CIB UNIGAS

Let's light up tomorrow

CATALOGUE

Medium-small
burners
from 19 kW to 2050 kW

2020

www.cibunigas.it

CIB UNIGAS

Let's light up tomorrow

CATALOGUE

Medium-small
burners
from 19 kW to 2050 kW

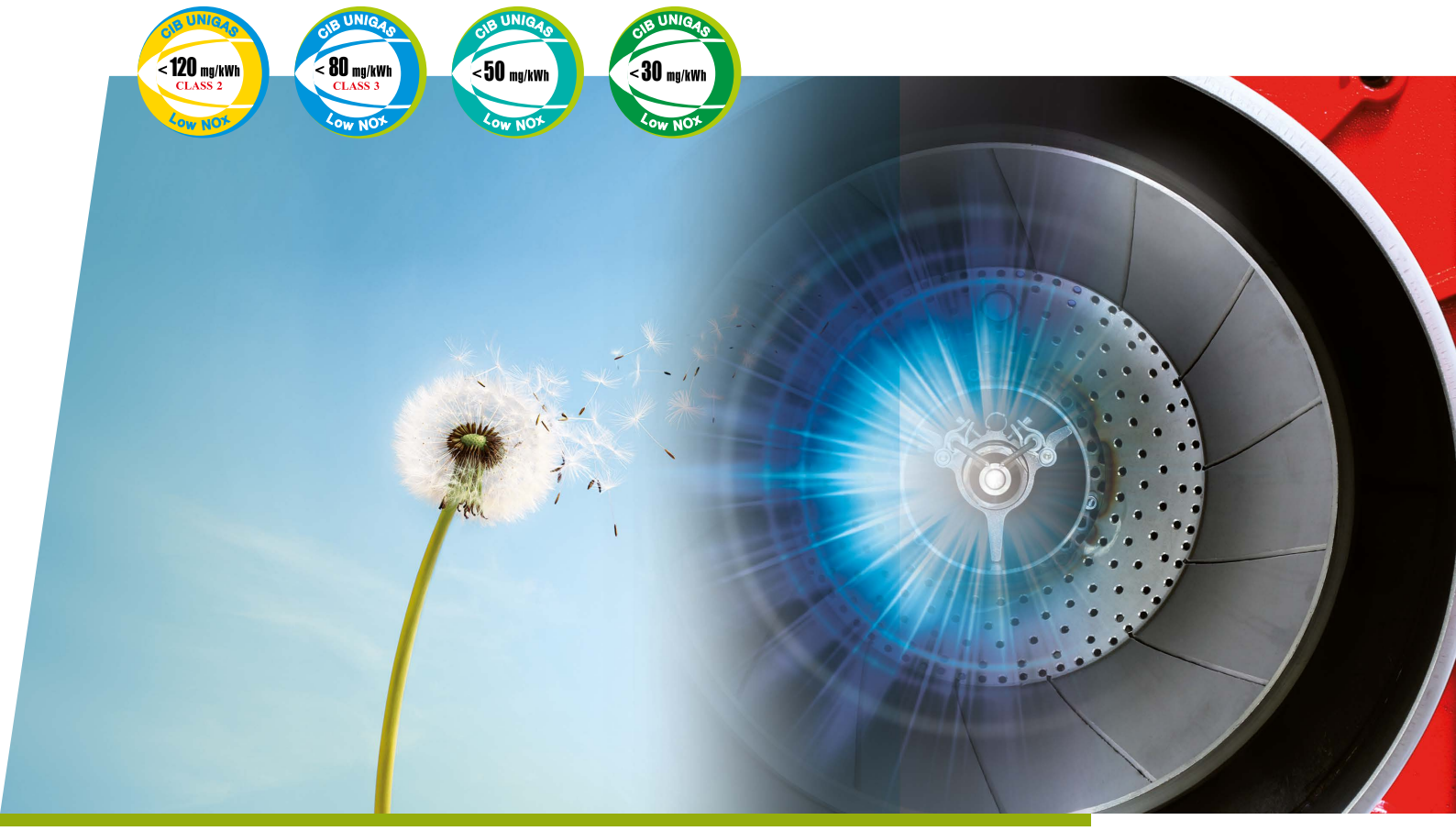
2020

www.cibunigas.it

CIB UNIGAS
Let's light up tomorrow

WE UNDERSTAND YOUR MARKET

The success of CIB UNIGAS product, actually exported globally, is due to its adaptability. In fact we are able to adapt our know-how to the different market requests. As a demonstration of the described ability, now the 85% of our turnover comes from exports, in particular form Russia and China.
Our strategic points are the adaptation to different rules, the specific technical and promotional documentations we supply, the ability to fulfill special requirements and the constant participation at international exhibitions.



QUALITY STANDARDS AND CIB UNIGAS: OUR COMMITMENT

In 1995 CIB UNIGAS was certificated by the TUV, a German institute that certifies the safety and the rule-compliance of products. From that time on, the company adhere to high quality standards in all its industrial processes.

ADVANCING TOWARDS THE FUTURE

One of the goals of CIB UNIGAS was to strengthen the internal distribution of information and to create a new technical structure for the research and development of new industrial products.
In the new and modern facility, is assembled the nerve centre of the company: General Management, commercial offices, control and research labs and production workshops.
The qualifications of our technicians and the investment in research and human resources, represent the living and continuous engagement to operate in a future assuring stability and dynamism to the company.

www.cibunigas.it

Innovation gets us there first
Nowadays the adaptation to the emission standards is no more sufficient to obstruct the increase of the greenhouse effect. For this reason all our products have always guaranteed levels of pollutant emissions decisively below the sector limit imposed by the international regulations. Thanks to its "Zero Emission NOx" research project, CIB Unigas is playing a proactive role in the discovery of new technologies in order to create the most environmentally-friendly product possible.

Production philosophy
Everything begins in our research laboratories, where a group of engineers is free to test new materials and technologies with the aim of discover burners always more efficient and environmentally-friendly. When a prototype is ready, it is underwent to several trials based on parameters that are stricter than the ones required by the market.
This is the way we produce our products that are appropriate both for industrial and private applications. CIB Unigas's production method, based on excellence and constant updating, does not prevent it from maintaining a formidable operation agility. In fact CIB Unigas is able to offer an infinite range of tailored solutions that are surprisingly competitive in terms of costs and time.

www.thesmartcombustion.com

THE FIRST BURNER WITH SELF CONTROL

The ***FACILE*** project stems from the vision of creating an easy commissioning burner, and, at the same time, making it more efficient in terms of energy consumption. From the beginning, the goal was to observe the "machine" from a different point of view, away from the classic design stereotypes of the burner, and developing a new conception. The burner is no longer seen as a passive device but, on the contrary, interactive and autonomous in relation to the environmental variables and plant conditions.

FACILE®

Full Auto Control Innovative Line Engineering

BURNER IDENTIFICATION FOR TYPE AND MODELS

SERIES
IDEA, TECNOPRESS

TYPE
NG…,P…,R…, S…,LG…,NGX…, LX…,RX…,LO…,G…,PG…,
N…,PN…,HS…,HP…

Model: M-. AB. S. GB. A. 0. 25. xx

FUEL

M	- NATURAL GAS	N	- HEAVY OIL UP TO 50 cSt a 50°C (7°E - 50°C)
L	- L.P.G.	E	- HEAVY OIL UP TO 110 cSt a 50°C (15°E - 50°C)
B	- BIOGAS	D	- HEAVY OIL UP TO 400 cSt a 50°C (50°E a 50°C)
C	- TOWN GAS	K	- KEROSENE
G	- LIGHT OIL	MG	- DUAL FUEL BURNERS NATURAL GAS - LIGHT OIL
A	- BIODIESEL	MN	- DUAL FUEL BURNERS NATURAL GAS - HEAVY OIL

OPERATION

TN	- ON/OFF	MD	- FULLY MODULATING
AB	- HIGH - LOW FLAME	SP	- SOFT START
PR	- PROGRESSIVE		

BLAST TUBE

M - STANDARD
DUAL LENGTH BLAST TUBE

S - STANDARD

L - LONG

DESTINATION COUNTRY

GB	UNITED KINGDOM
...	AVAILABLE FOR OTHER COUNTRIES UPON REQUEST

BURNER MANUFACTURE

A	STANDARD	D	CHEF
Y	SPECIAL	G	CONTROL PANEL AND JUNCTION BOX
B	BAKERY OVENS	E	JUNCTION BOX
C	BAKERY OVENS WITH EXTERNAL AIR INLET	Z	WITH EXTERNAL AIR INLET

EQUIPMENT

0	2 GAS VALVES
1	2 GAS VALVES AND LEAKAGE CONTROL
M	HYDRAULIC RAM
P	PRE-HEATER
L	HYDRAULIC RAM AND PRE-HEATER

GAS CONNECTION

15	½”	40	1”½
20	¾”	50	2”
25	1”	65	DN65
32	1”¼	80	DN80

ELECTRONIC VERSION

EA	Medium-small burners complete with electronic cam
EB	Medium-small burners complete with electronic cam and inverter
EC	Medium-small dual fuel burners complete with electronic cam
ED	Medium-small dual fuel burners complete with electronic cam and inverter
ES	Medium-small burners complete with electronic cam, without O_2 control, without Inverter.
EO	Medium-small burners complete with electronic cam and O_2 control, without Inverter
EI	Medium-small burners complete with electronic cam and Inverter, without O_2 control
EK	Medium-small burners complete with electronic cam with O_2 control and with Inverter

BURNER IDENTIFICATION FOR TYPE AND NEW MODELS

SERIES
TECNOPRESS

TYPE
C...,E...

Model: A. M-. AB. SP. GB. A. 0. 32. xx

A - Standard
X - Low NOx

P - Premixed
Y - Pneumatic

FUEL

M - NATURAL GAS
L - L.P.G.
B - BIOGAS
C - TOWN GAS
G - LIGHT OIL
A - BIODIESEL

N - HEAVY OIL UP TO 50 cSt a 50°C (7°E - 50°C)
E - HEAVY OIL UP TO 110 cSt a 50°C (15°E - 50°C)
D - HEAVY OIL UP TO 400 cSt a 50°C (50°E a 50°C)
K - KEROSENE
MG - DUAL FUEL BURNERS NATURAL GAS - LIGHT OIL
MN - DUAL FUEL BURNERS NATURAL GAS - HEAVY OIL

OPERATION

AB - HIGH-LOW FLAME
PR - PROGRESSIVE
MD - FULLY MODULATING

BLAST TUBE AND AIR INLET

SP - Standard blast tube with aluminium air inlet
SR - Standard blast tube with silencer
LP - Long blast tube with aluminium air inlet
LR - Long blast tube with silencer

DESTINATION COUNTRY

GB UNITED KINGDOM
... AVAILABLE FOR OTHER COUNTRIES UPON REQUEST

BURNER MANUFACTURE

A STANDARD
Y SPECIAL
G CONTROL PANEL AND JUNCTION BOX
E JUNCTION BOX

EQUIPMENT

0 2 GAS VALVES
1 2 GAS VALVES AND LEAKAGE CONTROL

GAS CONNECTION

32 1"¼
40 1"½
50 2"
65 DN65
80 DN80

ELECTRONIC VERSION

EA Medium-small burners complete with electronic cam
EB Medium-small burners complete with electronic cam and inverter
EC Medium-small dual fuel burners complete with electronic cam
ED Medium-small dual fuel burners complete with electronic cam and inverter
ES Medium-small burners complete with electronic cam, without O_2 control, without Inverter.
EO Medium-small burners complete with electronic cam and O_2 control, without Inverter
EI Medium-small burners complete with electronic cam and Inverter, without O_2 control
EK Medium-small burners complete with electronic cam with O_2 control and with Inverter

EXAMPLE OF THE NEW RANGE CONFIGURATION

CIB UNIGAS BURNERS

CIB UNIGAS S.P.A.
Via L.Galvani, 9 35011
Campodarsego (PD) ITALIA

CE 0476

Type	E165A
Model	M-.PR.SP.GB.A.1.50
Year	2018
S. Number	1819093
El. Supply	400V 3N a.c. 50Hz
El.Consump.	2,70 kW
Fan Motor	2,2 kW
Protection	IP40
Output	300 -1650 kW
Fuel	NATURAL GAS
Category	I2H
Gas pressure	Max 360 mbar
Destination	UNITED KINGDOM
P.I.N.	0476CQ0750

TYPE			MODEL						
E	165	A	M-.	PR.	SP.	GB.	A.	1.	50
Model	Output	Standard firing head	Natural gas	Progressive	Standard blast tube with aluminium air inlet	Country United Kingdom	Standard	2 gas valves and leakage control	Gas connection

---

CIB UNIGAS BURNERS

CIB UNIGAS S.P.A.
Via L.Galvani, 9 35011
Campodarsego (PD) ITALIA

CE 0476

Type	C83X
Model	M-.MD.LR.GB.Y.1.32.EA
Year	2018
S. Number	1819092
El. Supply	400V 3N a.c. 50Hz
El.Consump.	1,60 kW
Fan Motor	1,1 kW
Protection	IP40
Output	200 -830 kW
Fuel	NATURAL GAS
Category	I2H
Gas pressure	Max 360 mbar
Destination	UNITED KINGDOM
P.I.N.	0476CQ0750

TYPE			MODEL							
C	83	X	M-.	MD.	LR.	GB.	Y.	1.	32.	EA
Model	Output	Low NO_x firing head	Natural gas	Fully modulating	Long blast tube with silencer	Country United Kingdom	Special	2 gas valves and leakage control	Gas connection	Electronic version

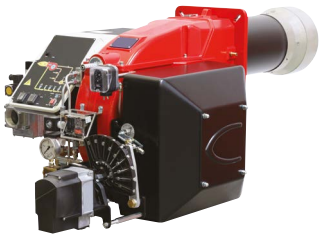
---

CIB UNIGAS BURNERS

CIB UNIGAS S.P.A.
Via L.Galvani, 9 35011
Campodarsego (PD) ITALIA

CE 0476

Type	E140X
Model	MG.MD.LR.GB.A.1.65.EC
Year	2018
S. Number	1819091
El. Supply	400V 3N a.c. 50Hz
El.Consump.	3,25 kW
Fan Motor	2,2 kW
Protection	IP40
Output	290 -1400 kW
Fuel	GAS/LIGHT OIL
Category	I2H
Gas pressure	Max 500 mbar
Destination	UNITED KINGDOM
P.I.N.	0476CQ0750



TYPE			MODEL							
E	140	X	MG.	MD.	LR.	GB.	A.	1.	65.	EC
Model	Output	Low NO_x firing head	Natural gas Llght oil	Fully modulating	Long blast tube with silencer	Country United Kingdom	Standard	2 gas valves and leakage control	Gas connection	Electronic version

INDEX

ELECTRONIC BURNERS

LOW NOx GAS BURNERS (Class 2 EN676)

LOW NOx GAS BURNERS (Class 3 EN676)

	Type	Output kW	Operation	Page
	**IDEA SERIES** NGX35 - NGX70	21÷65	TN AB	84
	**IDEA SERIES** NGX120 - NGX200	35÷150	TN AB PR MD	88
	**IDEA SERIES** NGX280 - NGX350 NGX400 - NGX550	60÷490	TN AB PR MD	92
	**TECNOPRESS SERIES** E115X...xP - E140X...xP E190X...xP	290÷1.900	AB PR MD	99
	**TECNOPRESS SERIES** C83X...xR - E115X...xR E140X...xR - E190X...xR	200÷1.900	AB PR MD	106

EMISSIONS NOx < 50 mg/kWh

	Type	Output kW	Operation	Page
	**TECNOPRESS SERIES** C83X-FGR... - E115X-FGR.... E140X-FGR.... - E190X-FGR...	750÷1.710	PR MD	Contact our Sales Offices

EMISSIONS NOx < 30 mg/kWh

	Type	Output kW	Operation	Page
	**TECNOPRESS SERIES** C83X-FGR - E115X-FGR E140X-FGR - E190X-FGR	664÷1.520	PR MD	Contact our Sales Offices

EMISSIONS NOx < 80 - 50 - 30 mg/kWh

	Type	Output kW	Operation	Page
	**TECNOPRESS SERIES** FC83X - FE115X - FE140X - FE180X	810÷1.800	PR MD	Contact our Sales Offices

GAS TRAINS

		Page
		113

INDEX

LIGHT OIL BURNERS
LIGHT OIL BURNERS LOW NOx

HEAVY OIL BURNERS

	Type	Output kW	Operation	Page
	**MINIFLAM SERIES** **Mechanical atomization** N18	105÷209	TN	136
	**TECNOPRESS SERIES** **Mechanical atomization** PN30 - PN60 - PN70 - PN81	105÷1.900	TN AB PR MD	138

INDEX

DUAL FUEL BURNERS NATURAL GAS/LIGHT OIL LOW NOx (Class 2 EN676)

DUAL FUEL BURNERS NATURAL GAS/LIGHT OIL LOW NOx (Class 3 EN676)

	Type	Output kW	Operation	Page
	**TECNOPRESS SERIES** C83X...xP	200÷830	PR MD	168
	**TECNOPRESS SERIES** E115X...xR - E140X...xR - E190X...xR	290÷1.900	PR MD	172

EMISSIONS NOx < 50 mg/kWh

	Type	Output kW	Operation	Page
	**TECNOPRESS SERIES** C83X-FGR.... - E115X-FGR.... E140X-FGR.... - E190X-FGR....	750÷1.710	PR MD	Contact our Sales Offices

EMISSIONS NOx < 30 mg/kWh

	Type	Output kW	Operation	Page
	**TECNOPRESS SERIES** C83X-FGR - E115X-FGR E140X-FGR - E190X-FGR	664÷1.520	PR MD	Contact our Sales Offices

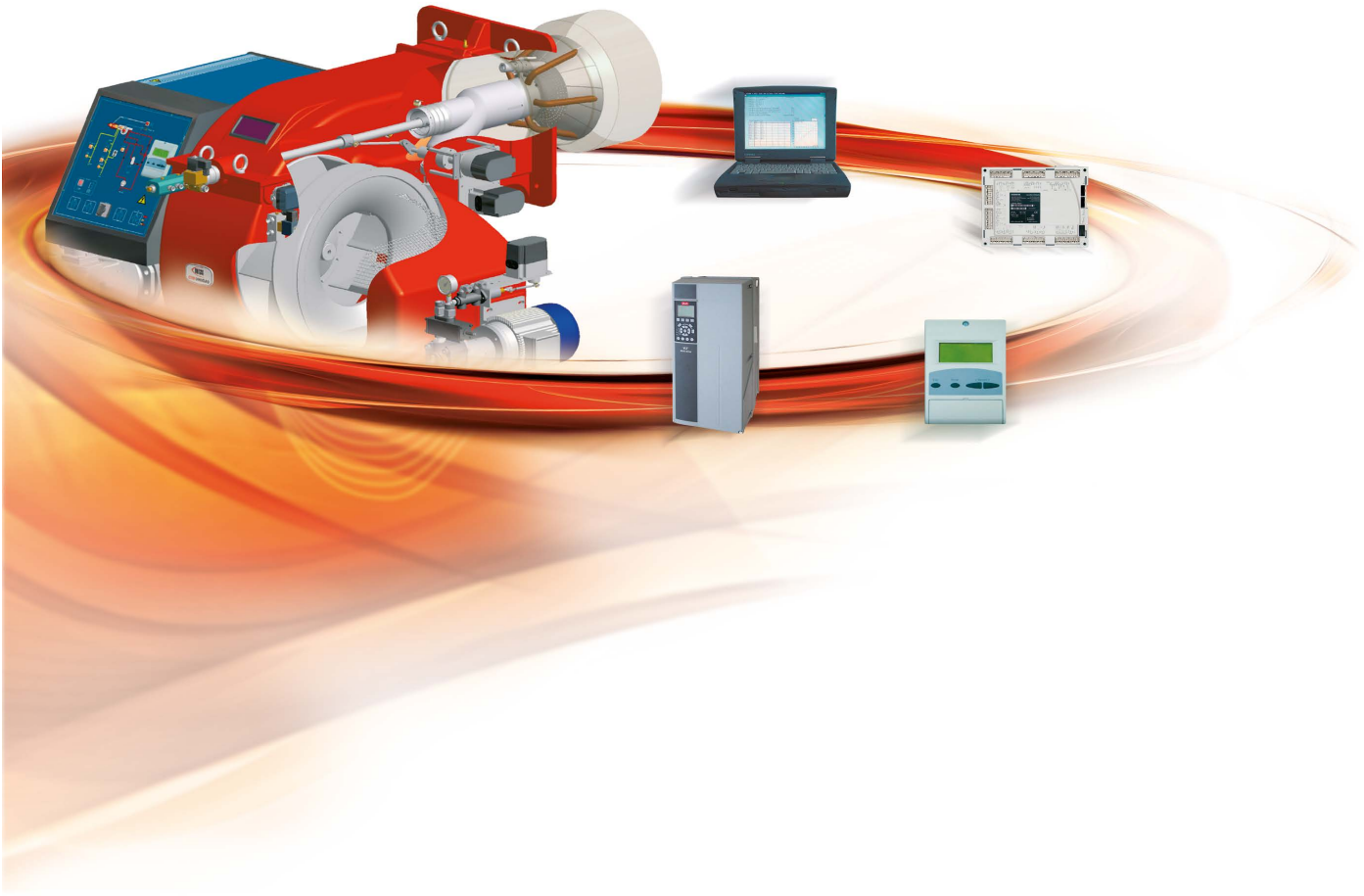
INDEX

DUAL FUEL BURNERS NATURAL GAS/HEAVY OIL

FITTINGS / OPTIONS

TECHNICAL INFORMATION

MICRO PROCESSOR CONTROLLED BURNERS



WITH LMV 2... MICRO PROCESSOR

EA Medium-small burners complete with electronic cam

EB Medium-small burners complete with electronic cam and inverter

EC Medium-small dual fuel burners complete with electronic cam

ED Medium-small dual fuel burners complete with electronic cam and inverter

WITH LMV 5... MICRO PROCESSOR

ES Medium-small burners complete with electronic cam, without O_2 control, without Inverter

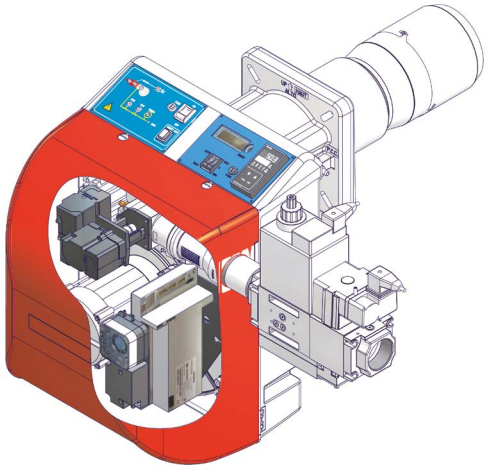
EO Medium-small burners complete with electronic cam and O_2 control, without Inverter

EI Medium-small burners complete with electronic cam and Inverter, without O_2 control

EK Medium-small burners complete with electronic cam, Inverter and O_2 control

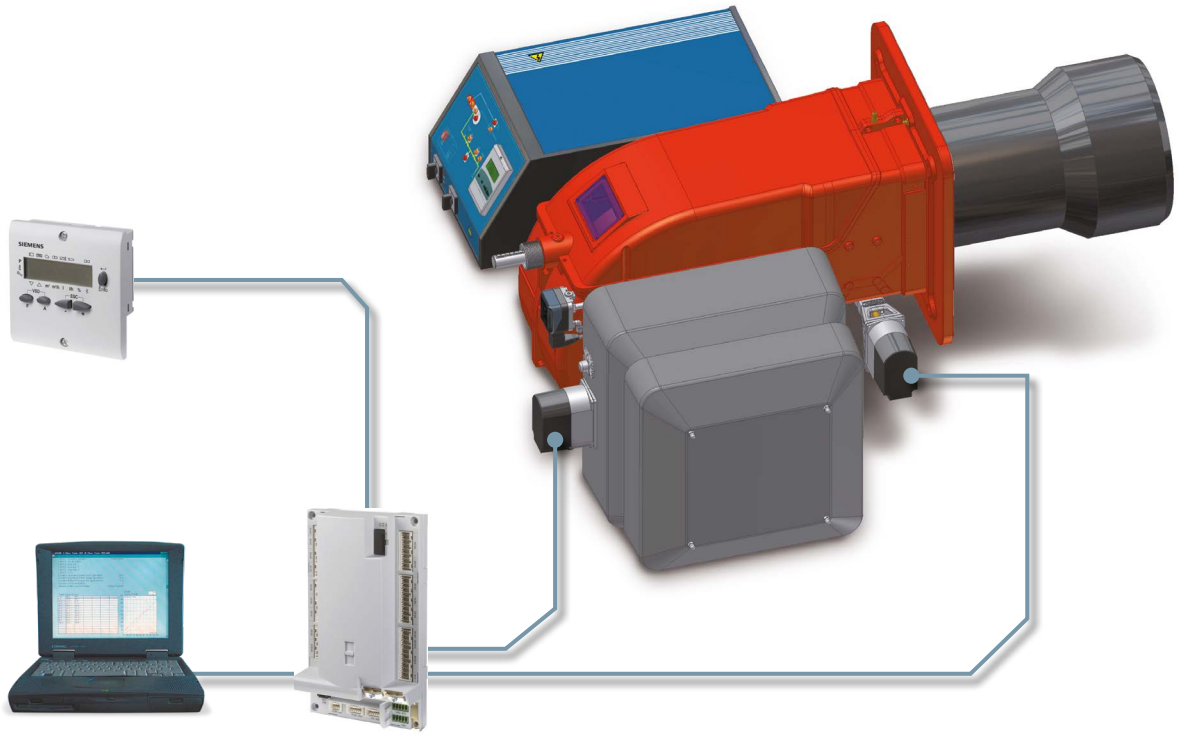
WITH LMV 2... 3... MICROPROCESSOR
for medium-small power burners

CIB UNIGAS S.p.A. can provide small and medium size burners (up to 2.050 kW) with an electronic control system. They can be used both on single fuel burners (gas or light oil) and on dual fuel burners (gas/light oil).



This system offers many features:

- Reduction of mechanical moving parts
- Built-in flame detection box
- Integrated gas proving system
- Possibility to install different types of flame sensors, so that the electronic cam system can be used on all applications
- Variable speed drive VSD (only on certain versions)
- Error-code display on screen in case of lock-out
- Possibility to program or to exclude the post purge time
- Display of hours run



Modbus communication, system, only upon request, through the software (to be quoted separately), except the basic version.

Optimal air/fuel ratio regulation, with high precision and repeatability of the regulations made.

Easy programming, both through the AZL programmer, and the proper software.

WITH LMV 2... 3... MICROPROCESSOR
for medium-small power burners





Model	Series	Fuel	LMV 20	LMV 26	LMV 37	AGM60	AZL 21	
EA	IDEA (from NG280)	gas	●				●	
EA	TECNOPRESS	gas (up to 2”)	●					
EA	TECNOPRESS	gas (from DN65)	●					
EA	TECNOPRESS	liquid fuel	●					
EB	TECNOPRESS	gas (up to 2”)			●			
EB	TECNOPRESS	gas (from DN65)			●			
EB	TECNOPRESS	liquid fuel			●			
EC	TECNOPRESS	HP - C... - E... - KP		●				
EC	TECNOPRESS	dual fuel burners KPBY		●		●		
ED	TECNOPRESS	HP - C... - E... - KP		●				
ED	TECNOPRESS	dual fuel burners KPBY		●		●		

							
	AZL 23	SQN14 air	SQN14 gas	SQM33 air	SQM33 gas	SQM33 liquid fuel	INVERTER
		●	●				
	●		●	●			
	●			●	●		
	●			●		●	
	●		●	●			●
	●			●	●		●
	●			●		●	●
	●			●	●		
	●			●	●	●	
	●			●	●		●
	●			●	●	●	●

GAS WITH LMV 20...
Electronically Operated without Inverter
complete with leakage control

Version EA (Idea)

LMV 20...

AZL 21

Servomotor
AIR SQN14...

Servomotor
GAS SQN14...

Series	Burner Type	Extra charge €
GAS	NG280 ...EA NG350 ...EA NG400 ...EA NG550 ...EA	
GAS	NGX350 ...EA NGX400 ...EA NGX550 ...EA	

Version EA (Tecnopress)

LMV 20...

AZL 23

Servomotor
AIR SQN33...

Servomotor
GAS SQN14...

Series	Burner Type	Extra charge €
GAS	P61... 1.32 /40/50/65 ...EA P65... 1.40/50/65 ...EA P71... 1.50 ...EA	
GAS	C85A... 1.32 /40/50/65 ...EA C83X... 1.32 /40/50/65 ...EA	
GAS	C120A... 1.40/50/65/80 ...EA	
GAS	E165A... 1.40/50 ...EA* E205A... 1.40/50 ...EA* E115X... 1.40/50 ...EA* E140X... 1.40/50 ...EA* E190X... 1.40/50 ...EA*	

** Only gas train up to 2" (DN 50)*

GAS WITH LMV 20...
Electronically Operated without Inverter
complete with leakage control

Version EA (Tecnopress)

LMV 20...

AZL 23

Servomotor
AIR SQM33...

Servomotor
GAS SQM33...

Series	Burner Type	Extra charge €
GAS	C83A... 1.65..EA	
GAS	E165A... 1.65/80..EA E205A... 1.65/80..EA E115X... 1.65/80..EA E140X... 1.65/80..EA E190X... 1.65/80..EA	

Version EB (Tecnopress)

LMV 37...

AZL 23

Servomotor
AIR SQM33...

Servomotor
GAS SQN14...

Inverter

Series	Burner Type	Extra charge €
GAS	P61... 1.32 /40/50/65 ...EB P65... 1.40/50/65 ...EB P71... 1.50 ...EB	
GAS	C85A... 1.32 /40/50/65 ...EB C83X... 1.32 /40/50/65 ...EB	
GAS	C120A... 1.40/50 ...EB*	
GAS	E165A... 1.40/50 ...EB* E205A... 1.40/50 ...EB* E115X... 1.40/50 ...EB* E140X... 1.40/50 ...EB* E190X... 1.40/50 ...EB*	

** Only gas train up to 2" (DN 50)*

GAS WITH LMV 37...
Electronically Operated with Inverter

Version EB (Tecnopress)

LMV 37...

AZL 23

Servomotor
AIR SQM33...

Servomotor
GAS SQM33...

Inverter

Series	Burner Type	Extra charge €
GAS	C83A... 1.65 ...EB	
GAS	E165A... 1.65/80 ...EB E205A... 1.65/80 ...EB E115X... 1.65/80 ...EB E140X... 1.65/80 ...EB E190X... 1.65/80 ...EB	

Version EA (Tecnopress)

LMV 20...

AZL 23

* Servomotor
AIR SQM33...

* Servomotor
LIGHT OIL SQM33...

Series	Burner Type	Extra charge €
LIGHT OIL	PG60 ...EA PG70 ...EA PG81 ...EA	

** Servomotor SQM33.711A9 for air, light oil*

LIGHT OIL BURNERS WITH LMV 26...
Electronically Operated with Inverter

Version EB (Tecnopress)

LMV 26...

AZL 23

* Servomotor
AIR SQM33...

* Servomotor
LIGHT OIL SQM33...

Inverter

Series	Burner Type	Extra charge €
LIGHT OIL	PG60 ...EB PG70 ...EB PG81 ...EB	

** Servomotor SQM33.711A9 for air, light oil*

Version EC (Tecnopress)

LMV26...

AZL 23

* Servomotor
AIR SQM33...

** Servomotor
GAS
LIGHT OIL-HEAVY OIL SQM33...

* Servomotor
HEAVY OIL
SQM33...

Series	Burner Type	Extra charge €
DUAL FUEL GAS/LIGHT OIL	HP60... 1.32/40/50/65 ...EC HP72... 1.50/65/80 ...EC	
DUAL FUEL GAS/LIGHT OIL	C92A... MG...1.32 /40/50/65 ...EC C120A... MG...1.40/50/65/80 ...EC	
DUAL FUEL GAS/LIGHT OIL	E165A... MG... 1.40/50/65/80 ...EC E205A... MG... 1.40/50/65/80 ...EC	
DUAL FUEL GAS/HEAVY OIL	KP60 ...EC KP72 ...EC KP73 ...EC KPBY72 ...EC KPBY73 ...EC	

** Only KPBY version*
*** Servomotor SQM33.711A9 for air, light oil and heavy oil*

DUAL FUEL BURNERS GAS/LIGHT OIL GAS/HEAVY OIL WITH LMV 26... Electronically Operated with Inverter

Version ED (Tecnopress)

LMV 26...

AZL 23

** Servomotor AIR SQM33...

** Servomotor GAS SQM33...

* Servomotor HEAVY OIL SQM33...

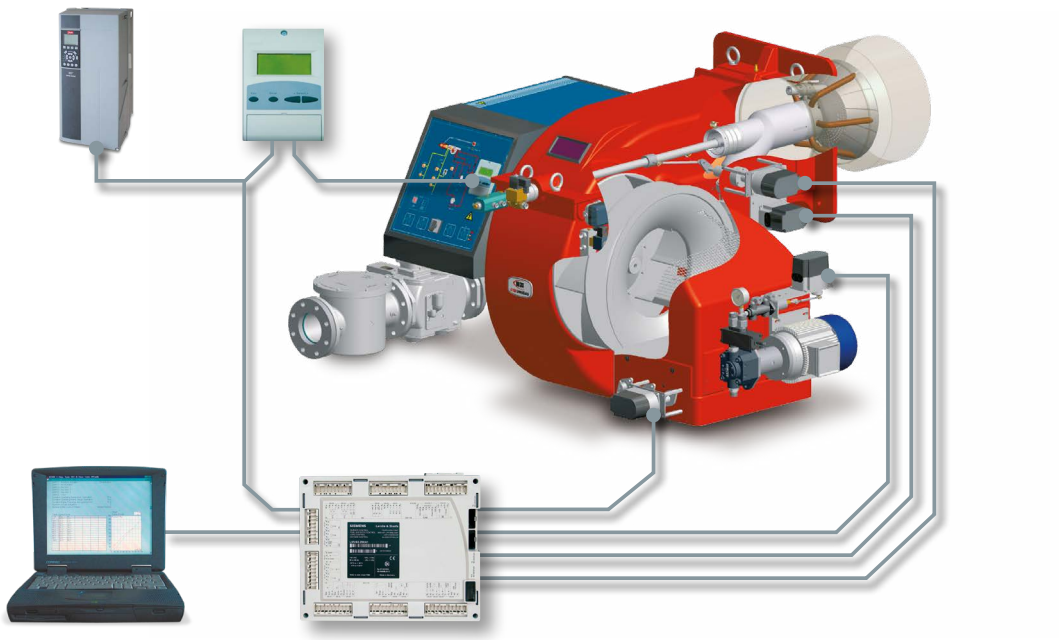
Inverter

Series	Burner Type	Extra charge €
DUAL FUEL GAS/LIGHT OIL	HP60... 1.32/40/50/65 ...ED HP72... 1.50/65/80 ...ED	
DUAL FUEL GAS/LIGHT OIL	C92A... MG...1.32 /40/50/65 ...ED C120A... MG...1.40/50/65/80 ...ED	
DUAL FUEL GAS/LIGHT OIL	E165A... MG... 1.40/50/65/80 ...ED E205A... MG... 1.40/50/65/80 ...ED	
DUAL FUEL GAS/HEAVY OIL	KP60 ...ED KP72 ...ED KP73 ...ED	
DUAL FUEL GAS/HEAVY OIL	KPBY72 ...ED KPBY73 ...ED	

** Only KPBY version*
*** Servomotor SQM33.711A9 for air, light oil and heavy oil*

ELECTRONIC SUPERVISION AND CONTROL SYSTEM WITH LMV 5... for medium and small output burners

CIB UNIGAS S.p.A. has adopted, in its series of burners, an electronic system of command and control.
This innovative system, divided into two types of devices, can be used both for civil and industrial installations (up to 2.050 kW) and for burners which use a single or mixed fuel and with continuous or intermittent operation. This system allows the control of the various elements which play an important role in the correct mixture of the fuel and combustion air.
This solution permits to achieve the maximum precision in the combustion adjustment.
The system can also be expanded through interface with an oxygen control probe and/or a fan speed adjustment inverter in order to improve the performance. In this way we can obtain high savings both in terms of fuel and electric power required.
The command and control system is composed of a twin microprocessor electronic unit, which integrates all burner's command and control functions, and of a programming and adjustment local unit.



Integrated functions include air/fuel ratio adjustment (with work point configuration possibility), PID temperature or pressure regulator, gas valve leakage control, adjustable cycle times, pre-configured fuel trains, and input/ output configuration.
The programming levels are protected by password for three types of users (manufacturer, servicing personnel, final user); the dialogue between servocontrol and sensors is performed using twin-channel CAN Bus protocol in order to guarantee the greatest safety and reliability. The unit can be installed directly in the machine or inside a separate electric control panel which is positioned no further away than 100 meters.
Using the appropriate designated optional software, the system can be configured directly by PC.

Flame control box integrated functions:

- Burner control;
- Electronic cam;
- Power regulator;
- Gas valve leakage control system;
- Oxygen control;
- Inverter control;
- Dialogue with BMS systems or PLC (MOD Bus);
- Burner commissioning and configuration via PC-tool;
- Simple programming with AZL and PC-tool;
- Complete self-diagnostic function (error memory, number of firings, burner operation time, clock, etc.);
- 3 levels of parameter access: (manufacturer, servicing personnel, final user);
- Remote diagnostics;
- All components can be easily interchanged;
- Parameter upgrading with PC-tool;
- Dialogue with MOD Bus protocol.

