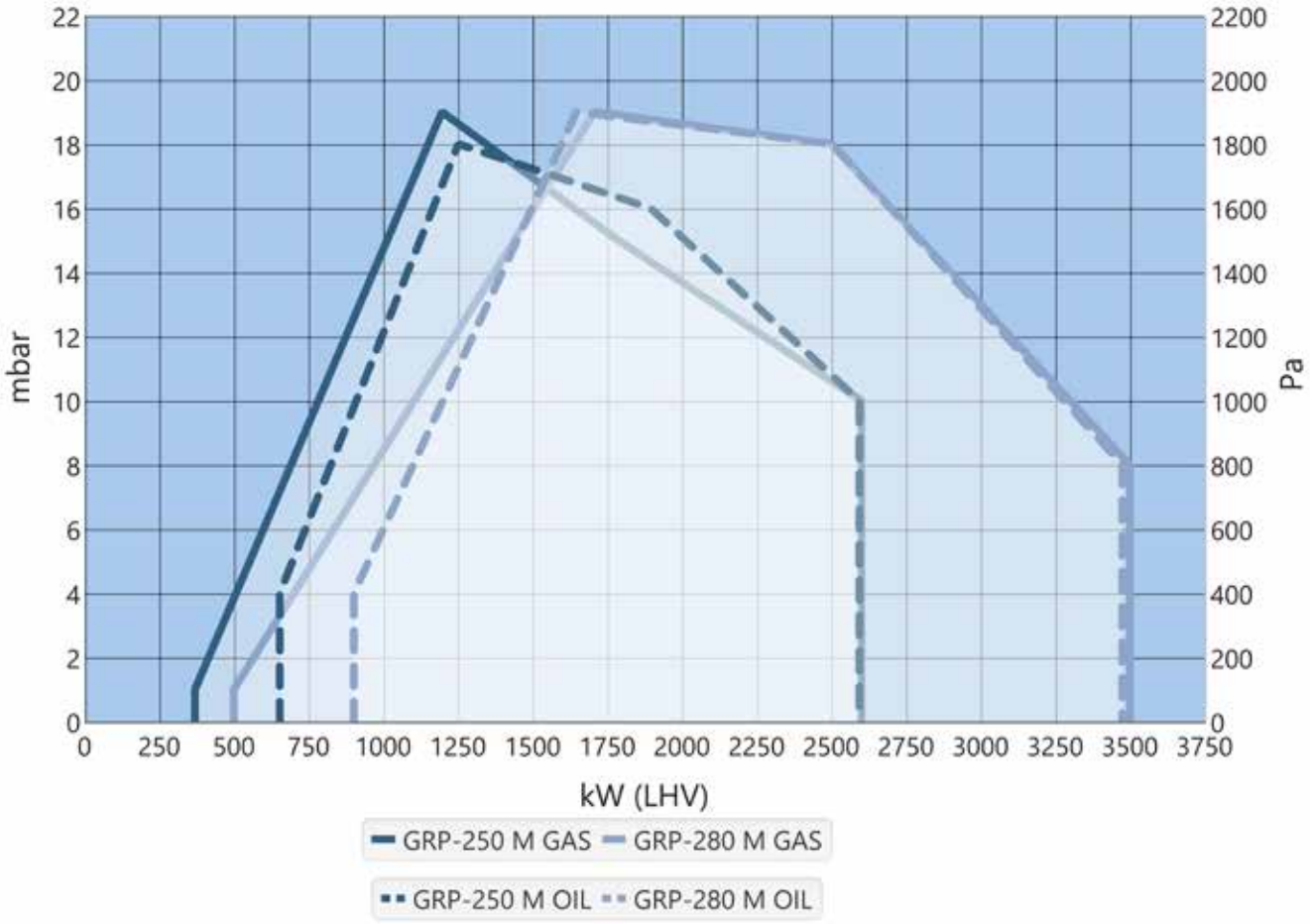
BURNER	L1	L2	L3	L4	L5	H1	H2	H3	H5
GRP-130 M	1285	200	260	129	880	625	400	210	195
GRP-140 M	1285	220	260	129	880	625	400	210	195
GRP-150 M	1285	230	260	129	880	700	470	230	195
GRP-250 M	1320	300	260	130	890	675	450	235	215
GRP-280 M	1320	312	260	130	890	675	450	235	215

BURNER	B1	B2	B3	B4	ØD1	R1	R2
GRP-130 M	600	430	210	360	200	1050	1160
GRP-140 M	600	430	210	360	240	1050	1160
GRP-150 M	600	480	210	360	270	1050	1160
GRP-250 M	635	490	250	440	270	1100	1200
GRP-280 M	635	490	250	440	300	1100	1200

Dimensions in mm.

Working diagram



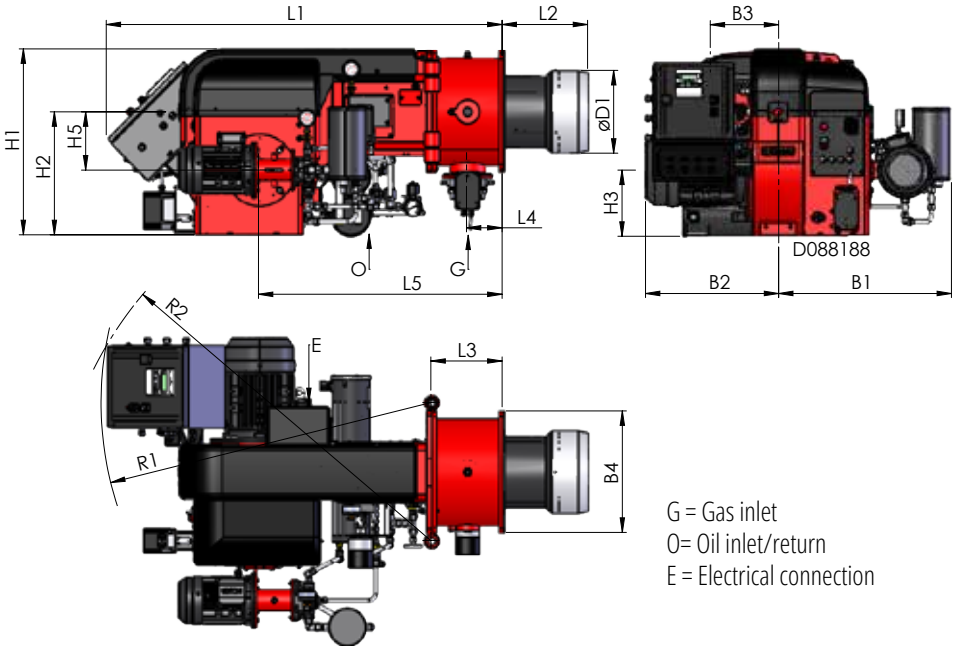


GRP-130 M - 280 M
with integrated control cabinet

Technical data

BURNER	GRP-130 M	GRP-140 M	GRP-150 M	GRP-250 M	GRP-280 M
Capacity, oil, kg/h	34 - 132	50 - 180	60 - 240	58 - 230	80 - 308
oil, kW	390 - 1500	560 - 2040	680 - 2700	650 - 2600	900 - 3500
gas, kW	390 - 1500	410 - 2040	450 - 2700	370 - 2600	500 - 3500
Fan motor					
3~ 400 V 50 Hz					
Output, kW	3.0	4.0	5.5	5.5	7.5
Current, A	5.6	7.2	9.8	9.8	13.0
Nominal speed, rpm	2900	2900	2900	2900	2900
Oil hose connection					
– suction	R ½"	R ½"	R ½"	R ¾"	R ¾"
– return	R ½"	R ½"	R ½"	R ½"	R ½"
Oil pump	TAR2	TAR2	TAR2	TAR3	TAR3
– Motor 3~ 400 V 50 Hz					
Output, kW	1.5	1.5	1.5	1.5	1.5
Current, A	3.2	3.2	3.2	3.2	3.2
Nominal speed, rpm	2900	2900	2900	2900	2900
Preheater					
3~ 400 V 50 Hz					
Output, kW	6	6	12	12	12
Control unit	WDx00i	WDx00i	WDx00i	WDx00i	WDx00i
NOx class					
gas	1	1	1	1	1
Weight, kg	167	174	198	233	238

Dimensions



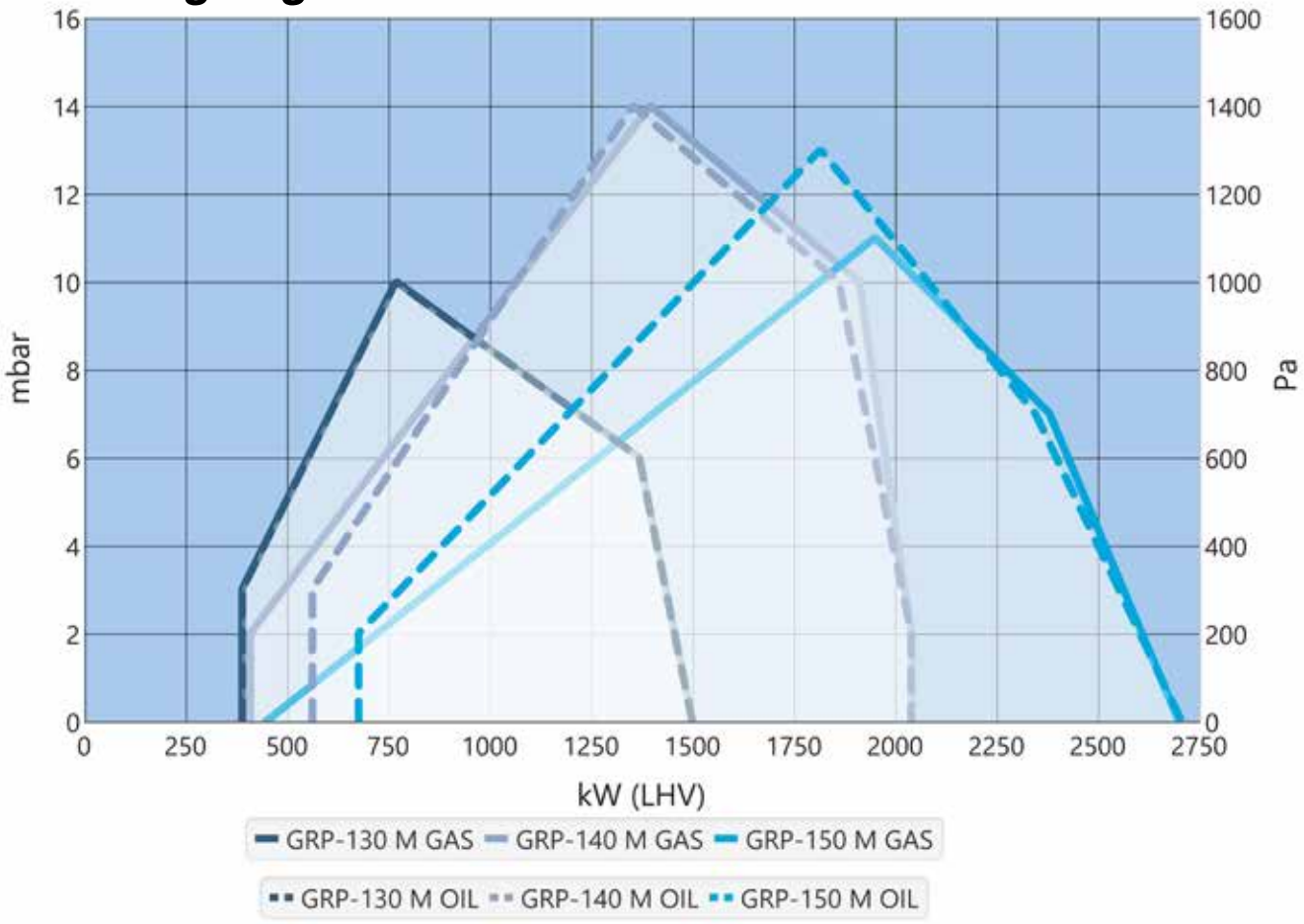
G = Gas inlet
O= Oil inlet/return
E = Electrical connection