WITH LMV 5... MICROPROCESSOR
for medium and small output burners

						
Model	Series	Fuel	LMV 51.100	LMV 51.300	LMV 52	
ES	TECNOPRESS	gas	●			
ES	TECNOPRESS	liquid fuel	●			
ES	TECNOPRESS	dual fuel burners	●			
EO	TECNOPRESS	gas			●	
EO	TECNOPRESS	DUAL FUEL BURNERS			●	
EI	TECNOPRESS	gas		●		
EI	TECNOPRESS	liquid fuel		●		
EI	TECNOPRESS	dual fuel burners		●		
EK	TECNOPRESS	gas			●	
EK	TECNOPRESS	dual fuel burners			●	

						
	AZL 5x	SQM4x air	SQM4x gas	SQM4x liquid fuel	O_2 PROBE	INVERTER
	●	●	●			
	●	●		●		
	●	●	●	●		
	●	●	●		●	
	●	●	●	●	●	
	●	●	●			●
	●	●		●		●
	●	●	●	●		●
	●	●	●		●	●
	●	●	●	●	●	●

BURNERS WITH LMV 5...
Micro Processor

Version ES (Tecnopress)


LMV 51.100


AZL 5


SQM4...


SQM4...

Electronically operated burners without O_2 trim and inverter.

Series	Burner Type	Extra charge €
GAS	P61 ...ES P65 ...ES P71...ES	
GAS	C85A... 1.32 /40/50/65 ...ES C120A... 1.40/50/65/80 ...ES E165A... 1.40/50/65/80 ...ES E205A... 1.40/50/65/80 ...ES	
GAS	C83X... 1.32 /40/50/65 ...ES E115X... 1.40/50/65/80 ...ES E140X... 1.40/50/65/80 ...ES E190X... 1.40/50/65/80 ...ES	
HEAVY OIL	PN60 - PN70 - PN81 ...ES	

Version ES (Tecnopress)


LMV 51.100


AZL 5


SQM4...


SQM4...


SQM4...

Electronically operated burners without O_2 trim and inverter.

Series	Burner Type	Extra charge €
DUAL FUEL GAS/LIGHT OIL	C92A - C120A - E165A - E205A ...ES C83X - E115X - E140X - E190X ... ES	
DUAL FUEL GAS/HEAVY OIL	KP60 - KP72 -KP73 ...ES	

Version EO (Tecnopress)


LMV 52...


AZL 5


SQM4...


SQM4...


O_2... PROBE

Electronically operated burners with O_2 trim without inverter.
With oxygen probe

Series	Burner Type	Extra charge €
GAS	P61 ...E0 P65 ...E0 P71 ...E0	
GAS	C85A... 1.32 /40/50/65 ...E0 C120A... 1.40/50/65/80 ...E0 E165A... 1.40/50/65/80 ...E0 E205A... 1.40/50/65/80 ...E0	
GAS	C83X... 1.32 /40/50/65 ...E0 E115X... 1.40/50/65/80 ...E0 E140X... 1.40/50/65/80 ...E0 E190X... 1.40/50/65/80 ...E0	

Version EO (Tecnopress)


LMV 52...


AZL 5


SQM4...


SQM4...


SQM4...


SONDA O_2...

Electronically operated burners with O_2 trim without inverter.
With oxygen probe

Series	Burner Type	Extra charge €
DUAL FUEL GAS/LIGHT OIL	C92A - C120A - E165A - E205A ...E0 C83X - E115X - E140X - E190X ... E0	
DUAL FUEL GAS/HEAVY OIL****	KP60 - KP72 -KP73 ...E0	

***** The O_2 trim can be performed only when working with gas.**

BURNERS WITH LMV 5...
Micro Processor

Version EI (Tecnopress)


LMV 51.300


AZL 5


SQM4...


SQM4...


INVERTER

Electronically operated burners complete with inverter without oxygen trim.

Series	Burner Type	Extra charge €
GAS	P61 ...EI P65 ...EI P71 ...EI	
GAS	C85A... 1.32 /40/50/65 ...EI C120A... 1.40/50/65/80 ...EI E165A... 1.40/50/65/80 ...EI E205A... 1.40/50/65/80 ...EI	
GAS	C83X... 1.32 /40/50/65 ...EI E115X... 1.40/50/65/80 ...EI E140X... 1.40/50/65/80 ...EI E190X... 1.40/50/65/80 ...EI	

Version EI (Tecnopress)


LMV 51.300


AZL 5


SQM4...


SQM4...


SQM4...


INVERTER

Electronically operated burners complete with inverter without oxygen trim.

Series	Burner Type	Extra charge €
DUAL FUEL GAS/LIGHT OIL	C92A - C120A - E165A - E205A ...EI C83X - E115X - E140X - E190X ... EI	
DUAL FUEL GAS/HEAVY OIL	KP60 - KP72 -KP73 ...EI	

Version EK (Tecnopress)


LMV 52...


AZL 5


SQM4...


SQM4...


O_2... PROBE


INVERTER

Electronically operated burners complete with inverter and O_2 trim.
With oxygen probe

Series	Burner Type	Extra charge €
GAS	P61 ...EK P65 ...EK P71 ...EK	
GAS	C85A... 1.32 /40/50/65 ...EK C120A... 1.40/50/65/80 ...EK E165A... 1.40/50/65/80 ...EK E205A... 1.40/50/65/80 ...EK	
GAS	C83X... 1.32 /40/50/65 ...EK E115X... 1.40/50/65/80 ...EK E140X... 1.40/50/65/80 ...EK E190X... 1.40/50/65/80 ...EK	

Version EK (Tecnopress)


LMV 52...


AZL 5


SQM4...


SQM4...


SQM4...


SONDA O_2...


INVERTER

Electronically operated burners complete with inverter and O_2 trim.
With oxygen probe

Series	Burner Type	Extra charge €
DUAL FUEL GAS/LIGHT OIL	C92A - C120A - E165A - E205A ...EK C83X - E115X - E140X - E190X ... EK	
DUAL FUEL GAS/HEAVY OIL****	KP60 - KP72 -KP73 ...EK	

***** The O_2 trim can be performed only when working with gas.**

NATURAL GAS BURNERS

idea series

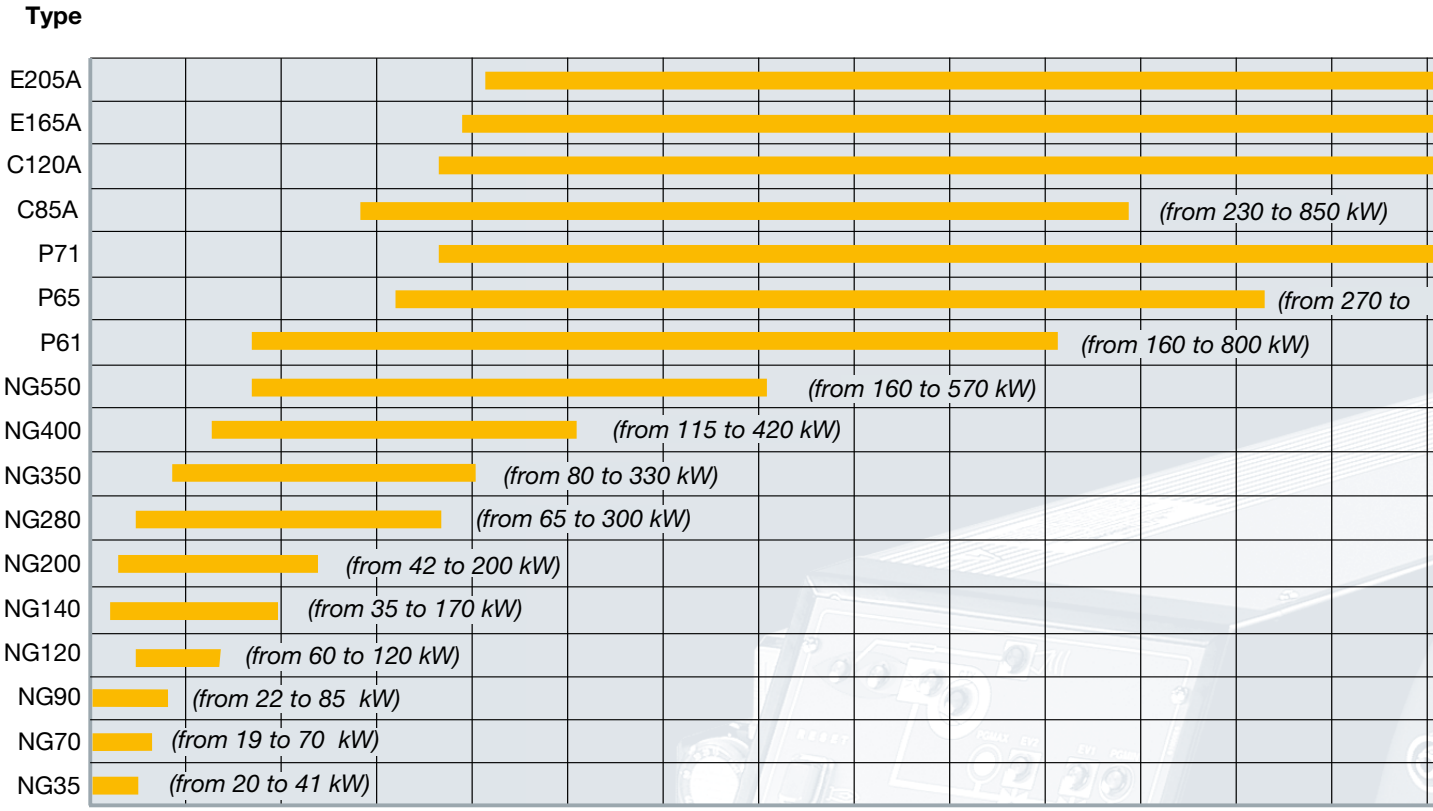
NG35 - TN
NG70 - TN/AB
NG90 - TN/AB
NG120 - TN
NG140 - TN/AB/PR/MD
NG200 - TN/AB/PR/MD
NG280 - TN/AB/PR/MD
NG350 - TN/PR/MD
NG400 - TN/PR/MD
NG550 - TN/PR/MD

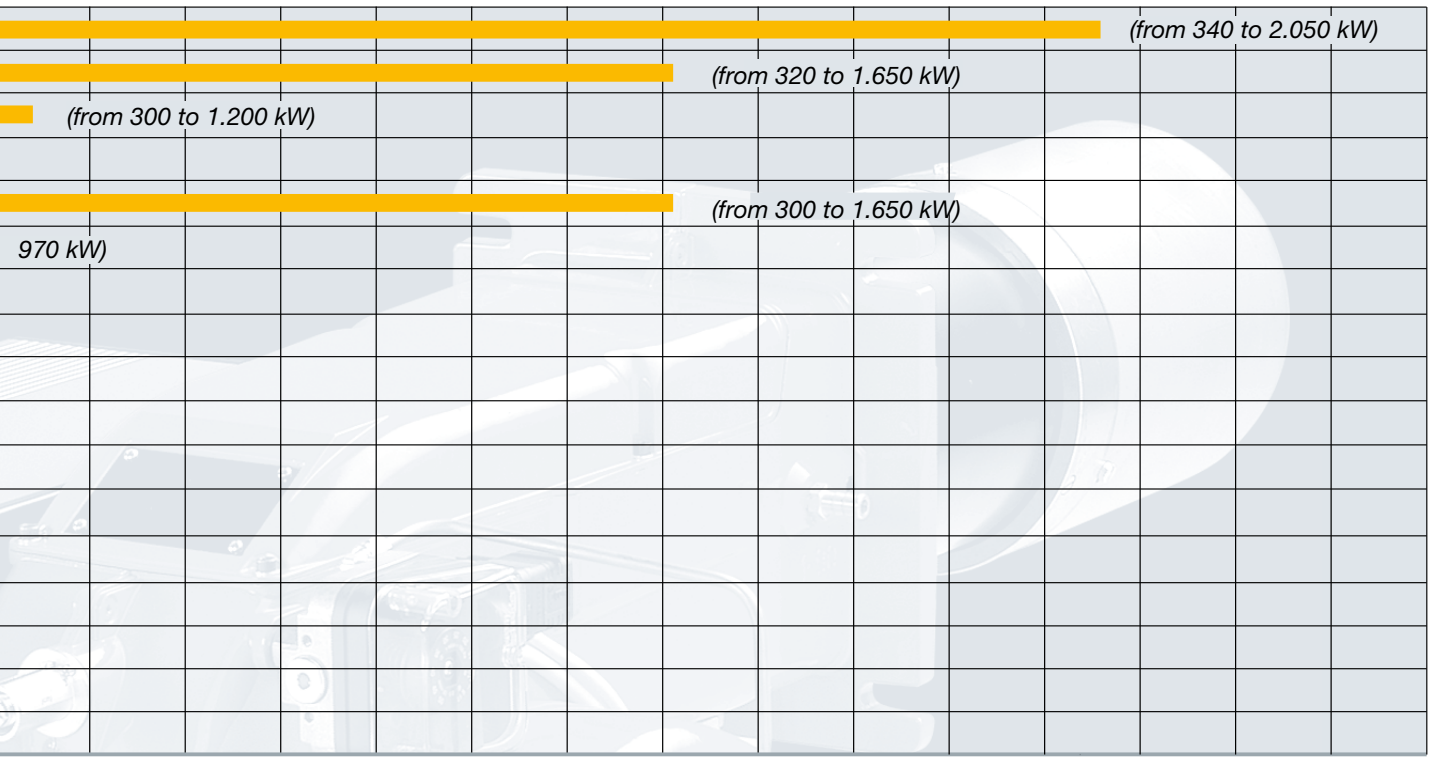
tecnopress series

P61 - AB/PR/MD
P65 - AB/PR/MD
P71 - AB/PR/MD

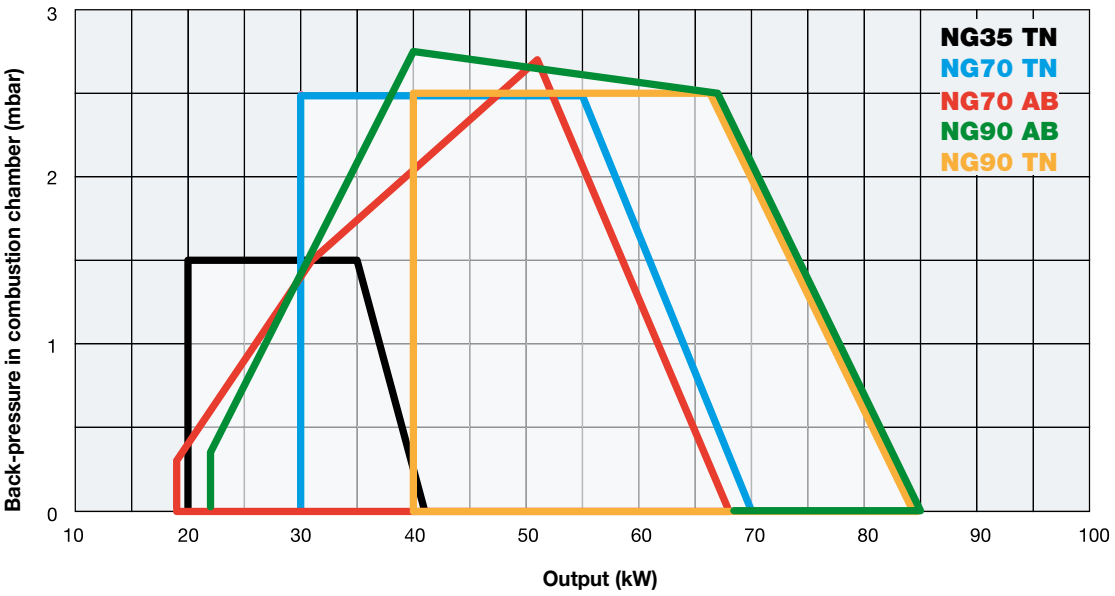
NEW tecnopress series

C85A - AB/PR/MD
C120A - AB/PR/MD
E165A - AB/PR/MD
E205A - AB/PR/MD




(from 340 to 2.050 kW)
(from 320 to 1.650 kW)
(from 300 to 1.200 kW)
(from 300 to 1.650 kW)
970 kW)

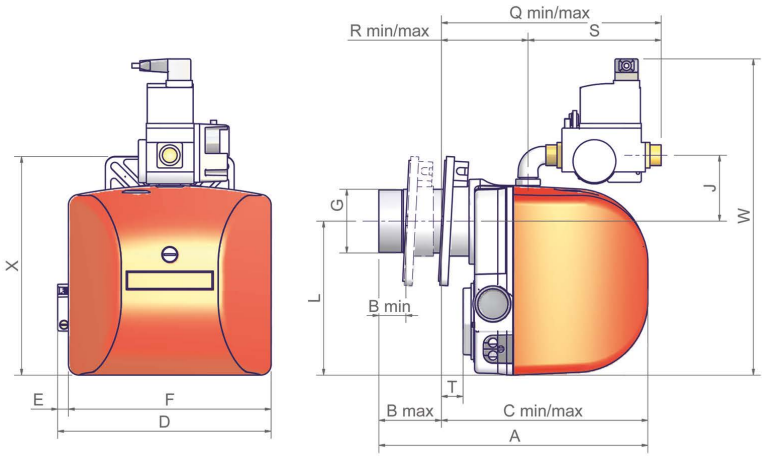
These burners with tangential ventilation are, in terms of dimensions and output, the smallest burners of the new line IDEA gas **Low NO_x Class 2 (< 120 mg/KWh)** available in five different aluminium housings. NG35 burner can be arranged to use external combustion air on request. In this case the burner will be supplied with a watertight and airtight air intake, linked outside by means of a duct ten meters long.

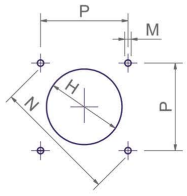


TECHNICAL DETAILS

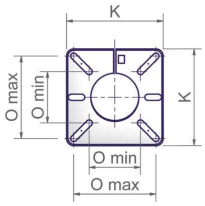
Type	Model	Power kW		Electric power supply	Fan motor kW	Gas connections
		min.	max.			
NG35	M-.TN.x.xx.A.0.xx	20	41	230 V 1N ac	0,075	½"
NG70	M-.TN.x.xx.A.0.xx	30	70	230 V 1N ac	0,1	½"
NG70	M-.AB.x.xx.A.0.xx	19	68	230 V 1N ac	0,1	½"
NG90	M-.TN.x.xx.A.0.xx	40	85	230 V 1N ac	0,1	½" - ¾"
NG90	M-.AB.x.xx.A.0.xx	22	85	230 V 1N ac	0,1	½" - ¾"

For the configuration of the gas train, see page 113.





Suggested boiler drilling



Burner flange

Type	Packaging dimensions** (mm)			
	l	p	h	kg
NG35	290	260	490	10
NG70	400	300	520	14
NG90	400	300	520	14

** Approximate values

Type	Model	Overall dimensions** (mm)																								
		A	B		C		D	E	F	G	H	J	K	L	M	N	O		P	Q		R		S	T	W	X
			min.	max.	min.	max.											min.	max.		min.	max.	min.	max.		min.		
NG35	M-.TN.S.xx.A.0.15	338	34	78	260	305	269	14	255	80	95	86	162	194	M8	158	86	138	112	277	322	109	154	180	27	400	275
NG35	M-.TN.L.xx.A.0.15	416	34	156	260	383	269	14	255	80	95	86	162	194	M8	158	86	138	112	277	400	109	232	180	27	400	275
NG70	M-.xx.S.xx.A.0.15	365	34	78	287	332	305	14	291	80	95	99	162	218	M8	158	86	138	112	285	330	118	163	180	14	438	299
NG70	M-.xx.L.xx.A.0.15	443	34	156	287	410	305	14	291	80	95	99	162	218	M8	158	86	138	112	285	408	118	241	180	14	438	299
NG90	M-.xx.S.xx.A.0.15	365	34	70	295	331	305	14	291	80	95	99	162	218	M8	158	86	138	112	293	329	125	203	180	2	438	299
NG90	M-.xx.L.xx.A.0.15	443	34	148	295	409	305	14	291	80	95	99	162	218	M8	158	86	138	112	293	407	125	239	180	2	438	299

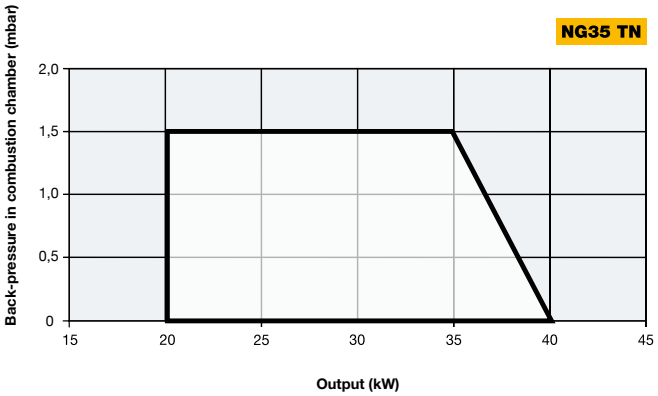
** Approximate values

MECHANICAL OPERATION

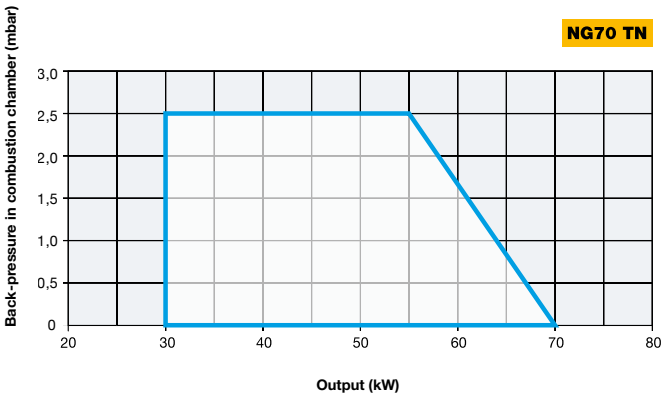
Model	Gas train	Operation	NG35		NG70		NG90	
			Code	Price €	Code	Price €	Code	Price €
M-.TN.S.xx.A.0.15	½"	TN	024011041		025010941		025010541	
M-.TN.L.xx.A.0.15	½"	TN	024011141		025011041		025010641	
M-.TN.S.xx.A.0.20	¾"	TN	-		-		025010741	
M-.TN.L.xx.A.0.20	¾"	TN	-		-		025010841	
M-.TN.S.xx.Z.0.15 ◆	½"	TN	024011241		-		-	
M-.TN.L.xx.Z.0.15 ◆	½"	TN	024011341		-		-	
M-.AB.S.xx.A.0.15	½"	AB	-		025010942		025010542	
M-.AB.L.xx.A.0.15	½"	AB	-		025011042		025010642	
M-.AB.S.xx.A.0.20	¾"	AB	-		-		025010742	
M-.AB.L.xx.A.0.20	¾"	AB	-		-		025010842	

◆ Burner equipped with external air inlet.
In compliance with GAR DIRECTIVE 2016/426/EU

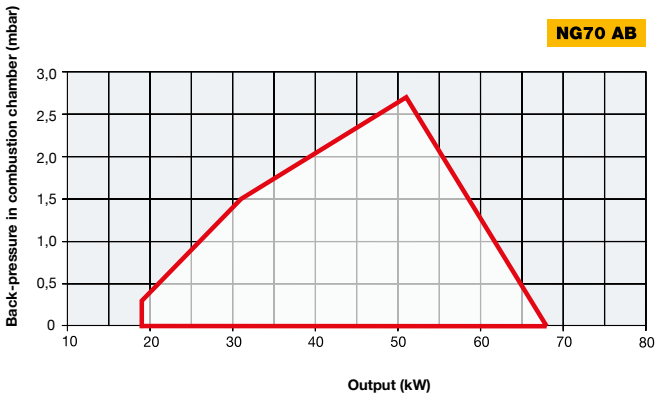
NG35 TN



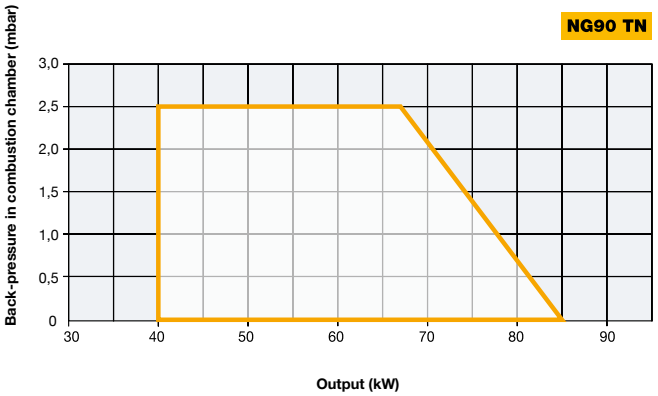
NG70 TN



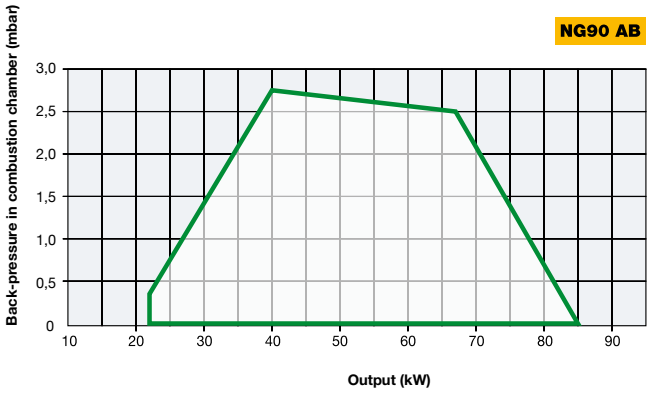
NG70 AB



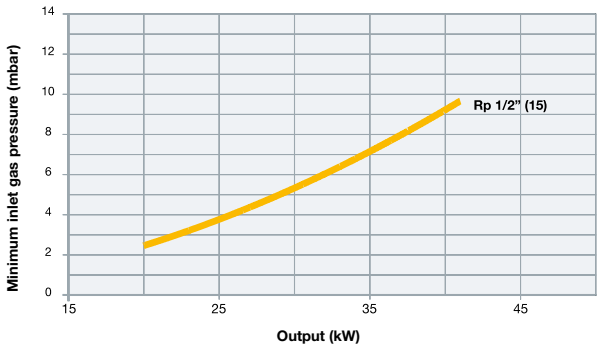
NG90 TN



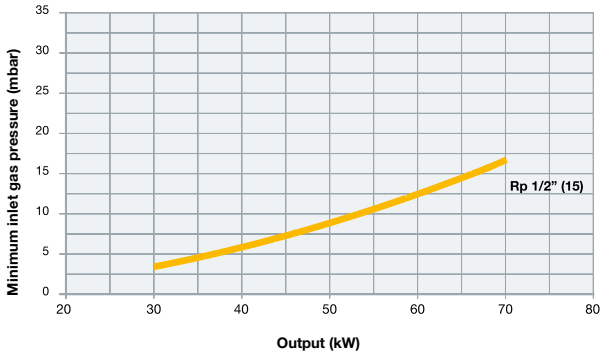
NG90 AB



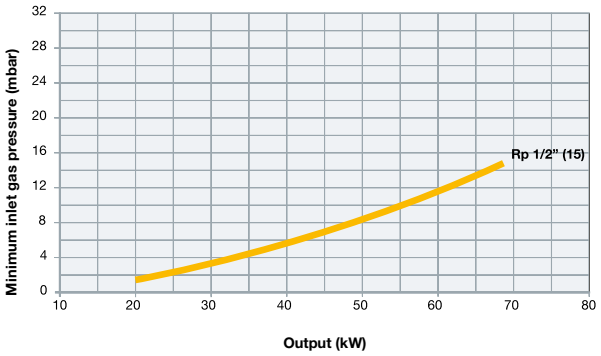
NG35 TN



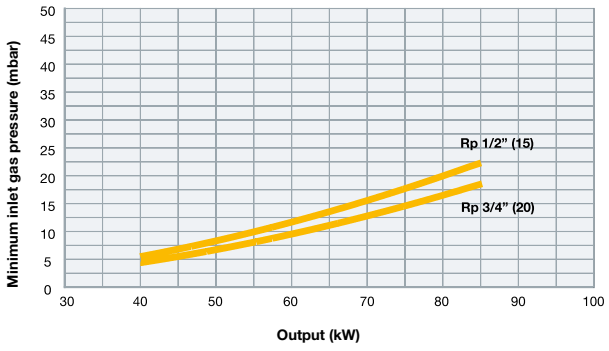
NG70 TN



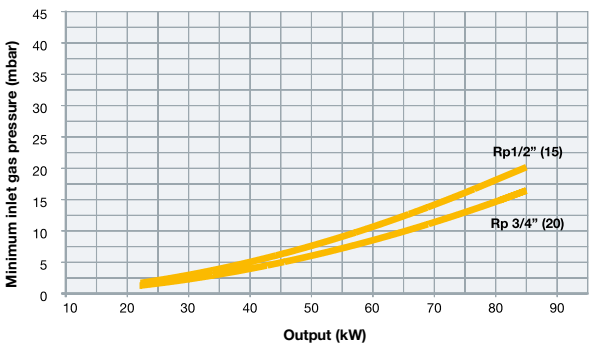
NG70 AB



NG90 TN



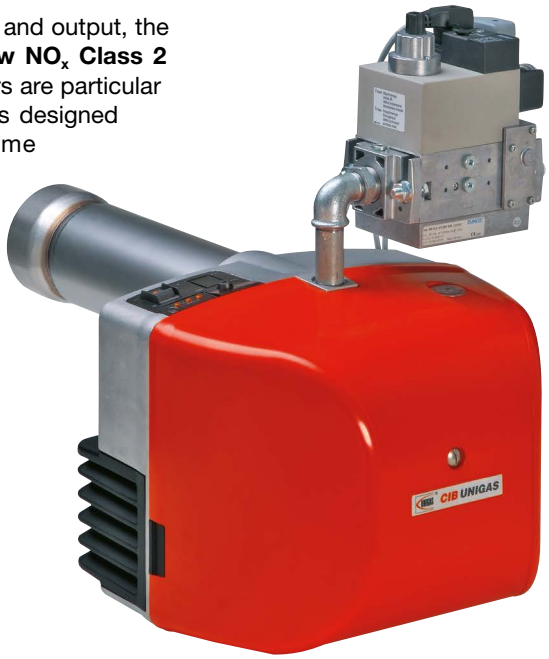
NG90 AB

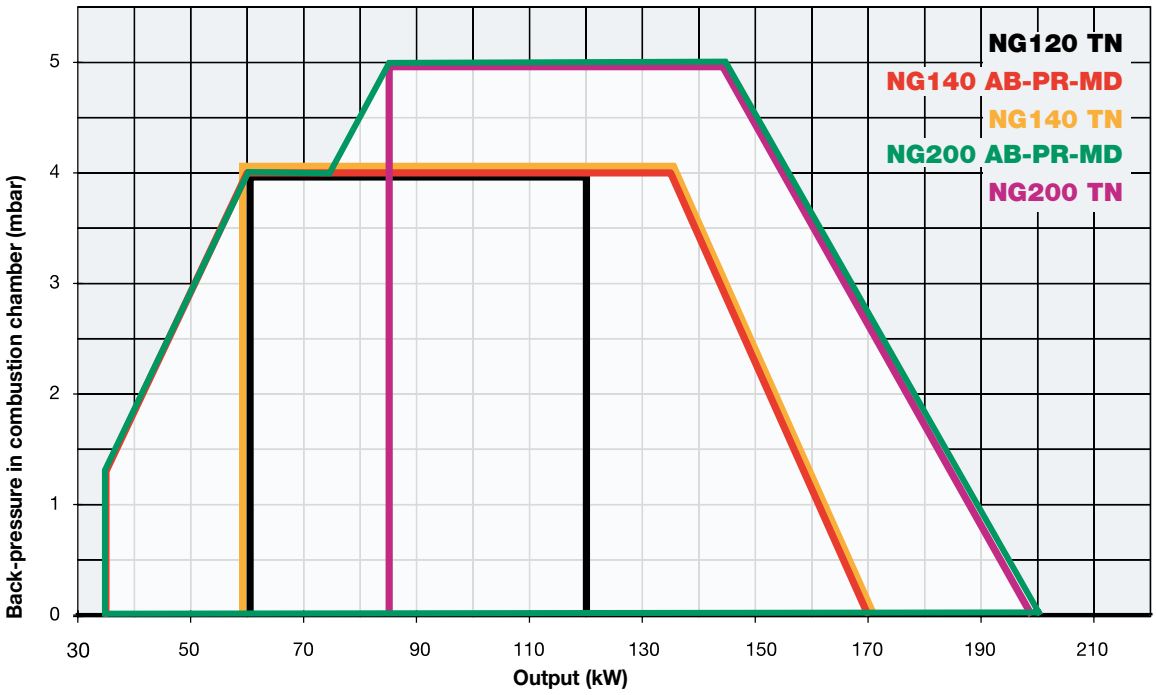


Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

NG120 NG140 NG200 idea SERIES

This series of burners represents, in terms of dimensions and output, the small-medium series of the new line IDEA standard **Low NO_x Class 2 (< 120 mg/kWh)** with tangential ventilation. These burners are particular suitable to work on high efficiency boilers. The burner is designed to be aesthetic and functional giving at the same time prominence to innovative technologies.

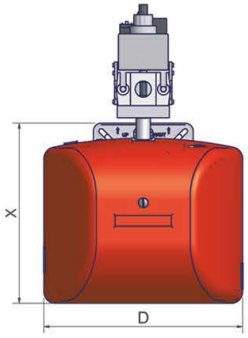


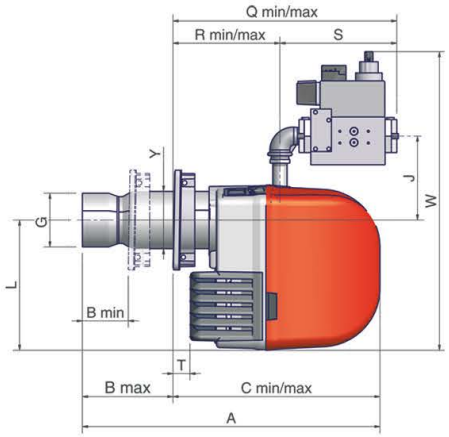


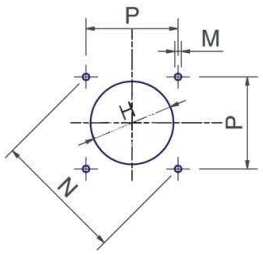
TECHNICAL DETAILS

Type	Model	Power kW		Electric power	Fan motor	Gas connections
		min.	max.	supply	kW	
NG120	M-.TN.x.xx.A.0.15	60	120	230 V 1N ac	0,18	½"
NG140	M-.TN.x.xx.A.0.xx	60	170	230 V 1N ac	0,18	¾" - 1"
NG140	M-.xx.x.xx.A.0.xx	35	170	230 V 1N ac	0,18	¾" - 1"
NG200	M-.TN.x.xx.A.0.xx	85	200	230 V 1N ac	0,18	¾" - 1"
NG200	M-.xx.x.xx.A.0.xx	42	200	230 V 1N ac	0,18	¾" - 1"

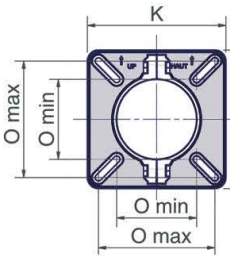
For the configuration of the gas train, see page 113.







Suggested boiler drilling



Burner flange

Type	Packaging dimensions** (mm)			
	l	p	h	kg
NG120/140/200 S	600	370	400	25
NG120/140/200 L	750	370	400	25

** Approximate values

Type	Model	Overall dimensions** (mm)																								
		A	B		C		D	G	H	J	K	L	M	N	O		P	Q		R		S	T	W	X	Y
			min.	max.	min.	max.									min.	max.		min.	max.	min.	max.		min.			
NG120	M-.xx.S.xx.A.0.15	560	85	170	390	475	374	101	128	161	188	245	M8	188	109	158	133	382	467	202	287	180	32	537	340	Ø108
NG120	M-.xx.L.xx.A.0.15	660	85	270	390	575	374	101	128	161	188	245	M8	188	109	158	133	382	567	202	387	180	32	537	340	Ø108
NG140	M-.xx.S.xx.A.0.20	560	85	170	390	475	374	101	128	161	188	245	M8	188	109	158	133	382	467	202	287	180	32	537	340	Ø108
NG140	M-.xx.L.xx.A.0.20	660	85	270	390	575	374	101	128	161	188	245	M8	188	109	158	133	382	567	202	387	180	32	537	340	Ø108
NG140	M-.xx.S.xx.A.0.25	560	85	170	390	475	374	101	128	161	188	245	M8	188	109	158	133	426	511	202	287	224	32	565	340	Ø108
NG140	M-.xx.L.xx.A.0.25	660	85	270	390	575	374	101	128	161	188	245	M8	188	109	158	133	426	611	202	387	224	32	565	340	Ø108
NG200	M-.xx.S.xx.A.0.20	560	85	170	390	475	374	117	137	161	188	245	M8	188	109	158	133	382	467	202	287	180	32	537	340	Ø108
NG200	M-.xx.L.xx.A.0.20	660	85	270	390	575	374	117	137	161	188	245	M8	188	109	158	133	382	567	202	387	180	32	537	340	Ø108
NG200	M-.xx.S.xx.A.0.25	560	85	170	390	475	374	117	137	161	188	245	M8	188	109	158	133	426	511	202	287	224	32	565	340	Ø108
NG200	M-.xx.L.xx.A.0.25	660	85	270	390	575	374	117	137	161	188	245	M8	188	109	158	133	426	611	202	387	224	32	565	340	Ø108

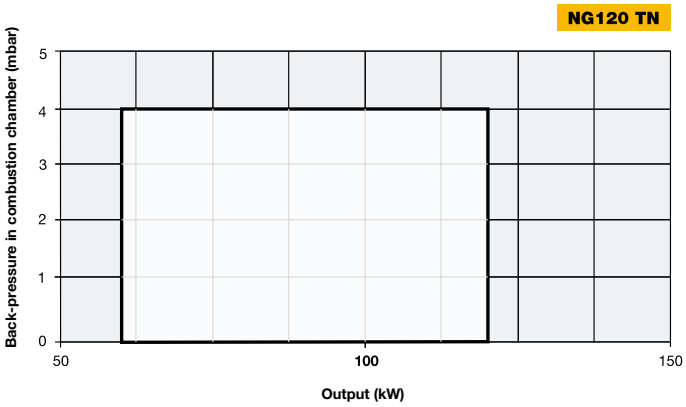
** Approximate values

MECHANICAL OPERATION

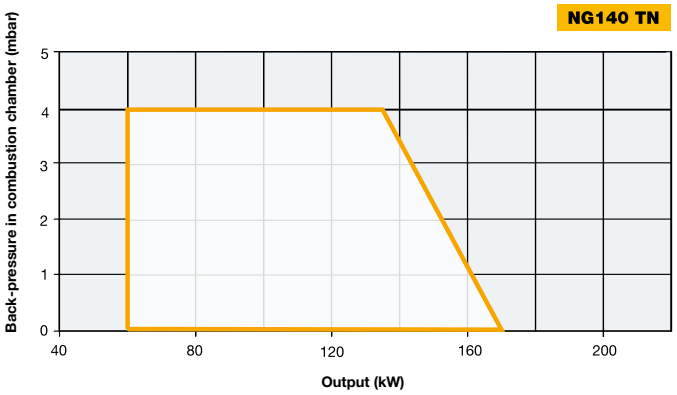
Model	Gas train	Operation	NG120		NG140		NG200	
			Code	Price €	Code	Price €	Code	Price €
M-.TN.S.xx.A.0.15	½"	TN	026010141		-		-	
M-.TN.L.xx.A.0.15	½"	TN	026010241		-		-	
M-.TN.S.xx.A.0.20	¾"	TN	-		026010341		026010941	
M-.TN.L.xx.A.0.20	¾"	TN	-		026010441		026011041	
M-.TN.S.xx.A.0.25	1"	TN	-		026010541		026011141	
M-.TN.L.xx.A.0.25	1"	TN	-		026010641		026011241	
M-.AB.S.xx.A.0.20	¾"	AB	-		026010342		026010942	
M-.AB.L.xx.A.0.20	¾"	AB	-		026010442		026011042	
M-.AB.S.xx.A.0.25	1"	AB	-		026010542		026011142	
M-.AB.L.xx.A.0.25	1"	AB	-		026010642		026011242	
M-.PR.S.xx.A.0.25	1"	PR	-		026010543		026011143	
M-.PR.L.xx.A.0.25	1"	PR	-		026010643		026011243	
M-.MD.S.xx.A.0.25	1"	MD(*)	-		026010544		026011144	
M-.MD.L.xx.A.0.25	1"	MD(*)	-		026010644		026011244	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

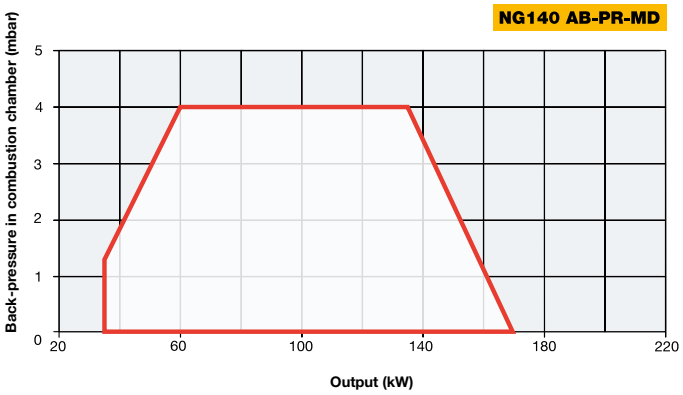
NG120 TN



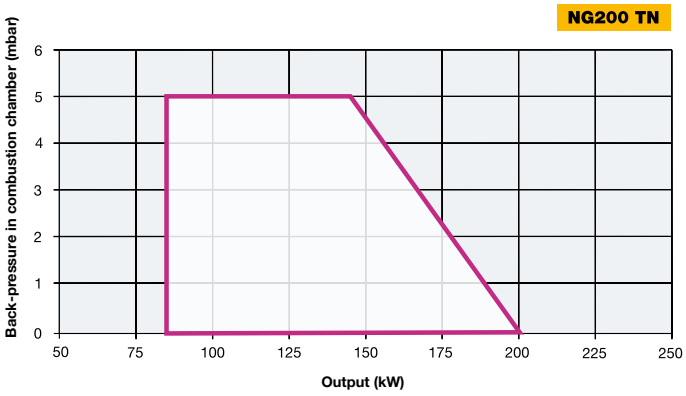
NG140 TN



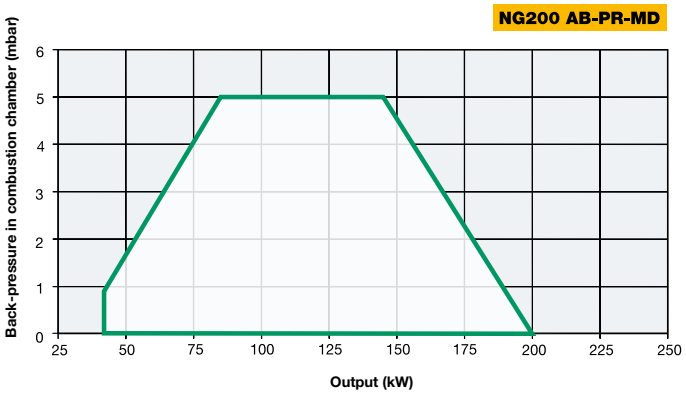
NG140 AB-PR-MD



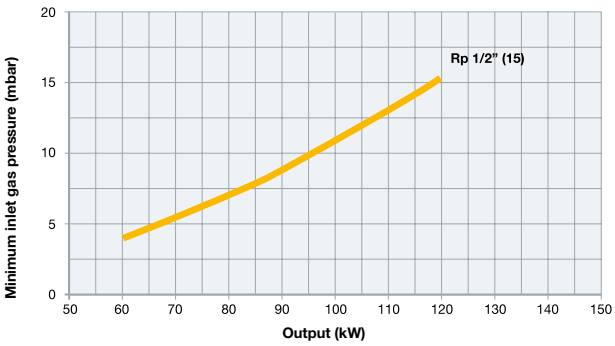
NG200 TN



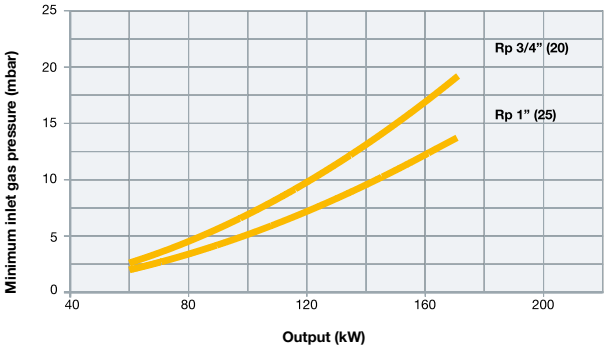
NG200 AB-PR-MD



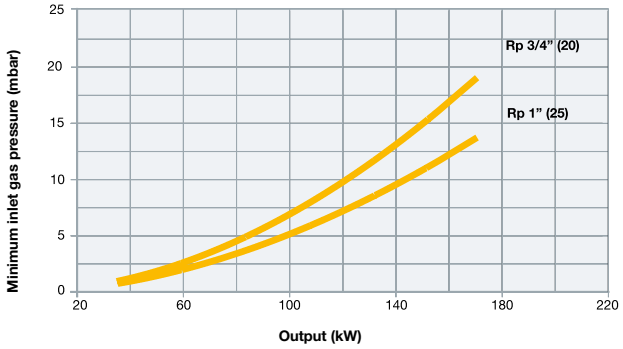
NG120 TN



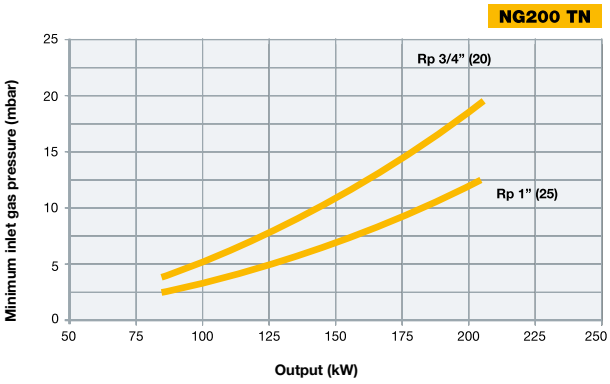
NG140 TN



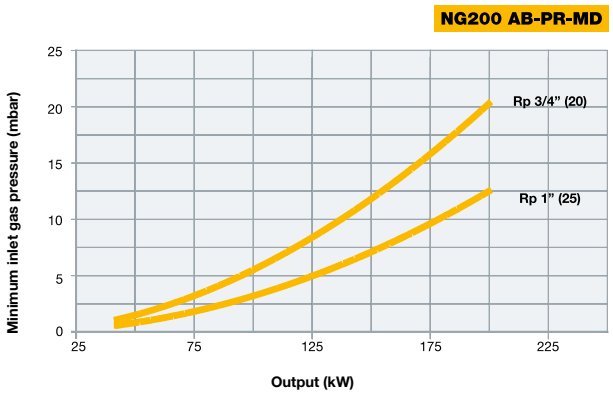
NG140 AB-PR-MD



NG200 TN

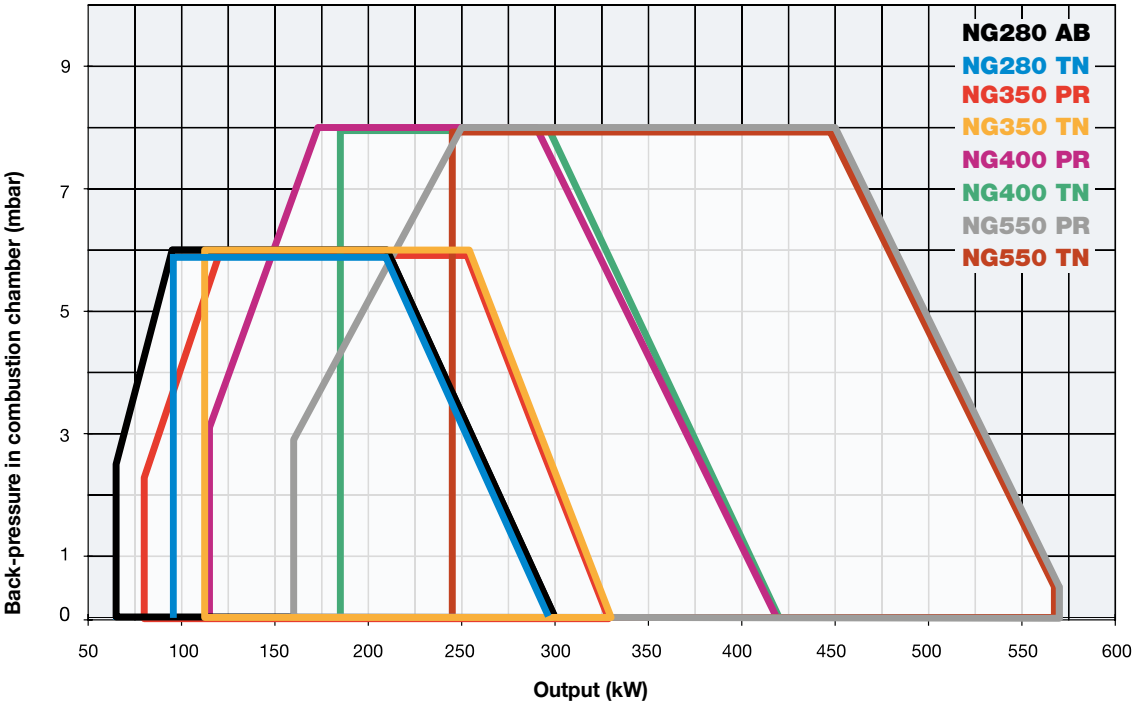


NG200 AB-PR-MD



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

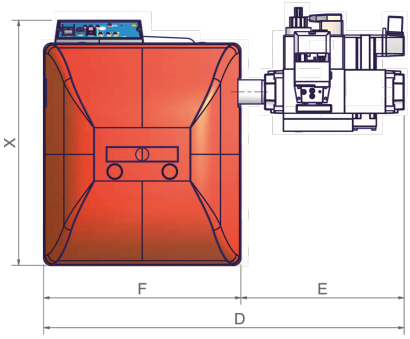
With the new line IDEA **Low NO_x Class 2 (< 120 mg/kWh)**, CIB UNIGAS presents on the market a new conception of modern and functional burners for small and medium appliances with a tangential ventilation. These burners, which are the most powerful of the range IDEA, are particulary suitable to work on the boilers with high back pressure.

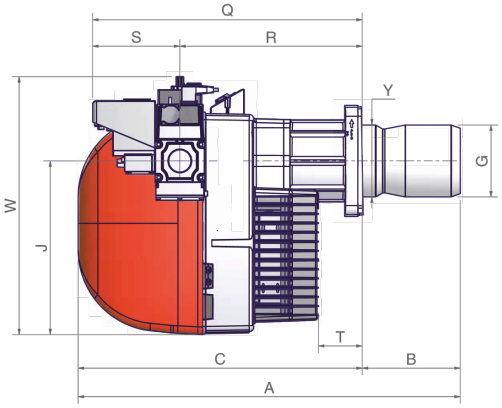


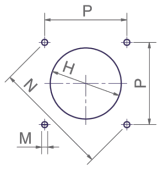
TECHNICAL DETAILS

Type	Model	Power kW		Electric power	Fan motor	Gas connections
		min.	max.	supply	kW	
NG280	M-.TN.x.xx.A.0.xx	95	300	230 V 1N ac	0,25	1" - 1"¼ - 1"½
NG280	M-.xx.x.xx.A.0.xx	65	300	230 V 1N ac	0,25	1" - 1"¼ - 1"½
NG350	M-.TN.M.xx.A.0.xx	115	330	230 V 1N ac	0,37	1" - 1"¼ - 1"½
NG350	M-.xx.M.xx.A.0.xx	80	330	230 V 1N ac	0,37	1" - 1"¼ - 1"½
NG400	M-.TN.M.xx.A.0.xx	185	420	230 V 1N ac	0,37	1" - 1"¼ - 1"½ - 2"
NG400	M-.xx.M.xx.A.0.xx	115	420	230 V 1N ac	0,37	1" - 1"¼ - 1"½ - 2"
NG550	M-.TN.x.xx.A.0.xx	245	570	230 V 1N ac	0,62	1"¼ - 1"½ - 2"
NG550	M-.xx.x.xx.A.0.xx	160	570	230 V 1N ac	0,62	1"¼ - 1"½ - 2"

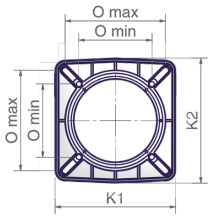
For the configuration of the gas train, see page 113.







Suggested boiler drilling



Burner flange

Type	Packaging dimensions** (mm)			
	l	p	h	kg
NG280/350/400	1120	440	580	42
NG550	1200	460	630	55

** Approximate values

Type	Model	Overall dimensions** (mm)																									
		A		B		C	D	E	F	G	H	J	K		M	N	O		P	Q	R	S	T	W	X	Y
		stand.	exten	stand.	exten								1	2			min.	max.								
NG280	M-.TN.x.xx.A.0.25/32	733	878	163	308	570	596	200	396	117	137	348	215	223	M10	219	131	179	155	541	366	175	128	508	491	108
NG280	M-.xx.x.xx.A.0.40	733	878	163	308	570	726	330	396	117	137	348	215	223	M10	219	131	179	155	541	366	175	128	517	491	108
NG350	M-.xx.M.xx.A.0.25/32	748	878	178	308	570	596	200	396	125	164	348	215	223	M10	219	131	179	155	541	366	175	89	508	491	144
NG350	M-.xx.M.xx.A.0.40	748	878	178	308	570	726	330	396	125	164	348	215	223	M10	219	131	179	155	541	366	175	89	517	491	144
NG400	M-.xx.M.xx.A.0.25/32	768	898	198	328	570	596	200	396	144	164	348	215	223	M10	219	131	179	155	541	366	175	89	508	491	144
NG400	M-.xx.M.xx.A.0.40	768	898	198	328	570	726	330	396	144	164	348	215	223	M10	219	131	179	155	541	366	175	89	517	491	144
NG400	M-.xx.M.xx.A.0.50	768	898	198	328	570	726	330	396	144	164	348	215	223	M10	219	131	179	155	541	366	175	89	567	491	144
NG550	M-.xx.x.xx.A.0.32	843	943	253	353	590	671	245	426	158	178	384	241	241	M10	247	157	192	174	552	377	175	69	543	533	155
NG550	M-.xx.x.xx.A.0.40	843	943	253	353	590	744	318	426	158	178	384	241	241	M10	247	157	192	174	552	377	175	69	553	533	155
NG550	M-.xx.x.xx.A.0.50	843	943	253	353	590	744	318	426	158	178	384	241	241	M10	247	157	192	174	552	377	175	69	603	533	155

** Approximate values

MECHANICAL OPERATION

Model	Gas train	Operation	NG280		NG350	
			Code	Price €	Code	Price €
M-.TN.S.xx.A.0.25	1”	TN	027011741		-	
M-.TN.L.xx.A.0.25	1”	TN	027011841		-	
M-.TN.S.xx.A.0.32	1”¼	TN	027011941		-	
M-.TN.L.xx.A.0.32	1”¼	TN	027012041		-	
M-.TN.S.xx.A.0.40	1”½	TN	027012141		-	
M-.TN.L.xx.A.0.40	1”½	TN	027012241		-	
M-.AB.S.xx.A.0.25	1”	AB	027011742		-	
M-.AB.L.xx.A.0.25	1”	AB	027011842		-	
M-.AB.S.xx.A.0.32	1”¼	AB	027011942		-	
M-.AB.L.xx.A.0.32	1”¼	AB	027012042		-	
M-.AB.S.xx.A.0.40	1”½	AB	027012142		-	
M-.AB.L.xx.A.0.40	1”½	AB	027012242		-	
M-.PR.S.xx.A.0.25	1”	PR	027011743		-	
M-.PR.L.xx.A.0.25	1”	PR	027011843		-	
M-.PR.S.xx.A.0.32	1”¼	PR	027011943		-	
M-.PR.L.xx.A.0.32	1”¼	PR	027012043		-	
M-.PR.S.xx.A.0.40	1”½	PR	027012143		-	
M-.PR.L.xx.A.0.40	1”½	PR	027012243		-	
M-.MD.S.xx.A.0.25	1”	MD	027011744		-	
M-.MD.L.xx.A.0.25	1”	MD	027011844		-	
M-.MD.S.xx.A.0.32	1”¼	MD	027011944		-	
M-.MD.L.xx.A.0.32	1”¼	MD	027012044		-	
M-.MD.S.xx.A.0.40	1”½	MD	027012144		-	
M-.MD.L.xx.A.0.40	1”½	MD	027012244		-	
M-.TN.M.xx.A.0.25	1”	TN	-		027010141	
M-.TN.M.xx.A.0.32	1”¼	TN	-		027010241	
M-.TN.M.xx.A.0.40	1”½	TN	-		027010341	
M-.PR.M.xx.A.0.25	1”	PR	-		027010143	
M-.PR.M.xx.A.0.32	1”¼	PR	-		027010243	
M-.PR.M.xx.A.0.40	1”½	PR	-		027010343	
M-.MD.M.xx.A.0.25	1”	MD(*)	-		027010144	
M-.MD.M.xx.A.0.32	1”¼	MD(*)	-		027010244	
M-.MD.M.xx.A.0.40	1”½	MD(*)	-		027010344	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

MECHANICAL OPERATION

Model	Gas train	Operation	NG400		NG550	
			Code	Price €	Code	Price €
M-.TN.M.xx.A.0.25	1”	TN	027010441		-	
M-.TN.M.xx.A.0.32	1”¼	TN	027010541		-	
M-.TN.M.xx.A.0.40	1”½	TN	027010641		-	
M-.TN.M.xx.A.0.50	2”	TN	027010741		-	
M-.PR.M.xx.A.0.25	1”	PR	027010443		-	
M-.PR.M.xx.A.0.32	1”¼	PR	027010543		-	
M-.PR.M.xx.A.0.40	1”½	PR	027010643		-	
M-.PR.M.xx.A.0.50	2”	PR	027010743		-	
M-.MD.M.xx.A.0.25	1”	MD(*)	027010444		-	
M-.MD.M.xx.A.0.32	1”¼	MD(*)	027010544		-	
M-.MD.M.xx.A.0.40	1”½	MD(*)	027010644		-	
M-.MD.M.xx.A.0.50	2”	MD(*)	027010744		-	
M-.TN.S.xx.A.0.32	1”¼	TN	-		028010141	
M-.TN.L.xx.A.0.32	1”¼	TN	-		028010241	
M-.TN.S.xx.A.0.40	1”½	TN	-		028010341	
M-.TN.L.xx.A.0.40	1”½	TN	-		028010441	
M-.TN.S.xx.A.0.50	2”	TN	-		028010541	
M-.TN.L.xx.A.0.50	2”	TN	-		028010641	
M-.PR.S.xx.A.0.32	1”¼	PR	-		028010143	
M-.PR.L.xx.A.0.32	1”¼	PR	-		028010243	
M-.PR.S.xx.A.0.40	1”½	PR	-		028010343	
M-.PR.L.xx.A.0.40	1”½	PR	-		028010443	
M-.PR.S.xx.A.0.50	2”	PR	-		028010543	
M-.PR.L.xx.A.0.50	2”	PR	-		028010643	
M-.MD.S.xx.A.0.32	1”¼	MD(*)	-		028010144	
M-.MD.L.xx.A.0.32	1”¼	MD(*)	-		028010244	
M-.MD.S.xx.A.0.40	1”½	MD(*)	-		028010344	
M-.MD.L.xx.A.0.40	1”½	MD(*)	-		028010444	
M-.MD.S.xx.A.0.50	2”	MD(*)	-		028010544	
M-.MD.L.xx.A.0.50	2”	MD(*)	-		028010644	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

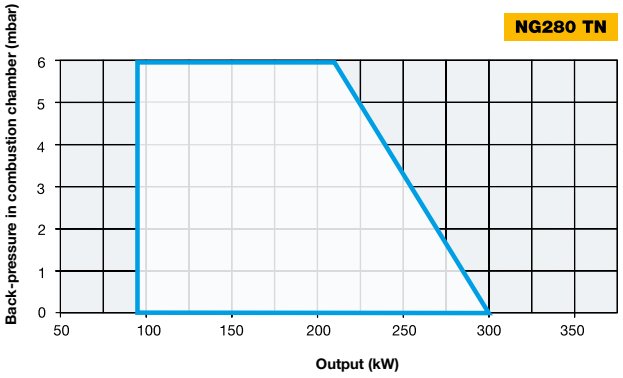
ELECTRONIC OPERATION

Model	Gas train	Operation	NG280		NG350	
			Code	Price €	Code	Price €
M-.PR.S.xx.A.1.25.EA	1”	PR	02701175A		-	
M-.PR.L.xx.A.1.25.EA	1”	PR	02701185A		-	
M-.PR.S.xx.A.1.32.EA	1”¼	PR	02701195A		-	
M-.PR.L.xx.A.1.32.EA	1”¼	PR	02701205A		-	
M-.PR.S.xx.A.1.40.EA	1”½	PR	02701215A		-	
M-.PR.L.xx.A.1.40.EA	1”½	PR	02701225A		-	
M-.MD.S.xx.A.1.25.EA	1”	MD(*)	02701175E		-	
M-.MD.L.xx.A.1.25.EA	1”	MD(*)	02701185E		-	
M-.MD.S.xx.A.1.32.EA	1”¼	MD(*)	02701195E		-	
M-.MD.L.xx.A.1.32.EA	1”¼	MD(*)	02701205E		-	
M-.MD.S.xx.A.1.40.EA	1”½	MD(*)	02701215E		-	
M-.MD.L.xx.A.1.40.EA	1”½	MD(*)	02701225E		-	
M-.PR.M.xx.A.1.25.EA	1”	PR	-		02701015A	
M-.PR.M.xx.A.1.32.EA	1”¼	PR	-		02701025A	
M-.PR.M.xx.A.1.40.EA	1”½	PR	-		02701035A	
M-.MD.M.xx.A.1.25.EA	1”	MD(*)	-		02701015E	
M-.MD.M.xx.A.1.32.EA	1”¼	MD(*)	-		02701025E	
M-.MD.M.xx.A.1.40.EA	1”½	MD(*)	-		02701035E	

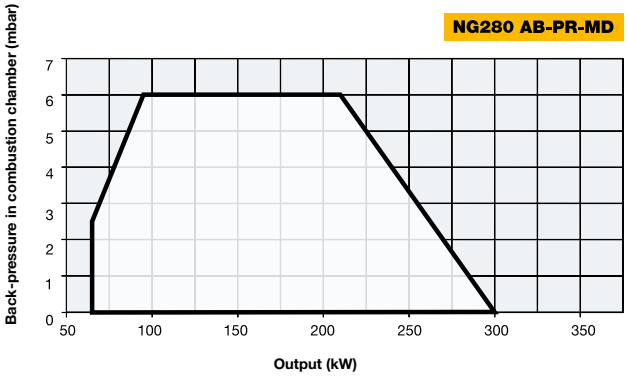
Model	Gas train	Operation	NG400		NG550	
			Code	Price €	Code	Price €
M-.PR.M.xx.A.1.25.EA	1”	PR	02701045A		-	
M-.PR.M.xx.A.1.32.EA	1”¼	PR	02701055A		-	
M-.PR.M.xx.A.1.40.EA	1”½	PR	02701065A		-	
M-.PR.M.xx.A.1.50.EA	2”	PR	02701075A		-	
M-.MD.M.xx.A.1.25.EA	1”	MD(*)	02701045E		-	
M-.MD.M.xx.A.1.32.EA	1”¼	MD(*)	02701055E		-	
M-.MD.M.xx.A.1.40.EA	1”½	MD(*)	02701065E		-	
M-.MD.M.xx.A.1.50.EA	2”	MD(*)	02701075E		-	
M-.PR.S.xx.A.1.32.EA	1”¼	PR	-		02801015A	
M-.PR.L.xx.A.1.32.EA	1”¼	PR	-		02801025A	
M-.PR.S.xx.A.1.40.EA	1”½	PR	-		02801035A	
M-.PR.L.xx.A.1.40.EA	1”½	PR	-		02801045A	
M-.PR.S.xx.A.1.50.EA	2”	PR	-		02801055A	
M-.PR.L.xx.A.1.50.EA	2”	PR	-		02801065A	
M-.MD.S.xx.A.1.32.EA	1”¼	MD(*)	-		02801015E	
M-.MD.L.xx.A.1.32.EA	1”¼	MD(*)	-		02801025E	
M-.MD.S.xx.A.1.40.EA	1”½	MD(*)	-		02801035E	
M-.MD.L.xx.A.1.40.EA	1”½	MD(*)	-		02801045E	
M-.MD.S.xx.A.1.50.EA	2”	MD(*)	-		02801055E	
M-.MD.L.xx.A.1.50.EA	2”	MD(*)	-		02801065E	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