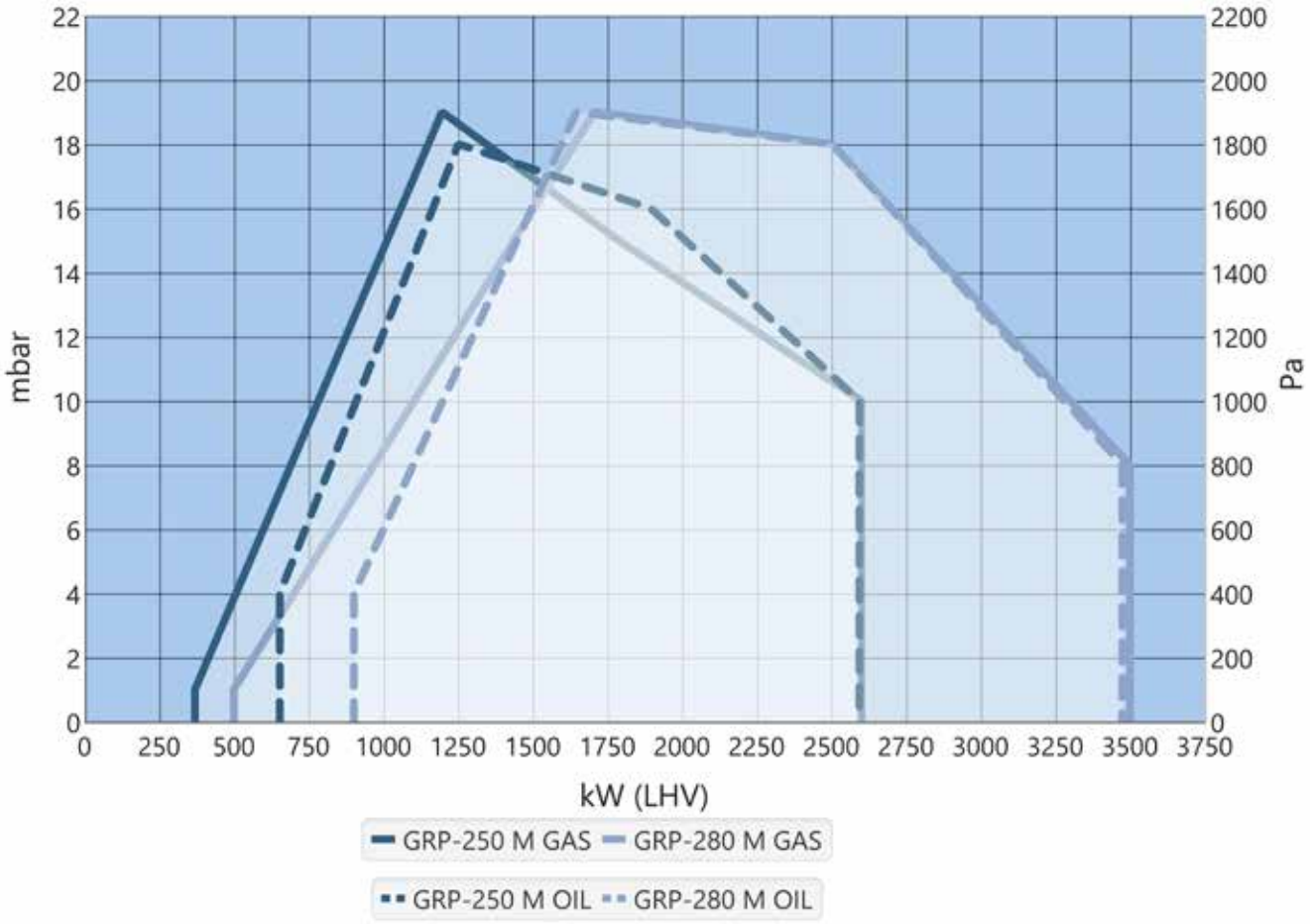
BURNER	L1	L2	L3	L4	L5	H1	H2	H3	H5
GRP-130 M	1390	200	260	129	880	625	400	210	195
GRP-140 M	1390	220	260	129	880	625	400	210	195
GRP-150 M	1390	230	260	129	880	700	470	230	195
GRP-250 M	1445	300	260	130	890	675	450	235	215
GRP-280 M	1445	312	260	130	890	675	450	235	215

BURNER	B1	B2	B3	B4	ØD1	R1	R2
GRP-130 M	600	430	210	360	200	1155	1310
GRP-140 M	600	430	210	360	240	1155	1310
GRP-150 M	600	480	210	360	270	1155	1310
GRP-250 M	635	490	250	440	270	1205	1380
GRP-280 M	635	490	250	440	300	1205	1380

Dimensions in mm.

Working diagram



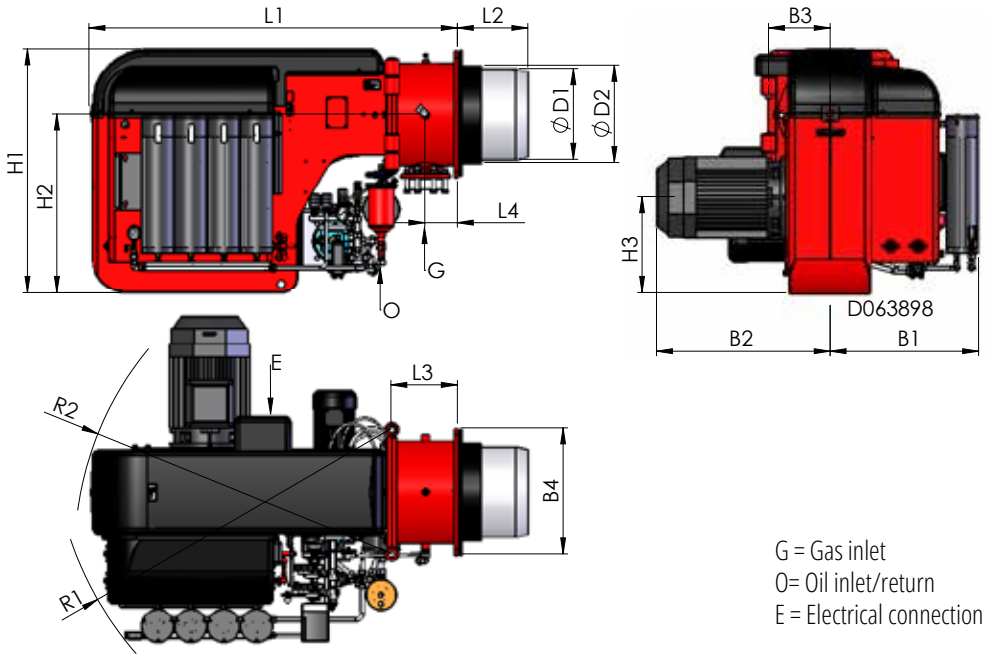


GRP-300 M-II - 700 M-II

Technical data

BURNER	GRP-300 M-II	GRP-400 M-I	GRP-500 M	GRP-600 M	GRP-700 M	GRP-700 M-II
Capacity, oil, kg/h oil, kW gas, kW	80 - 370 900 - 4200 900 - 4200	110 - 420 1300 - 4700 1300 - 4700	140 - 535 1585 - 6050 1585 - 6050	125 - 600 1400 - 6750 1400 - 6750	170 - 710 1900 - 7900 1200 - 8400	170 - 850 1900 - 9500 1900 - 9500
Fan motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	 7.5 13.0 2900	 11.0 19.5 2900	 11.0 19.5 2900	 15.0 26.0 2900	 18.5 34.0 2900	 22.0 38.0 2900
Oil hose connection – suction – return	 R 1" R ½"	 R 1" R ½"	 R 1" R ½"	 R 1" R ½"	 R 1" R ½"	 R 1" R ½"
Oil pump – Motor 3~ 400 V 50 Hz Output, kW Current, A Nominal speed, rpm	TAR4 1.5 3.2 2900	TAR5 2.2 4.4 2900	TAR5 2.2 4.4 2900	TAR5 2.2 4.4 2900	T3 4.0 7.2 2900	T4 4.0 7.2 2900
Preheater 3~ 400 V 50 Hz Output, kW	 12	 18	 18	 18	 24	 30
Control unit	WDx00	WDx00	WDx00	WDx00	WDx00	WDx00
NOx class gas	 1	 1	 1	 1	 1	 1
Weight, kg	440	570	575	590	660	710