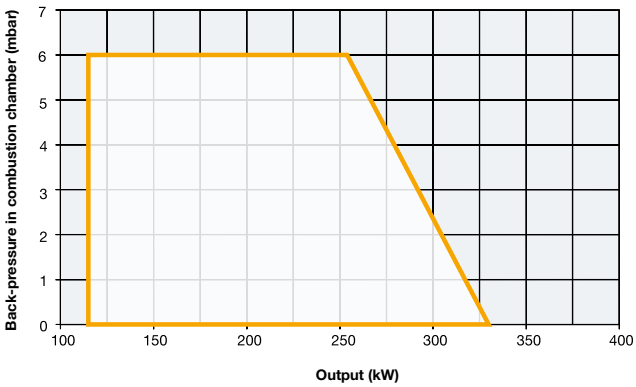
NG280 TN



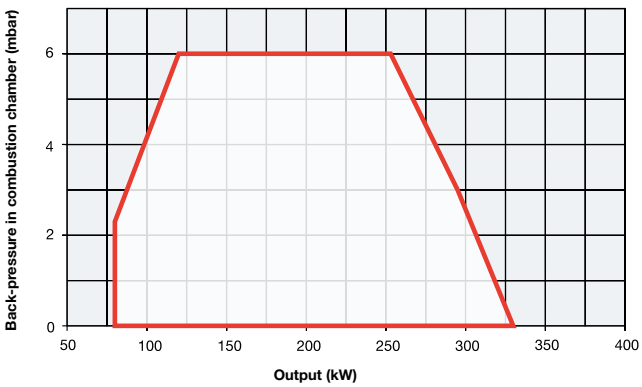
NG280 AB-PR-MD



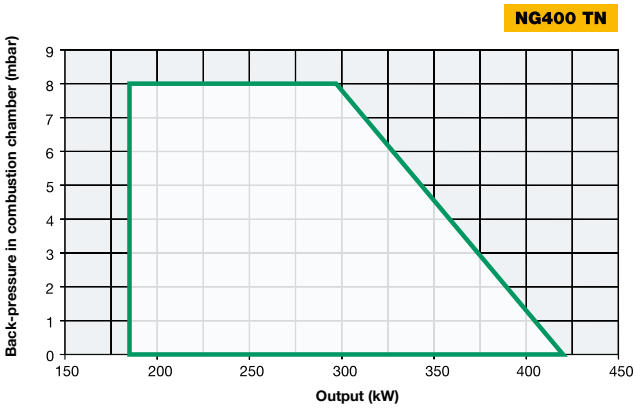
NG350 TN



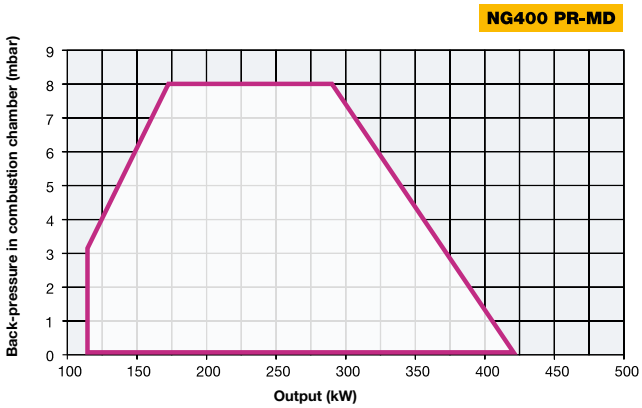
NG350 PR MD



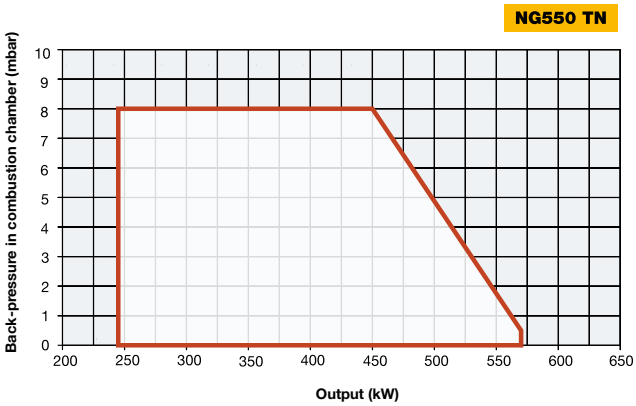
NG400 TN



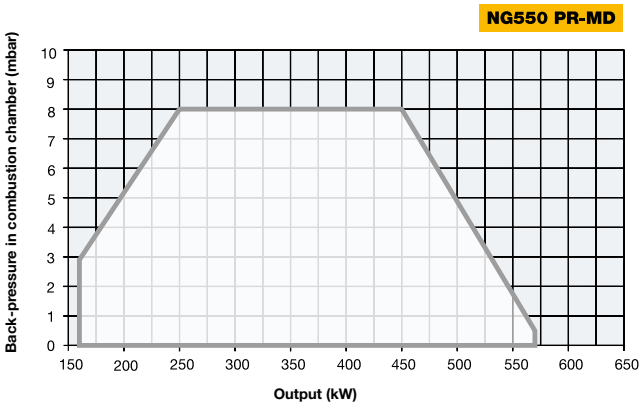
NG400 PR-MD



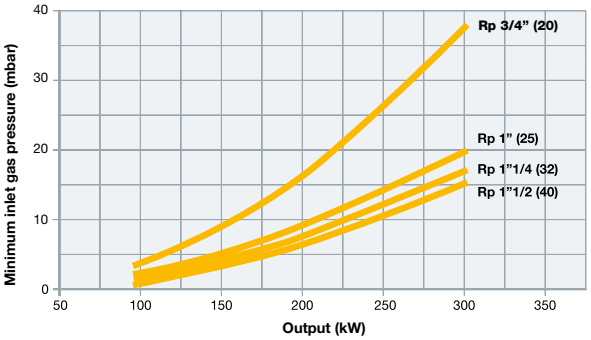
NG550 TN



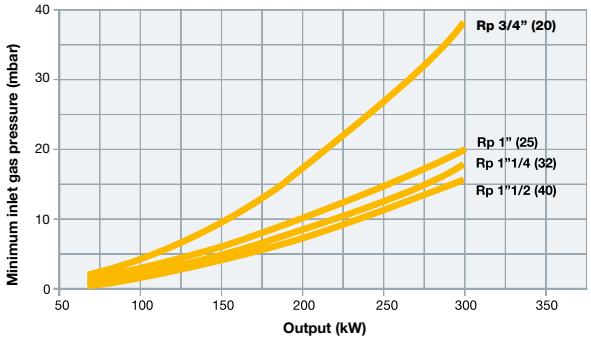
NG550 PR-MD



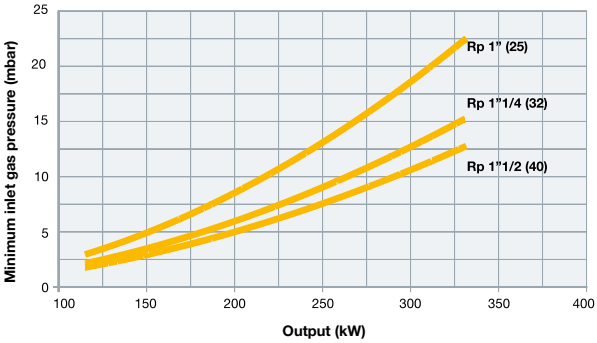
NG280 TN



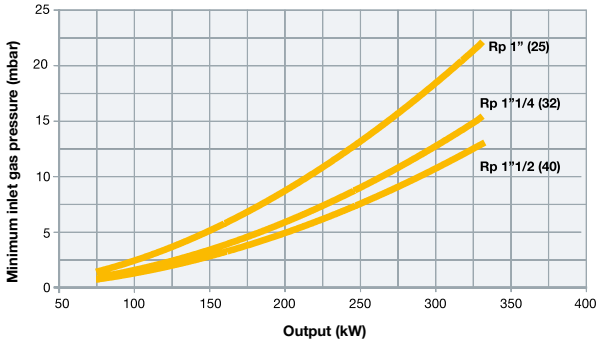
NG280 AB-PR-MD



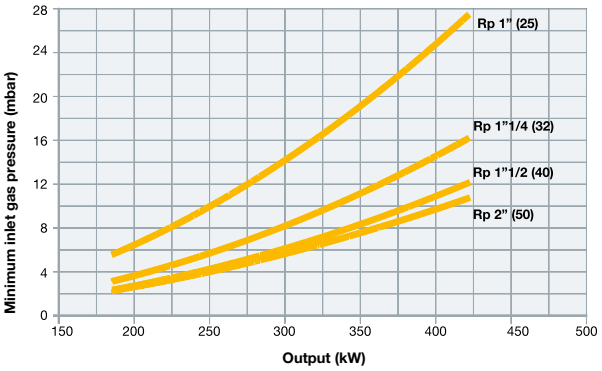
NG350 TN



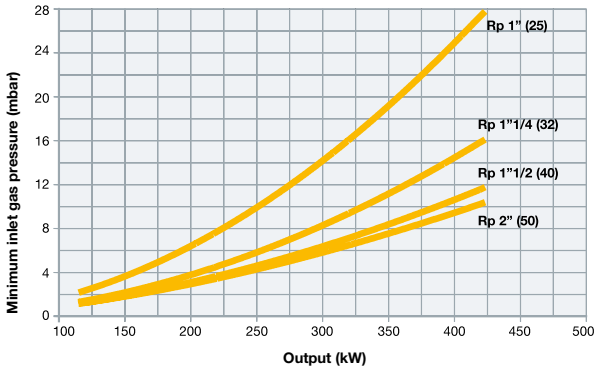
NG350 PR-MD



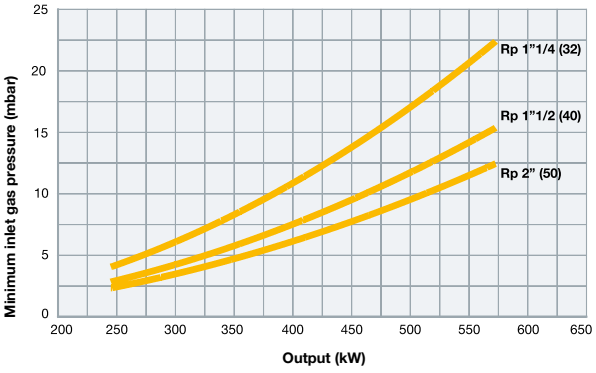
NG400 TN



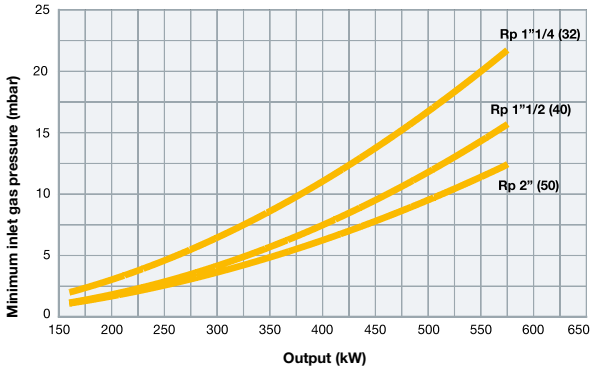
NG400 PR-MD



NG550 TN



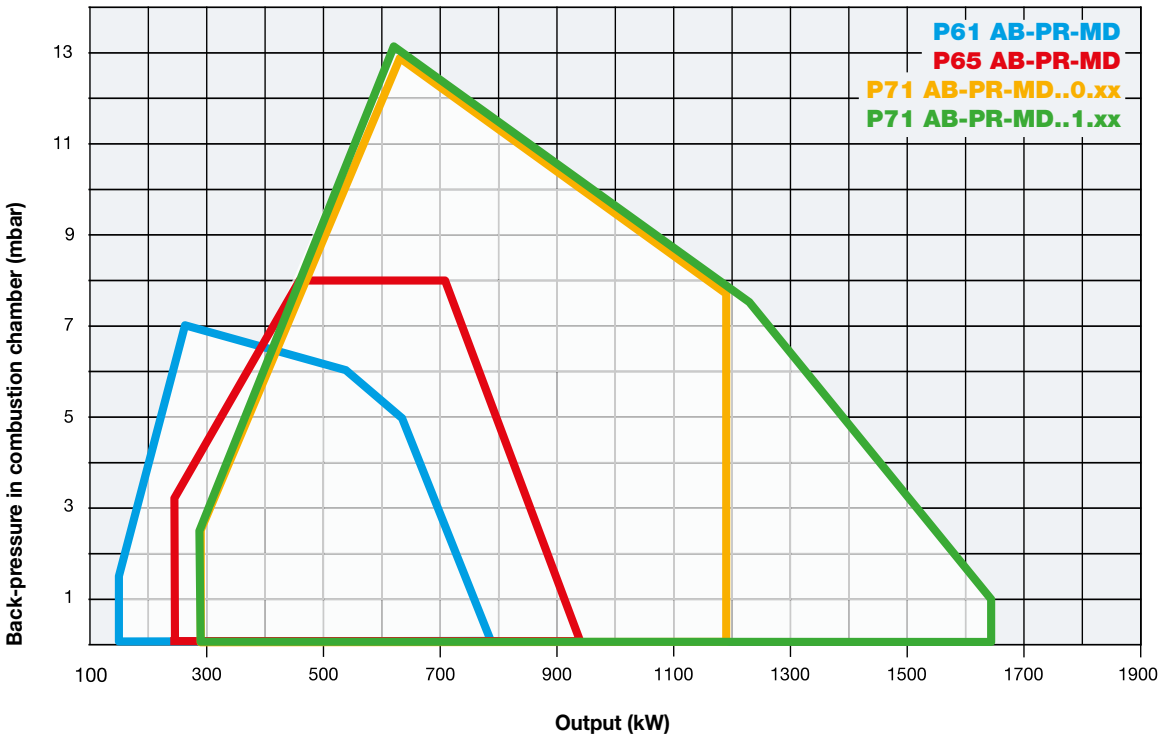
NG550 PR-MD



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

P61 P65 P71 tecnopress SERIES

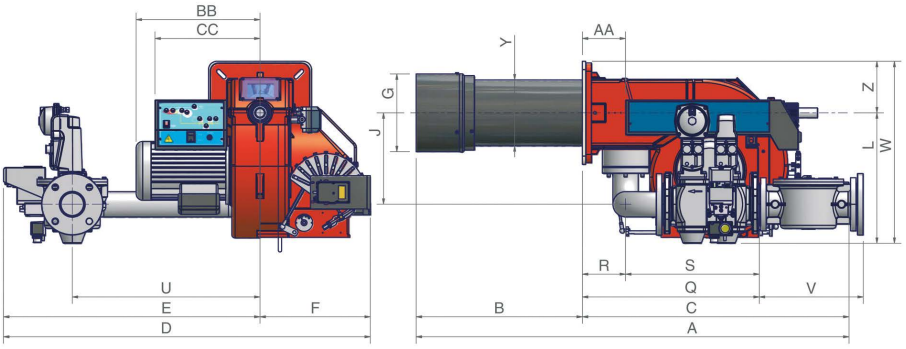
TECNOPRESS burners **Low NO_x Class 2 (< 120 mg/kWh)**, cover a wide range of applications from 160 to 2050 kW and are suitable either for heating generators with high back pressure or suction in combustion chamber. The bell-shaped combustion head is able to produce high performance flame.



TECHNICAL DETAILS

Type	Model	Power kW		Electric power supply	Fan motor kW	Gas connections
		min.	max.			
P61	M-.xx.x.xx.A.0.xx	160	800	230/400 V 3N ac	1,1	1”¼ - 1”½ - 2” - DN65
P65	M-.xx.x.xx.A.0.xx	270	970	230/400 V 3N ac	1,5	1”½ - 2” - DN65
P71	M-.xx.x.xx.A.0.xx	300	1.200	230/400 V 3N ac	2,2	1”½ - 2” - DN65 - DN80
P71	M-.xx.x.xx.A.1.xx	300	1.650	230/400 V 3N ac	2,2	1”½ - 2” - DN65 - DN80

For the configuration of the gas train, see page 113.

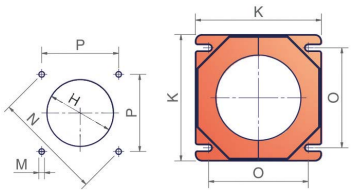


Type	Packaging dimensions** (mm)			
	l	p	h	kg
P61*	1200	670	540	60
P65*	1280	850	760	100
P71*	1280	850	760	120

* Approximate values (regarding model with gas train DN 65)

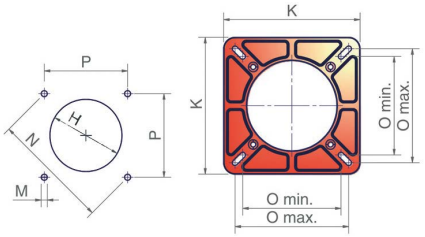
** Approximate values

P61



Suggested boiler drilling *Burner flange*

P65 - P71



Suggested boiler drilling *Burner flange*

Type	Model	Overall dimensions** (mm)																												
		AS	AL	AA	B(S*)	B(L*)	BB	C	CC	D	E	F	G	H	J	K	L	M	N	O		P	Q	R	S	U	V	W	Y	Z
																				min.	max.									
P61	M-.xx.x.xx.A.0.32	1079	1169	99	343	433	314	736	298	812	500	312	184	204	210	240	344	M10	269	190	190	190	341	112	229	444	-	464	162	120
P61	M-.xx.x.xx.A.0.40	1079	1169	99	343	433	314	736	298	812	500	312	184	204	210	240	344	M10	269	190	190	190	439	112	327	444	-	464	162	120
P61	M-.xx.x.xx.A.0.50	1079	1169	99	343	433	314	736	298	812	500	312	184	204	210	240	344	M10	269	190	190	190	447	112	335	444	-	464	162	120
P61	M-.xx.x.xx.A.0.65	1079	1169	99	343	433	314	736	298	997	685	312	184	204	250	240	420	M10	269	190	190	190	515	112	403	540	313	540	162	120
P65	M-.xx.x.xx.A.0.40	1129	1219	130	326	416	373	803	316	900	568	332	184	218	208	300	376	M10	330	216	250	233	457	130	327	519	-	531	198	155
P65	M-.xx.x.xx.A.0.50	1129	1219	130	326	416	373	803	316	900	568	332	184	218	208	300	376	M10	330	216	250	233	465	130	335	519	-	531	198	155
P65	M-.xx.x.xx.A.0.65	1129	1219	130	326	416	373	803	316	998	666	332	184	218	275	300	393	M10	330	216	250	233	533	130	403	565	313	548	198	155
P71	M-.xx.x.xx.A.1.40	1188	1298	130	385	495	373	803	316	1026	694	332	234	264	208	300	376	M10	330	216	250	233	457	130	327	519	-	531	198	155
P71	M-.xx.x.xx.A.1.50	1188	1298	130	385	495	373	803	316	1026	694	332	234	264	208	300	376	M10	330	216	250	233	465	130	335	519	-	531	198	155
P71	M-.xx.x.xx.A.1.65	1188	1298	130	385	495	373	803	316	1104	772	332	234	264	275	300	393	M10	330	216	250	233	533	130	403	565	313	548	198	155
P71	M-.xx.x.xx.A.1.80	1188	1298	130	385	495	373	803	316	1106	774	332	234	264	275	300	407	M10	330	216	250	233	574	130	444	565	344	562	198	155

** Approximate values

MECHANICAL OPERATION

Model	Gas train	Operation	P61		P65	
			Code	Price €	Code	Price €
M-.AB.S.xx.A.0.32	1”¼	AB	004013942		-	
M-.AB.L.xx.A.0.32	1”¼	AB	004014042		-	
M-.AB.S.xx.A.0.40	1”½	AB	004014142		008011542	
M-.AB.L.xx.A.0.40	1”½	AB	004014242		008012042	
M-.AB.S.xx.A.0.50	2”	AB	004014342		008010942	
M-.AB.L.xx.A.0.50	2”	AB	004014442		008011042	
M-.AB.S.xx.A.0.65	DN65	AB	004014542		008011142	
M-.AB.L.xx.A.0.65	DN65	AB	004014642		008011242	
M-.PR.S.xx.A.0.32	1”¼	PR	004013943		-	
M-.PR.L.xx.A.0.32	1”¼	PR	004014043		-	
M-.PR.S.xx.A.0.40	1”½	PR	004014143		008011543	
M-.PR.L.xx.A.0.40	1”½	PR	004014243		008012043	
M-.PR.S.xx.A.0.50	2”	PR	004014343		008010943	
M-.PR.L.xx.A.0.50	2”	PR	004014443		008011043	
M-.PR.S.xx.A.0.65	DN65	PR	004014543		008011143	
M-.PR.L.xx.A.0.65	DN65	PR	004014643		008011243	
M-.MD.S.xx.A.0.32	1”¼	MD(*)	004013944		-	
M-.MD.L.xx.A.0.32	1”¼	MD(*)	004014044		-	
M-.MD.S.xx.A.0.40	1”½	MD(*)	004014144		008011544	
M-.MD.L.xx.A.0.40	1”½	MD(*)	004014244		008012044	
M-.MD.S.xx.A.0.50	2”	MD(*)	004014344		008010944	
M-.MD.L.xx.A.0.50	2”	MD(*)	004014444		008011044	
M-.MD.S.xx.A.0.65	DN65	MD(*)	004014544		008011144	
M-.MD.L.xx.A.0.65	DN65	MD(*)	004014644		008011244	

(*) Order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 250).
In compliance with GAR DIRECTIVE 2016/426/EU

MECHANICAL OPERATION

Model	Gas train	Operation	P71 Code	P71 Price €
M-.AB.S.xx.A.0.40	1”½	AB	008014142	
M-.AB.L.xx.A.0.40	1”½	AB	008014242	
M-.AB.S.xx.A.0.50	2”	AB	008014342	
M-.AB.L.xx.A.0.50	2”	AB	008014442	
M-.AB.S.xx.A.0.65	DN65	AB	008014542	
M-.AB.L.xx.A.0.65	DN65	AB	008014642	
M-.AB.S.xx.A.0.80	DN80	AB	008014742	
M-.AB.L.xx.A.0.80	DN80	AB	008014842	
M-.PR.S.xx.A.0.40	1”½	PR	008014143	
M-.PR.L.xx.A.0.40	1”½	PR	008014243	
M-.PR.S.xx.A.0.50	2”	PR	008014343	
M-.PR.L.xx.A.0.50	2”	PR	008014443	
M-.PR.S.xx.A.0.65	DN65	PR	008014543	
M-.PR.L.xx.A.0.65	DN65	PR	008014643	
M-.PR.S.xx.A.0.80	DN80	PR	008014743	
M-.PR.L.xx.A.0.80	DN80	PR	008014843	
M-.MD.S.xx.A.0.40	1”½	MD(*)	008014144	
M-.MD.L.xx.A.0.40	1”½	MD(*)	008014244	
M-.MD.S.xx.A.0.50	2”	MD(*)	008014344	
M-.MD.L.xx.A.0.50	2”	MD(*)	008014444	
M-.MD.S.xx.A.0.65	DN65	MD(*)	008014544	
M-.MD.L.xx.A.0.65	DN65	MD(*)	008014644	
M-.MD.S.xx.A.0.80	DN80	MD(*)	008014744	
M-.MD.L.xx.A.0.80	DN80	MD(*)	008014844	
M-.AB.S.xx.A.1.40	1”½	AB	008014152	
M-.AB.L.xx.A.1.40	1”½	AB	008014252	
M-.AB.S.xx.A.1.50	2”	AB	008014352	
M-.AB.L.xx.A.1.50	2”	AB	008014452	
M-.AB.S.xx.A.1.65	DN65	AB	008014552	
M-.AB.L.xx.A.1.65	DN65	AB	008014652	
M-.AB.S.xx.A.1.80	DN80	AB	008014752	
M-.AB.L.xx.A.1.80	DN80	AB	008014852	
M-.PR.S.xx.A.1.40	1”½	PR	008014153	
M-.PR.L.xx.A.1.40	1”½	PR	008014253	
M-.PR.S.xx.A.1.50	2”	PR	008014353	
M-.PR.L.xx.A.1.50	2”	PR	008014453	
M-.PR.S.xx.A.1.65	DN65	PR	008014553	
M-.PR.L.xx.A.1.65	DN65	PR	008014653	
M-.PR.S.xx.A.1.80	DN80	PR	008014753	
M-.PR.L.xx.A.1.80	DN80	PR	008014853	
M-.MD.S.xx.A.1.40	1”½	MD(*)	008014154	
M-.MD.L.xx.A.1.40	1”½	MD(*)	008014254	
M-.MD.S.xx.A.1.50	2”	MD(*)	008014354	
M-.MD.L.xx.A.1.50	2”	MD(*)	008014454	
M-.MD.S.xx.A.1.65	DN65	MD(*)	008014554	
M-.MD.L.xx.A.1.65	DN65	MD(*)	008014654	
M-.MD.S.xx.A.1.80	DN80	MD(*)	008014754	
M-.MD.L.xx.A.1.80	DN80	MD(*)	008014854	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).

In compliance with GAR DIRECTIVE 2016/426/EU

ELECTRONIC OPERATION

Model	Gas train	Operation	P61		P65	
			Code	Price €	Code	Price €
M-.PR.S.xx.A.1.32.EA	1”¼	PR	00401395A		-	
M-.PR.L.xx.A.1.32.EA	1”¼	PR	00401405A		-	
M-.PR.S.xx.A.1.40.EA	1”½	PR	00401415A		00801155A	
M-.PR.L.xx.A.1.40.EA	1”½	PR	00401425A		00801205A	
M-.PR.S.xx.A.1.50.EA	2”	PR	00401435A		00801095A	
M-.PR.L.xx.A.1.50.EA	2”	PR	00401445A		00801105A	
M-.PR.S.xx.A.1.65.EA	DN65	PR	00401455A		00801115A	
M-.PR.L.xx.A.1.65.EA	DN65	PR	00401465A		00801125A	
M-.MD.S.xx.A.1.32.EA	1”¼	MD(*)	00401395E		-	
M-.MD.L.xx.A.1.32.EA	1”¼	MD(*)	00401405E		-	
M-.MD.S.xx.A.1.40.EA	1”½	MD(*)	00401415E		00801155E	
M-.MD.L.xx.A.1.40.EA	1”½	MD(*)	00401425E		00801205E	
M-.MD.S.xx.A.1.50.EA	2”	MD(*)	00401435E		00801095E	
M-.MD.L.xx.A.1.50.EA	2”	MD(*)	00401445E		00801105E	
M-.MD.S.xx.A.1.65.EA	DN65	MD(*)	00401455E		00801115E	
M-.MD.L.xx.A.1.65.EA	DN65	MD(*)	00401465E		00801125E	
M-.MD.S.xx.A.1.32.ES	1”¼	MD(*)	00401395S		-	
M-.MD.L.xx.A.1.32.ES	1”¼	MD(*)	00401405S		-	
M-.MD.S.xx.A.1.40.ES	1”½	MD(*)	00401415S		00801155S	
M-.MD.L.xx.A.1.40.ES	1”½	MD(*)	00401425S		00801205S	
M-.MD.S.xx.A.1.50.ES	2”	MD(*)	00401435S		00801095S	
M-.MD.L.xx.A.1.50.ES	2”	MD(*)	00401445S		00801105S	
M-.MD.S.xx.A.1.65.ES	DN65	MD(*)	00401455S		00801115S	
M-.MD.L.xx.A.1.65.ES	DN65	MD(*)	00401465S		00801125S	

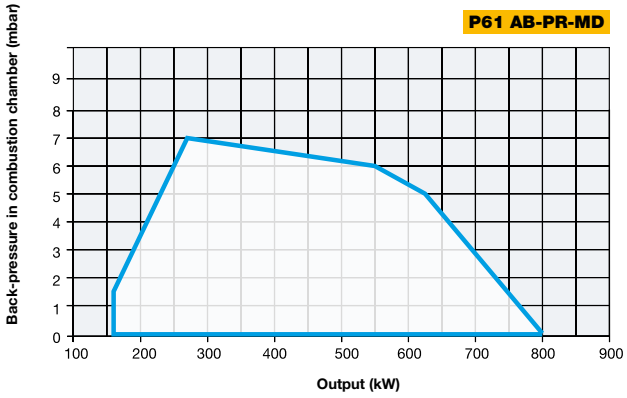
(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

ELECTRONIC OPERATION

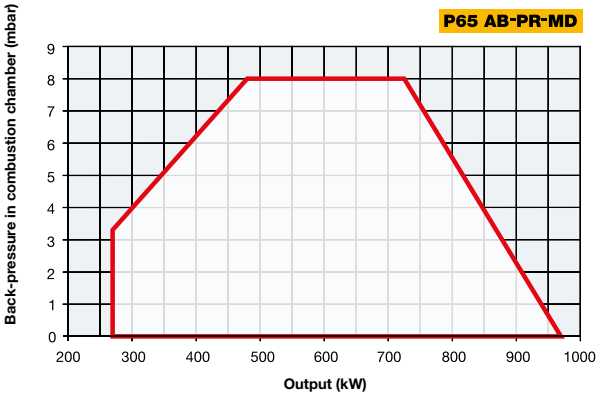
Model	Gas train	Operation	P71 Code	P71 Price €
M-.PR.S.xx.A.1.40.EA	1"½	PR	00801415A	
M-.PR.L.xx.A.1.40.EA	1"½	PR	00801425A	
M-.PR.S.xx.A.1.50.EA	2"	PR	00801435A	
M-.PR.L.xx.A.1.50.EA	2"	PR	00801445A	
M-.PR.S.xx.A.1.65.EA	DN65	PR	00801455A	
M-.PR.L.xx.A.1.65.EA	DN65	PR	00801465A	
M-.PR.S.xx.A.1.80.EA	DN80	PR	00801475A	
M-.PR.L.xx.A.1.80.EA	DN80	PR	00801485A	
M-.MD.S.xx.A.1.40.EA	1"½	MD(*)	00801415E	
M-.MD.L.xx.A.1.40.EA	1"½	MD(*)	00801425E	
M-.MD.S.xx.A.1.50.EA	2"	MD(*)	00801435E	
M-.MD.L.xx.A.1.50.EA	2"	MD(*)	00801445E	
M-.MD.S.xx.A.1.65.EA	DN65	MD(*)	00801455E	
M-.MD.L.xx.A.1.65.EA	DN65	MD(*)	00801465E	
M-.MD.S.xx.A.1.80.EA	DN80	MD(*)	00801475E	
M-.MD.L.xx.A.1.80.EA	DN80	MD(*)	00801485E	
M-.MD.S.xx.A.1.40.ES	1"½	MD(*)	00801415S	
M-.MD.L.xx.A.1.40.ES	1"½	MD(*)	00801425S	
M-.MD.S.xx.A.1.50.ES	2"	MD(*)	00801435S	
M-.MD.L.xx.A.1.50.ES	2"	MD(*)	00801445S	
M-.MD.S.xx.A.1.65.ES	DN65	MD(*)	00801455S	
M-.MD.L.xx.A.1.65.ES	DN65	MD(*)	00801465S	
M-.MD.S.xx.A.1.80.ES	DN80	MD(*)	00801475S	
M-.MD.L.xx.A.1.80.ES	DN80	MD(*)	00801485S	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

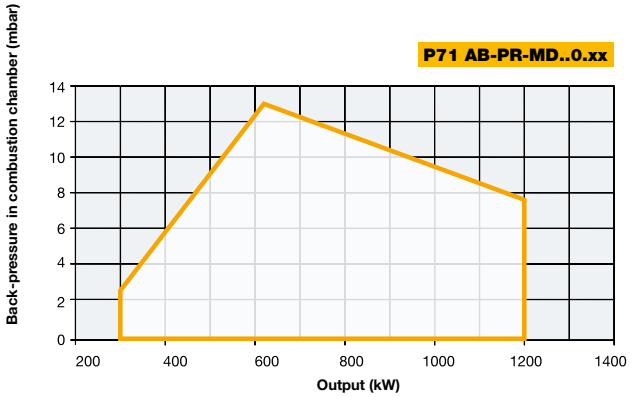
P61 AB-PR-MD



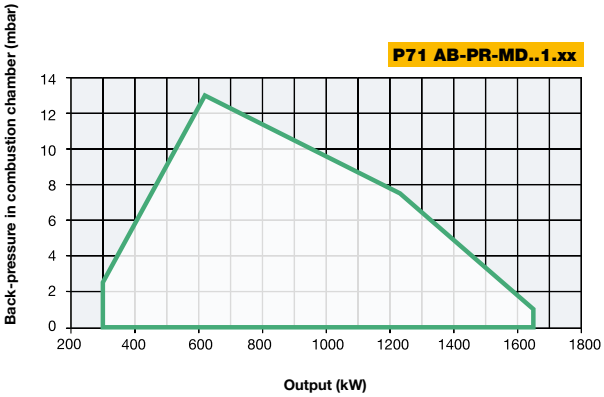
P65 AB-PR-MD



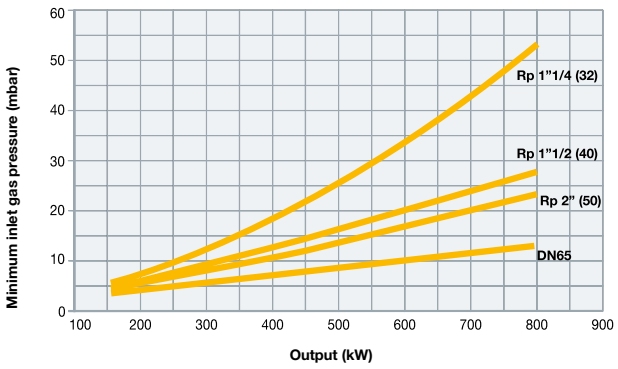
P71 AB-PR-MD..0.xx



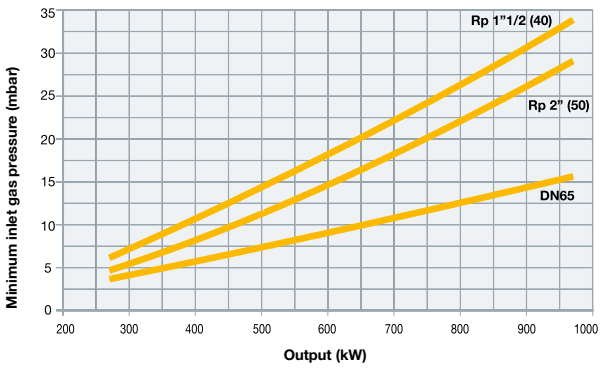
P71 AB-PR-MD..1.xx



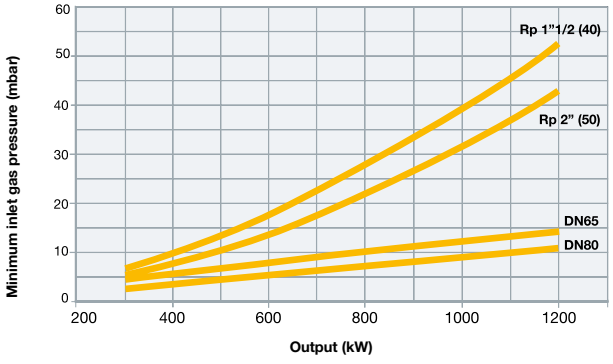
P61 AB-PR-MD



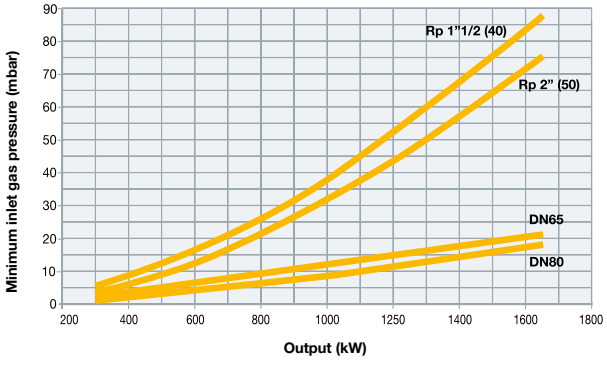
P65 AB-PR-MD



P71 AB-PR-MD..0.xx



P71 AB-PR-MD..1.xx

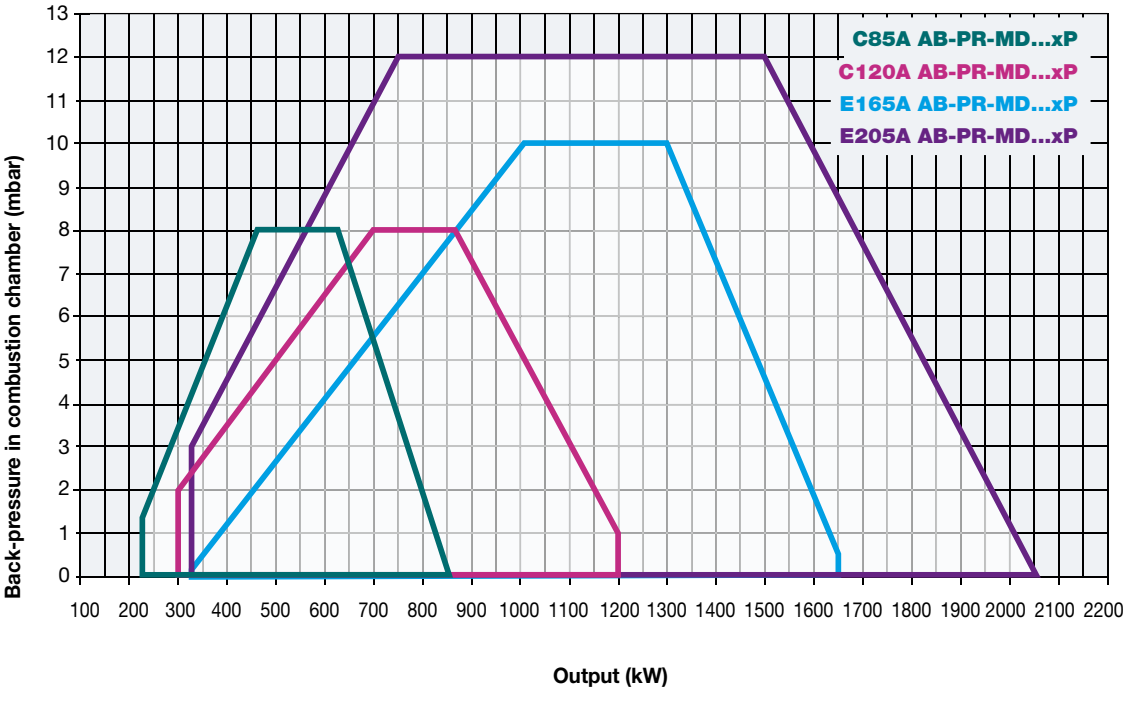


Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

tecnopress SERIES C85A C120A E165A E205A...xP

GAS

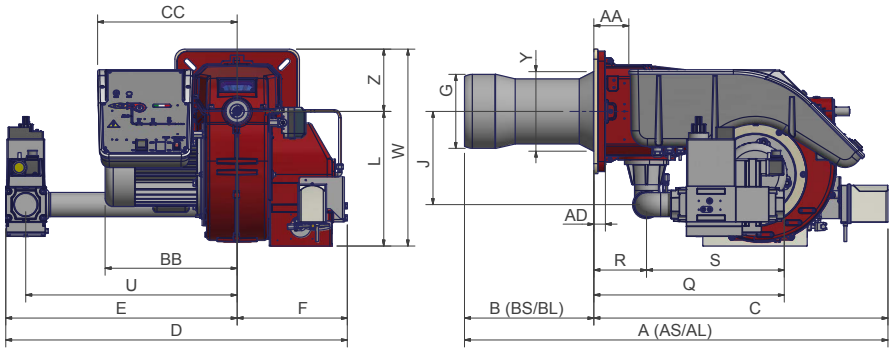
TECNOPRESS burners **Low NO_x Class 2 (< 120 mg/kWh)** cover a wide range of applications from 230 to 2.050 kW and are suitable either for heating generators with high back pressure or suction in combustion chamber.
The bell-shaped combustion head is able to produce high performance flame.



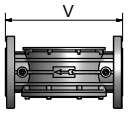
TECHNICAL DETAILS

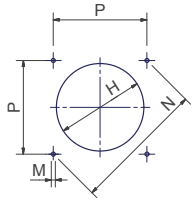
Type	Model	Power kW		Electric power	Fan motor	Gas connections	Noise level
		min.	max.	supply	kW		dBA
C85A	M-.xx.xP.xx.A.0.xx	230	850	230/400 V 3N ac	1,1	1”¼ - 1”½ - 2” - DN65	< 80
C120A	M-.xx.xP.xx.A.0.xx	300	1.200	230/400 V 3N ac	1,5	1”½ - 2” - DN65 - DN80	< 80
E165A	M-.xx.xP.xx.A.1.xx	320	1.650	230/400 V 3N ac	2,2	1”½ - 2” - DN65 - DN80	< 80
E205A	M-.xx.xP.xx.A.1.xx	340	2.050	230/400 V 3N ac	3,0	1”½ - 2” - DN65 - DN80	< 80

For the configuration of the gas train, see page 113.

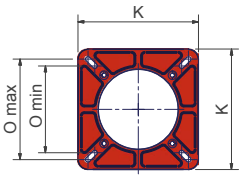


DN65 - DN80





Suggested boiler drilling



Burner flange

Type	Packaging dimensions** (mm)			
	l	p	h	kg
C85A	1345	835	750	60
C120A	1345	835	750	60
E165A	1465	815	800	125
E205A*	1465	815	800	125

** Approximate values
* Approximate values (regarding model with gas train DN 80)

Type	Model	Overall dimensions** (mm)																														
		AA	AS	AL	BB	BS	BL	C	CC	D	E	F	G	H	I	J	K	L	M	N	O		P	Q	R	S	U	V	X	Y	Z
																					min.	max.										
C85A	M-.xx.xP.xx.A.0.32	87	1122	1212	345	320	410	802	328	879	634	245	184	218	198	238	300	335	M10	330	216	250	233	456	131	325	525	-	490	198	155
C85A	M-.xx.xP.xx.A.0.40	87	1122	1212	345	320	410	802	328	879	634	245	184	218	198	238	300	335	M10	330	216	250	233	456	131	325	525	-	490	198	155
C85A	M-.xx.xP.xx.A.0.50	87	1122	1212	345	320	410	802	328	864	619	245	184	218	198	238	300	335	M10	330	216	250	233	469	131	338	525	-	490	198	155
C85A	M-.xx.xP.xx.A.0.65	87	1122	1212	345	320	410	802	328	935	690	245	184	218	198	284	300	335	M10	330	216	250	233	539	131	408	565	292	490	198	155
C120A	M-.xx.xP.xx.A.0.40	87	1182	1292	345	380	490	802	320	879	634	245	234	264	198	238	300	347	M10	330	216	250	233	456	131	325	525	-	502	198	155
C120A	M-.xx.xP.xx.A.0.50	87	1182	1292	345	380	490	802	320	864	619	245	234	264	198	238	300	347	M10	330	216	250	233	469	131	338	525	-	502	198	155
C120A	M-.xx.xP.xx.A.0.65	87	1182	1292	345	380	490	802	320	935	690	245	234	264	198	284	300	347	M10	330	216	250	233	539	131	408	565	292	502	198	155
C120A	M-.xx.xP.xx.A.0.80	87	1182	1292	345	380	490	802	320	935	690	245	234	264	198	284	300	347	M10	330	216	250	233	559	131	428	565	310	502	198	155
E165A	M-.xx.xP.xx.A.1.40	69	1216	1326	354	385	495	831	330	1050	716	334	234	264	210	233	300	420	M10	330	216	250	233	457	130	327	541	-	575	210	155
E165A	M-.xx.xP.xx.A.1.50	69	1216	1326	354	385	495	831	330	1050	716	334	234	264	210	233	300	420	M10	330	216	250	233	472	130	342	525	-	575	210	155
E165A	M-.xx.xP.xx.A.1.65	69	1239	1249	354	385	495	854	330	1134	800	334	234	264	210	233	300	420	M10	330	216	250	233	562	130	432	593	292	575	210	155
E165A	M-.xx.xP.xx.A.1.80	69	1253	1263	354	385	495	868	330	1108	774	334	234	264	210	287	300	420	M10	330	216	250	233	558	130	428	565	310	575	210	155
E205A	M-.xx.xP.xx.A.1.40	69	1334	-	374	503	-	831	374	1050	716	334	254	270	210	233	300	420	M10	330	216	250	233	472	130	342	525	-	575	210	155
E205A	M-.xx.xP.xx.A.1.50	69	1334	-	374	503	-	831	374	1050	716	334	254	270	210	233	300	420	M10	330	216	250	233	472	130	342	525	-	575	210	155
E205A	M-.xx.xP.xx.A.1.65	69	1357	-	374	503	-	854	374	1134	800	334	254	270	210	233	300	420	M10	330	216	250	233	562	130	432	593	292	575	210	155
E205A	M-.xx.xP.xx.A.1.80	69	1371	-	374	503	-	868	374	1108	774	334	254	270	210	287	300	420	M10	330	216	250	233	558	130	428	593	310	575	210	155

** Approximate values

MECHANICAL OPERATION

Model	Gas train	Operation	C85A...xP		C120A...xP	
			Code	Price €	Code	Price €
M-.AB.SP.xx.A.0.32	1"¼	AB	033010142		-	
M-.AB.LP.xx.A.0.32	1"¼	AB	033010242		-	
M-.AB.SP.xx.A.0.40	1"½	AB	033010342		033011742	
M-.AB.LP.xx.A.0.40	1"½	AB	033010442		033011842	
M-.AB.SP.xx.A.0.50	2"	AB	033010542		033011942	
M-.AB.LP.xx.A.0.50	2"	AB	033010642		033012042	
M-.AB.SP.xx.A.0.65	DN65	AB	033010742		033012142	
M-.AB.LP.xx.A.0.65	DN65	AB	033010842		033012242	
M-.AB.SP.xx.A.0.80	DN80	AB	-		033012342	
M-.AB.LP.xx.A.0.80	DN80	AB	-		033012442	
M-.PR.SP.xx.A.0.32	1"¼	PR	033010143		-	
M-.PR.LP.xx.A.0.32	1"¼	PR	033010243		-	
M-.PR.SP.xx.A.0.40	1"½	PR	033010343		033011743	
M-.PR.LP.xx.A.0.40	1"½	PR	033010443		033011843	
M-.PR.SP.xx.A.0.50	2"	PR	033010543		033011943	
M-.PR.LP.xx.A.0.50	2"	PR	033010643		033012043	
M-.PR.SP.xx.A.0.65	DN65	PR	033010743		033012143	
M-.PR.LP.xx.A.0.65	DN65	PR	033010843		033012243	
M-.PR.SP.xx.A.0.80	DN80	PR	-		033012343	
M-.PR.LP.xx.A.0.80	DN80	PR	-		033012443	
M-.MD.SP.xx.A.0.32	1"¼	MD(*)	033010144		-	
M-.MD.LP.xx.A.0.32	1"¼	MD(*)	033010244		-	
M-.MD.SP.xx.A.0.40	1"½	MD(*)	033010344		033011744	
M-.MD.LP.xx.A.0.40	1"½	MD(*)	033010444		033011844	
M-.MD.SP.xx.A.0.50	2"	MD(*)	033010544		033011944	
M-.MD.LP.xx.A.0.50	2"	MD(*)	033010644		033012044	
M-.MD.SP.xx.A.0.65	DN65	MD(*)	033010744		033012144	
M-.MD.LP.xx.A.0.65	DN65	MD(*)	033010844		033012244	
M-.MD.SP.xx.A.0.80	DN80	MD(*)	-		033012344	
M-.MD.LP.xx.A.0.80	DN80	MD(*)	-		033012444	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