Dimensions

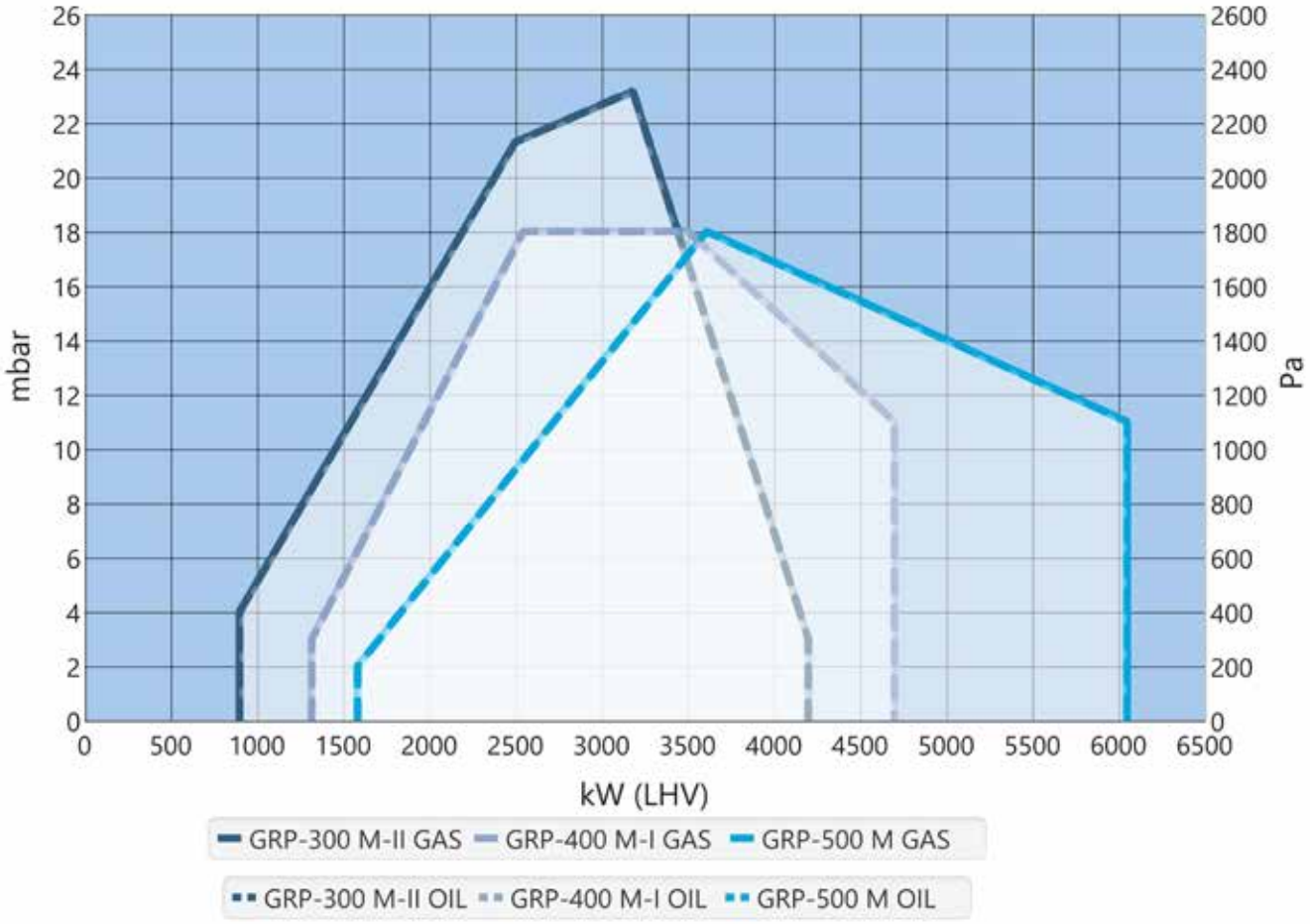


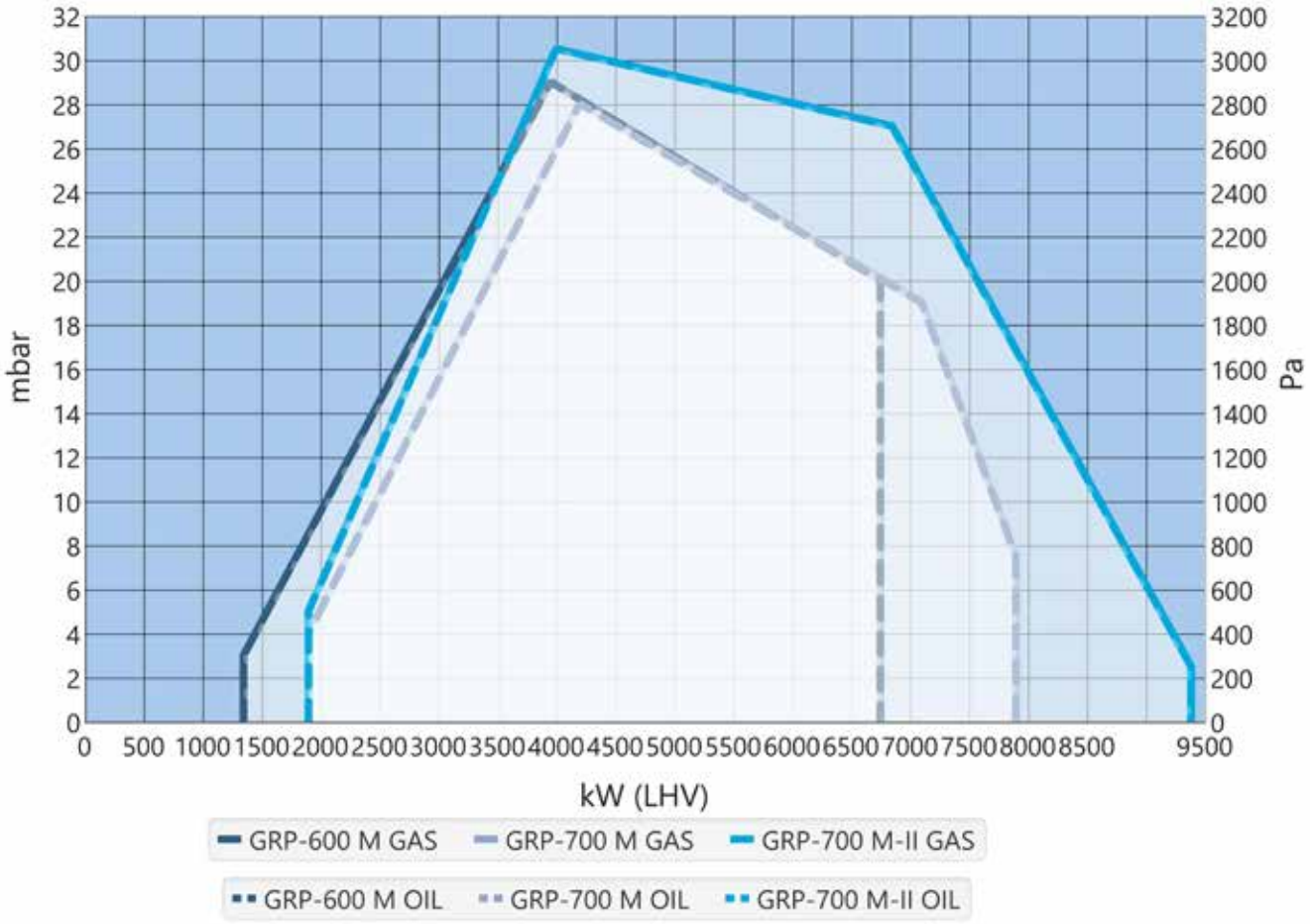
G = Gas inlet
O= Oil inlet/return
E = Electrical connection

Burner	L1	L2	L3	L4	H1	H2	H3	B1	B2	B3	B4	ØD1	ØD2	R1	R2
GRP-300 M-II	1500	258	270	135	900	640	360	590	580	225	450	320	–	1400	1300
GRP-400 M-I	1620	290	295	145	1065	780	420	655	630	270	550	370	425	1500	1400
GRP-500 M	1620	290	295	145	1065	780	420	655	630	270	550	370	425	1500	1400
GRP-600 M	1620	310	295	145	1065	780	420	655	630	270	550	395	425	1500	1400
GRP-700 M	1620	310	295	145	1065	780	420	655	730	270	550	395	425	1500	1400
GRP-700 M-II	1620	310	295	145	1065	780	420	655	765	270	550	395	425	1500	1400

Dimensions in mm.

Working diagram





Scope of delivery, GRP-130 - 700

	130 - 280	300 - 700
Hinge flange with limit switch	•	•
Burner flange gasket	•	•
WiseDrive (electronic ratio control) *	•	•
Ignition transformer	•	•
Ignition cables and electrodes	•	•
Flame detector: – WDx00/QRI (continuous operation)	•	•
Built-in combustion air fan	•	•
Air damper with servomotor	•	•
Combustion head optimizer with servomotor, WDx00	–	•
Gas damper with servomotor	•	•
Gas nozzle	•	•
Connection for measuring the pressure in gas nozzle	•	•
Gas pressure switch, max.	•	•
Differential air pressure switch	•	•
Gas elbow, 90°	•	•
Double solenoid valve for gas	•	•
Pressure regulation valve for gas: – DMV valve – VGD valve	 – •	 – •
Ignition gas valve and piping	–	•
Pressure switch for gas, min.	•	•
Automatic valve leak testing for gas	•	•
Oil nozzle	•	•
Solenoid valves for oil	•	•
Oil pump with pressure regulation valve	•	•
Oil regulating valve with servomotor	•	•
Separate motor for oil pump	•	•
Non-return valve	•	•
Pressure gauge or gauges for oil	•	•
Pressure switch for return oil	•	•
2 oil hoses, 2,000 mm	•	•
Oil filter	•	•
Deaerator for oil	•	•
Heating cartridge for solenoid valve	•	•
Thermometer	•	•
Electric preheater incl: limit thermostat, temperature sensor	•	•
Operation and maintenance manual	•	•

• Standard
* For more information, see chapter Oilon WiseDrive.

Optional equipment:

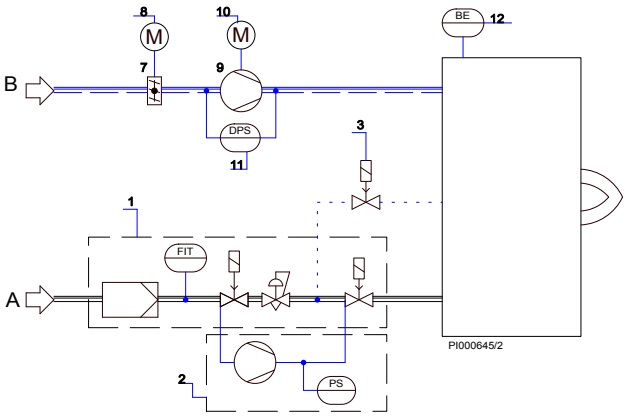
	130 - 280	300 - 700
Fan pressure gauge	•	•
Continuous operation, WD3x	–	–
VSD equipment	•	•
Extended combustion head	•	•
Ignition gas valve and piping	•	–
Gas pressure gauge	•	•
LPG gas nozzle	•	•
Pressure gauge for monitoring of inlet oil pressure	•	•
Pressure switch for monitoring of inlet oil pressure	•	•
Oil pressure (nozzle and return) transmitter	•	•
Oil temperature (nozzle and return) transmitter	•	•

Options:

	130 - 280	300 - 700
Heating cartridge for oil nozzle and oil pump	•	•
Electric trace heating for oil pipeline	•	•
Electric trace heating for oil hoses	•	•

PI diagrams

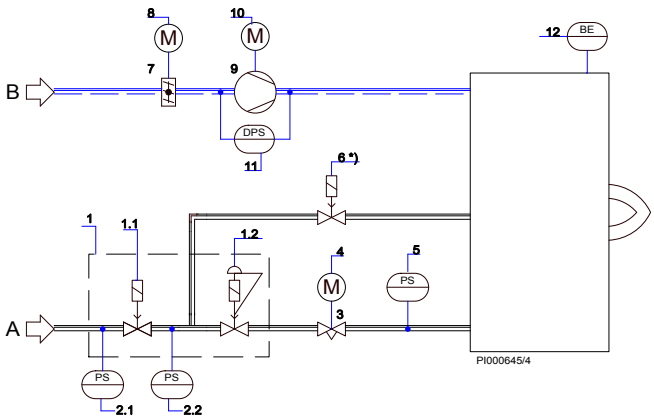
GAS, MB-ZRDLE, H BURNERS



1. Gas valve
   - filter
   - pressure switch min.
   - main gas valve
   - pressure regulator
   - gas valve, 2-stage
2. Valve leak tester (burner capacity > 1200 kW)
3. Solenoid valve, ignition gas, on request
7. Air damper
8. Servomotor
9. Combustion air fan
10. Electric motor
11. Differential air pressure switch
12. Flame detector

A = Gas supply
B = Air supply

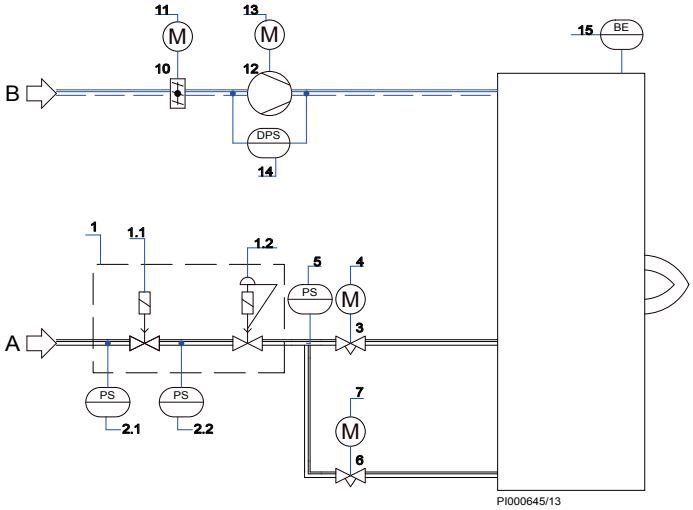
GAS, VGD VALVE, M BURNERS



1. Double solenoid valve
   1.1 Solenoid valve
   1.2 Pressure regulating valve
2. Pressure switch
   2.1 Pressure switch (only in WDx00 burners)
   2.2 Pressure switch (in WDx00 and WD3x burners)
3. Gas butterfly valve
4. Servomotor
5. Pressure switch, max. (Not standard with 50/90 burners)
6. Solenoid valve, ignition gas,
   * depends on the burner type
7. Air damper
8. Servomotor
9. Combustion air fan
10. Electric motor
11. Differential air pressure switch
12. Flame detector

A = Gas supply
B = Air supply

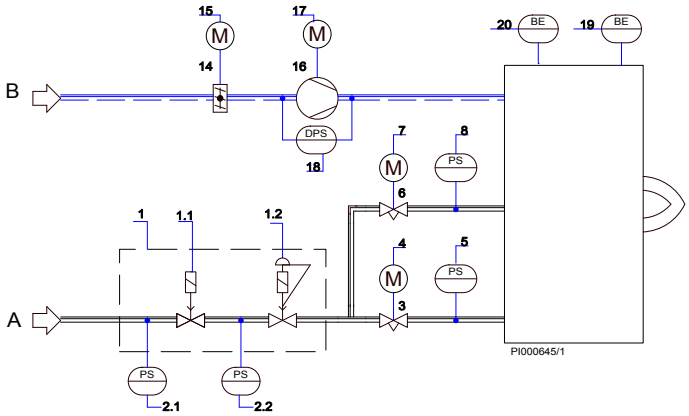
GAS, VGD VALVE, M LN30 BURNERS



1. Double solenoid valve
1.1 Solenoid valve
1.2 Pressure regulating valve
2. Pressure switch
2.1 Pressure switch (only in WDx00 burners)
2.2 Pressure switch (in WDx00 and WD3x burners)
3. Gas butterfly valve, main gas
4. Servomotor, main gas
5. Pressure switch, max., main gas
6. Gas butterfly valve, primary gas
7. Servomotor, primary gas
10. Air damper
11. Servomotor
12. Combustion air fan
13. Electric motor
14. Differential air pressure switch
15. Flame detector

A = Gas supply
B = Air supply

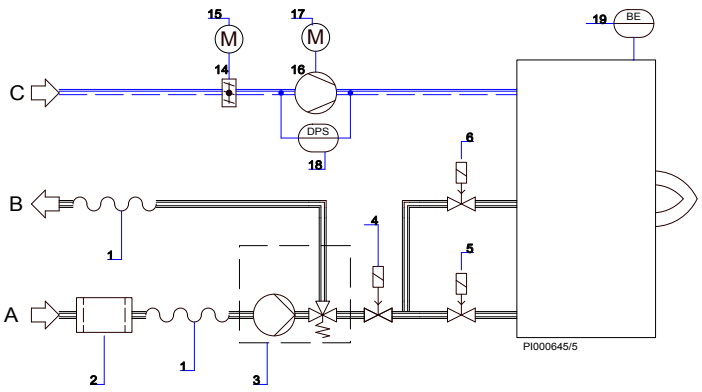
GAS, VGD VALVE, M LN60 BURNERS



1. Double solenoid valve
1.1 Solenoid valve
1.2 Pressure regulating valve
2. Pressure switch
2.1 Pressure switch (burner type WDx00)
2.2 Pressure switch (in WDx00 and WD3x burners)
3. Gas butterfly valve, primary gas
4. Servomotor, primary gas
5. Pressure switch, max, primary gas
6. Gas butterfly valve, tertiary gas
7. Servomotor, tertiary gas
8. Pressure switch, max, tertiary gas
14. Air damper
15. Servomotor
16. Combustion air fan
17. Electric motor
18. Differential air pressure switch
19. Flame detector
20. Flame detector