MECHANICAL OPERATION

Model	Gas train	Operation	E165A...xP		E205A...xP	
			Code	Price €	Code	Price €
M-.AB.SP.xx.A.1.40	1"½	AB	030017352		030018152	
M-.AB.LP.xx.A.1.40	1"½	AB	030017452		-	
M-.AB.SP.xx.A.1.50	2"	AB	030017552		030018252	
M-.AB.LP.xx.A.1.50	2"	AB	030017652		-	
M-.AB.SP.xx.A.1.65	DN65	AB	030017752		030018352	
M-.AB.LP.xx.A.1.65	DN65	AB	030017852		-	
M-.AB.SP.xx.A.1.80	DN80	AB	030017952		030018452	
M-.AB.LP.xx.A.1.80	DN80	AB	030018052		-	
M-.PR.SP.xx.A.1.40	1"½	PR	030017353		030018153	
M-.PR.LP.xx.A.1.40	1"½	PR	030017453		-	
M-.PR.SP.xx.A.1.50	2"	PR	030017553		030018253	
M-.PR.LP.xx.A.1.50	2"	PR	030017653		-	
M-.PR.SP.xx.A.1.65	DN65	PR	030017753		030018353	
M-.PR.LP.xx.A.1.65	DN65	PR	030017853		-	
M-.PR.SP.xx.A.1.80	DN80	PR	030017953		030018453	
M-.PR.LP.xx.A.1.80	DN80	PR	030018053		-	
M-.MD.SP.xx.A.1.40	1"½	MD(*)	030017354		030018154	
M-.MD.LP.xx.A.1.40	1"½	MD(*)	030017454		-	
M-.MD.SP.xx.A.1.50	2"	MD(*)	030017554		030018254	
M-.MD.LP.xx.A.1.50	2"	MD(*)	030017654		-	
M-.MD.SP.xx.A.1.65	DN65	MD(*)	030017854		030018354	
M-.MD.LP.xx.A.1.65	DN65	MD(*)	030017954		-	
M-.MD.SP.xx.A.1.80	DN80	MD(*)	030017954		030018454	
M-.MD.LP.xx.A.1.80	DN80	MD(*)	030018054		-	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

ELECTRONIC OPERATION

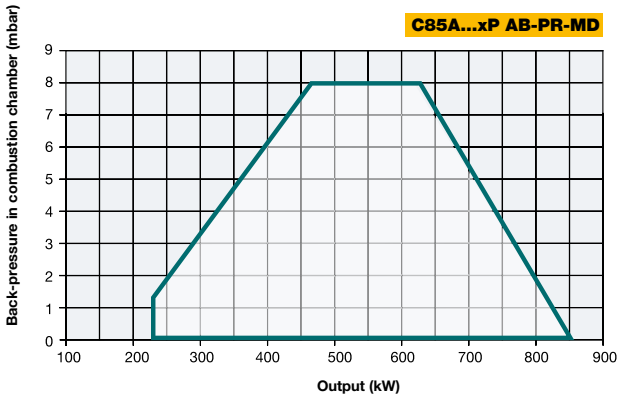
Model	Gas train	Operation	C85A...xP		C120A...xP	
			Code	Price €	Code	Price €
M-.PR.SP.xx.A.1.32 EA	1"¼	PR	03301015A		-	
M-.PR.LP.xx.A.1.32 EA	1"¼	PR	03301025A		-	
M-.PR.SP.xx.A.1.40.EA	1"½	PR	03301035A		03301175A	
M-.PR.LP.xx.A.1.40.EA	1"½	PR	03301045A		03301185A	
M-.PR.SP.xx.A.1.50.EA	2"	PR	03301055A		03301195A	
M-.PR.LP.xx.A.1.50.EA	2"	PR	03301065A		03301205A	
M-.PR.SP.xx.A.1.65.EA	DN65	PR	03301075A		03301215A	
M-.PR.LP.xx.A.1.65.EA	DN65	PR	03301085A		03301225A	
M-.PR.SP.xx.A.1.80 EA	DN80	PR	-		03301235A	
M-.PR.LP.xx.A.1.80 EA	DN80	PR	-		03301245A	
M-.MD.SP.xx.A.1.32 EA	1"¼	MD(*)	03301015E		-	
M-.MD.LP.xx.A.1.32 EA	1"¼	MD(*)	03301025E		-	
M-.MD.SP.xx.A.1.40.EA	1"½	MD(*)	03301035E		03301175E	
M-.MD.LP.xx.A.1.40.EA	1"½	MD(*)	03301045E		03301185E	
M-.MD.SP.xx.A.1.50.EA	2"	MD(*)	03301055E		03301195E	
M-.MD.LP.xx.A.1.50.EA	2"	MD(*)	03301065E		03301205E	
M-.MD.SP.xx.A.1.65.EA	DN65	MD(*)	03301075E		03301215E	
M-.MD.LP.xx.A.1.65.EA	DN65	MD(*)	03301085E		03301225E	
M-.MD.SP.xx.A.1.80.EA	DN80	MD(*)	-		03301235E	
M-.MD.LP.xx.A.1.80.EA	DN80	MD(*)	-		03301245E	
M-.MD.SP.xx.A.1.32 ES	1"¼	MD(*)	03301015S		-	
M-.MD.LP.xx.A.1.32 ES	1"¼	MD(*)	03301025S		-	
M-.MD.SP.xx.A.1.40.ES	1"½	MD(*)	03301035S		03301175S	
M-.MD.LP.xx.A.1.40.ES	1"½	MD(*)	03301045S		03301185S	
M-.MD.SP.xx.A.1.50.ES	2"	MD(*)	03301055S		03301195S	
M-.MD.LP.xx.A.1.50.ES	2"	MD(*)	03301065S		03301205S	
M-.MD.SP.xx.A.1.65.ES	DN65	MD(*)	03301075S		03301215S	
M-.MD.LP.xx.A.1.65.ES	DN65	MD(*)	03301085S		03301225S	
M-.MD.SP.xx.A.1.80.ES	DN80	MD(*)	-		03301235S	
M-.MD.LP.xx.A.1.80.ES	DN80	MD(*)	-		03301245S	

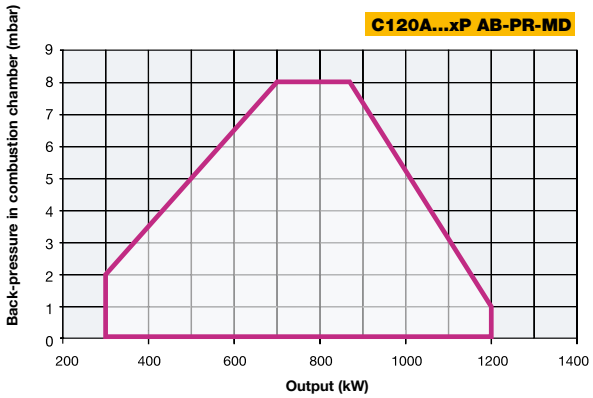
(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

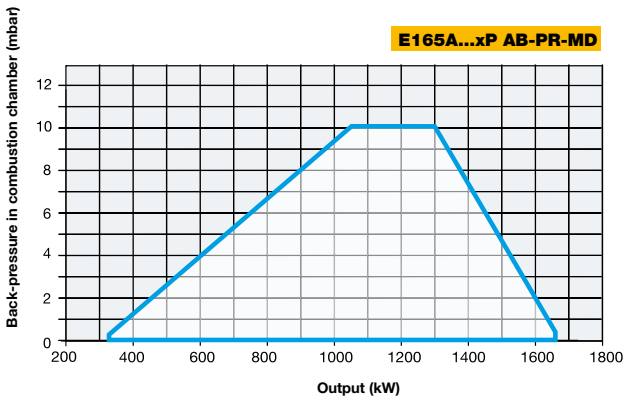
ELECTRONIC OPERATION

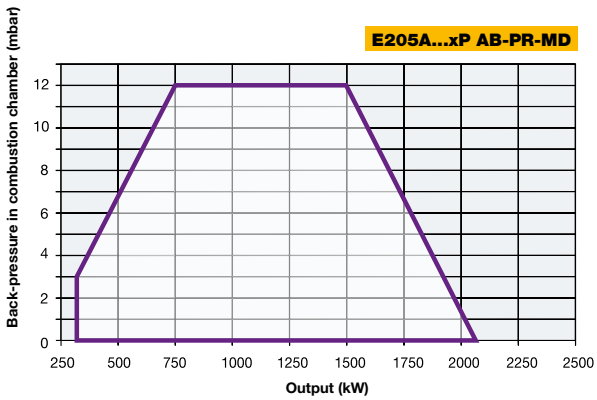
Model	Gas train	Operation	E165A...xP		E205A...xP	
			Code	Price €	Code	Price €
M-.PR.SP.xx.A.1.40.EA	1"½	PR	03001735A		03001815A	
M-.PR.LP.xx.A.1.40.EA	1"½	PR	03001745A		-	
M-.PR.SP.xx.A.1.50.EA	2"	PR	03001755A		03001825A	
M-.PR.LP.xx.A.1.50.EA	2"	PR	03001765A		-	
M-.PR.SP.xx.A.1.65.EA	DN65	PR	03001775A		03001835A	
M-.PR.LP.xx.A.1.65.EA	DN65	PR	03001785A		-	
M-.PR.SP.xx.A.1.80.EA	DN80	PR	03001795A		03001845A	
M-.PR.LP.xx.A.1.80.EA	DN80	PR	03001805A		-	
M-.MD.SP.xx.A.1.40.EA	1"½	MD(*)	03001735E		03001815E	
M-.MD.LP.xx.A.1.40.EA	1"½	MD(*)	03001745E		-	
M-.MD.SP.xx.A.1.50.EA	2"	MD(*)	03001755E		03001825E	
M-.MD.LP.xx.A.1.50.EA	2"	MD(*)	03001765E		-	
M-.MD.SP.xx.A.1.65.EA	DN65	MD(*)	03001775E		03001835E	
M-.MD.LP.xx.A.1.65.EA	DN65	MD(*)	03001785E		-	
M-.MD.SP.xx.A.1.80.EA	DN80	MD(*)	03001795E		03001845E	
M-.MD.LP.xx.A.1.80.EA	DN80	MD(*)	03001805E		-	
M-.MD.SP.xx.A.1.40.ES	1"½	MD(*)	03001735S		03001815S	
M-.MD.LP.xx.A.1.40.ES	1"½	MD(*)	03001745S		-	
M-.MD.SP.xx.A.1.50.ES	2"	MD(*)	03001755S		03001825S	
M-.MD.LP.xx.A.1.50.ES	2"	MD(*)	03001765S		-	
M-.MD.SP.xx.A.1.65.ES	DN65	MD(*)	03001775S		03001835S	
M-.MD.LP.xx.A.1.65.ES	DN65	MD(*)	03001785S		-	
M-.MD.SP.xx.A.1.80.ES	DN80	MD(*)	03001795S		03001845S	
M-.MD.LP.xx.A.1.80.ES	DN80	MD(*)	03001805S		-	

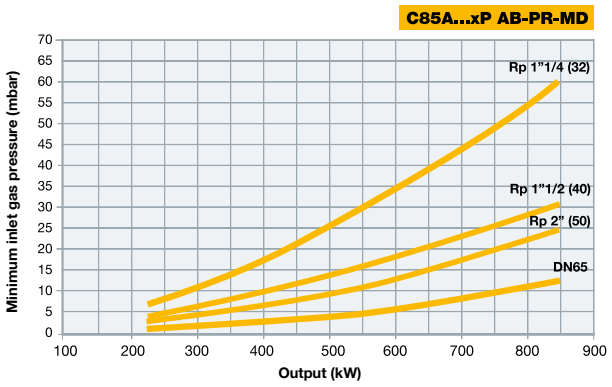
(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

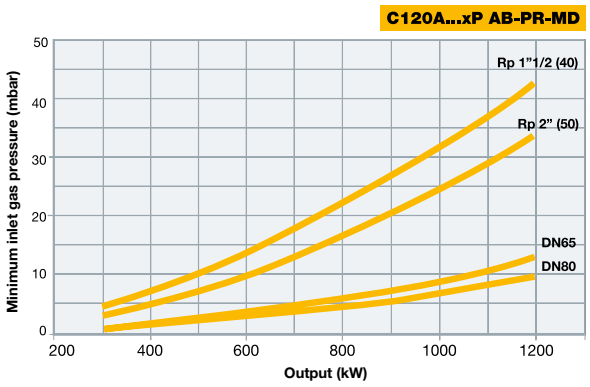


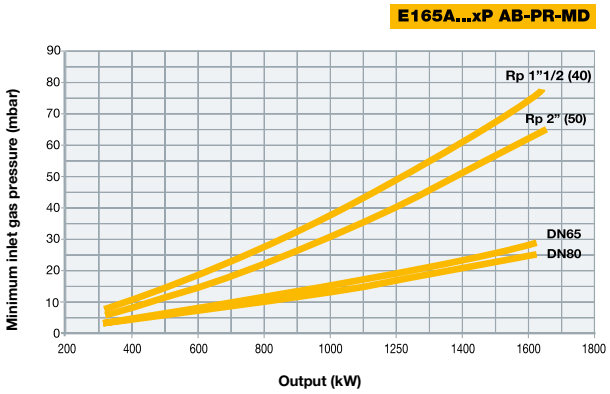


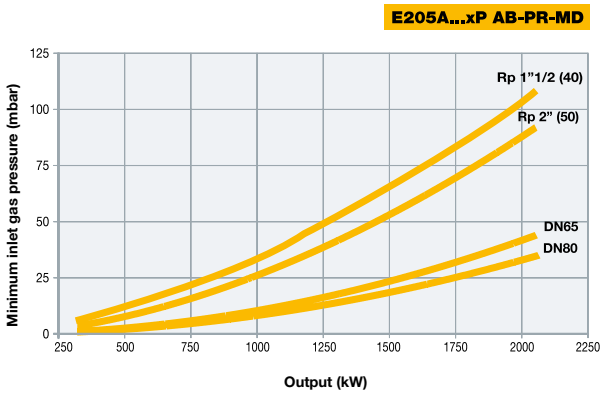








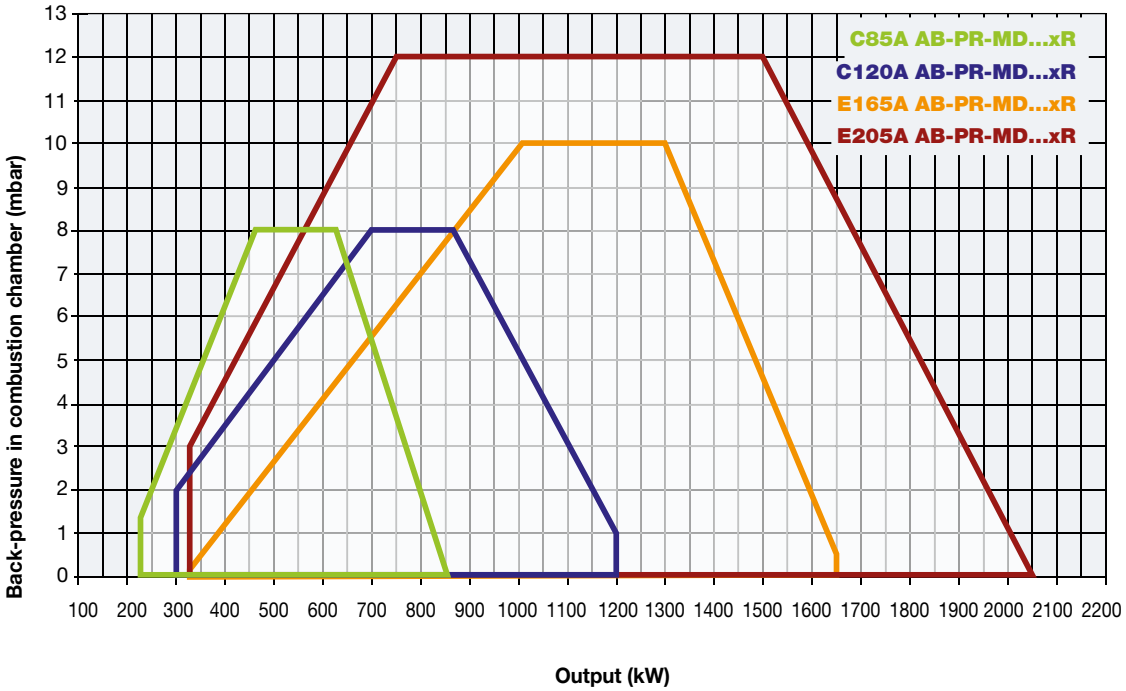




Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

C85A C120A E165A E205A...xR tecnopress SERIES

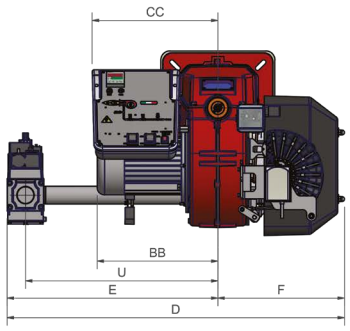
TECNOPRESS burners **Low NO_x Class 2 (< 120 mg/kWh)** cover a wide range of applications from 230 to 2.050 kW and are suitable either for heating generators with high back pressure or suction in combustion chamber.
The bell-shaped combustion head is able to produce high performance flame.

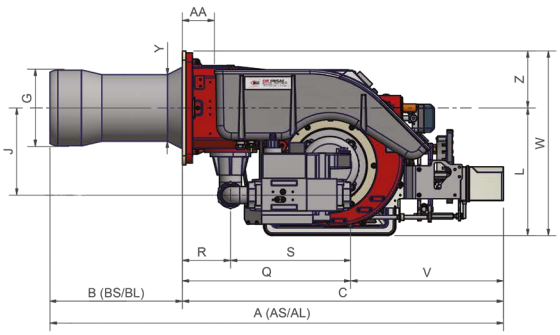


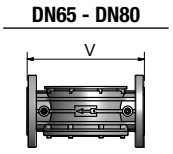
TECHNICAL DETAILS

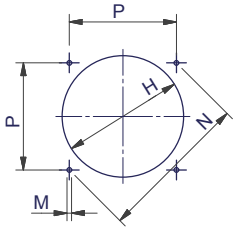
Type	Model	Power kW		Electric power	Fan motor	Gas connections	Noise level
		min.	max.	supply	kW		dBA
C85A	M-.xx.xR.xx.A.0.xx	230	850	230/400 V 3N ac	1,1	1"¼ - 1"½ - 2" - DN65	< 75
C120A	M-.xx.xR.xx.A.0.xx	300	1.200	230/400 V 3N ac	1,5	1"½ - 2" - DN65 - DN80	< 75
E165A	M-.xx.xR.xx.A.1.xx	320	1.650	230/400 V 3N ac	2,2	1"½ - 2" -DN65 - DN80	< 75
E205A	M-.xx.xR.xx.A.1.xx	340	2.050	230/400 V 3N ac	3,0	1"½ - 2" -DN65 - DN80	< 75

For the configuration of the gas train, see page 113.

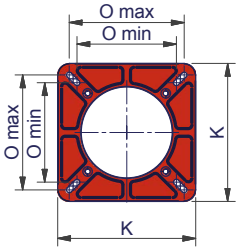








Suggested boiler drilling



Burner flange

Type	Packaging dimensions** (mm)			
	l	p	h	kg
C85A	1345	835	750	60
C120A	1345	835	750	60
E165A	1465	815	800	125
E205A*	1465	815	800	125

** Approximate values
* Approximate values (regarding model with gas train DN 80)

Type	Model	Overall dimensions** (mm)																														
		AA	AS	AL	BB	BS	BL	C	CC	D	E	F	G	H	I	J	K	L	M	N	O		P	Q	R	S	U	V	X	Y	Z
																					min.	max.										
C85A	M-.xx.xR.xx.A.0.32	87	1193	1283	345	320	410	873	342	978	634	344	184	218	198	238	300	347	M10	330	216	250	233	456	131	325	525	-	502	198	155
C85A	M-.xx.xR.xx.A.0.40	87	1193	1283	345	320	410	873	342	978	634	344	184	218	198	238	300	347	M10	330	216	250	233	456	131	325	525	-	502	198	155
C85A	M-.xx.xR.xx.A.0.50	87	1193	1283	345	320	410	873	342	963	619	344	184	218	198	238	300	347	M10	330	216	250	233	469	131	338	525	-	502	198	155
C85A	M-.xx.xR.xx.A.0.65	87	1193	1283	345	320	410	873	342	1034	690	344	184	218	198	284	300	347	M10	330	216	250	233	539	131	408	565	292	502	198	155
C120A	M-.xx.xR.xx.A.0.40	87	1253	1363	345	380	490	873	345	978	634	344	234	264	198	238	300	357	M10	330	216	250	233	456	131	325	525	-	512	198	155
C120A	M-.xx.xR.xx.A.0.50	87	1253	1363	345	380	490	873	345	963	619	344	234	264	198	238	300	357	M10	330	216	250	233	469	131	338	525	-	512	198	155
C120A	M-.xx.xR.xx.A.0.65	87	1253	1363	345	380	490	873	345	1034	690	344	234	264	198	284	300	357	M10	330	216	250	233	539	131	408	565	292	512	198	155
C120A	M-.xx.xR.xx.A.1.80	87	1253	1363	345	380	490	873	345	1034	690	344	234	264	198	284	300	357	M10	330	216	250	233	559	131	428	565	310	512	198	155
E165A	M-.xx.xR.xx.A.1.40	69	1313	1423	372	385	495	928	350	1062	700	362	234	264	210	229	300	420	M10	330	216	250	233	465	130	335	525	-	575	210	155
E165A	M-.xx.xR.xx.A.1.50	69	1313	1423	372	385	495	928	350	1062	700	362	234	264	210	229	300	420	M10	330	216	250	233	465	130	335	525	-	575	210	155
E165A	M-.xx.xR.xx.A.1.65	69	1313	1423	372	385	495	928	350	1139	777	362	234	264	210	296	300	420	M10	330	216	250	233	533	130	403	570	292	575	210	155
E165A	M-.xx.xR.xx.A.1.80	69	1313	1423	372	385	495	928	350	1141	779	362	234	264	210	296	300	428	M10	330	216	250	233	574	130	444	570	310	583	210	155
E205A	M-.xx.xR.xx.A.1.40	69	1431	-	403	503	-	928	350	1013	651	362	254	270	210	233	300	453	M10	330	216	250	233	472	130	342	526	-	608	210	155
E205A	M-.xx.xR.xx.A.1.50	69	1431	-	403	503	-	928	350	1013	651	362	254	270	210	233	300	453	M10	330	216	250	233	472	130	342	526	-	608	210	155
E205A	M-.xx.xR.xx.A.1.65	69	1431	-	403	503	-	928	350	1162	800	362	254	270	210	233	300	453	M10	330	216	250	233	562	130	432	593	292	608	210	155
E205A	M-.xx.xR.xx.A.1.80	69	1431	-	403	503	-	928	350	1136	774	362	254	270	210	287	300	453	M10	330	216	250	233	558	130	428	565	310	608	210	155

** Approximate values

MECHANICAL OPERATION

Model	Gas train	Operation	C85A...xR		C120A...xR	
			Code	Price €	Code	Price €
M-.AB.SR.xx.A.0.32	1"¼	AB	033010942		-	
M-.AB.LR.xx.A.0.32	1"¼	AB	033011042		-	
M-.AB.SR.xx.A.0.40	1"½	AB	033011142		033012542	
M-.AB.LR.xx.A.0.40	1"½	AB	033011242		033012642	
M-.AB.SR.xx.A.0.50	2"	AB	033011342		033012742	
M-.AB.LR.xx.A.0.50	2"	AB	033011442		033012842	
M-.AB.SR.xx.A.0.65	DN65	AB	033011542		033012942	
M-.AB.LR.xx.A.0.65	DN65	AB	033011642		033013042	
M-.AB.SR.xx.A.0.80	DN80	AB	-		033013142	
M-.AB.LR.xx.A.0.80	DN80	AB	-		033013242	
M-.PR.SR.xx.A.0.32	1"¼	PR	033010943		-	
M-.PR.LR.xx.A.0.32	1"¼	PR	033011043		-	
M-.PR.SR.xx.A.0.40	1"½	PR	033011143		033012543	
M-.PR.LR.xx.A.0.40	1"½	PR	033011243		033012643	
M-.PR.SR.xx.A.0.50	2"	PR	033011343		033012743	
M-.PR.LR.xx.A.0.50	2"	PR	033011443		033012843	
M-.PR.SR.xx.A.0.65	DN65	PR	033011543		033012943	
M-.PR.LR.xx.A.0.65	DN65	PR	033011643		033013043	
M-.PR.SR.xx.A.0.80	DN80	PR	-		033013143	
M-.PR.LR.xx.A.0.80	DN80	PR	-		033013243	
M-.MD.SR.xx.A.0.32	1"¼	MD(*)	033010944		-	
M-.MD.LR.xx.A.0.32	1"¼	MD(*)	033011044		-	
M-.MD.SR.xx.A.0.40	1"½	MD(*)	033011144		033012544	
M-.MD.LR.xx.A.0.40	1"½	MD(*)	033011244		033012644	
M-.MD.SR.xx.A.0.50	2"	MD(*)	033011344		033012744	
M-.MD.LR.xx.A.0.50	2"	MD(*)	033011444		033012844	
M-.MD.SR.xx.A.0.65	DN65	MD(*)	033011544		033012944	
M-.MD.LR.xx.A.0.65	DN65	MD(*)	033011644		033013044	
M-.MD.SR.xx.A.0.80	DN80	MD(*)	-		033013144	
M-.MD.LR.xx.A.0.80	DN80	MD(*)	-		033013244	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

MECHANICAL OPERATION

Model	Gas train	Operation	E165A...xR		E205A...xR	
			Code	Price €	Code	Price €
M-.AB.SR.xx.A.1.40	1"½	AB	030013752		030016952	
M-.AB.LR.xx.A.1.40	1"½	AB	030013852		-	
M-.AB.SR.xx.A.1.50	2"	AB	030013952		030017052	
M-.AB.LR.xx.A.1.50	2"	AB	030014052		-	
M-.AB.SR.xx.A.1.65	DN65	AB	030014152		030017152	
M-.AB.LR.xx.A.1.65	DN65	AB	030014252		-	
M-.AB.SR.xx.A.1.80	DN80	AB	030014352		030017252	
M-.AB.LR.xx.A.1.80	DN80	AB	030014452		-	
M-.PR.SR.xx.A.1.40	1"½	PR	030013753		030016953	
M-.PR.LR.xx.A.1.40	1"½	PR	030013853		-	
M-.PR.SR.xx.A.1.50	2"	PR	030013953		030017053	
M-.PR.LR.xx.A.1.50	2"	PR	030014053		-	
M-.PR.SR.xx.A.1.65	DN65	PR	030014153		030017153	
M-.PR.LR.xx.A.1.65	DN65	PR	030014253		-	
M-.PR.SR.xx.A.1.80	DN80	PR	030014353		030017253	
M-.PR.LR.xx.A.1.80	DN80	PR	030014453		-	
M-.MD.SR.xx.A.1.40	1"½	MD(*)	030013754		030016954	
M-.MD.LR.xx.A.1.40	1"½	MD(*)	030013854		-	
M-.MD.SR.xx.A.1.50	2"	MD(*)	030013954		030017054	
M-.MD.LR.xx.A.1.50	2"	MD(*)	030014054		-	
M-.MD.SR.xx.A.1.65	DN65	MD(*)	030014154		030017154	
M-.MD.LR.xx.A.1.65	DN65	MD(*)	030014254		-	
M-.MD.SR.xx.A.1.80	DN80	MD(*)	030014354		030017254	
M-.MD.LR.xx.A.1.80	DN80	MD(*)	030014454		-	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

ELECTRONIC OPERATION

Model	Gas train	Operation	C85A...xR		C120A...xR	
			Code	Price €	Code	Price €
M-.PR.SR.xx.A.1.32 EA	1"¼	PR	03301095A		-	
M-.PR.LR.xx.A.1.32 EA	1"¼	PR	03301105A		-	
M-.PR.SR.xx.A.1.40.EA	1"½	PR	03301115A		03301255A	
M-.PR.LR.xx.A.1.40.EA	1"½	PR	03301125A		03301265A	
M-.PR.SR.xx.A.1.50.EA	2"	PR	03301135A		03301275A	
M-.PR.LR.xx.A.1.50.EA	2"	PR	03301145A		03301285A	
M-.PR.SR.xx.A.1.65.EA	DN65	PR	03301155A		03301295A	
M-.PR.LR.xx.A.1.65.EA	DN65	PR	03301165A		03301305A	
M-.PR.SR.xx.A.1.80 EA	DN80	PR	-		03301315A	
M-.PR.LR.xx.A.1.80 EA	DN80	PR	-		03301325A	
M-.MD.SR.xx.A.1.32 EA	1"¼	MD(*)	03301095E		-	
M-.MD.LR.xx.A.1.32 EA	1"¼	MD(*)	03301105E		-	
M-.MD.SR.xx.A.1.40.EA	1"½	MD(*)	03301115E		03301255E	
M-.MD.LR.xx.A.1.40.EA	1"½	MD(*)	03301125E		03301265E	
M-.MD.SR.xx.A.1.50.EA	2"	MD(*)	03301135E		03301275E	
M-.MD.LR.xx.A.1.50.EA	2"	MD(*)	03301145E		03301285E	
M-.MD.SR.xx.A.1.65.EA	DN65	MD(*)	03301155E		03301295E	
M-.MD.LR.xx.A.1.65.EA	DN65	MD(*)	03301165E		03301305E	
M-.MD.SR.xx.A.1.80.EA	DN80	MD(*)	-		03301315E	
M-.MD.LR.xx.A.1.80.EA	DN80	MD(*)	-		03301325E	
M-.MD.SR.xx.A.1.32 ES	1"¼	MD(*)	03301095S		-	
M-.MD.LR.xx.A.1.32 ES	1"¼	MD(*)	03301105S		-	
M-.MD.SR.xx.A.1.40.ES	1"½	MD(*)	03301115S		03301255S	
M-.MD.LR.xx.A.1.40.ES	1"½	MD(*)	03301125S		03301265S	
M-.MD.SR.xx.A.1.50.ES	2"	MD(*)	03301135S		03301275S	
M-.MD.LR.xx.A.1.50.ES	2"	MD(*)	03301145S		03301285S	
M-.MD.SR.xx.A.1.65.ES	DN65	MD(*)	03301155S		03301295S	
M-.MD.LR.xx.A.1.65.ES	DN65	MD(*)	03301165S		03301305S	
M-.MD.SR.xx.A.1.80.ES	DN80	MD(*)	-		03301315S	
M-.MD.LR.xx.A.1.80.ES	DN80	MD(*)	-		03301325S	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

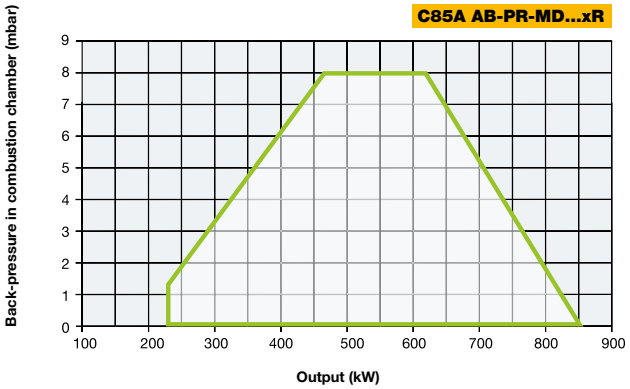
ELECTRONIC OPERATION

Model	Gas train	Operation	E165A...xR		E205A...xR	
			Code	Price €	Code	Price €
M-.PR.SR.xx.A.1.40.EA	1"½	PR	03001375A		03001695A	
M-.PR.LR.xx.A.1.40.EA	1"½	PR	03001385A		-	
M-.PR.SR.xx.A.1.50.EA	2"	PR	03001395A		03001705A	
M-.PR.LR.xx.A.1.50.EA	2"	PR	03001405A		-	
M-.PR.SR.xx.A.1.65.EA	DN65	PR	03001415A		03001715A	
M-.PR.LR.xx.A.1.65.EA	DN65	PR	03001425A		-	
M-.PR.SR.xx.A.1.80.EA	DN80	PR	03001435A		03001725A	
M-.PR.LR.xx.A.1.80.EA	DN80	PR	03001445A		-	
M-.MD.SR.xx.A.1.40.EA	1"½	MD(*)	03001375E		03001695E	
M-.MD.LR.xx.A.1.40.EA	1"½	MD(*)	03001385E		-	
M-.MD.SR.xx.A.1.50.EA	2"	MD(*)	03001395E		03001705E	
M-.MD.LR.xx.A.1.50.EA	2"	MD(*)	03001405E		-	
M-.MD.SR.xx.A.1.65.EA	DN65	MD(*)	03001415E		03001715E	
M-.MD.LR.xx.A.1.65.EA	DN65	MD(*)	03001425E		-	
M-.MD.SR.xx.A.1.80.EA	DN80	MD(*)	03001435E		03001725E	
M-.MD.LR.xx.A.1.80.EA	DN80	MD(*)	03001445E		-	
M-.MD.SR.xx.A.1.40.ES	1"½	MD(*)	03001375S		03001695S	
M-.MD.LR.xx.A.1.40.ES	1"½	MD(*)	03001385S		-	
M-.MD.SR.xx.A.1.50.ES	2"	MD(*)	03001395S		03001705S	
M-.MD.LR.xx.A.1.50.ES	2"	MD(*)	03001405S		-	
M-.MD.SR.xx.A.1.65.ES	DN65	MD(*)	03001415S		03001715S	
M-.MD.LR.xx.A.1.65.ES	DN65	MD(*)	03001425S		-	
M-.MD.SR.xx.A.1.80.ES	DN80	MD(*)	03001435S		03001725S	
M-.MD.LR.xx.A.1.80.ES	DN80	MD(*)	03001445S		-	

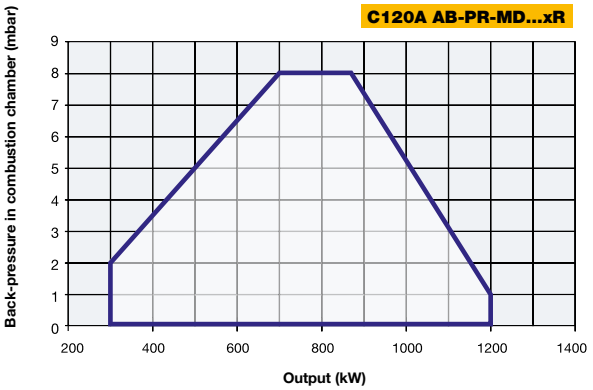
(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

C85A C120A E165A E205A...xR tecnopress SERIES

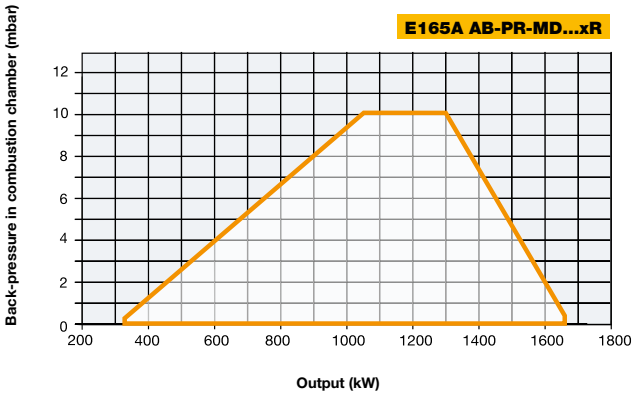
C85A AB-PR-MD...xR



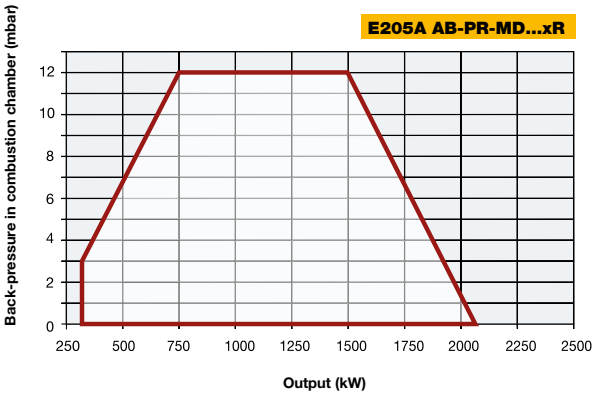
C120A AB-PR-MD...xR



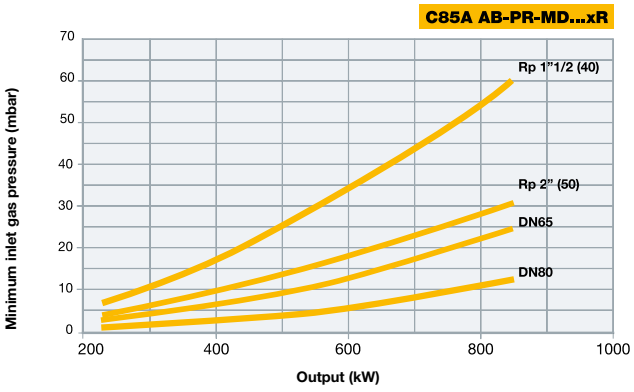
E165A AB-PR-MD...xR



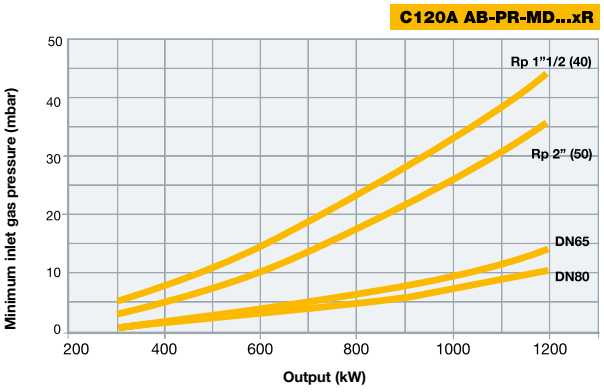
E205A AB-PR-MD...xR



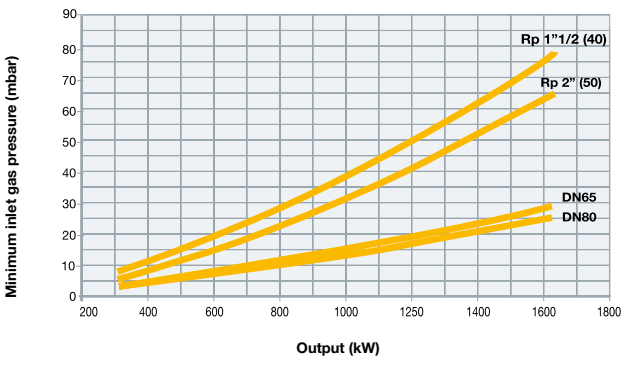
C85A AB-PR-MD...xR



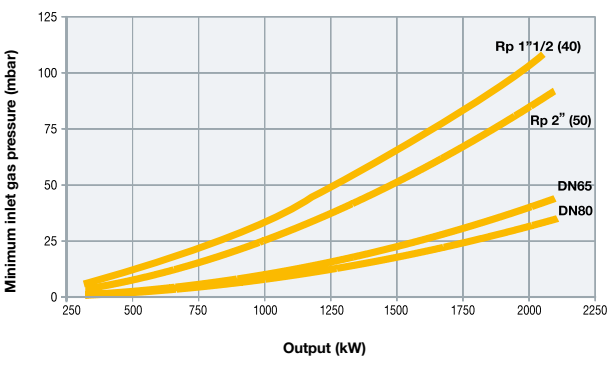
C120A AB-PR-MD...xR



E165A AB-PR-MD...xR



E205A AB-PR-MD...xR



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

miniflam SERIES tecnopan S5 S10 S18 chef S5

BURNERS FOR KITCHENS AND BAKERY OVENS

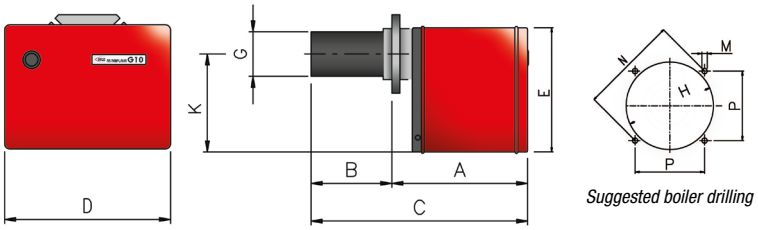
GAS

This burners series has been produced to work on bakery and rotary ovens. The customers of this series are commercial kitchens, big hotels and restaurants.
These burners are equipped with a double protection shield and a blast tube in thermalsteel for high temperature operation.

TECHNICAL DETAILS

Type	Model	Power kW		Electric power	Fan motor	Gas connections
		min.	max.	supply	kW	
Tecnopan S5	M-.TN.x.xx.B.0.15	35	70	230 V 1N ac	0,10	½"
Tecnopan S10	M-.TN.x.xx.B.0.20	65	120	230 V 1N ac	0,15	¾"
Tecnopan S18	M-.TN.x.xx.B.0.25	80	200	230 V 1N ac	0,15	1"
Chef S5	M-.TN.S.xx.D.0.15	35	70	230 V 1N ac	0,10	½"

For the configuration of the gas train, see page 113.



Suggested boiler drilling

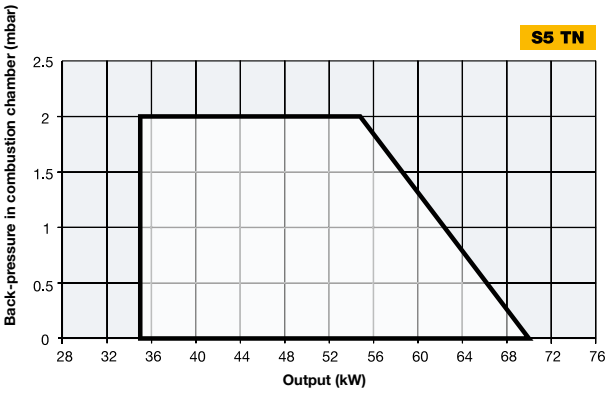
Type	Model	Overall dimensions** (mm)										Burner flange (mm)				Packaging dimensions** (mm)			
		A	B	BL	C	CL	D	E	G	K	H	P min.	P max.	M	N	l	p	h	kg
S5	M-.TN.x.xx.B.0.15	320	0÷80	0÷180	400	500	310	230	80	190	90	85	134	M8	155,5	360	300	560	16,8
S10	M-.TN.x.xx.B.0.20	350	180	275	530	625	340	255	113	210	125	105	134	M8	169,7	420	340	620	22
S18	M-.TN.x.xx.B.0.25	350	205	300	555	650	340	255	126	210	132	105	134	M8	169,7	420	340	620	24
Chef S5	M-.TN.S.xx.D.0.15	320	0÷80	0÷180	400	500	310	230	80	190	90	85	134	M8	155,5	360	300	560	16,8

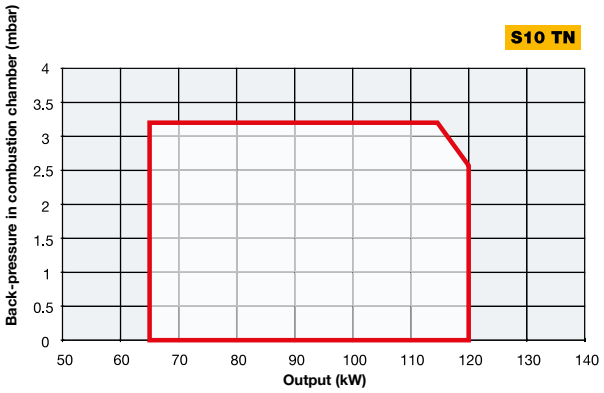
** Approximate values

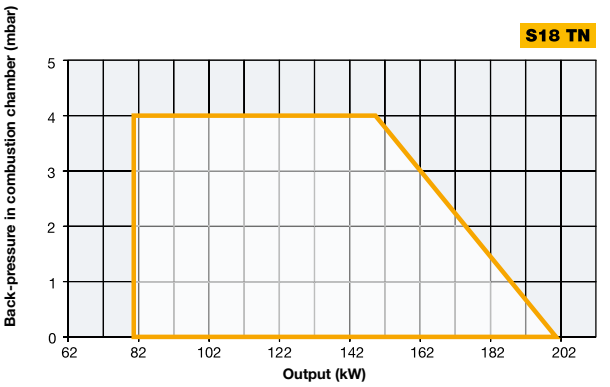
MECHANICAL OPERATION

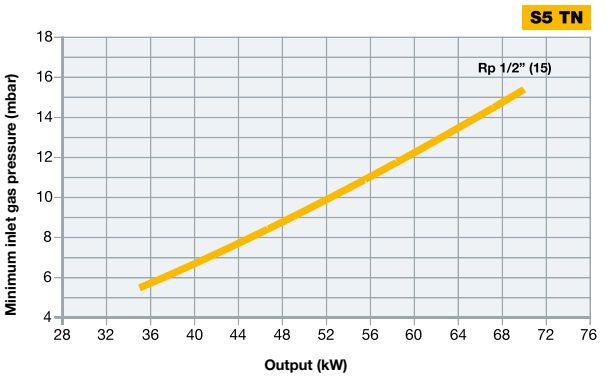
Model	Gas train	Operation	S5		S10		S18	
			Code	Price €	Code	Price €	Code	Price €
M-.TN.S.xx.B.0.15	½"	TN	001010341		-		-	
M-.TN.L.xx.B.0.15	½"	TN	001010441		-		-	
M-.TN.S.xx.B.0.20	¾"	TN	-		002010541		-	
M-.TN.L.xx.B.0.20	¾"	TN	-		002010641		-	
M-.TN.S.xx.B.0.25	1"	TN	-		-		002010741	
M-.TN.L.xx.B.0.25	1"	TN	-		-		002010841	
M-.TN.S.xx.D.0.15	½"	TN	001010641		-		-	

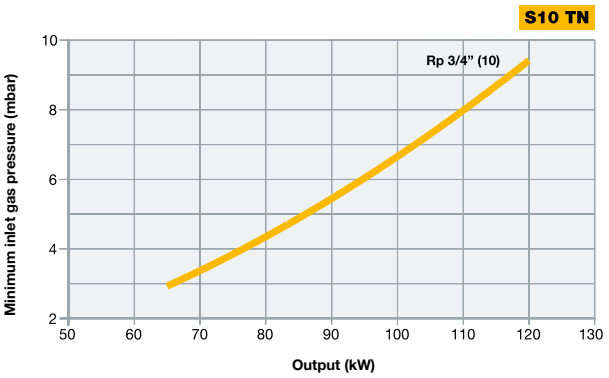
In compliance with GAR DIRECTIVE 2016/426/EU

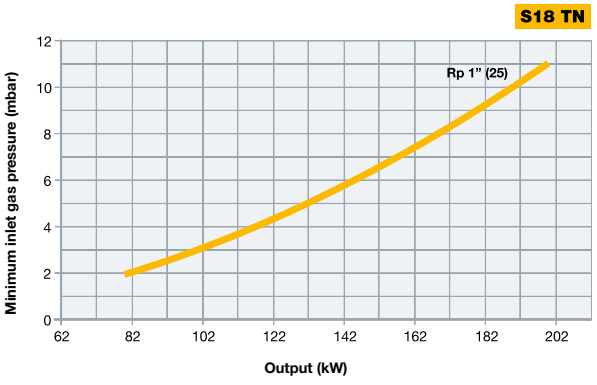










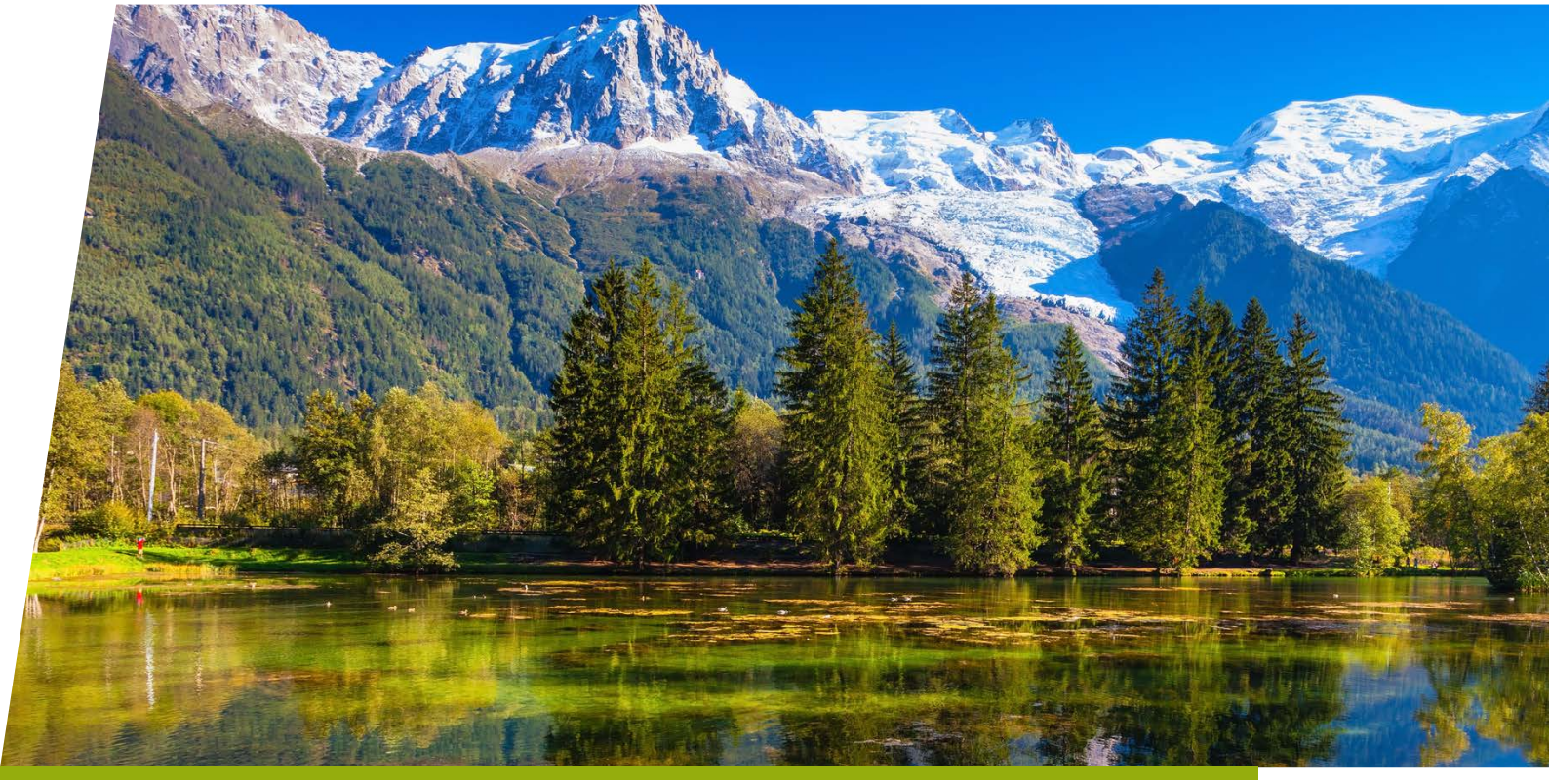


Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

CIB UNIGAS
Let's light up tomorrow

CIB UNIGAS and its mission: Natural gas low NOx burners (natural gas only)

Real progress is based on the distribution of the advantages it brings, among which are included the improvement of the living standards and the protection of the environment. Well-aware of the vital role it plays in the development of ecologically compatible products and thanks to forty years of experience in the design and in the manufacturing of burners for civil and industrial applications, CIB UNIGAS S.P.A. ranks among the European leaders of its sector. The continuous investment in the development of technologically advanced products, which takes place in the company research laboratory, has allowed the creation of special burners which are suited to applications demanding the lowest NOx emissions. These burners homologated with



the CE Mark (Gas Appliances Directive), by one of the most authoritative European certification agencies in the sector, embrace the entire range of our products, from burners for civil application (20 kW) up to burners for industrial application (15 MW).
Our expert technicians, specialized and dedicated to the implementation of these products, have capitalized on the experience accumulated over years in the field of standard burners (with normal emission) in order to create a parallel range of low environmental impact burners. **In addition to the scrupulous respect of the limits prescribed by the European directives regulating the pollutant emissions, all these models guarantee values well below those limits; reaching a level of emissions of less than 80 mg/KWh (class 3 EN 676) if CIB UNIGAS's recommendation about boiler thermal load value is respected.** Our low NOx burners benefit from the installation of an innovative combustion head that re-distributes the gaseous element according to different weights and in negative pressure zone, in this way letting a part of the combusted gases to circulate freely inside.
The applications in which these emission values are required vary widely, such as for example in the systems used for cultivation in greenhouses. Thanks to the special combustion head of our burners, the combustion fumes can be used for the injection of the CO_2 required for the growth

of plants into the greenhouses without the risk of CO emissions that are dangerous for the personnel working inside.
Our burners can be equipped with the most modern automatic mechanical or electronic modulation system which allows the correct gas/air ratio. In this way, the burners' thermal load can be adapted with precision to the heat required at every moment of the operation, thus optimizing the performance. The electronic modulation system makes perfect use of the fuel/combustion air curve, which proves to be wider than the curve obtained by mechanical modulation system. As a consequence the electronic system is faster, timely and optimal in

the adjustment phase. In addition, thanks to the presence of a microprocessor that controls the various phases of the process, it is ensured the absolute precision in the repetition of the operation sequences. The reliability of this product, that has been proven by the close cooperation with some of the most important European boiler manufactures, coupled with the company's remarkable versatility, allow us to supply the widest and most complete offer of low pollutant emission burners for the satisfaction of the most particular and specific consumers' requests.
Precisely due to the particularity of the applications for which they have been designed, low NOx burners require specific technical skills and experience that CIB UNIGAS S.p.A. is happy to provide through its technical assistance that operates around the world and that is regularly re-trained through courses held at the company's headquarters.
Far from representing mere compliance to the latest standards and regulations or the exclusive consequence of marketing logic, these results have been achieved as part of our mission to improve standards of living because we believe our natural environment to be much more than just an abstract concept and more precisely, the home of our present and future.

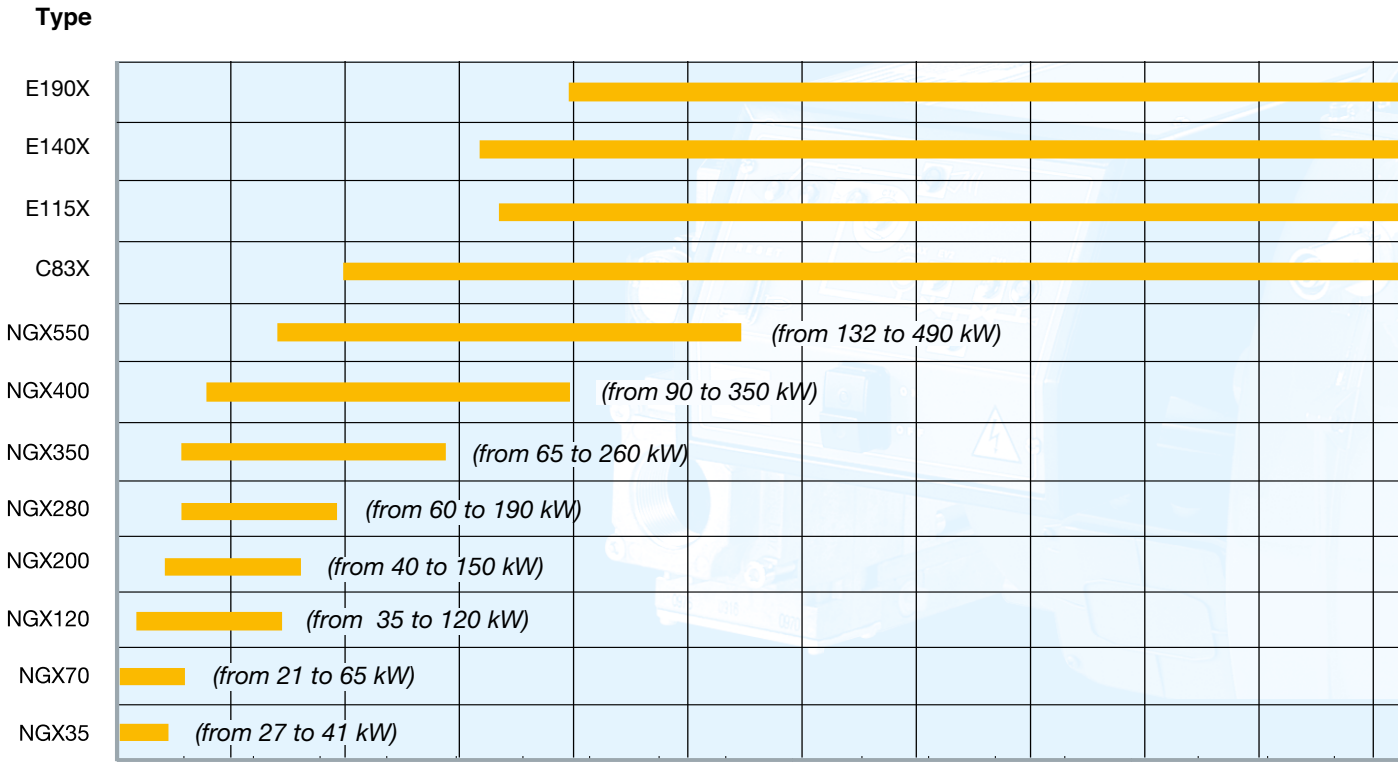
LOW NO_x NATURAL GAS BURNERS

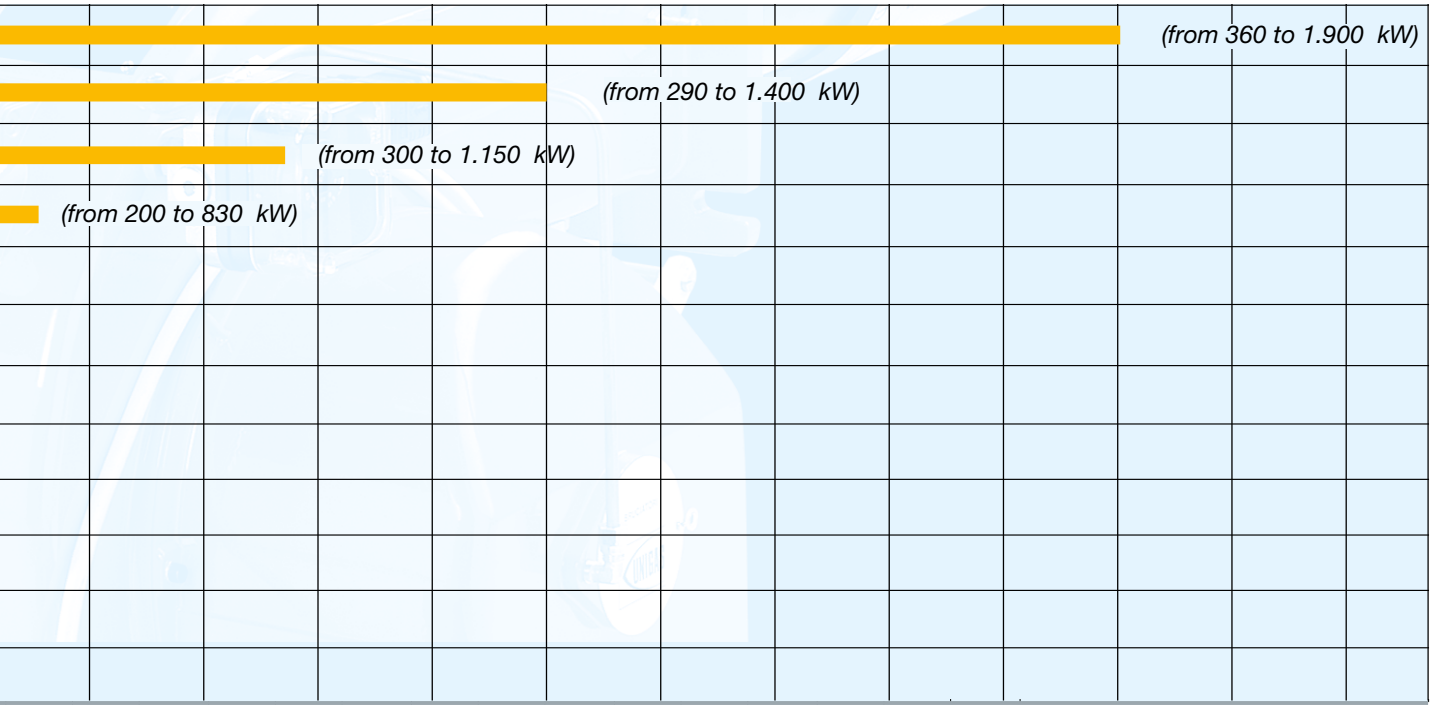
idea series

NGX35 - TN
NGX70 - TN/AB
NGX120 - TN/AB
NGX200 - TN/AB/PR/MD
NGX280 - TN/AB
NGX350 - PR/MD
NGX400 - PR/MD
NGX550 - PR/MD

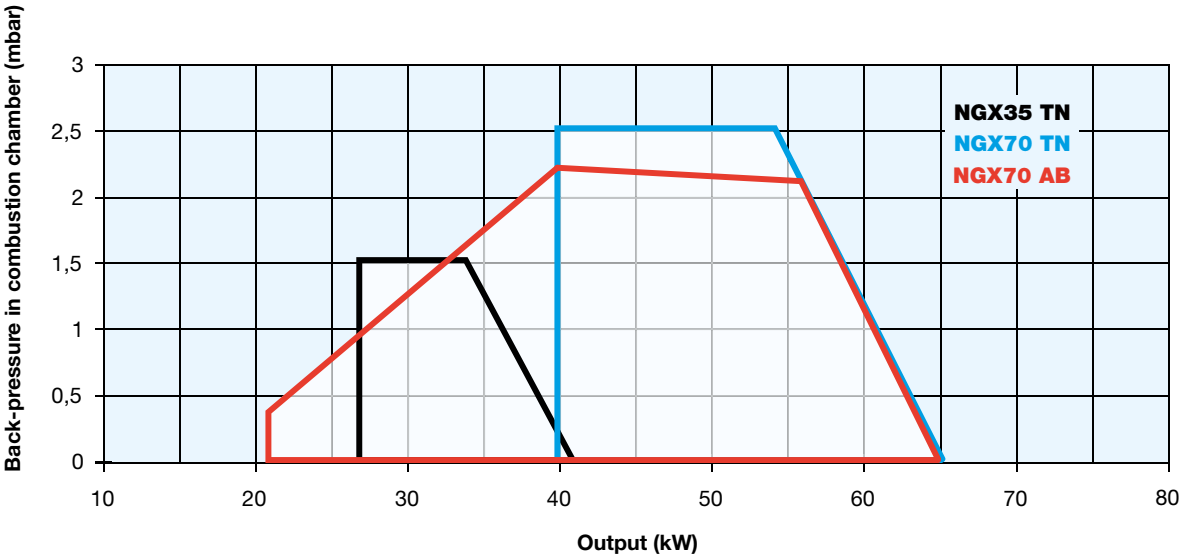
NEW tecnopress series

C83X - AB/PR/MD
E115X - AB/PR/MD
E140X - AB/PR/MD
E190X - AB/PR/MD




(from 360 to 1.900 kW)
(from 290 to 1.400 kW)
(from 300 to 1.150 kW)
(from 200 to 830 kW)

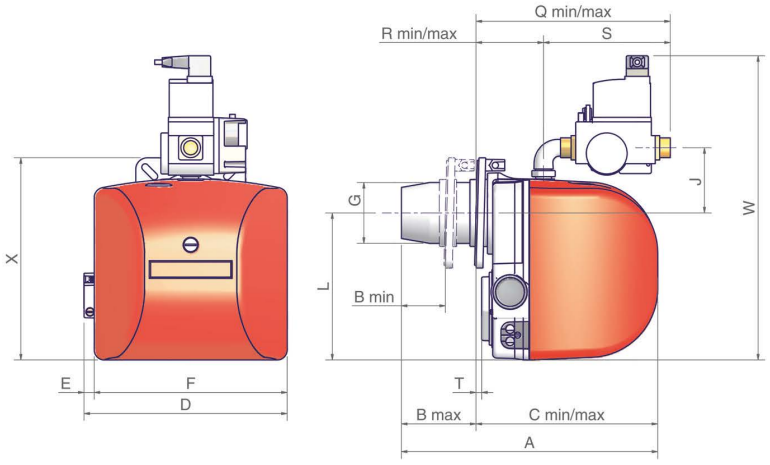
This new generation of IDEA burners **Low NO_x Class 3 (< 80 mg/kWh)**, has been developed and built to ensure the lowest environmental impact. This is achieved thanks to the new combustion head that allows a staged air flow in order to let the flame burn progressively along the length of the combustion chamber.

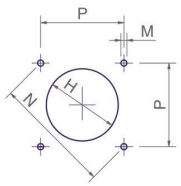


TECHNICAL DETAILS

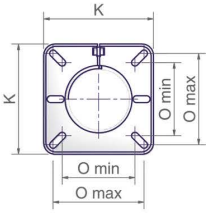
Type	Model	Power kW		Electric power supply	Fan motor kW	Gas connections
		min.	max.			
NGX35	M-.TN.x.xx.A.0.xx	27	41	230 V 1N ac	0,075	½"
NGX70	M-.TN.x.xx.A.0.xx	40	65	230 V 1N ac	0,10	½" - ¾"
NGX70	M-.AB.x.xx.A.0.xx	21	65	230 V 1N ac	0,10	½" - ¾"

For the configuration of the gas train, see page 113.





Suggested boiler drilling



Burner flange

Type	Packaging dimensions** (mm)			
	l	p	h	kg
NGX35	290	260	490	10
NGX70	400	300	520	14

** Approximate values

Type	Model	Overall dimensions** (mm)																			Boiler drilling (mm)				Burner flange (mm)		
		A	B		C		D	E	F	G	J	L	Q		R		S	T	W	X	H	M	N	P	K	O	
			min.	max.	min.	max.							min.	max.	min.	max.										min.	max.
NGX35	M-.TN.S.xx.A.0.xx	338	58	98	240	280	269	14	255	80	86	194	257	297	89	129	180	7	400	266	95	M8	153	108	145	96	120
NGX35	M-.TN.L.xx.A.0.xx	418	58	178	240	360	269	14	255	80	86	194	257	417	89	209	180	7	400	266	95	M8	153	108	145	96	120
NGX70	M-.xx.S.xx.A.0.xx	393	76		299		304	14	291	80	99	218	296		130		180	7	438	291	95	M8	153	108	145	96	120
NGX70	M-.xx.L.xx.A.0.xx	461	76	149	294	377	304	14	291	80	99	218	292	375	125	208	180	7	438	291	95	M8	153	108	145	96	120

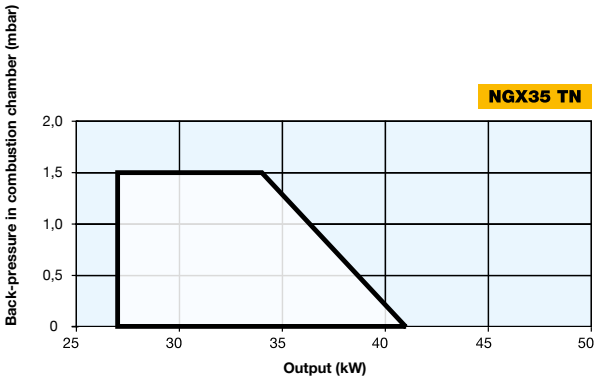
** Approximate values

MECHANICAL OPERATION

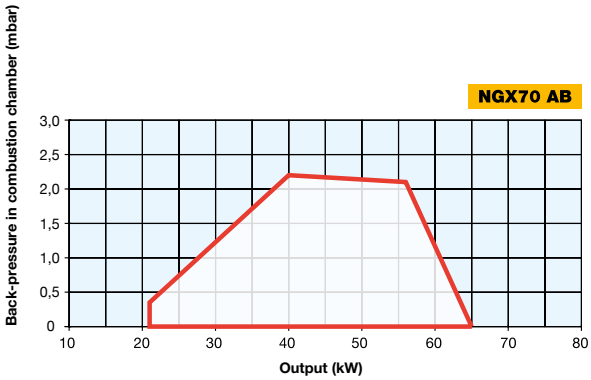
Model	Gas train	Operation	NGX35		NGX70	
			Code	Price €	Code	Price €
M-.TN.S.xx.A.0.15	½”	TN	024011441		025012141	
M-.TN.L.xx.A.0.15	½”	TN	024011541		025012241	
M-.TN.S.xx.Z.0.15 ◆	½”	TN	024011641		-	
M-.TN.L.xx.Z.0.15 ◆	½”	TN	024011741		-	
M-.TN.S.xx.A.0.20	¾”	TN	-		025012341	
M-.TN.L.xx.A.0.20	¾”	TN	-		025012441	
M-.AB.S.xx.A.0.15	½”	AB	-		025012142	
M-.AB.L.xx.A.0.15	½”	AB	-		025012242	
M-.AB.S.xx.A.0.20	¾”	AB	-		025012342	
M-.AB.L.xx.A.0.20	¾”	AB	-		025012442	

◆ Burner equipped with external air inlet.
In compliance with GAR DIRECTIVE 2016/426/EU

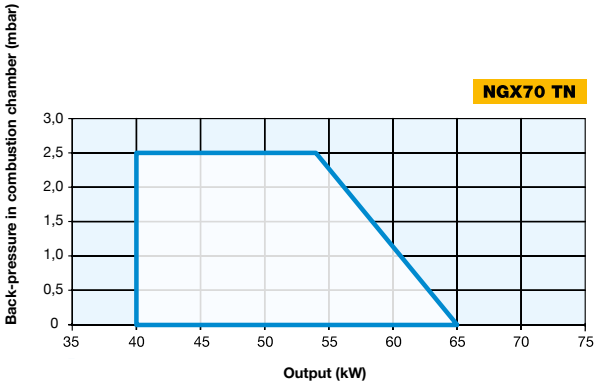
NGX35 TN



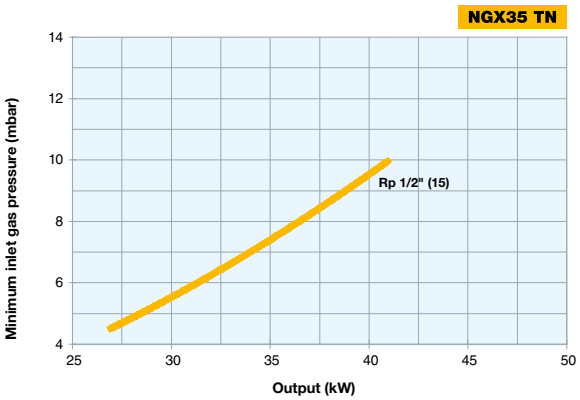
NGX70 AB



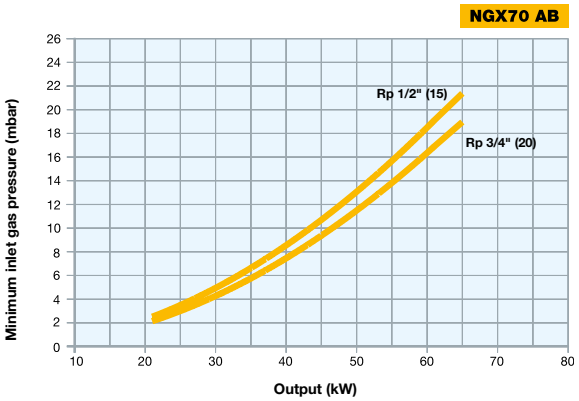
NGX70 TN



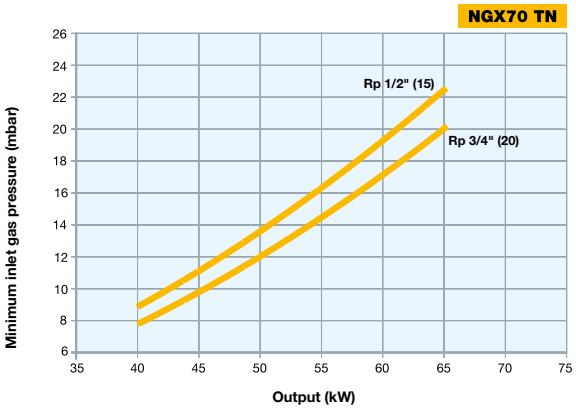
NGX35 TN



NGX70 AB



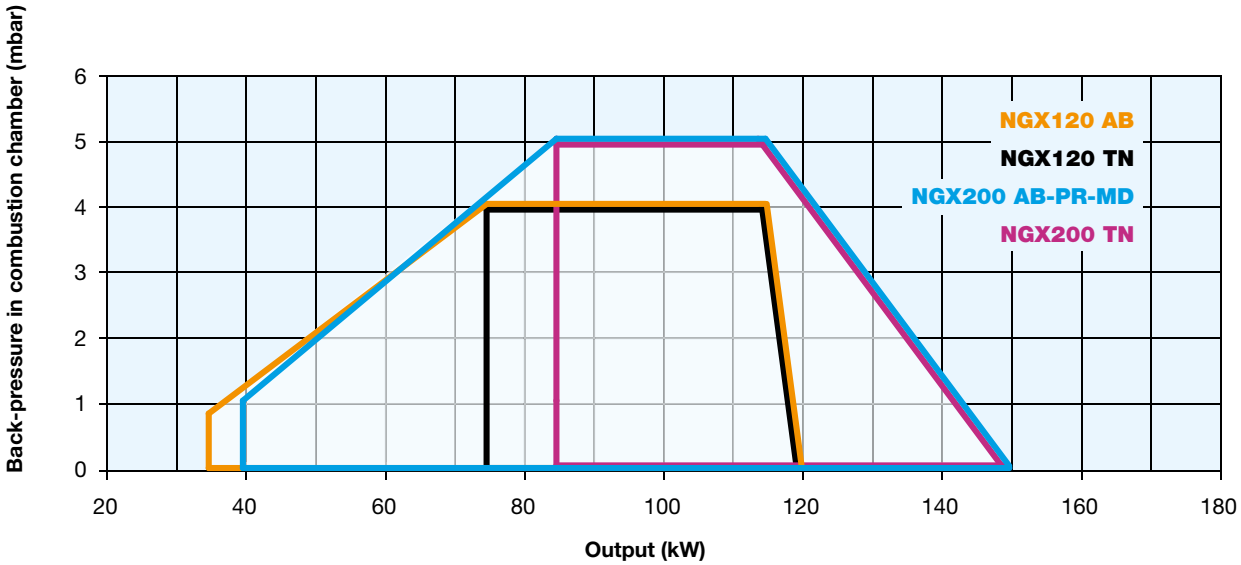
NGX70 TN



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

NGX120 NGX200

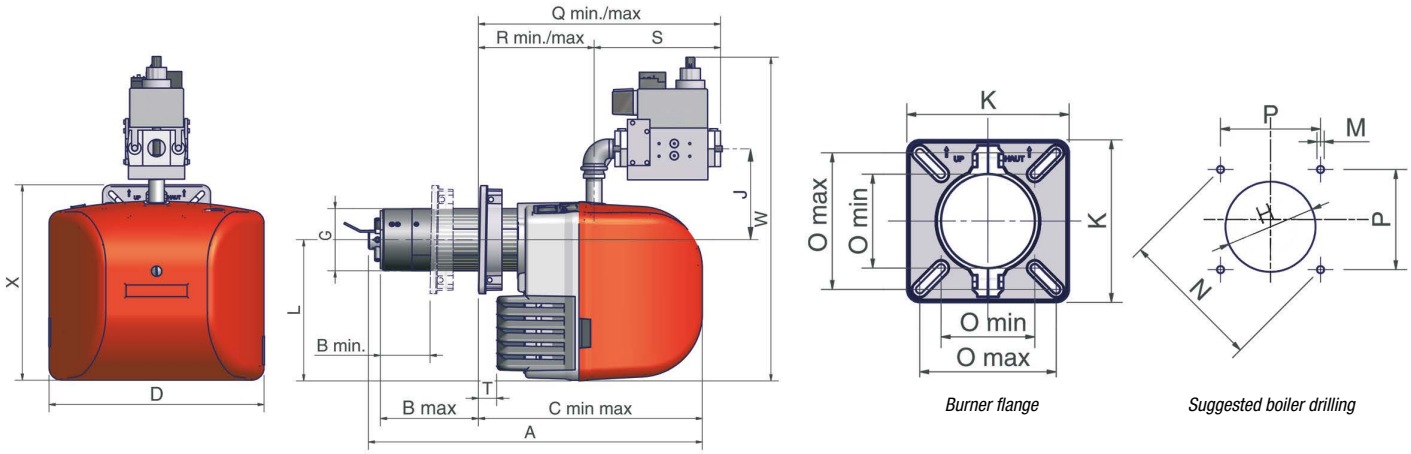
These burners **Low NO_x Class 3 (< 80 mg/kWh)** can be installed on all pressurized boilers up to 150 kW. Thanks to the new placement of the mechanical and electronic components and to the innovative combustion head, they are easy to use and to be mantained and they ensure optimized performance.
The latter aspect is due to the optimal air/fuel mix which let the flame burn progressively along the length of the combustion chamber.