A = Gas supply
B = Air supply

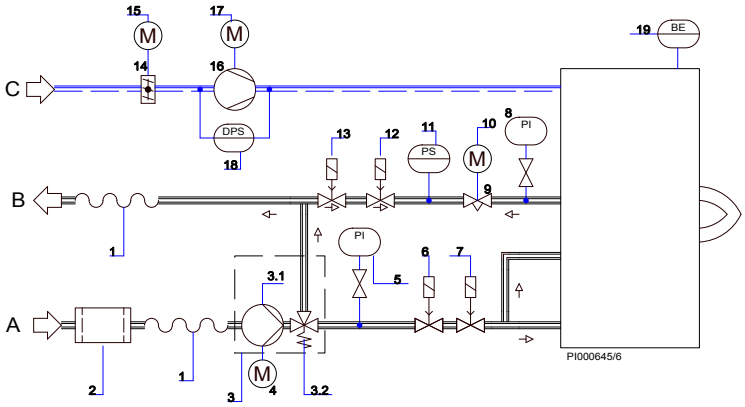
LIGHT FUEL OIL, H BURNERS



1. Oil hose, loose delivery
2. Oil filter, loose delivery
3. Oil pump
4. Solenoid valve, NC
5. Solenoid valve, NC
6. Solenoid valve, NC
14. Air damper
15. Servomotor
16. Combustion air fan
17. Electric motor
18. Differential air pressure switch, not for KP-50 - 150 H burners
19. Flame detector

A = Oil supply 0–5 bar
B = Oil return
C = Air supply

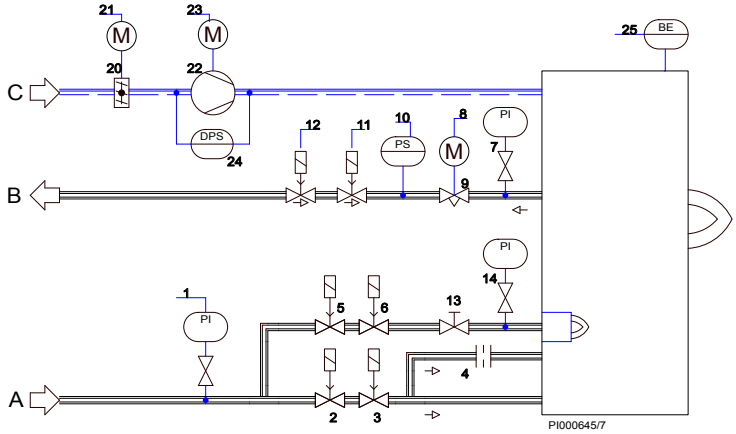
LIGHT FUEL OIL, M BURNER SERIES 140 - 700



1. Oil hose, loose delivery
2. Oil filter, loose delivery
3. Oil pump
   3.1 Oil pump
   3.2 Oil regulating valve
4. Electric motor
5. Pressure gauge
6. Solenoid valve 1, NC (115 V)
7. Solenoid valve 2, NC (115 V)
8. Pressure gauge
9. Oil regulator valve
10. Servomotor
11. Pressure switch
12. Solenoid valve 1, NC (115 V)
13. Solenoid valve 2, NC (115 V)
14. Air damper
15. Servomotor
16. Combustion air fan
17. Electric motor
18. Differential air pressure switch, not for KP-130 - 280 M burners
19. Flame detector

A = Oil supply 0–5 bar
B = Oil return
C = Air supply

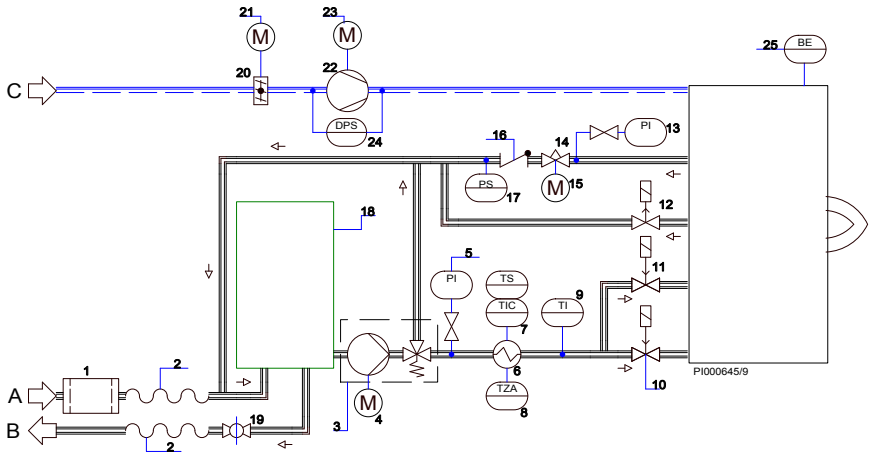
LIGHT FUEL OIL, M BURNER SERIES 1000/1200



1. Pressure gauge
2. Solenoid valve, NC (115 V)
3. Solenoid valve, NC (115 V)
4. Throttle plug
5. Solenoid valve, ignition oil, NC
6. Solenoid valve, ignition oil, NC
7. Pressure gauge
8. Servomotor
9. Oil regulator valve
10. Pressure switch
11. Solenoid valve 1, NC (115 V)
12. Solenoid valve 2, NC (115 V)
13. Needle valve
14. Pressure gauge
20. Air damper
21. Servomotor
22. Combustion air fan
23. Electric motor
24. Differential air pressure switch
25. Flame detector

A = Oil supply
B = Oil return
C = Air supply

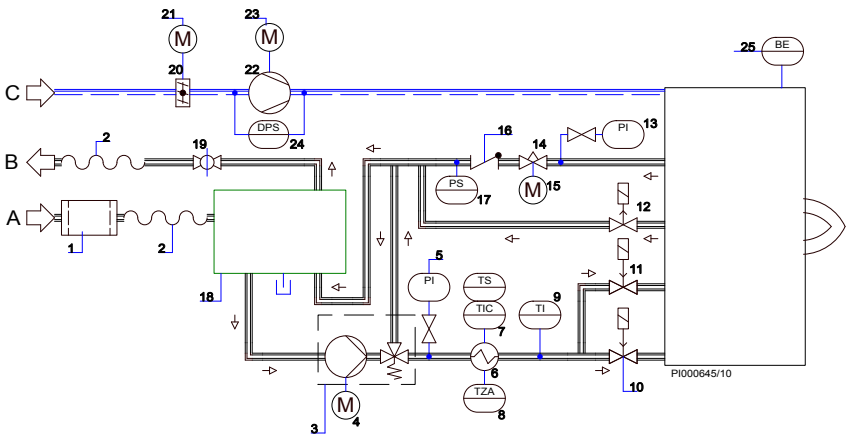
HEAVY FUEL OIL, M BURNER SERIES 130 - 280



1. Oil filter, loose delivery
2. Oil hose, loose delivery
3. Oil pump, plugged
4. Electric motor
5. Pressure gauge
6. Preheater
7. Temperature regulation / lower limit
8. Limit thermostat
9. Thermometer
10. Solenoid valve, NC
11. Solenoid valve, NC
12. Solenoid valve, NO
13. Pressure gauge
14. Oil regulator valve
15. Servomotor
16. Non-return valve
17. Pressure switch, max.
18. Deaerator
19. Drilled ball valve
20. Air damper
21. Servomotor
22. Combustion air fan
23. Electric motor
24. Differential air pressure switch (not for RP models)
25. Flame detector

A = Oil supply
B = Oil return
C = Air supply

HEAVY FUEL OIL, M BURNER SERIES 300 - 700

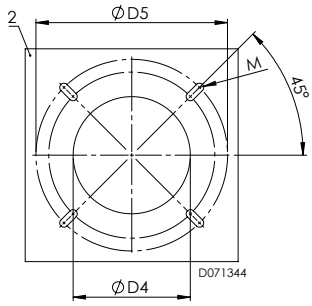


1. Oil filter, loose delivery
2. Oil hose, loose delivery
3. Oil pump, plugged
4. Electric motor
5. Pressure gauge
6. Preheater
7. Temperature regulation, lower limit
8. Limit thermostat
9. Thermometer
10. Solenoid valve, NC
11. Solenoid valve, NC
12. Solenoid valve, NO
13. Pressure gauge
14. Oil regulator valve
15. Servomotor
16. Non-return valve
17. Pressure switch, max.
18. Deaerator
19. Drilled ball valve
20. Air damper
21. Servomotor
22. Combustion air fan
23. Electric motor
24. Differential air pressure switch
25. Flame detector

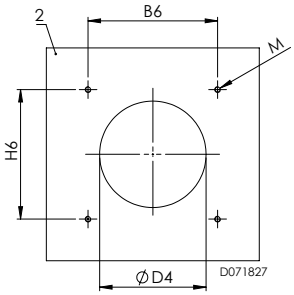
A = Oil supply
B = Oil return
C = Air supply

Combustion head and masonry dimensions

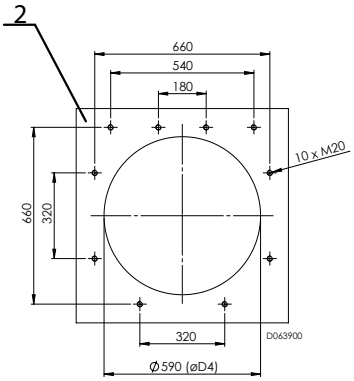
Mounting plate



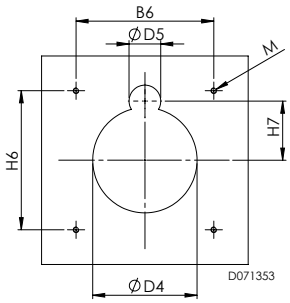
GP/GKP-50 H/M/MH



KP-50 H - 700 M-II
GP/GKP-80M/MH - 700 M-III
RP/GRP-130 M - 700 M-II



GP/GKP/KP-1000/1200 M

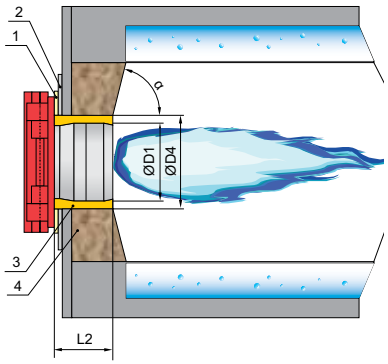


LN30

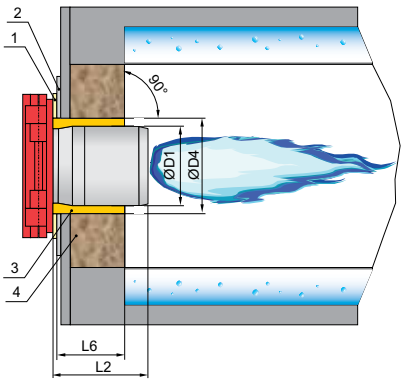
Masonry opening corresponds to the mounting plate dimensions.

Dimensions in mm.

Burner mounting

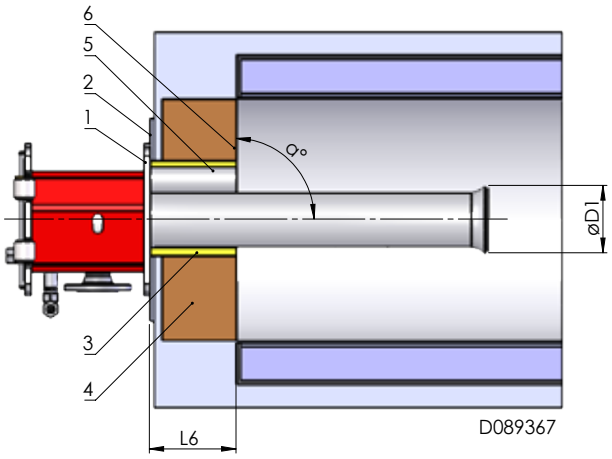


Standard burner



Low NOx burner LN60/LN80

1. Gasket, thickness 8 mm
2. Mounting plate
3. Ceramic wool or similar
4. Refractory



1. Gasket, thickness 8 mm
2. Mounting plate
3. Ceramic wool or similar
4. Refractory
5. Flame detector sight pipe
6. Boiler wall edge

Low NOx burner LN30

Masonry opening corresponds to the mounting plate dimensions.