TECHNICAL DETAILS

Type	Model	Power kW		Electric power	Fan motor	Gas connections
		min.	max.	supply	kW	
NGX120	M-.TN.x.xx.A.0.20	75	120	230 V 1N ac	0,18	¾”
NGX120	M-.AB.x.xx.A.0.20	35	120	230 V 1N ac	0,18	¾”
NGX200	M-.TN.x.xx.A.0.xx	85	150	230 V 1N ac	0,18	¾” - 1”
NGX200	M-.xx.x.xx.A.0.xx	40	150	230 V 1N ac	0,18	¾” - 1”

For the configuration of the gas train, see page 113.



Burner flange

Suggested boiler drilling

Type	Packaging dimensions** (mm)			
	l	p	h	kg
NGX120..S	600	370	400	24
NGX120..L	750	370	400	25
NGX200..S	600	370	400	24
NGX200..L	750	370	400	25

** Approximate values

Type	Model	Overall dimensions** (mm)																	Boiler drilling (mm)				Burner flange (mm)		
		A	B		C		D	G	J	L	Q		R		S	T	W	X	H	M	N	P	K	O	
			min.	max.	min.	max.					min.	max.	min.	max.										min.	max.
NGX120	M-.xx.S.xx.A.0.20	581	85	170	390	475	373	108	158	245	421	506	201	286	220	32	560	340	128	M8	188	133	188	108	158
NGX120	M-.xx.L.xx.A.0.20	681	85	270	390	575	373	108	158	245	421	506	201	286	220	32	560	340	128	M8	188	133	188	108	158
NGX200	M-.xx.S.xx.A.0.25	581	85	170	390	475	373	115	158	245	421	506	201	286	220	32	560	340	134	M8	188	133	188	108	158
NGX200	M-.xx.L.xx.A.0.25	681	85	270	390	575	373	115	158	245	421	506	201	286	220	32	560	340	134	M8	188	133	188	108	158

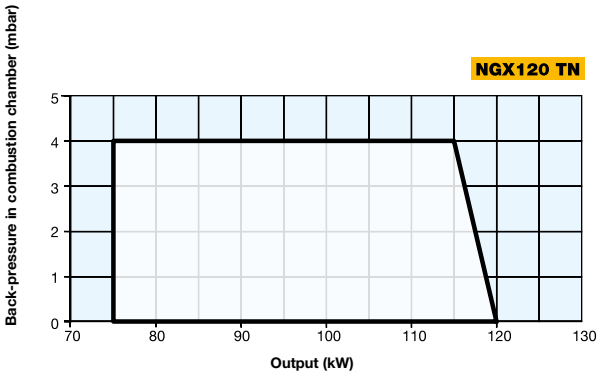
** Approximate values

MECHANICAL OPERATION

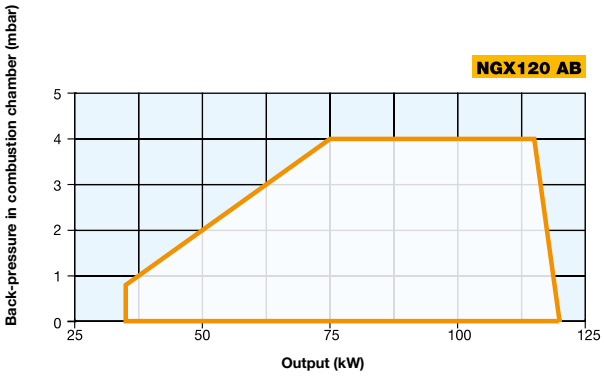
Model	Gas train	Operation	NGX120		NGX200	
			Code	Price €	Code	Price €
M-.TN.S.xx.A.0.20	¾"	TN	026011341		026011741	
M-.TN.L.xx.A.0.20	¾"	TN	026011441		026011841	
M-.TN.S.xx.A.0.25	1"	TN	-		026011941	
M-.TN.L.xx.A.0.25	1"	TN	-		026012041	
M-.AB.S.xx.A.0.20	¾"	AB	026011342		026011742	
M-.AB.L.xx.A.0.20	¾"	AB	026011442		026011842	
M-.AB.S.xx.A.0.25	1"	AB	-		026011942	
M-.AB.L.xx.A.0.25	1"	AB	-		026012042	
M-.PR.S.xx.A.0.25	1"	PR	-		026011943	
M-.PR.L.xx.A.0.25	1"	PR	-		026012043	
M-.MD.S.xx.A.0.25	1"	MD(*)	-		026011944	
M-.MD.L.xx.A.0.25	1"	MD(*)	-		026012044	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

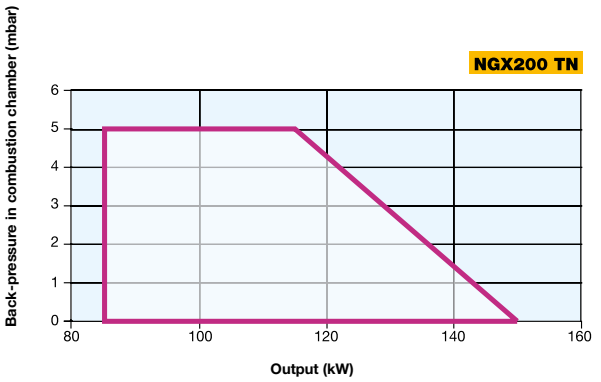
NGX120 TN



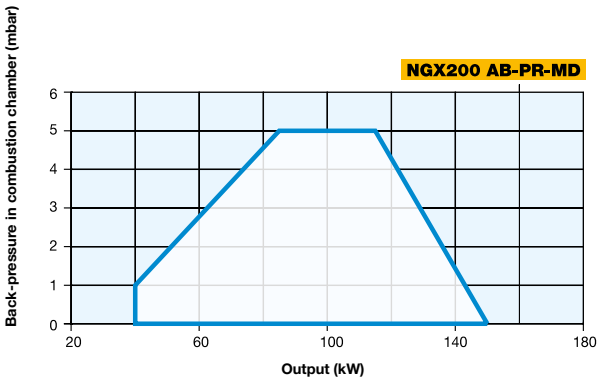
NGX120 AB



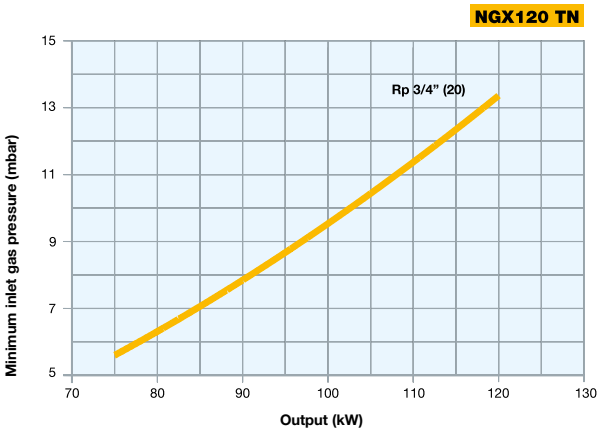
NGX200 TN



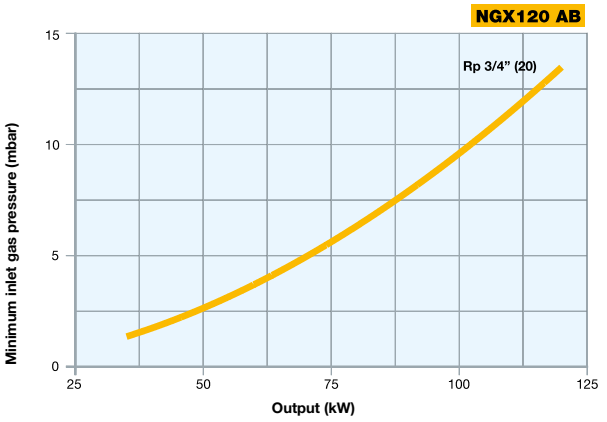
NGX200 AB-PR-MD



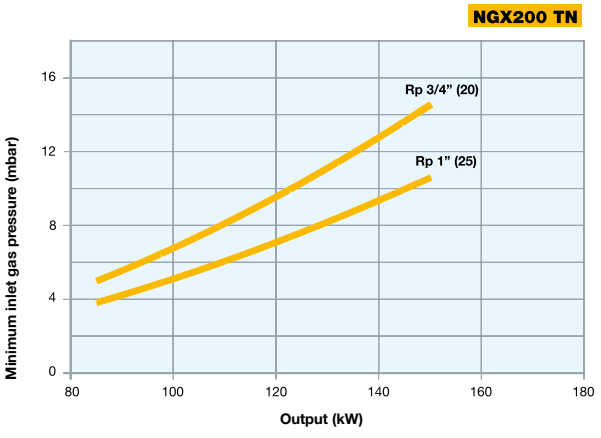
NGX120 TN



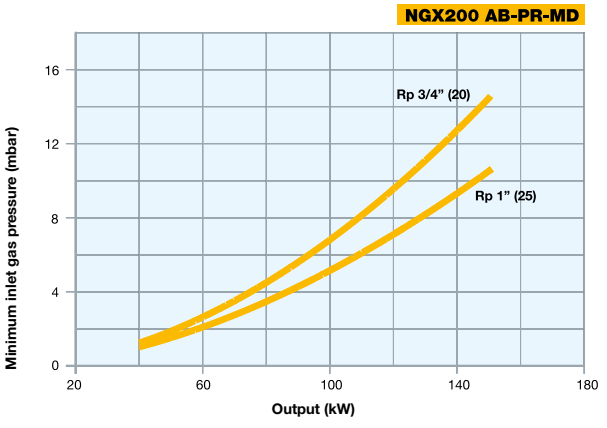
NGX120 AB



NGX200 TN

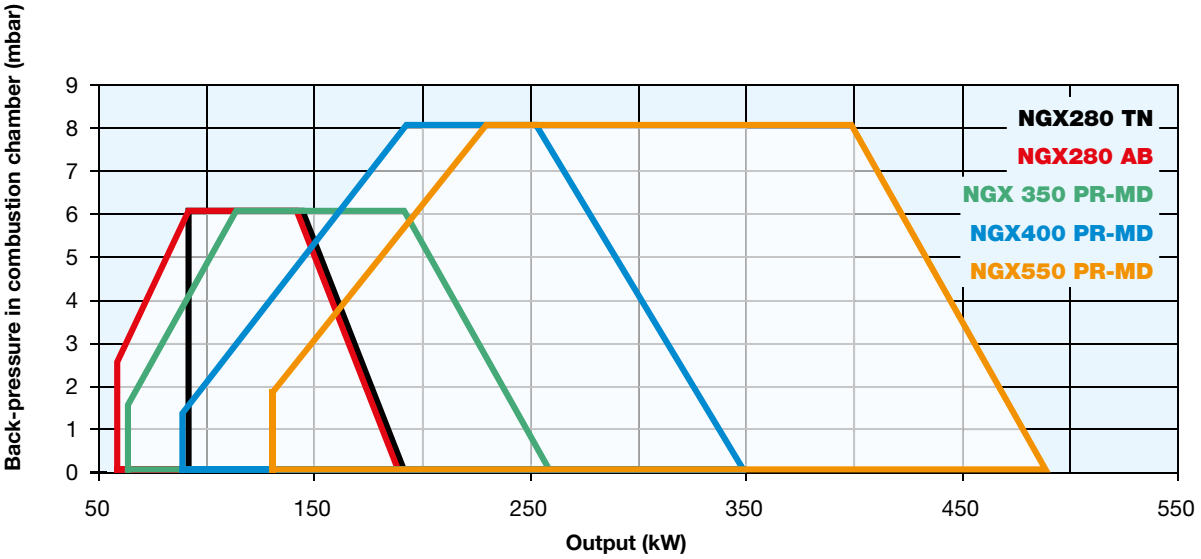


NGX200 AB-PR-MD



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

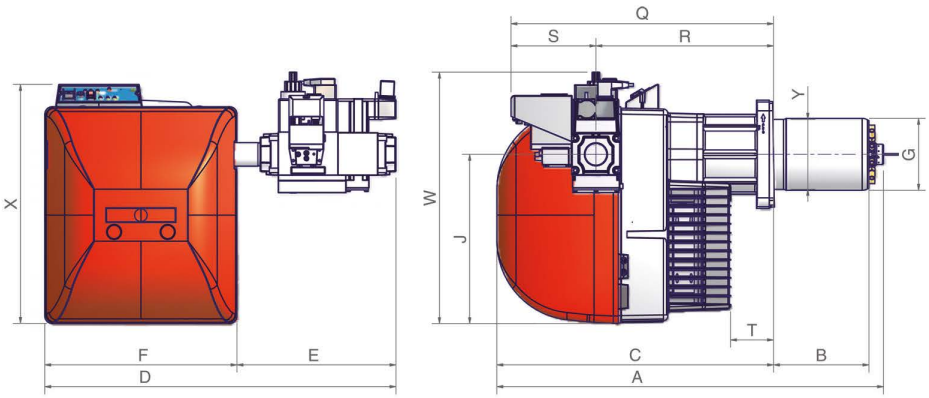
The burners of the series IDEA **Low NO_x Class 3 (< 80 mg/kWh)** covering this output range, have been provided with a very advanced and performing combustion head which ensure a stable combustion in all working conditions. The placement of the components inside the burner permits an easy and precise regulation and maintenance.

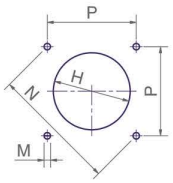


TECHNICAL DETAILS

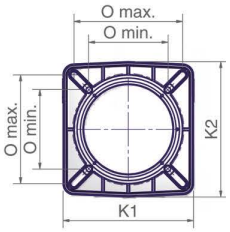
Type	Model	Power kW		Electric power	Fan motor	Gas connections
		min.	max.	supply	kW	
NGX280	M-.TN.x.xx.A.0.xx	93	190	230 V 1N ac	0,25	1”- 1”¼ - 1”½
NGX280	M-.xx.x.xx.A.0.xx	60	190	230 V 1N ac	0,25	1”- 1”¼ - 1”½
NGX350	M-.xx.x.xx.A.0.xx	65	260	230 V 1N ac	0,37	1” - 1”¼ - 1”½
NGX400	M-.xx.x.xx.A.0.xx	90	350	230 V 1N ac	0,37	1”- 1”¼ - 1”½ - 2”
NGX550	M-.xx.x.xx.A.0.xx	132	490	230 V 1N ac	0,62	1”¼ - 1”½ - 2”

For the configuration of the gas train, see page 113.





Suggested boiler drilling



Burner flange

Type	Packaging dimensions** (mm)			
	l	p	h	kg
NGX280/350/400	1120	440	580	42
NGX550	1200	460	630	55

** Approximate values

Type	Model	Overall dimensions** (mm)																							
		AS	AL	BS	BL	C	D	E	F	G	H	J	K		M	N	O		P	Q	R	S	T	W	X	Y
													1	2			min.	max.								
NGX280	M-.xx.x.xx.A.0.25/32	754	899	163	308	570	596	200	396	113	164	348	215	223	M10	219	131	179	155	541	366	175	128	508	491	144
NGX280	M-.xx.x.xx.A.0.40	754	899	163	308	570	726	330	396	113	164	348	215	223	M10	219	131	179	155	541	366	175	128	517	491	144
NGX350	M-.xx.x.xx.A.0.25/32	778	908	178	308	570	596	200	396	131	164	348	215	223	M10	219	131	179	155	541	366	175	89	508	491	144
NGX350	M-.xx.x.xx.A.0.40	778	908	178	308	570	726	330	396	131	164	348	215	223	M10	219	131	179	155	541	366	175	89	517	491	144
NGX400	M-.xx.x.xx.A.0.25/32	798	928	198	328	570	596	200	396	148	168	348	215	223	M10	219	131	179	155	541	366	175	89	508	491	144
NGX400	M-.xx.x.xx.A.0.40	798	928	198	328	570	726	330	396	148	168	348	215	223	M10	219	131	179	155	541	366	175	89	517	491	144
NGX400	M-.xx.x.xx.A.0.50	798	928	198	328	570	726	330	396	148	168	348	215	223	M10	219	131	179	155	541	366	175	89	567	491	144
NGX550	M-.xx.x.xx.A.0.32	874	974	253	353	590	671	245	426	168	198	384	241	241	M10	247	157	192	174	552	377	175	69	543	533	155
NGX550	M-.xx.x.xx.A.0.40	874	974	253	353	590	744	318	426	168	198	384	241	241	M10	247	157	192	174	552	377	175	69	553	533	155
NGX550	M-.xx.x.xx.A.0.50	874	974	253	353	590	744	318	426	168	198	384	241	241	M10	247	157	192	174	552	377	175	69	603	533	155

** Approximate values

MECHANICAL OPERATION

Model	Gas train	Operation	NGX280		NGX350	
			Code	Price €	Code	Price €
M-.TN.S.xx.A.0.25	1”	TN	027012341		-	
M-.TN.L.xx.A.0.25	1”	TN	027012441		-	
M-.TN.S.xx.A.0.32	1”¼	TN	027012541		-	
M-.TN.L.xx.A.0.32	1”¼	TN	027012641		-	
M-.TN.S.xx.A.0.40	1”½	TN	027012741		-	
M-.TN.L.xx.A.0.40	1”½	TN	027012841		-	
M-.AB.S.xx.A.0.25	1”	AB	027012342		-	
M-.AB.L.xx.A.0.25	1”	AB	027012442		-	
M-.AB.S.xx.A.0.32	1”¼	AB	027012542		-	
M-.AB.L.xx.A.0.32	1”¼	AB	027012642		-	
M-.AB.S.xx.A.0.40	1”½	AB	027012742		-	
M-.AB.L.xx.A.0.40	1”½	AB	027012842		-	
M-.PR.S.xx.A.0.25	1”	PR	027012343		-	
M-.PR.L.xx.A.0.25	1”	PR	027012443		-	
M-.PR.S.xx.A.0.32	1”¼	PR	027012543		-	
M-.PR.L.xx.A.0.32	1”¼	PR	027012643		-	
M-.PR.S.xx.A.0.40	1”½	PR	027012743		-	
M-.PR.L.xx.A.0.40	1”½	PR	027012843		-	
M-.MD.S.xx.A.0.25	1”	MD	027012344		-	
M-.MD.L.xx.A.0.25	1”	MD	027012444		-	
M-.MD.S.xx.A.0.32	1”¼	MD	027012544		-	
M-.MD.L.xx.A.0.32	1”¼	MD	027012644		-	
M-.MD.S.xx.A.0.40	1”½	MD	027012744		-	
M-.MD.L.xx.A.0.40	1”½	MD	027012844		-	
M-.PR.M.xx.A.0.25	1”	PR	-		027010843	
M-.PR.M.xx.A.0.32	1”¼	PR	-		027010943	
M-.PR.M.xx.A.0.40	1”½	PR	-		027011043	
M-.MD.M.xx.A.0.25	1”	MD(*)	-		027010844	
M-.MD.M.xx.A.0.32	1”¼	MD(*)	-		027010944	
M-.MD.M.xx.A.0.40	1”½	MD(*)	-		027011044	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

MECHANICAL OPERATION

Model	Gas train	Operation	NGX400		NGX550	
			Code	Price €	Code	Price €
M-.PR.M.xx.A.0.25	1”	PR	027011143		-	
M-.PR.M.xx.A.0.32	1”¼	PR	027011243		-	
M-.PR.M.xx.A.0.40	1”½	PR	027011343		-	
M-.PR.M.xx.A.0.50	2”	PR	027011543		-	
M-.PR.S.xx.A.0.32	1”¼	PR	-		028010943	
M-.PR.L.xx.A.0.32	1”¼	PR	-		028011043	
M-.PR.S.xx.A.0.40	1”½	PR	-		028011143	
M-.PR.L.xx.A.0.40	1”½	PR	-		028011243	
M-.PR.S.xx.A.0.50	2”	PR	-		028011343	
M-.PR.L.xx.A.0.50	2”	PR	-		028011443	
M-.MD.M.xx.A.0.25	1”	MD(*)	027011144		-	
M-.MD.M.xx.A.0.32	1”¼	MD(*)	027011244		-	
M-.MD.M.xx.A.0.40	1”½	MD(*)	027011344		-	
M-.MD.M.xx.A.0.50	2”	MD(*)	027011544		-	
M-.MD.S.xx.A.0.32	1”¼	MD(*)	-		028010944	
M-.MD.L.xx.A.0.32	1”¼	MD(*)	-		028011044	
M-.MD.S.xx.A.0.40	1”½	MD(*)	-		028011144	
M-.MD.L.xx.A.0.40	1”½	MD(*)	-		028011244	
M-.MD.S.xx.A.0.50	2”	MD(*)	-		028011344	
M-.MD.L.xx.A.0.50	2”	MD(*)	-		028011444	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

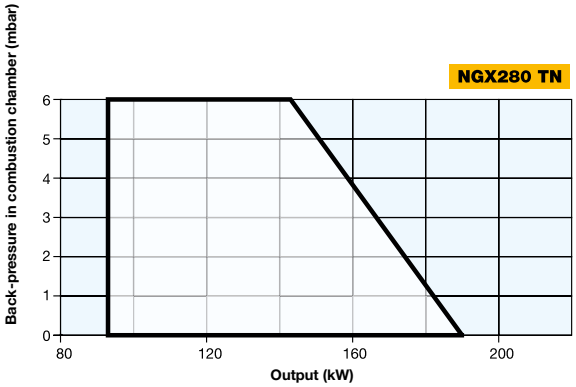
ELECTRONIC OPERATION

Model	Gas train	Operation	NGX280		NGX350	
			Code	Price €	Code	Price €
M-.PR.S.xx.A.1.25.EA	1”	PR	02701235A		-	
M-.PR.L.xx.A.1.25.EA	1”	PR	02701245A		-	
M-.PR.S.xx.A.1.32.EA	1”¼	PR	02701255A		-	
M-.PR.L.xx.A.1.32.EA	1”¼	PR	02701265A		-	
M-.PR.S.xx.A.1.40.EA	1”½	PR	02701275A		-	
M-.PR.L.xx.A.1.40.EA	1”½	PR	02701285A		-	
M-.MD.S.xx.A.1.25.EA	1”	MD(*)	02701235E		-	
M-.MD.L.xx.A.1.25.EA	1”	MD(*)	02701245E		-	
M-.MD.S.xx.A.1.32.EA	1”¼	MD(*)	02701255E		-	
M-.MD.L.xx.A.1.32.EA	1”¼	MD(*)	02701265E		-	
M-.MD.S.xx.A.1.40.EA	1”½	MD(*)	02701275E		-	
M-.MD.L.xx.A.1.40.EA	1”½	MD(*)	02701285E		-	
M-.PR.M.xx.A.1.25.EA	1”	PR	-		02701085A	
M-.PR.M.xx.A.1.32.EA	1”¼	PR	-		02701095A	
M-.PR.M.xx.A.1.40.EA	1”½	PR	-		02701105A	
M-.MD.M.xx.A.1.25.EA	1”	MD(*)	-		02701085E	
M-.MD.M.xx.A.1.32.EA	1”¼	MD(*)	-		02701095E	
M-.MD.M.xx.A.1.40.EA	1”½	MD(*)	-		02701105E	

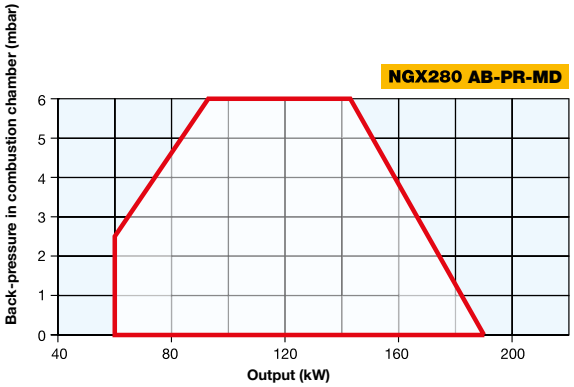
Model	Gas train	Operation	NGX400		NGX550	
			Code	Price €	Code	Price €
M-.PR.M.xx.A.1.25.EA	1”	PR	02701115A		-	
M-.PR.M.xx.A.1.32.EA	1”¼	PR	02701125A		-	
M-.PR.M.xx.A.1.40.EA	1”½	PR	02701135A		-	
M-.PR.M.xx.A.1.50.EA	2”	PR	02701155A		-	
M-.PR.S.xx.A.1.32.EA	1”¼	PR	-		02801095A	
M-.PR.L.xx.A.1.32.EA	1”¼	PR	-		02801105A	
M-.PR.S.xx.A.1.40.EA	1”½	PR	-		02801115A	
M-.PR.L.xx.A.1.40.EA	1”½	PR	-		02801125A	
M-.PR.S.xx.A.1.50.EA	2”	PR	-		02801135A	
M-.PR.L.xx.A.1.50.EA	2”	PR	-		02801145A	
M-.MD.M.xx.A.1.25.EA	1”	MD(*)	02701115E		-	
M-.MD.M.xx.A.1.32.EA	1”¼	MD(*)	02701125E		-	
M-.MD.M.xx.A.1.40.EA	1”½	MD(*)	02701135E		-	
M-.MD.M.xx.A.1.50.EA	2”	MD(*)	02701155E		-	
M-.MD.S.xx.A.1.32.EA	1”¼	MD(*)	-		02801095E	
M-.MD.L.xx.A.1.32.EA	1”¼	MD(*)	-		02801105E	
M-.MD.S.xx.A.1.40.EA	1”½	MD(*)	-		02801115E	
M-.MD.L.xx.A.1.40.EA	1”½	MD(*)	-		02801125E	
M-.MD.S.xx.A.1.50.EA	2”	MD(*)	-		02801135E	
M-.MD.L.xx.A.1.50.EA	2”	MD(*)	-		02801145E	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

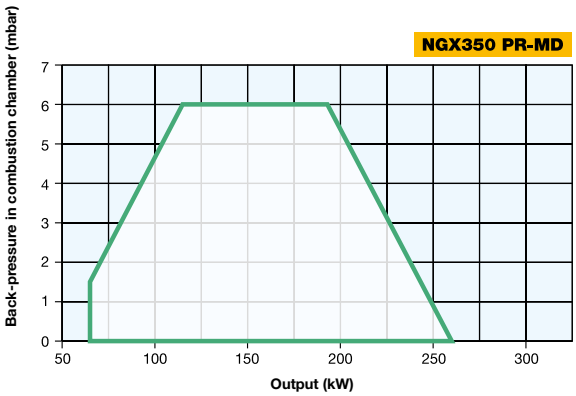
NGX280 TN



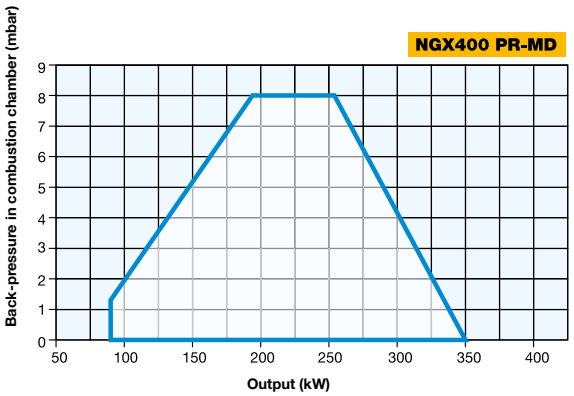
NGX280 AB-PR-MD



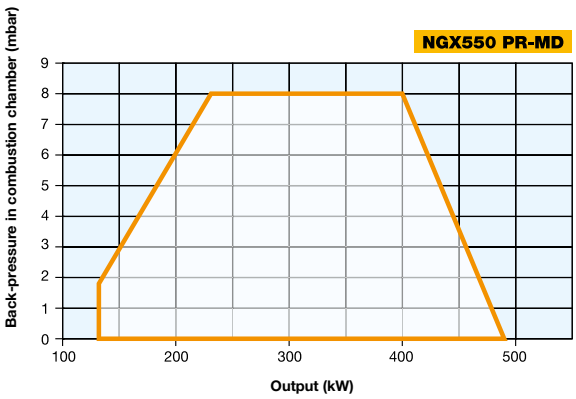
NGX350 PR-MD



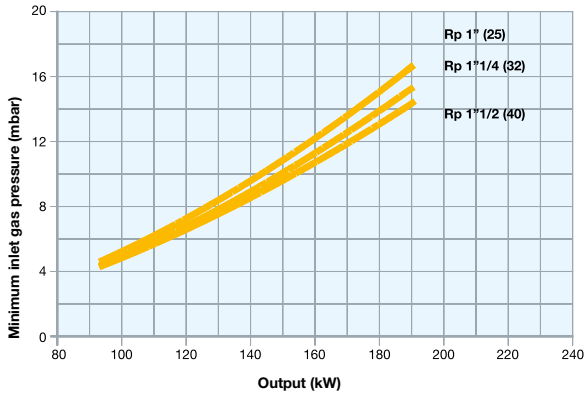
NGX400 PR-MD



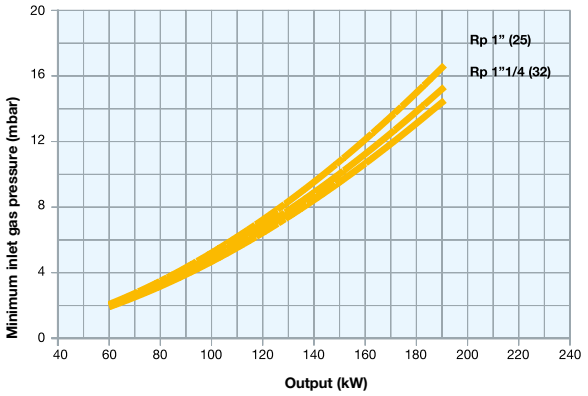
NGX550 PR-MD



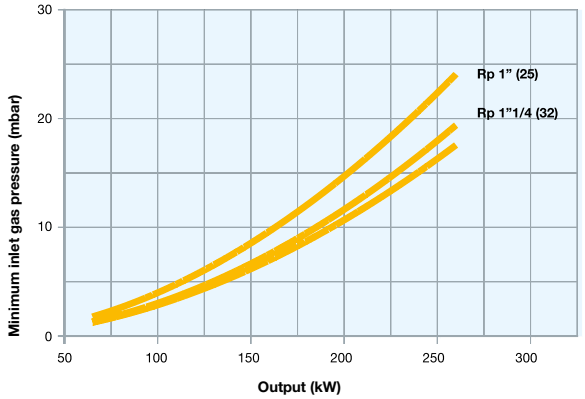
NGX280 TN



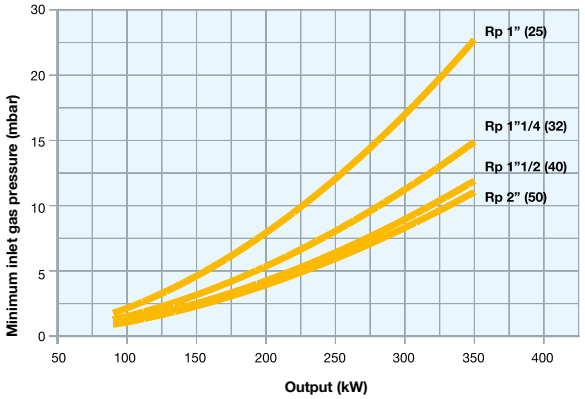
NGX280 AB-PR-MD



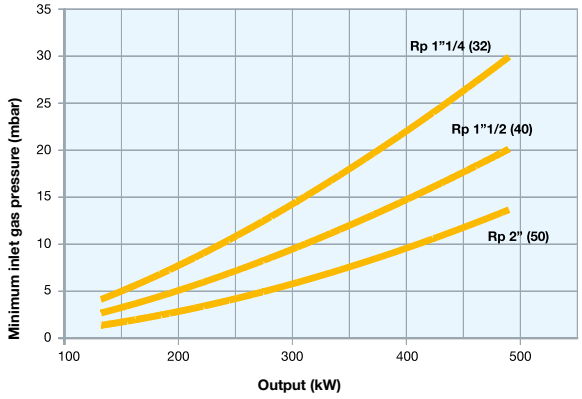
NGX350 PR-MD



NGX400 PR-MD



NGX550 PR-MD



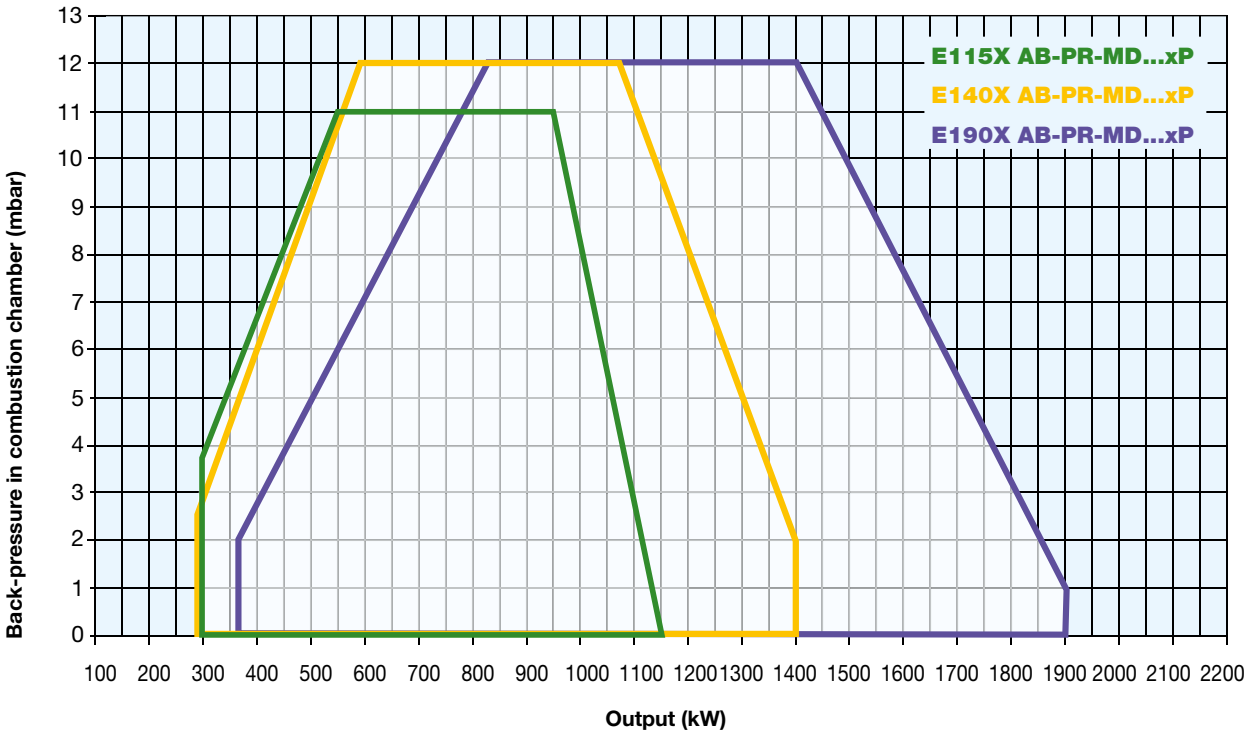
Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

NEW

GAS

E115X E140X E190X...xP tecnopress SERIES

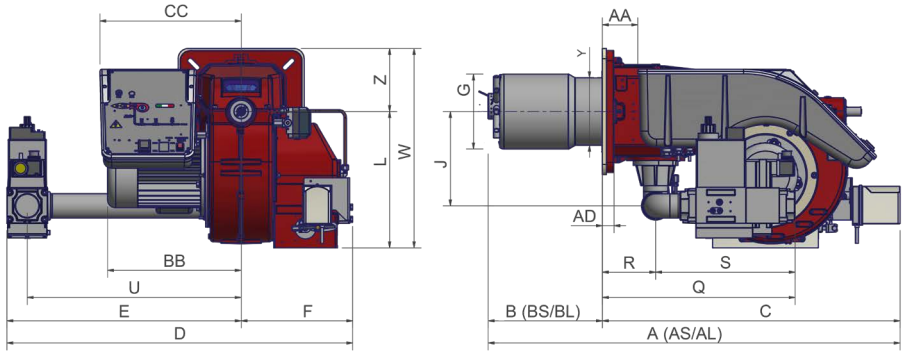
The TECNOPRESS series **Low NO_x Class 3 (< 80 mg/kWh)**, represents the average output range.
This series is the result of CIB UNIGAS great experience on burners with output up to 1.900 kW. It is characterized by simple mechanical or electronic adjusting procedure and simple maintenance, thanks to the accessible placement of the components.