Standard combustion head mounting dimensions

BURNER SERIES	B6	H6	ØD4	ØD5	M	ØD1	L2	α
KP-50 H	175	110	165	–	4xM10	160	160/240	60–90°
GP/GKP-50 H/M/MH	–	–	165	234–270	4xM10	160	240/300	60–90°
KP-90 H	216	216	210	–	4xM10	200	250/400	60–90°
GP/GKP/KP-80/90 M/MH	216	216	210	–	4xM10	200	300/400	60–90°
GP/GKP/KP/RP/GRP-130 H/M/MH	275	275	230	–	4xM16	200	200	60–90°
GP/GKP/KP/RP/GRP-140 H/M/MH	275	275	270	–	4xM16	240	220	60–90°
GP/GKP/KP/RP/GRP-150 H/M/MH	275	275	300	–	4xM16	270	230	60–90°
KP/RP-250 M	365	365	300	–	4xM16	270	300	60–90°
GP/GKP/GRP-250 M/MH	365	365	300	–	4xM16	270	300	60–90°
KP/RP-280 M	365	365	330	–	4xM16	300	312	60–90°
GP/GKP/GRP-280 M/MH	365	365	330	–	4xM16	300	312	60–90°
GP/GKP/KP-350 M	400	400	380	–	4xM20	320	350	60–90°
GP/GKP/KP-450 M	465	465	440	–	4xM20	370	350	60–90°
RP-300 M-II	365	365	320	–	4xM20	300	200	60–90°
GRP-300 M-II	365	365	380	–	4xM20	320	246	60–90°
RP-400 M-I	465	465	400	–	4xM20	340	264	60–90°
GRP-400 M-I	465	465	440	–	4xM20	370	290	60–90°
GP/GKP/GRP-500 M	465	465	440	–	4xM20	370	290	60–90°
KP/RP-500 M	465	465	400	--	4xM20	340	264	60–90°
GP/GKP/GRP-600 M	465	465	455	–	4xM20	395	310	60–90°
KP/RP-600 M	465	465	430	–	4xM20	370	290	60–90°
GP/GKP/GRP-700 M	465	465	455	–	4xM20	395	310	60–90°
KP/RP-700 M	465	465	455	–	4xM20	395	310	60–90°
GP/GKP/GRP-700 M-II	465	465	455	–	4xM20	395	310	60–90°
KP/RP-700 M-II	465	465	455	–	4xM20	395	310	60–90°
GP/GKP-700 M-III	465	465	480	–	4xM20	425	400	60–90°
GP/GKP/KP-1000 M	See the figure for 1000/1200 mounting plate					496	434	60–90°
GP/GKP/KP-1200 M	See the figure for 1000/1200 mounting plate					520	434	60–90°

Dimensions in mm.

Low NOx combustion head mounting dimensions, LN60/LN80

There are 1 or 2 combustion head length options (C1, C2) for each burner model. Choose the combustion head length based on boiler front wall thickness (L6). The table below shows the combustion head lengths (L2) and the applicable front wall thickness ranges.

						L2		L6	
BURNER SERIES	B6	H6	ØD4	M	ØD1	C1	C2	C1	C2
GP/GKP-140 M LN80	275	275	270	4xM16	240	–	430	–	240 - 380
GP/GKP-250 M LN80	365	365	290	4xM16	256	420	550	240 - 365	365 - 495
GP/GKP-280 M LN80	365	365	310	4xM16	276	420	550	240 - 365	365 - 495
GP/GKP-320 M LN80	400	400	360	4xM20	302	–	500	–	260 - 440
GP/GKP-350 M LN80	400	400	380	4xM20	324	–	480	–	260 - 440
GP/GKP-450 M LN80	465	465	380	4xM20	324	–	480	–	260 - 440
GP/GKP-600 M LN80	465	465	455	4xM20	384	–	530	–	260 - 440
GP/GKP–700 M-II LN80	465	465	455	4xM20	406	–	530	–	260 - 440
GP/GKP-700 M-III LN80	465	465	446	4xM20	406	–	610	–	290 - 535
GP-600 M LN60	465	465	420	4xM20	408	–	530	–	260 - 449
GP-700 M-III LN60	465	465	502	4xM20	420	–	610	–	290 - 522
GP-1000 LN80	See the figure for 1000/1200 mounting plate				454	–	650	–	290 - 570

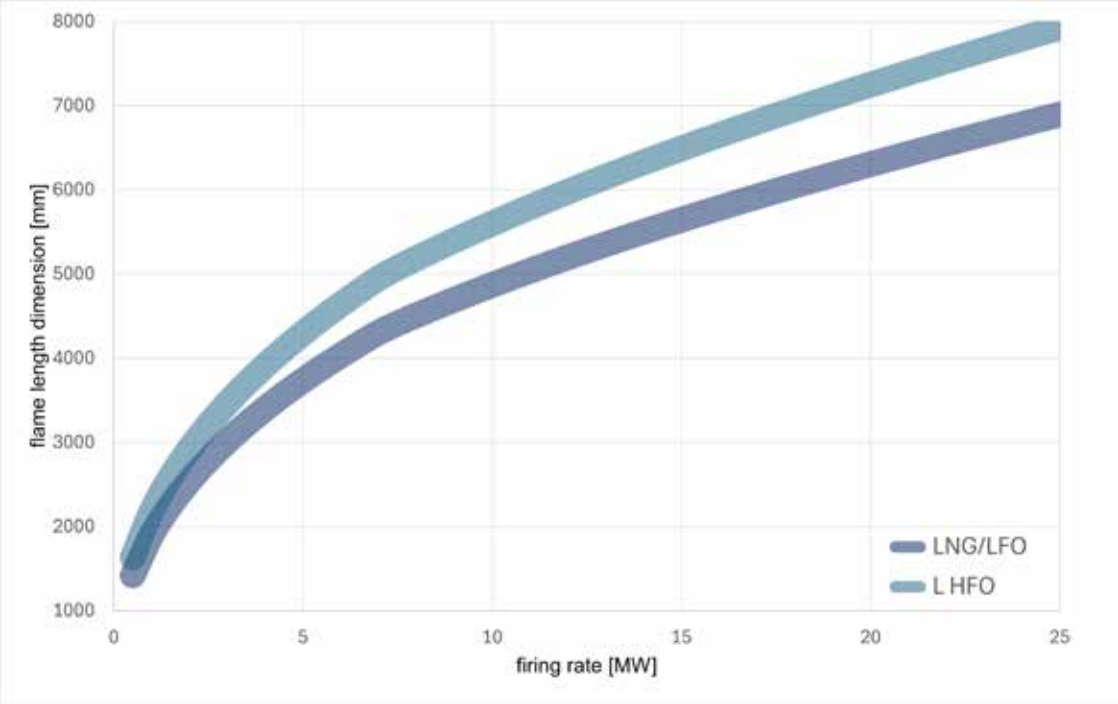
Dimensions in mm.

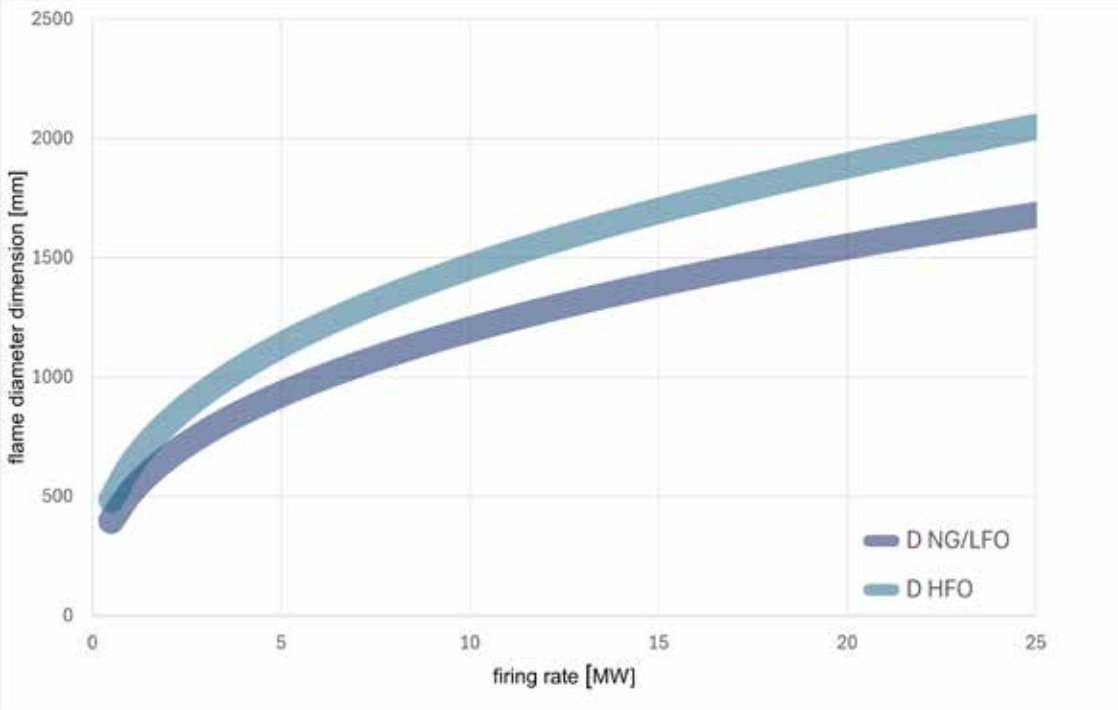
Low NOx combustion head mounting dimensions, LN30

BURNER SERIES	B6	H6	H7	ØD1	ØD4	ØD5	L6 max	M	α
GP-130 M LN30	275	275	95	160	171	92	250	4xM16	90°
GP-250 M LN30	365	365	136	250	260	92	250	4xM16	90°
GP-320 M LN30	400	400	161	314	334	92	300	4xM20	90°
GP-600 M LN30	465	465	170	347	367	92	300	4xM20	90°
GP-600 M-II LN30	465	465	170	347	367	92	300	4xM20	90°

Dimensions in mm.

Flame dimensions for a standard combustion head

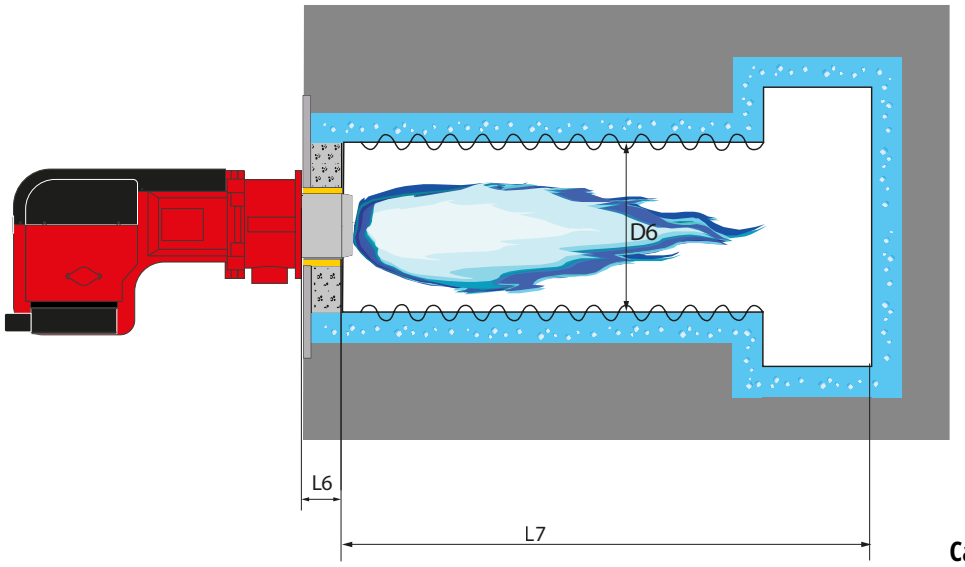




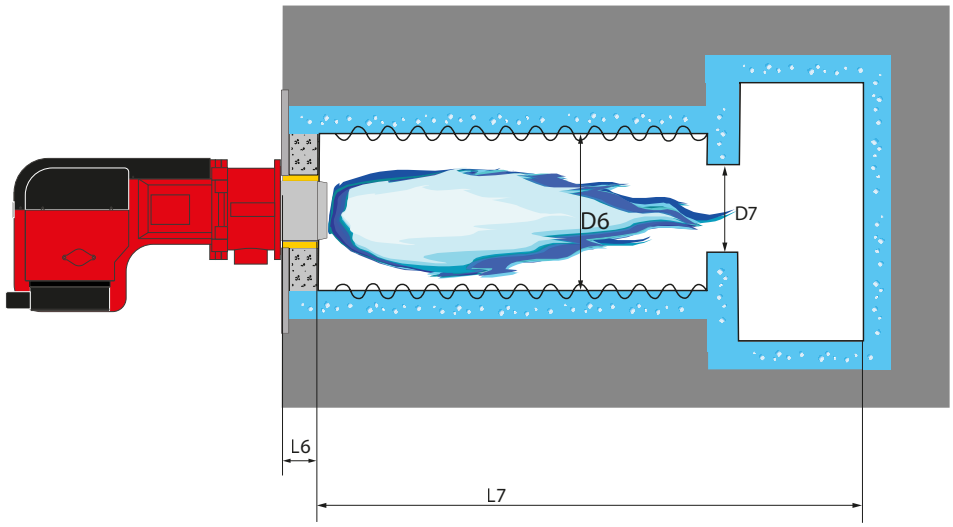
The diagram shows the flame dimensions of an Oilon burner in a regular firetube boiler.

Combustion chamber dimensions for LN60 and LN80 burners

Case 1



Case 2



Minimum dimensions for achieving EN676 Class 3 (LN80) and EN676 class 4 (LN60) NOx emission requirements

BURNER SERIES	GP-600 M LN60	GP-700 M-III LN60	GP/GKP-140 M LN80	GP/GKP-250 M LN80	GP/GKP-280 M LN80	GP/GKP-320 M LN80	GP/GKP-350 M LN80	GP/GKP-450 M LN80	GP/GKP-600 M LN80	GP/GKP-700 M-II LN80	GP/GKP-700 M-III LN80	GP-1000 M LN80
D6 minimum*	1100	1190	680	750	800	890	950	980	1150	1200	1260	1370
D6 minimum**	1150	1240	720	800	850	940	1000	1040	1220	1270	1340	1460
L7 minimum***	4600	5000	2350	2730	3000	3230	3520	4200	4700	4880	5170	5550

Dimensions in mm.

D7 minimum ≥ D6 * 0.7
L6 is the overall boiler front wall thickness, including refractory, steel front wall, and burner mounting plate (if present).

* For hot water boiler (medium temperature max. +130 °C).
** For steam boiler (medium temperature max +210 °C).
*** If the diameter is very wide, a longer furnace may be required.
Fuels: Natural gas, 2nd family gases, groups H and E (equipment category I_{2R}).

Combustion chamber dimensions for LN30 burners

BURNER	GP-130 M LN30	GP-250 M LN30	GP-320 M LN30	GP-600 M LN30	GP-600 M-II LN30
Suitable furnace inner diameter, mm	450 - 700	650 - 990	825 - 1300	915 - 1600	1100 - 1920
Minimum furnace length, mm	2150	2500	3000	3500	4200

The values in the table are for reference only. Check the values with Oilon Selection Tool.

Gas valves

Note: The values apply when using natural gas (2nd family gases, groups H and E) and LPG.

GP/GKP-50 - 90 H/M/MH

BURNER	GAS VALVE		BURNER MAX. CAPACITY, kW*			
			GAS INLET PRESSURE, mbar			
	SIZE	TYPE**	20	30	50	100
GP-50 H, GKP-50 H	R1½"	MB-ZRDLE 415	680	800	800	800
	R2"	MB-ZRDLE 420	720	800	800	800
GP-50 M, GKP-50 MH	R1½"	VGD20.4011	670	800	800	800
	R2"	VGD20.5011	730	800	800	800
GP-80 H	R1½"	MB-ZRDLE 415	810	1000	1000	1000
	R2"	MB-ZRDLE 420	870	1000	1000	1000
GP-90 H, GKP-90 H	R1½"	MB-ZRDLE 415	820	1000	1320	1500
	R2"	MB-ZRDLE 420	880	1100	1400	1500
GP-90 M, GKP-90 MH	R1½"	VGD20.4011	840	1000	1350	1500
	R2"	VGD20.5011	980	1200	1500	1500

NOTE: When firing other gases than those specified earlier in the document or when gas inlet pressure is below 20 mbar, evaluate compatibility on a case-by-case basis.

* The max. capacities given in the table are achieved at a boiler backpressure of 0 and air pressure of 1013 mbar.

** or corresponding type

Gas inlet pressure (Pmax) at burner

– max. 360 mbar when using MB valve

– max. 500 mbar when using VGD valve

GP/GKP/GRP-130 M - 280 M/H/MH

BURNER	GAS VALVE		BURNER MAX. CAPACITY, kW*				
			GAS INLET PRESSURE, mbar				
	SIZE	TYPE**	20	30	50	100	150
GRP-130 M	DN50	VGD40.050	1040	1220	1500	1500	1500
	DN65	VGD40.065	1170	1450	1500	1500	1500
	DN80	VGD40.080	1230	1500	1500	1500	1500
GP-140 H	R2"	MB-ZRDLE	860	1060	1390	2010	2350
GP/GKP/GRP-140 M/MH	DN50	VGD40.050	1280	1590	2070	2350	2350
	DN65	VGD40.065	1580	1950	2350	2350	2350
	DN80	VGD40.080	1750	2150	2350	2350	2350
GP/GKP/GRP-150 M/MH	DN50	VGD40.050	1340	1640	2150	2700	2700
	DN65	VGD40.065	1660	2060	2700	2700	2700
	DN80	VGD40.080	1860	2290	2700	2700	2700
GP/GKP/GRP-250 M/MH	DN50	VGD40.050	1510	1870	2240	2600	2600
	DN65	VGD40.065	2060	2530	2600	2600	2600
	DN80	VGD40.080	2440	2600	2600	2600	2600
	DN100	VGD40.100	2600	2600	2600	2600	2600
	DN125	VGD40.125	2600	2600	2600	2600	2600
GP/GKP/GRP-280 M/MH	DN50	VGD40.050	1530	1890	2470	3500	3500
	DN65	VGD40.065	2110	2590	3380	3500	3500
	DN80	VGD40.080	2520	3110	3500	3500	3500
	DN100	VGD40.100	2825	3450	3500	3500	3500
	DN125	VGD40.125	2950	3500	3500	3500	3500

NOTE! When firing other gases than those specified earlier in the document or when gas inlet pressure is below 20 mbar, evaluate compatibility on a case-by-case basis.

* The max. capacities given in the table are achieved at a boiler backpressure of 0 and air pressure of 1013 mbar.
Natural gas 1 $m^3n/h \approx 10$ kW

** or corresponding type

Gas inlet pressure (Pmax) at burner
– max. 500 mbar when using VGD valve
– max. 360 mbar when using MB valve

GP/GKP-140 M - 280 M LN80

BURNER	GAS VALVE		BURNER MAX. CAPACITY, kW*			
			GAS INLET PRESSURE, mbar			
	SIZE	TYPE**	20	30	50	150
GP/GKP-140 M LN80	DN50	VGD40.050	1000	1250	1600	1600
	DN65	VGD40.065	1130	1400	1600	1600
	DN80	VGD40.080	1190	1470	1600	1600
GP/GKP-250 M LN80	DN50	VGD40.050	1060	1310	1710	2100
	DN65	VGD40.065	1200	1490	1940	2100
	DN80	VGD40.080	1270	1570	2050	2100
GP/GKP-280 M LN80	DN50	VGD40.050	1150	1420	1860	2500
	DN65	VGD40.065	1340	1660	2170	2500
	DN80	VGD40.080	1440	1780	2320	2500

NOTE! When firing other gases than those specified earlier in the document or when gas inlet pressure is below 20 mbar, evaluate compatibility on a case-by-case basis.

* The max. capacities given in the table are achieved at a boiler backpressure of 0 and air pressure of 1013 mbar. Natural gas 1 $m^3n/h \approx 10$ kW

** or corresponding type

Gas inlet pressure (Pmax) at burner max. 500 mbar when using VGD valve.

GP-130 M LN30

BURNER	GAS VALVE		BURNER MAX. CAPACITY, kW*		
			GAS INLET PRESSURE, mbar		
	SIZE	TYPE**	50	100	150
GP-130 M LN30	DN50	VGD40.050	700	915	915
	DN65	VGD40.065	710	915	915
	DN80	VGD40.080	715	915	915

NOTE! When firing other gases than those specified earlier in the document or when gas inlet pressure is below 50 mbar, evaluate compatibility on a case-by-case basis.

* The max. capacities given in the table are achieved at a boiler backpressure of 0 and air pressure of 1013 mbar. Natural gas 1 $m^3n/h \approx 10$ kW

** or corresponding type

Gas inlet pressure (Pmax) at burner max. 500 mbar when using VGD valve.

GP-250 M LN30

BURNER	GAS VALVE		BURNER MAX. CAPACITY, kW*		
			GAS INLET PRESSURE, mbar		
	SIZE	TYPE**	50	100	150
GP-250 M LN30	DN50	VGD40.050	1180	1700	1940
	DN65	VGD40.065	1260	1820	1940
	DN80	VGD40.080	1280	1860	1940

NOTE! When firing other gases than those specified earlier in the document or when gas inlet pressure is below 20 mbar, evaluate compatibility on a case-by-case basis.

* The max. capacities given in the table are achieved at a boiler backpressure of 0 and air pressure of 1013 mbar. Natural gas 1 $m^3n/h \approx 10$ kW

** or corresponding type

Gas inlet pressure (Pmax) at burner max. 500 mbar when using VGD valve.

GP/GKP-350/450 M

BURNER	GAS VALVE		BURNER MAX. CAPACITY, kW*				
			GAS INLET PRESSURE, mbar				
	SIZE	TYPE**	20	30	50	100	150
GP/GKP-350 M	DN50	VGD40.050	1510	1870	2440	3530	4250
	DN65	VGD40.065	2070	2560	3340	4250	4250
	DN80	VGD40.080	2470	3050	3980	4250	4250
	DN100	VGD40.100	2730	3380	4250	4250	4250
	DN125	VGD40.125	2840	3500	4250	4250	4250
GP/GKP-450 M	DN50	VGD40.050	–	–	2530	3670	4570
	DN65	VGD40.065	2220	2750	3590	5200	5500
	DN80	VGD40.080	2760	3400	4450	5500	5500
	DN100	VGD40.100	3140	3380	5070	5500	5500
	DN125	VGD40.125	3330	4120	5370	5500	5500

NOTE! When firing other gases than those specified earlier in the document or when gas inlet pressure is below 20 mbar, evaluate compatibility on a case-by-case basis.

* The max. capacities given in the table are achieved at a boiler backpressure of 0 and air pressure of 1013 mbar.
Natural gas 1 $m^3n/h \approx 10$ kW

** or corresponding type

Gas inlet pressure (Pmax) at burner max. 500 mbar when using VGD valve

GP-320 M LN30

BURNER	GAS VALVE		BURNER MAX. CAPACITY, kW*			
			GAS INLET PRESSURE, mbar			
	SIZE	TYPE**	50	100	150	200
GP-320 M LN30	DN50	VGD40.050	1750	2510	3120	3130
	DN65	VGD40.065	2010	2900	3130	3130
	DN80	VGD40.080	2130	3070	3130	3130
	DN100	VGD40.100	2180	3130	3130	3130
	DN150	VGD40.150	2230	3130	3130	3130

GP/GKP-320/450 M LN80

BURNER	GAS VALVE		BURNER MAX. CAPACITY, kW*				
			GAS INLET PRESSURE, mbar				
	SIZE	TYPE**	50	100	150	250	350
GP/GKP-320 M LN80	DN50	VGD40.050	1250	1530	2010	2900	3200
	DN65	VGD40.065	1500	1850	2420	3200	3200
	DN80	VGD40.080	1640	2030	2640	3200	3200
GP-350 M LN80	DN50	VGD40.050	–	1870	2450	3520	4000
	DN65	VGD40.065	2070	2560	3340	4000	4000
	DN80	VGD40.080	2480	3050	4000	4000	4000
	DN100	VGD40.100	2740	3370	4000	4000	4000
GP/GKP-450 M LN80	DN50	VGD40.050	–	–	2520	3670	4580
	DN65	VGD40.065	2220	2760	3590	5200	5200
	DN80	VGD40.080	2770	3410	4450	5200	5200
	DN100	VGD40.100	3140	3880	5060	5200	5200

NOTE! When firing other gases than those specified earlier in the document or when gas inlet pressure is below 50 mbar, evaluate compatibility on a case-by-case basis.

* The max. capacities given in the table are achieved at a boiler backpressure of 0 and air pressure of 1013 mbar.
Natural gas 1 $m^3n/h \approx 10$ kW

** or corresponding type

Gas inlet pressure (Pmax) at burner max. 500 mbar when using VGD valve.

GP/GKP/GRP-300 M-II - 700 M-II

BURNER	GAS VALVE		BURNER MAX. CAPACITY, kW*				
			GAS INLET PRESSURE, mbar				
	SIZE	TYPE**	20	30	50	100	150
GRP-300 M-II	DN50	VGD40.050	1500	1850	2400	3500	4200
	DN65	VGD40.065	2000	2500	3250	4200	4200
	DN80	VGD40.080	2400	2950	3850	4200	4200
	DN100	VGD40.100	2650	3250	4200	4200	4200
	DN125	VGD40.125	2750	3390	4200	4200	4200
GRP-400 M-I	DN50	VGD40.050	–	2000	2600	3800	4700
	DN65	VGD40.065	2400	3000	3850	4700	4700
	DN80	VGD40.080	3100	3850	4700	4700	4700
	DN100	VGD40.100	3700	4550	4700	4700	4700
	DN125	VGD40.125	3960	4700	4700	4700	4700
GP/GKP/GRP-500 M	DN65	VGD40.065	2250	3150	4100	5950	6070
	DN80	VGD40.080	3500	4300	5600	6070	6070
	DN100	VGD40.100	4300	5300	6070	6070	6070
	DN125	VGD40.125	4750	5850	6070	6070	6070
GP/GKP/GRP-600 M	DN65	VGD40.065	5550	3150	4100	5950	6750
	DN80	VGD40.080	3500	4250	5550	6750	6750
	DN100	VGD40.100	4300	5300	6750	6750	6750
	DN125	VGD40.125	4740	5850	6750	6750	6750
GP/GKP/GRP-700 M	DN65	VGD40.065	2550	3050	4050	5950	7400
	DN80	VGD40.080	3450	4250	5550	8050	8400
	DN100	VGD40.100	4300	5300	6950	8400	8400
	DN125	VGD40.125	4880	6010	7840	8400	8400
GP/GKP/GRP-700 M-II	DN65	VGD40.065	–	3100	4050	5950	7400
	DN80	VGD40.080	3400	4200	5550	8000	9500
	DN100	VGD40.100	4250	5300	6900	9500	9500
	DN125	VGD40.125	4870	6000	7840	9500	9500
GP/GKP-700 M-III	DN80	VGD40.080	3600	4150	5500	8000	10000
	DN100	VGD40.100	4250	5250	6900	9950	10500
	DN125	VGD40.125	4880	6010	7850	10500	10500

NOTE! When firing other gases than those specified earlier in the document or when gas inlet pressure is below 20 mbar, evaluate compatibility on a case-by-case basis.

* The max. capacities given in the table are achieved at a boiler backpressure of 0 and air pressure of 1013 mbar.
Natural gas 1 $m^3n/h \approx 10$ kW

** or corresponding type

Gas inlet pressure (Pmax) at burner max. 500 mbar when using VGD valve.

GP-600 M, GP-600 M-II LN30

BURNER	GAS VALVE		BURNER MAX. CAPACITY, kW*			
			GAS INLET PRESSURE, mbar			
	SIZE	TYPE**	50	100	150	200
GP-600 M LN30	DN50	VGD40.050	2130	3050	3800	4460
	DN65	VGD40.065	2670	3850	4800	4850
	DN80	VGD40.080	2950	4260	4850	4850
	DN100	VGD40.100	3130	4520	4850	4850
	DN150	VGD40.150	3230	4650	4850	4850
GP-600 M-II LN30	DN50	VGD40.050	2250	3230	4020	4720
	DN65	VGD40.065	2950	4220	5260	6170
	DN80	VGD40.080	3320	4800	5970	7030
	DN100	VGD40.100	3550	5150	6430	7020
	DN150	VGD40.150	3700	5360	6700	7020

NOTE! When firing other gases than those specified earlier in the document or when gas inlet pressure is below 50 mbar, evaluate compatibility on a case-by-case basis.

* The max. capacities given in the table are achieved at a boiler backpressure of 0 and air pressure of 1013 mbar.
Natural gas 1 $m^3n/h \approx 10$ kW

** or corresponding type

Gas inlet pressure (Pmax) at burner max. 500 mbar when using VGD valve.

GP/GKP-600 M - 700 M-III LN80

BURNER	GAS VALVE		BURNER MAX. CAPACITY, kW*			
			GAS INLET PRESSURE, mbar			
	SIZE	TYPE**	50	100	150	200
GP-600 M LN80	DN65	VGD40.065	3600	5200	6500	6700
	DN80	VGD40.080	4500	6450	6700	6700
	DN100	VGD40.100	5100	6700	6700	6700
	DN125	VGD40.125	5430	6700	6700	6700
GKP-600 M LN80	DN65	VGD40.065	3600	5200	6450	6450
	DN80	VGD40.080	4500	6450	6450	6450
	DN100	VGD40.100	5100	6450	6450	6450
	DN125	VGD40.125	5430	6450	6450	6450
GP/GKP–700 M-II LN80	DN65	VGD40.065	3650	5250	6550	7600
	DN80	VGD40.080	4550	6600	7600	7600
	DN100	VGD40.100	5250	7600	7600	7600
	DN125	VGD40.125	5630	7600	7600	7600
GP/GKP-700 M-III LN80	DN80	VGD40.080	5100	7350	8800	8800
	DN100	VGD40.100	6050	8800	8800	8800
	DN125	VGD40.125	6670	8800	8800	8800

NOTE! When firing other gases than those specified earlier in the document or when gas inlet pressure is below 50 mbar, evaluate compatibility on a case-by-case basis.

* The max. capacities given in the table are achieved at a boiler backpressure of 0 and air pressure of 1013 mbar.
Natural gas 1 $m^3n/h \approx 10$ kW

** or corresponding type

Gas inlet pressure (Pmax) at burner max. 500 mbar when using VGD valve.

GP-600 M/700 M-III LN60

BURNER	GAS VALVE		BURNER MAX. CAPACITY, kW*					
			GAS INLET PRESSURE, mbar					
	SIZE	TYPE**	100	200	300	400	500	600
GP-600 M LN60	DN65	VGD40.065	2800	4100	5200	6150	6500	6500
	DN80	VGD40.080	3000	4350	5500	6500	6500	6500
	DN100	VGD40.100	3050	4500	5650	6500	6500	6500
GP-700 M-III LN60	DN80	VGD40.080	3400	4950	6250	7400	7500	7500
	DN100	VGD40.100	3500	5100	6500	7500	7500	7500
	DN125	VGD40.125	3550	5200	6600	7500	7500	7500

NOTE! When firing other gases than those specified earlier in the document or when gas inlet pressure is below 100 mbar, evaluate compatibility on a case-by-case basis.
* The max. capacities given in the table are achieved at a boiler backpressure of 0 and air pressure of 1013 mbar.
Natural gas 1 $m^3n/h \approx 10$ kW
** or corresponding type
Gas inlet pressure (Pmax) at burner max. 600 mbar when using VGD valve.

GP/GKP-1000 M/1200 M

BURNER	GAS VALVE		BURNER MAX. CAPACITY, kW*			
			GAS INLET PRESSURE, mbar			
	SIZE	TYPE**	50	100	150	200
GP/GKP-1000 M	DN100	VGD40.100	6500	9500	11100	11100
	DN125	VGD40.125	7400	10700	11100	11100
GP/GKP-1200 M	DN100	VGD40.100	8600	12400	13300	13300
	DN125	VGD40.125	10700	13300	13300	13300

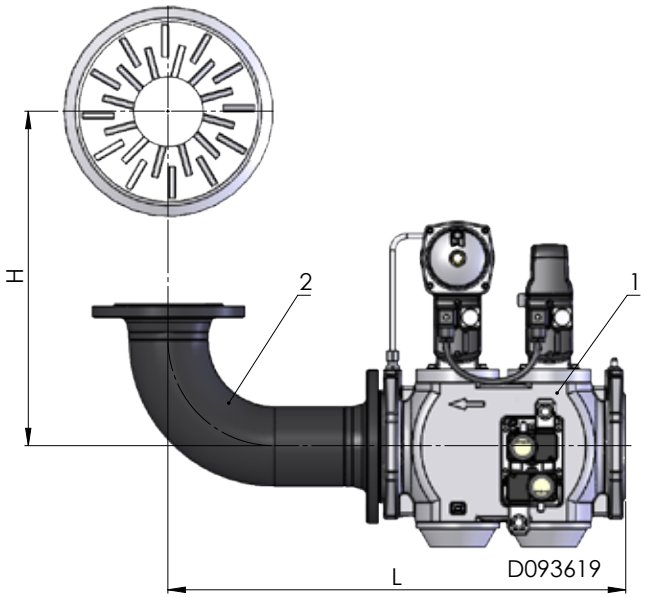
NOTE! When firing other gases than those specified earlier in the document or when gas inlet pressure is below 50 mbar, evaluate compatibility on a case-by-case basis.
* The max. capacities given in the table are achieved at a boiler backpressure of 0 and air pressure of 1013 mbar.
Natural gas 1 $m^3n/h \approx 10$ kW
** or corresponding type
Gas inlet pressure (Pmax) at burner max. 500 mbar when using DMV or VDG valve

GP-1000 M LN80

BURNER	GAS VALVE		BURNER MAX. CAPACITY, kW*			
			GAS INLET PRESSURE, mbar			
	SIZE	TYPE**	50	100	150	200
GP/GKP-1000 M	DN80	VGD40.080	5300	7600	9600	11000
	DN100	VGD40.100	6500	9300	11000	11000
GP/GKP-1200 M	DN125	VGD40.125	7200	10500	11000	11000
	DN125	VGD40.125	11200	13300	13300	13300

NOTE! When firing other gases than those specified earlier in the document or when gas inlet pressure is below 50 mbar, evaluate compatibility on a case-by-case basis.
* The max. capacities given in the table are achieved at a boiler backpressure of 0 and air pressure of 1013 mbar.
Natural gas 1 $m^3n/h \approx 10$ kW
** or corresponding type
Gas inlet pressure (Pmax) at burner max. 500 mbar when using VGD valve

Gas elbow



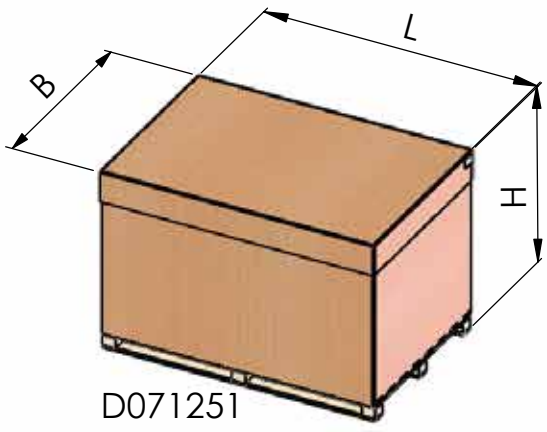
1. Gas valve
2. Gas elbow

	GAS ELBOW DIMENSIONS WITH DIFFERENT VALVES							
		R11/2"	R2"	DN50	DN65	DN80	DN100	DN125
	H	L	L	L	L	L	L	L
GP/GKP-50 H/M/MH	240	650	655	–	–	–	–	–
GP/GKP-80/90 H/M/MH	285	755	780	–	–	–	–	–
GP/GKP/GRP-130 - 150 H/M/MH	450	–	435	465	505	530	580	750
GP/GKP/GRP-250 - 280 M/MH	460	–	–	510	560	615	665	745
GP/GKP/GRP-320 M, -350 M	505	–	–	735	860	880	920	970
GP/GKP/GRP-450 M	525	–	–	735	860	880	920	970
GP/GRP-300 M	495	–	–	735	860	880	920	970
GP/GKP/GRP-400 - 700 M-II	535	–	–	640	690	715	660	735
GP/GKP/GRP-700 M-III	535	–	–	–	–	715	660	735
GP-600/700 M/M-III LN60	595	–	–	–	–	1040	1080	–
GP/GKP-1000/1200 M	660	–	–	–	–	1240	1280	1330

Dimensions in mm.

Other dimensions available on special request

Packaging



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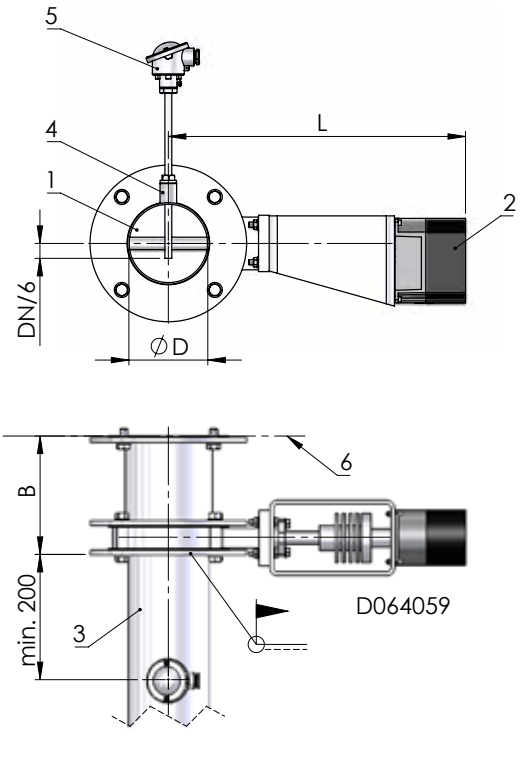
BURNER SERIES	Dimensions L	B	H	Weight kg	Standard material
GP-50 M	1020	550	450	5	Board
GP-90 M	1040	690	480	7	Board
GP-140 - 280 M...	1640	1220	880	55	Board
GP-350/450 M...	2040	1380	1240	63	Board
GP-600 M	2040	1380	1240	63	Board
GP-700 M - M-III	2240	1630	1240	73	Board
GP-1000/1200 M...	2180	1870	1830	240	Wood
GKP-50 MH	1020	550	450	5	Board
GKP-90 MH	1040	690	480	7	Board
GKP-140 - 280 M...	1640	1220	880	55	Board
GKP-350/450 M...	2040	1380	1240	63	Board
GKP-500/600 M...	2040	1380	1240	63	Board
GKP-700 M - M-III...	2240	1630	1240	73	Board
GKP-1000/1200 M...	2180	1870	1830	240	Wood
KP-50 H	810	550	450	5	Board
KP-90 H	1040	690	480	7	Board
KP-140 - 280 M...	1470	1150	880	47	Board
KP-350/450 M...	2040	1380	1240	63	Board

Dimensions in mm.

Accessories

FGR – butterfly valve dimensions

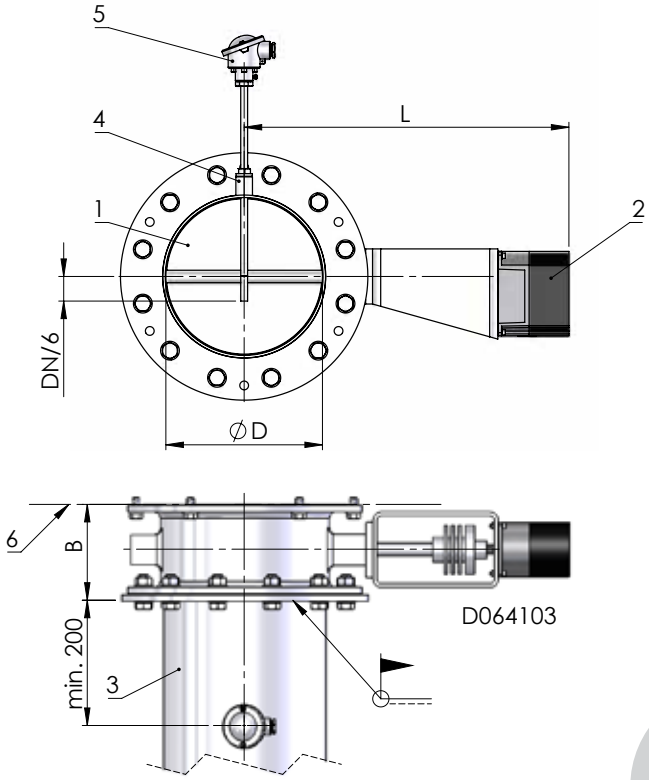
FGR max. temperature 250 °C



1. Butterfly valve, FGR
2. Servomotor
3. FGR pipe, not included in the delivery
4. Sleeve 1/2", not included in the delivery
5. Temperature sensor
6. Burner

Burner	ØD	L	B
130 - 150	DN125	475	190
250, 280	DN150	490	190
320 - 600	DN200	530	125

Dimensions in mm.

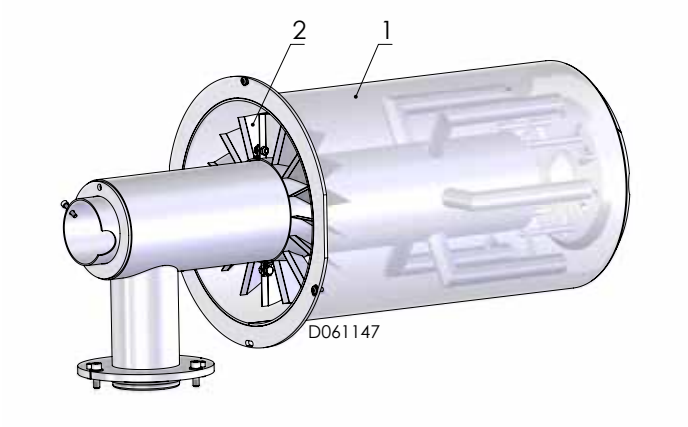


1. Butterfly valve, FGR
2. Servomotor
3. FGR pipe, not included in the delivery
4. Sleeve 1/2", not included in the delivery
5. Temperature sensor
6. Burner

Burner	ØD	L	B
700	DN250	520	155
1000	DN350	585	183
1200	DN350	585	183

Turbo combustion head for flame shaping

Example



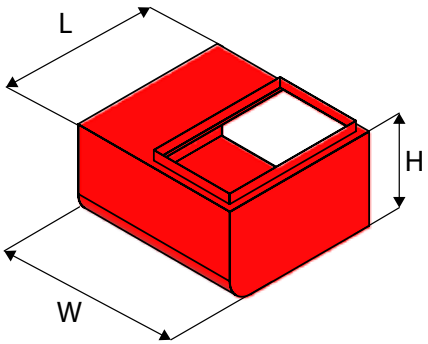
1. Combustion head
2. Turbulator

Hood silencer

Air intake silencer

Construction

The silencer is made of steel sheet lined with fireproof dampening wool. It connects to the burner's suction side via a screw connection. The silencer reduces the high-pitched noise produced by air flow.



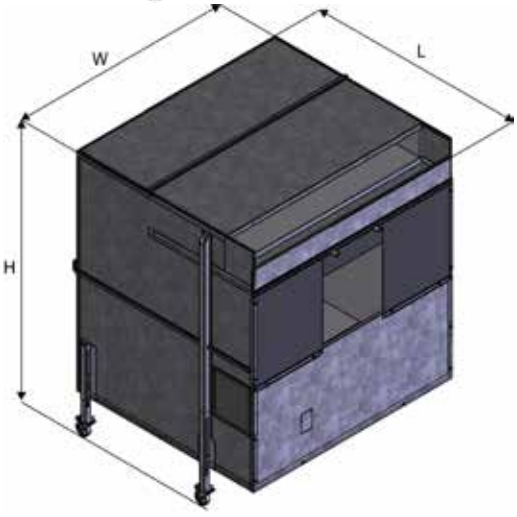
Burner	W	L	H
80/90	320	320	160
130 - 150	427	392	230
250/280	427	392	230
300	530	610	290
700	560	722	330
1000/1200	525	800	665

Dimensions in mm.

Hood silencer

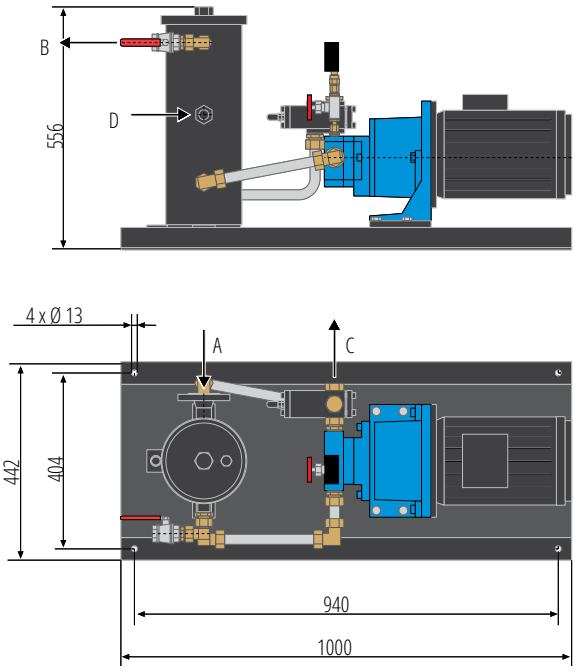
Construction

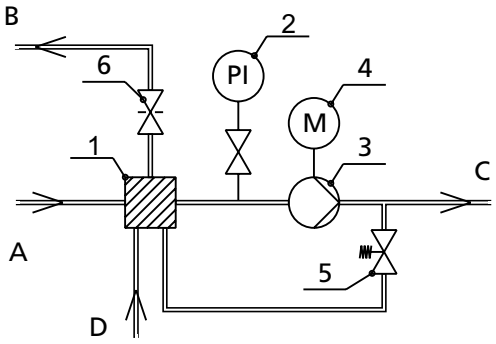
The silencer is made of steel sheet lined with fireproof dampening wool. This wheel-equipped silencer isolates the burner from four sides, reducing the burner's operating noise.
The product is delivered in parts (steel sheet components).



Burner	W	L	H
130 - 280	1330	1525	1425 - 1935
300 - 700	1670	1845	1910 - 2420
1000/1200	2210	1970	2485 - 2995

Booster unit





1. Oil filter
2. Pressure gauge
3. Oil pump
4. Electric motor
5. Pressure regulating valve
6. Drilled ball valve

A. Inlet to the booster unit DN25, 1 - 5 bar, 4 - 12 mm²/s
B. Return from the booster unit R1/2"
C. Inlet to the burner Ø 22
D. Return from the burner Ø 22

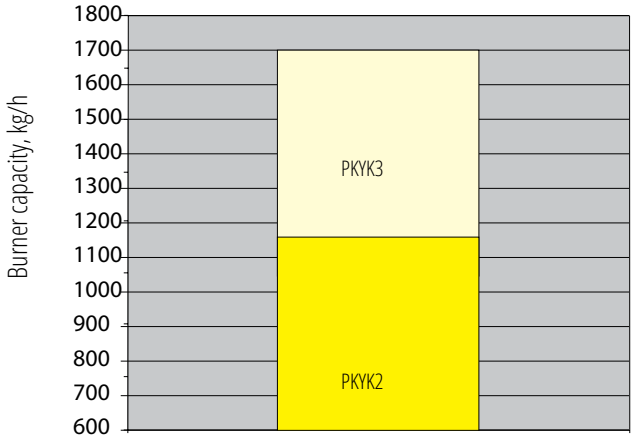
Dimensions in mm.

The booster unit is used for pumping light fuel oil with a viscosity of 4–12 mm²/s at +20 °C. The oil supplied to the booster unit must be filtered, max. filtration degree: 150 µm.

Booster unit	Motor 400 V/50 Hz kW	rpm	Oil pump Type	Pump output 12 mm²/s, 25 bar kg/h
PKYK 2	4	3000	T4 C	1980
PKYK 3	4	3000	T5 C	2900

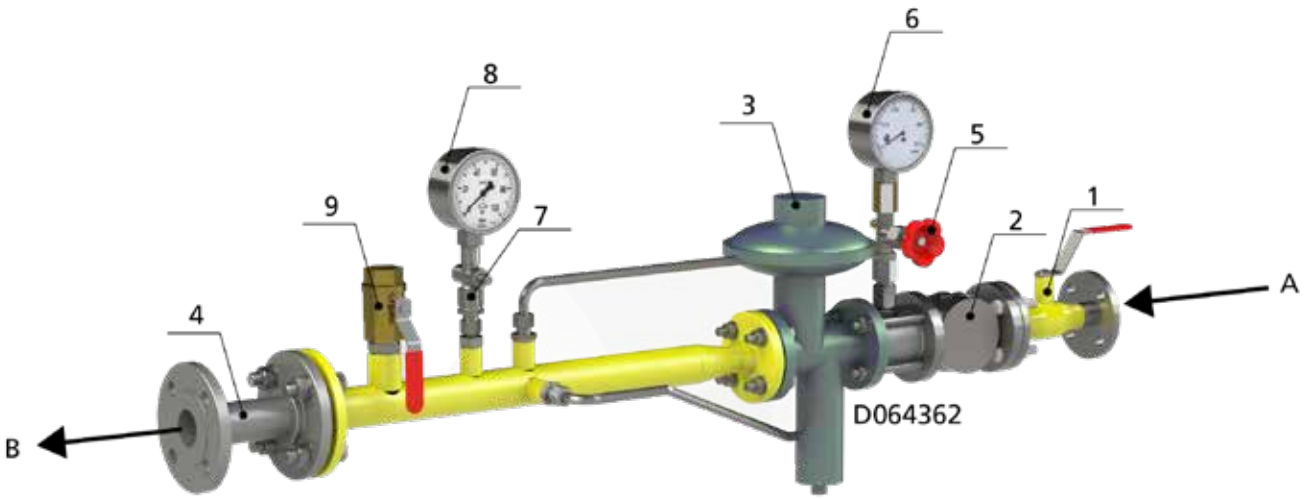
The output has been calculated using a density of 850 kg/m³ for light fuel oil.

Diagram 1
Selection of a booster unit for light fuel oil



Gas pressure regulating assembly

Example



1. Ball valve
2. Gas filter
3. Pressure regulator with safety shut-off and safety relief valve
4. Bellows compensator/gas hose
5. Pressure gauge valve
6. Pressure gauge, high pressure
7. Pressure gauge valve
8. Pressure gauge, low pressure
9. Ball valve, blow-off

A Gas inlet
B Gas to burner

Oilon customer services and webshop

Commissioning and maintenance services

We have extensive expertise in burner technology and processes. We offer reliable commissioning, maintenance, and training services for all needs. Our team will help you design a system that will meet the requirements of environmental rules and regulations and operate at optimal efficiency.

Technical support

The technical support service is intended for retailers, maintenance companies, and end customers. You can contact us with any questions about technical problems or warranty issues. We also design and implement updates for your burner systems with full expertise.

Spare part services

Our spare part service will support the customer throughout the product's life cycle.

- spare part recommendations for both new and old systems
- spare parts for servicing and maintenance

Spare parts store

Service partners and dealers can order spare parts directly from our webshop. Contact our spare part sales team for the required login details.

Visit our spare parts webshop at
http://webshop.oilon.com

Modern training facilities

We provide high-level training for our products, and the goal of our product training is to improve the professional competence of installation and maintenance companies.

Our theoretical sessions focus on key considerations for our burners' operating environment and components. Practical exercises include burner adjustment and fault diagnostics, among many other things. We also underline the importance of low emission values for the environment.

Our Sales and Service Network

During our extensive years of operation, we have evolved from a small traditional burner manufacturer into a global well-known energy and environmental technology company.

Our strong commitment to research and development has resulted in growing staff know-how and a rapid increase in the product range.

We have production facilities and sales offices in Finland, USA, Brazil, and China and resellers all over the world.

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