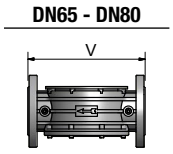


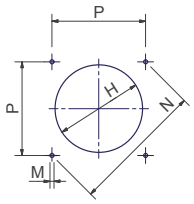
TECHNICAL DETAILS

Type	Model	Power kW		Electric power	Fan motor	Gas connections	Noise level
		min.	max.	supply	kW		dBA
E115X	M-.xx.xP.xx.A.0.xx	300	1.150	230/400 V 3N ac	2,2	1"½ - 2"- DN65 - DN80	< 80
E140X	M-.xx.xP.xx.A.1.xx	290	1.400	230/400 V 3N ac	2,2	1"½ - 2"- DN65 - DN80	< 80
E190X	M-.xx.xP.xx.A.1.xx	360	1.900	230/400 V 3N ac	3 ,0	1"½ - 2"- DN65 - DN80	< 80

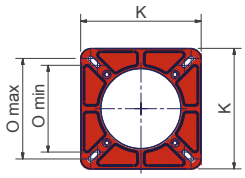
For the configuration of the gas train, see page 113.







Suggested boiler drilling



Burner flange

Type	Packaging dimensions** (mm)			
	l	p	h	kg
E115X	1465	815	800	115
E140X	1465	815	800	125
E190X*	1465	815	800	125

** Approximate values
* Approximate values (regarding model with gas train DN 80)

Type	Model	Overall dimensions** (mm)																													
		AA	AS	AL	BB	BS	BL	C	CC	D	E	F	G	H	I	J	K	L	M	N	O min.	O max.	P	Q	R	S	U	V	X	Y	Z
E115X	M-.xx.xP.xx.A.0.40	69	1170	1255	372	305	390	831	352	925	591	334	219	249	210	233	300	420	M10	330	216	250	233	457	130	327	541	-	575	210	155
E115X	M-.xx.xP.xx.A.0.50	69	1170	1255	372	305	390	831	352	860	526	334	219	249	210	233	300	420	M10	330	216	250	233	472	130	342	526	-	575	210	155
E115X	M-.xx.xP.xx.A.0.65	69	1170	1255	372	305	390	831	352	1052	718	334	219	249	210	233	300	420	M10	330	216	250	233	562	130	432	593	292	575	210	155
E115X	M-.xx.xP.xx.A.0.80	69	1170	1255	372	305	390	831	352	1026	692	334	219	249	210	233	300	420	M10	330	216	250	233	558	130	428	565	310	575	210	155
E140X	M-.xx.xP.xx.A.1.40	69	1265	1331	372	400	500	831	352	1050	716	334	259	280	210	233	300	453	M10	330	216	250	233	457	130	327	541	-	608	210	155
E140X	M-.xx.xP.xx.A.1.50	69	1265	1331	372	400	500	831	352	985	651	334	259	280	210	233	300	453	M10	330	216	250	233	472	130	342	526	-	608	210	155
E140X	M-.xx.xP.xx.A.1.65	69	1265	1331	372	400	500	831	352	1134	800	334	259	280	210	233	300	453	M10	330	216	250	233	562	130	432	593	292	608	210	155
E140X	M-.xx.xP.xx.A.1.80	69	1265	1331	372	400	500	831	352	1108	774	334	259	280	210	233	300	453	M10	330	216	250	233	562	130	432	565	310	608	210	155
E190X	M-.xx.xP.xx.A.1.40	69	1265	1365	403	400	500	831	352	1050	716	334	259	280	210	235	300	420	M10	330	216	250	233	457	130	327	541	-	575	210	155
E190X	M-.xx.xP.xx.A.1.50	69	1265	1365	403	400	500	831	352	985	651	334	259	280	210	235	300	453	M10	330	216	250	233	472	130	342	526	-	608	210	155
E190X	M-.xx.xP.xx.A.1.65	69	1265	1365	403	400	500	831	352	1134	800	334	259	280	210	235	300	453	M10	330	216	250	233	562	130	432	593	292	608	210	155
E190X	M-.xx.xP.xx.A.1.80	69	1265	1365	403	400	500	831	352	1108	774	334	259	280	210	235	300	453	M10	330	216	250	233	558	130	428	565	310	608	210	155

** Approximate values

MECHANICAL OPERATION

Model	Gas train	Operation	E115X...xP Code	E115X...xP Price €
M-.AB.SP.xx.A.0.40	1"½	AB	030014542	
M-.AB.LP.xx.A.0.40	1"½	AB	030014642	
M-.AB.SP.xx.A.0.50	2"	AB	030014742	
M-.AB.LP.xx.A.0.50	2"	AB	030014842	
M-.AB.SP.xx.A.0.65	DN65	AB	030014942	
M-.AB.LP.xx.A.0.65	DN65	AB	030015042	
M-.AB.SP.xx.A.0.80	DN80	AB	030015142	
M-.AB.LP.xx.A.0.80	DN80	AB	030015242	
M-.PR.SP.xx.A.0.40	1"½	PR	030014543	
M-.PR.LP.xx.A.0.40	1"½	PR	030014643	
M-.PR.SP.xx.A.0.50	2"	PR	030014743	
M-.PR.LP.xx.A.0.50	2"	PR	030014843	
M-.PR.SP.xx.A.0.65	DN65	PR	030014943	
M-.PR.LP.xx.A.0.65	DN65	PR	030015043	
M-.PR.SP.xx.A.0.80	DN80	PR	030015143	
M-.PR.LP.xx.A.0.80	DN80	PR	030015243	
M-.MD.SP.xx.A.0.40	1"½	MD(*)	030014544	
M-.MD.LP.xx.A.0.40	1"½	MD(*)	030014644	
M-.MD.SP.xx.A.0.50	2"	MD(*)	030014744	
M-.MD.LP.xx.A.0.50	2"	MD(*)	030014844	
M-.MD.SP.xx.A.0.65	DN65	MD(*)	030014944	
M-.MD.LP.xx.A.0.65	DN65	MD(*)	030015044	
M-.MD.SP.xx.A.0.80	DN80	MD(*)	030015144	
M-.MD.LP.xx.A.0.80	DN80	MD(*)	030015244	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

MECHANICAL OPERATION

Model	Gas train	Operation	E140X..xP		E190X...xP	
			Code	Price €	Code	Price €
M-.AB.SP.xx.A.1.40	1"½	AB	030015352		-	
M-.AB.LP.xx.A.1.40	1"½	AB	030015452		-	
M-.AB.SP.xx.A.1.50	2"	AB	030015552		030015952	
M-.AB.LP.xx.A.1.50	2"	AB	030015652		030016052	
M-.AB.SP.xx.A.1.65	DN65	AB	030015752		030016152	
M-.AB.LP.xx.A.1.65	DN65	AB	030015852		030016252	
M-.AB.SP.xx.A.1.80	DN80	AB	030015952		030016352	
M-.AB.LP.xx.A.1.80	DN80	AB	030016052		030016452	
M-.PR.SP.xx.A.1.40	1"½	PR	030015353		-	
M-.PR.LP.xx.A.1.40	1"½	PR	030015453		-	
M-.PR.SP.xx.A.1.50	2"	PR	030015553		030015953	
M-.PR.LP.xx.A.1.50	2"	PR	030015653		030016053	
M-.PR.SP.xx.A.1.65	DN65	PR	030015753		030016153	
M-.PR.LP.xx.A.1.65	DN65	PR	030015853		030016253	
M-.PR.SP.xx.A.1.80	DN80	PR	030015953		030016353	
M-.PR.LP.xx.A.1.80	DN80	PR	030016053		030016453	
M-.MD.SP.xx.A.1.40	1"½	MD(*)	030015354		-	
M-.MD.LP.xx.A.1.40	1"½	MD(*)	030015454		-	
M-.MD.SP.xx.A.1.50	2"	MD(*)	030015554		030015954	
M-.MD.LP.xx.A.1.50	2"	MD(*)	030015654		030016054	
M-.MD.SP.xx.A.1.65	DN65	MD(*)	030015754		030016154	
M-.MD.LP.xx.A.1.65	DN65	MD(*)	030015854		030016254	
M-.MD.SP.xx.A.1.80	DN80	MD(*)	030015954		030016354	
M-.MD.LP.xx.A.1.80	DN80	MD(*)	030016054		030016454	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

ELECTRONIC OPERATION

Model	Gas train	Operation	E115X...xP Code	E115X...xP Price €
M-.PR.SP.xx.A.1.40.EA	1"½	PR	03001455A	
M-.PR.LP.xx.A.1.40.EA	1"½	PR	03001465A	
M-.PR.SP.xx.A.1.50.EA	2"	PR	03001475A	
M-.PR.LP.xx.A.1.50.EA	2"	PR	03001485A	
M-.PR.SP.xx.A.1.65.EA	DN65	PR	03001495A	
M-.PR.LP.xx.A.1.65.EA	DN65	PR	03001505A	
M-.PR.SP.xx.A.1.80.EA	DN80	PR	03001515A	
M-.PR.LP.xx.A.1.80.EA	DN80	PR	03001525A	
M-.MD.SP.xx.A.1.40.EA	1"½	MD(*)	03001455E	
M-.MD.LP.xx.A.1.40.EA	1"½	MD(*)	03001465E	
M-.MD.SP.xx.A.1.50.EA	2"	MD(*)	03001475E	
M-.MD.LP.xx.A.1.50.EA	2"	MD(*)	03001485E	
M-.MD.SP.xx.A.1.65.EA	DN65	MD(*)	03001495E	
M-.MD.LP.xx.A.1.65.EA	DN65	MD(*)	03001505E	
M-.MD.SP.xx.A.1.80.EA	DN80	MD(*)	03001515E	
M-.MD.LP.xx.A.1.80.EA	DN80	MD(*)	03001525E	
M-.MD.SP.xx.A.1.40.ES	1"½	MD(*)	03001455S	
M-.MD.LP.xx.A.1.40.ES	1"½	MD(*)	03001465S	
M-.MD.SP.xx.A.1.50.ES	2"	MD(*)	03001475S	
M-.MD.LP.xx.A.1.50.ES	2"	MD(*)	03001485S	
M-.MD.SP.xx.A.1.65.ES	DN65	MD(*)	03001495S	
M-.MD.LP.xx.A.1.65.ES	DN65	MD(*)	03001505S	
M-.MD.SP.xx.A.1.80.ES	DN80	MD(*)	03001515S	
M-.MD.LP.xx.A.1.80.ES	DN80	MD(*)	03001525S	

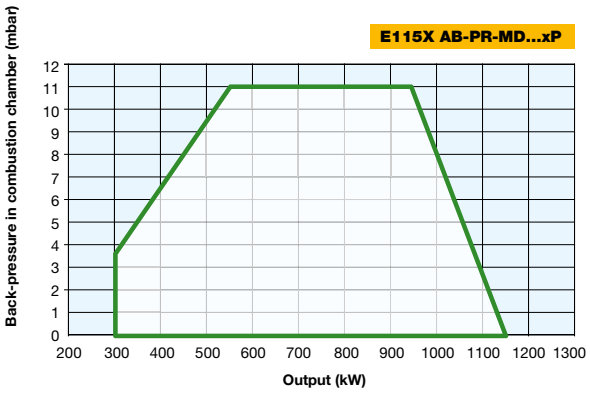
(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

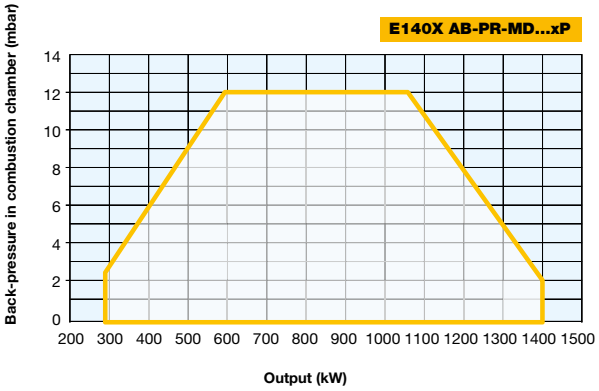
ELECTRONIC OPERATION

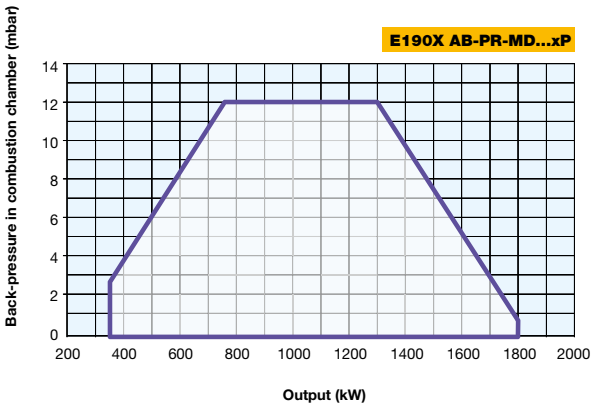
Model	Gas train	Operation	E140X..xP		E190X...xP	
			Code	Price €	Code	Price €
M-.PR.SP.xx.A.1.40.EA	1"½	PR	03001535A		03001935A	
M-.PR.LP.xx.A.1.40.EA	1"½	PR	03001545A		03001945A	
M-.PR.SP.xx.A.1.50.EA	2"	PR	03001555A		03001955A	
M-.PR.LP.xx.A.1.50.EA	2"	PR	03001565A		03001965A	
M-.PR.SP.xx.A.1.65.EA	DN65	PR	03001575A		03001975A	
M-.PR.LP.xx.A.1.65.EA	DN65	PR	03001585A		03001985A	
M-.PR.SP.xx.A.1.80.EA	DN80	PR	03001595A		03001995A	
M-.PR.LP.xx.A.1.80.EA	DN80	PR	03001605A		03001A05A	
M-.MD.SP.xx.A.1.40.EA	1"½	MD(*)	03001535E		03001935E	
M-.MD.LP.xx.A.1.40.EA	1"½	MD(*)	03001545E		03001945E	
M-.MD.SP.xx.A.1.50.EA	2"	MD(*)	03001555E		03001955E	
M-.MD.LP.xx.A.1.50.EA	2"	MD(*)	03001565E		03001965E	
M-.MD.SP.xx.A.1.65.EA	DN65	MD(*)	03001575E		03001975E	
M-.MD.LP.xx.A.1.65.EA	DN65	MD(*)	03001585E		03001985E	
M-.MD.SP.xx.A.1.80.EA	DN80	MD(*)	03001595E		03001995E	
M-.MD.LP.xx.A.1.80.EA	DN80	MD(*)	03001605E		03001A05E	
M-.MD.SP.xx.A.1.40.ES	1"½	MD(*)	03001535S		03001935S	
M-.MD.LP.xx.A.1.40.ES	1"½	MD(*)	03001545S		03001945S	
M-.MD.SP.xx.A.1.50.ES	2"	MD(*)	03001555S		03001955S	
M-.MD.LP.xx.A.1.50.ES	2"	MD(*)	03001565S		03001965S	
M-.MD.SP.xx.A.1.65.ES	DN65	MD(*)	03001575S		03001975S	
M-.MD.LP.xx.A.1.65.ES	DN65	MD(*)	03001585S		03001985S	
M-.MD.SP.xx.A.1.80.ES	DN80	MD(*)	03001595S		03001995S	
M-.MD.LP.xx.A.1.80.ES	DN80	MD(*)	03001605S		03001A05S	

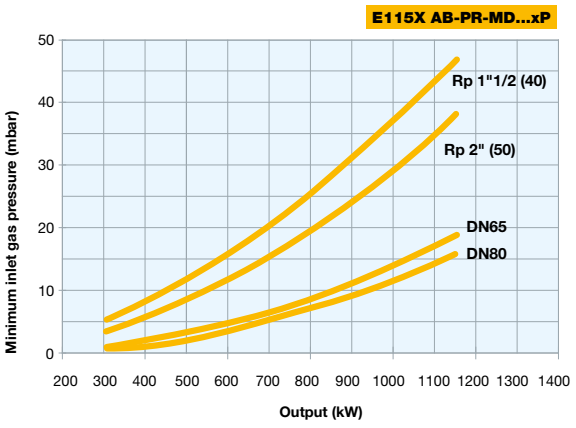
(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

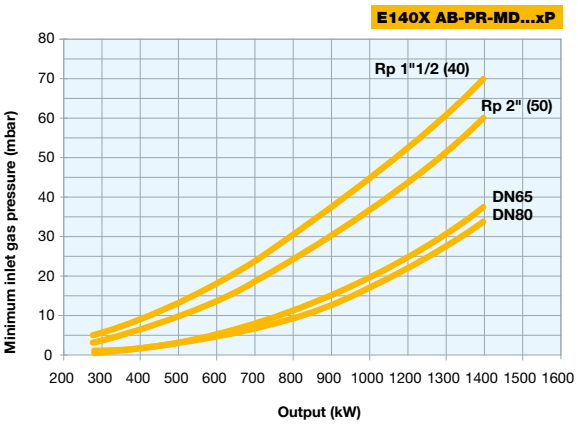
E115X E140X E190X...xP tecnopress SERIES

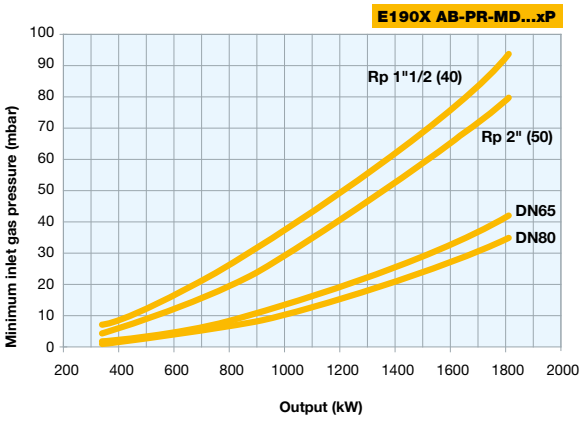










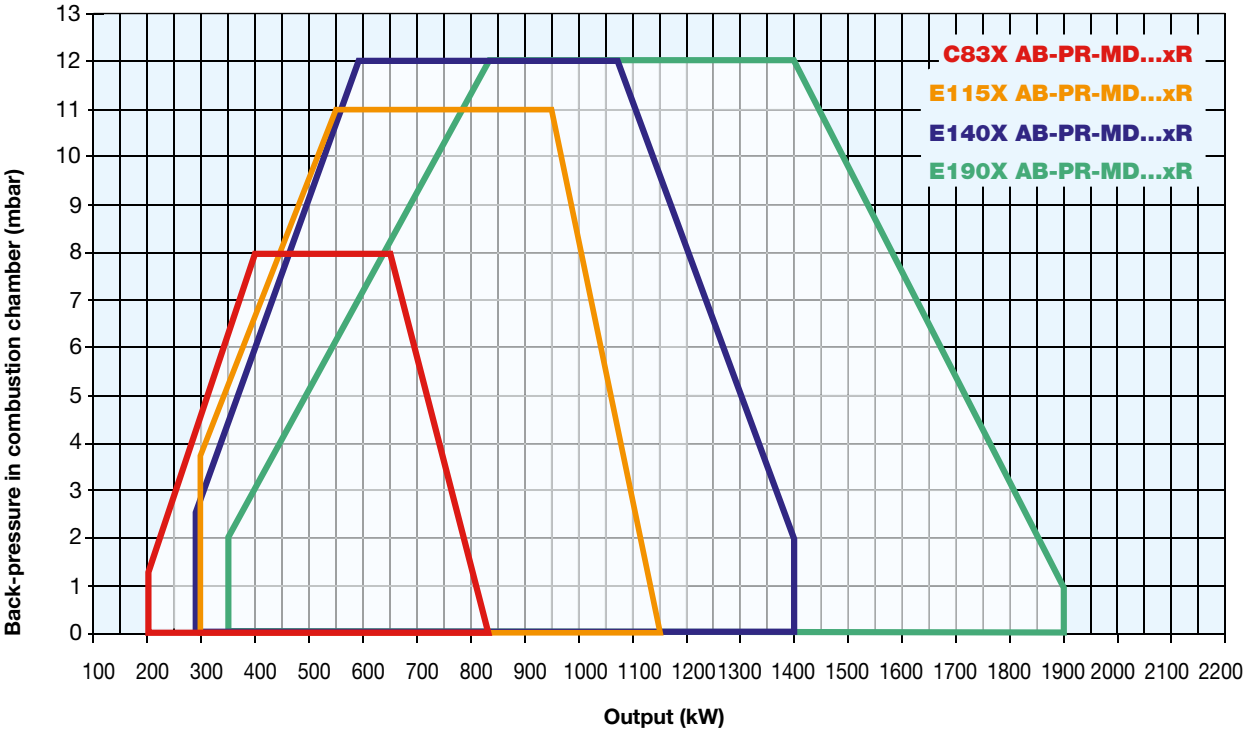


Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

C83X E115X E140X E190X...xR

GAS

TECNOPRESS burners **Low NO_x Class 3 (< 80 mg/kWh)**, represent the average output range. This series is the result of the CIB UNIGAS great experience on burners with output up to 1.900 kW. It is charaterized by simple mechanical or electronic adjusting procedure and simple maintenance, thanks to the accessible placement of the components.

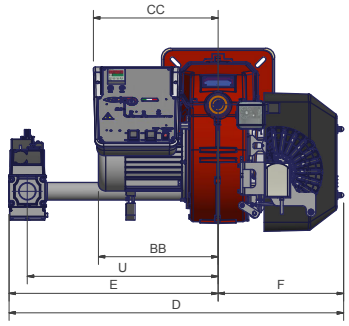


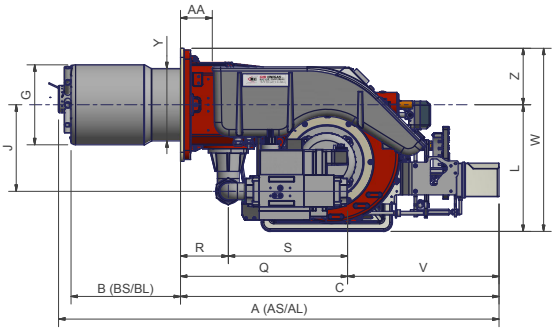
C83X E115X E140X E190X...xR tecnopress SERIES

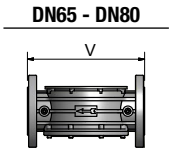
TECHNICAL DETAILS

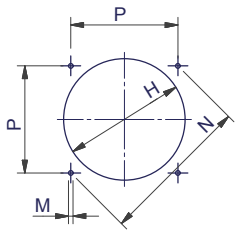
Type	Model	Power kW		Electric power	Fan motor	Gas connections	Noise level
		min.	max.	supply	kW		dBA
C83X	M-.xx.xR.xx.A.0.xx	200	830	230/400 V 3N ac	1,1	1"¼ - 1"½ - 2"- DN65	< 75
E115X	M-.xx.xR.xx.A.0.xx	300	1.150	230/400 V 3N ac	2,2	1"½ - 2"- DN65 - DN80	< 75
E140X	M-.xx.xR.xx.A.1.xx	290	1.400	230/400 V 3N ac	2,2	1"½ - 2"- DN65 - DN80	< 75
E190X	M-.xx.xR.xx.A.1.xx	360	1.900	230/400 V 3N ac	3,0	1"½ - 2"- DN65 - DN80	< 75

For the configuration of the gas train, see page 113.

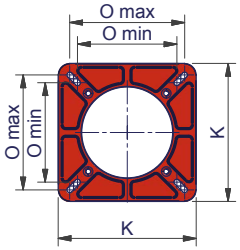








Suggested boiler drilling



Burner flange

Type	Packaging dimensions** (mm)			
	l	p	h	kg
C83X	1345	835	750	60
E115X	1465	815	800	115
E140X	1465	815	800	125
E190X*	1465	815	800	125

** Approximate values
* Approximate values (regarding model with gas train DN 80)

Type	Model	Overall dimensions** (mm)																												
		AA	AS	AL	BB	BS	BL	C	CC	D	E	F	G	H	I	J	K	L	M	N	O min.	O max.	P	Q	R	S	U	V	W	Y	Z
C83X	M-.xx.xR.xx.A.0.32	87	1207	1335	328	300	450	873	342	978	634	344	219	249	198	233	300	347	M10	330	216	250	233	387	131	256	540	-	502	198	155
C83X	M-.xx.xR.xx.A.0.40	87	1207	1335	328	300	450	873	342	978	634	344	219	249	198	233	300	347	M10	330	216	250	233	461	131	330	540	-	502	198	155
C83X	M-.xx.xR.xx.A.0.50	87	1207	1335	328	300	450	873	342	978	634	344	219	249	198	233	300	347	M10	330	216	250	233	471	131	340	525	-	502	198	155
C83X	M-.xx.xR.xx.A.0.65	87	1207	1335	328	300	450	873	342	1064	720	344	219	249	198	233	300	347	M10	330	216	250	233	571	131	440	593	292	502	198	155
E115X	M-.xx.xR.xx.A.0.40	69	1267	1352	372	305	390	928	352	953	591	362	219	249	210	233	300	453	M10	330	216	250	233	457	130	327	541	-	608	210	155
E115X	M-.xx.xR.xx.A.0.50	69	1267	1352	372	305	390	928	352	888	526	362	219	249	210	233	300	453	M10	330	216	250	233	472	130	342	526	-	608	210	155
E115X	M-.xx.xR.xx.A.0.65	69	1267	1352	372	305	390	928	352	1080	718	362	219	249	210	233	300	453	M10	330	216	250	233	562	130	432	593	292	608	210	155
E115X	M-.xx.xR.xx.A.0.80	69	1267	1352	372	305	390	928	352	1054	692	362	219	249	210	233	300	453	M10	330	216	250	233	558	130	428	565	310	608	210	155
E140X	M-.xx.xR.xx.A.1.40	69	1362	1428	372	400	500	928	352	1078	716	362	259	280	210	233	300	453	M10	330	216	250	233	457	130	327	541	-	608	210	155
E140X	M-.xx.xR.xx.A.1.50	69	1362	1428	372	400	500	928	352	1013	651	362	259	280	210	233	300	453	M10	330	216	250	233	472	130	342	526	-	608	210	155
E140X	M-.xx.xR.xx.A.1.65	69	1362	1428	372	400	500	928	352	1162	800	362	259	280	210	233	300	453	M10	330	216	250	233	562	130	432	593	292	608	210	155
E140X	M-.xx.xR.xx.A.1.80	69	1362	1428	372	400	500	928	352	1136	774	362	259	280	210	233	300	453	M10	330	216	250	233	562	130	432	565	310	608	210	155
E190X	M-.xx.xR.xx.A.1.40	69	1362	1462	403	400	500	928	352	1078	716	362	259	280	210	235	300	453	M10	330	216	250	233	457	130	327	541	-	608	210	155
E190X	M-.xx.xR.xx.A.1.50	69	1362	1462	403	400	500	928	352	1013	651	362	259	280	210	235	300	453	M10	330	216	250	233	472	130	342	526	-	608	210	155
E190X	M-.xx.xR.xx.A.1.65	69	1362	1462	403	400	500	928	352	1162	800	362	259	280	210	235	300	453	M10	330	216	250	233	562	130	432	593	292	608	210	155
E190X	M-.xx.xR.xx.A.1.80	69	1362	1462	403	400	500	928	352	1136	774	362	259	280	210	235	300	453	M10	330	216	250	233	558	130	428	565	310	608	210	155

** Approximate values

MECHANICAL OPERATION

Model	Gas train	Operation	C83X...xR Code	C83X...xR Price €	E115X...xR Code	E115X...xR Price €
M-.AB.SR.xx.A.0.32	1"¼	AB	033014142		-	
M-.AB.LR.xx.A.0.32	1"¼	AB	033014242		-	
M-.AB.SR.xx.A.0.40	1"½	AB	033014342		030012942	
M-.AB.LR.xx.A.0.40	1"½	AB	033014442		030013042	
M-.AB.SR.xx.A.0.50	2"	AB	033014542		030013142	
M-.AB.LR.xx.A.0.50	2"	AB	033014642		030013242	
M-.AB.SR.xx.A.0.65	DN65	AB	033014742		030013342	
M-.AB.LR.xx.A.0.65	DN65	AB	033014842		030013442	
M-.AB.SR.xx.A.0.80	DN80	AB	-		030013542	
M-.AB.LR.xx.A.0.80	DN80	AB	-		030013642	
M-.PR.SR.xx.A.0.32	1"¼	PR	033014143		-	
M-.PR.LR.xx.A.0.32	1"¼	PR	033014243		-	
M-.PR.SR.xx.A.0.40	1"½	PR	033014343		030012943	
M-.PR.LR.xx.A.0.40	1"½	PR	033014443		030013043	
M-.PR.SR.xx.A.0.50	2"	PR	033014543		030013143	
M-.PR.LR.xx.A.0.50	2"	PR	033014643		030013243	
M-.PR.SR.xx.A.0.65	DN65	PR	033014743		030013343	
M-.PR.LR.xx.A.0.65	DN65	PR	033014843		030013443	
M-.PR.SR.xx.A.0.80	DN80	PR	-		030013543	
M-.PR.LR.xx.A.0.80	DN80	PR	-		030013643	
M-.MD.SR.xx.A.0.32	1"¼	AB	033014144		-	
M-.MD.LR.xx.A.0.32	1"¼	AB	033014244		-	
M-.MD.SR.xx.A.0.40	1"½	MD(*)	033014344		030012944	
M-.MD.LR.xx.A.0.40	1"½	MD(*)	033014444		030013044	
M-.MD.SR.xx.A.0.50	2"	MD(*)	033014544		030013144	
M-.MD.LR.xx.A.0.50	2"	MD(*)	033014644		030013244	
M-.MD.SR.xx.A.0.65	DN65	MD(*)	033014744		030013344	
M-.MD.LR.xx.A.0.65	DN65	MD(*)	033014844		030013444	
M-.MD.SR.xx.A.0.80	DN80	MD(*)	-		030013544	
M-.MD.LR.xx.A.0.80	DN80	MD(*)	-		030013644	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

MECHANICAL OPERATION

Model	Gas train	Operation	E140X...xR		E190X...xR	
			Code	Price €	Code	Price €
M-.AB.SR.xx.A.1.40	1"½	AB	030016752		030018552	
M-.AB.LR.xx.A.1.40	1"½	AB	030016852		030018652	
M-.AB.SR.xx.A.1.50	2"	AB	030016152		030018752	
M-.AB.LR.xx.A.1.50	2"	AB	030016252		030018852	
M-.AB.SR.xx.A.1.65	DN65	AB	030016352		030018952	
M-.AB.LR.xx.A.1.65	DN65	AB	030016452		030019052	
M-.AB.SR.xx.A.1.80	DN80	AB	030016552		030019152	
M-.AB.LR.xx.A.1.80	DN80	AB	030016652		030019252	
M-.PR.SR.xx.A.1.40	1"½	PR	030016753		030018553	
M-.PR.LR.xx.A.1.40	1"½	PR	030016853		030018653	
M-.PR.SR.xx.A.1.50	2"	PR	030016153		030018753	
M-.PR.LR.xx.A.1.50	2"	PR	030016253		030018853	
M-.PR.SR.xx.A.1.65	DN65	PR	030016353		030018953	
M-.PR.LR.xx.A.1.65	DN65	PR	030016453		030019053	
M-.PR.SR.xx.A.1.80	DN80	PR	030016553		030019153	
M-.PR.LR.xx.A.1.80	DN80	PR	030016653		030019253	
M-.MD.SR.xx.A.1.40	1"½	MD(*)	030016754		030018554	
M-.MD.LR.xx.A.1.40	1"½	MD(*)	030016854		030018654	
M-.MD.SR.xx.A.1.50	2"	MD(*)	030016154		030018754	
M-.MD.LR.xx.A.1.50	2"	MD(*)	030016254		030018854	
M-.MD.SR.xx.A.1.65	DN65	MD(*)	030016354		030018954	
M-.MD.LR.xx.A.1.65	DN65	MD(*)	030016454		030019054	
M-.MD.SR.xx.A.1.80	DN80	MD(*)	030016554		030019154	
M-.MD.LR.xx.A.1.80	DN80	MD(*)	030016654		030019254	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

ELECTRONIC OPERATION

Model	Gas train	Operation	C83X...xR Code	C83X...xR Price €	E115X...xR Code	E115X...xR Price €
M-.PR.SR.xx.A.1.32.EA	1"¼	PR	03301415A		-	
M-.PR.LR.xx.A.1.32.EA	1"¼	PR	03301425A		-	
M-.PR.SR.xx.A.1.40.EA	1"½	PR	03301435A		03001295A	
M-.PR.LR.xx.A.1.40.EA	1"½	PR	03301445A		03001305A	
M-.PR.SR.xx.A.1.50.EA	2"	PR	03301455A		03001315A	
M-.PR.LR.xx.A.1.50.EA	2"	PR	03301465A		03001325A	
M-.PR.SR.xx.A.1.65.EA	DN65	PR	03301475A		03001335A	
M-.PR.LR.xx.A.1.65.EA	DN65	PR	03301485A		03001345A	
M-.PR.SR.xx.A.1.80.EA	DN80	PR	-		03001355A	
M-.PR.LR.xx.A.1.80.EA	DN80	PR	-		03001365A	
M-.MD.SR.xx.A.1.32.EA	1"¼	MD(*)	03301415E		-	
M-.MD.LR.xx.A.1.32.EA	1"¼	MD(*)	03301425E		-	
M-.MD.SR.xx.A.1.40.EA	1"½	MD(*)	03301435E		03001295E	
M-.MD.LR.xx.A.1.40.EA	1"½	MD(*)	03301445E		03001305E	
M-.MD.SR.xx.A.1.50.EA	2"	MD(*)	03301455E		03001315E	
M-.MD.LR.xx.A.1.50.EA	2"	MD(*)	03301465E		03001325E	
M-.MD.SR.xx.A.1.65.EA	DN65	MD(*)	03301475E		03001335E	
M-.MD.LR.xx.A.1.65.EA	DN65	MD(*)	03301485E		03001345E	
M-.MD.SR.xx.A.1.80.EA	DN80	MD(*)	-		03001355E	
M-.MD.LR.xx.A.1.80.EA	DN80	MD(*)	-		03001365E	
M-.MD.SR.xx.A.1.32.ES	1"¼	MD(*)	03301415S		-	
M-.MD.LR.xx.A.1.32.ES	1"¼	MD(*)	03301425S		-	
M-.MD.SR.xx.A.1.40.ES	1"½	MD(*)	03301435S		03001295S	
M-.MD.LR.xx.A.1.40.ES	1"½	MD(*)	03301445S		03001305S	
M-.MD.SR.xx.A.1.50.ES	2"	MD(*)	03301455S		03001315S	
M-.MD.LR.xx.A.1.50.ES	2"	MD(*)	03301465S		03001325S	
M-.MD.SR.xx.A.1.65.ES	DN65	MD(*)	03301475S		03001335S	
M-.MD.LR.xx.A.1.65.ES	DN65	MD(*)	03301485S		03001345S	
M-.MD.SR.xx.A.1.80.ES	DN80	MD(*)	-		03001355S	
M-.MD.LR.xx.A.1.80.ES	DN80	MD(*)	-		03001365S	

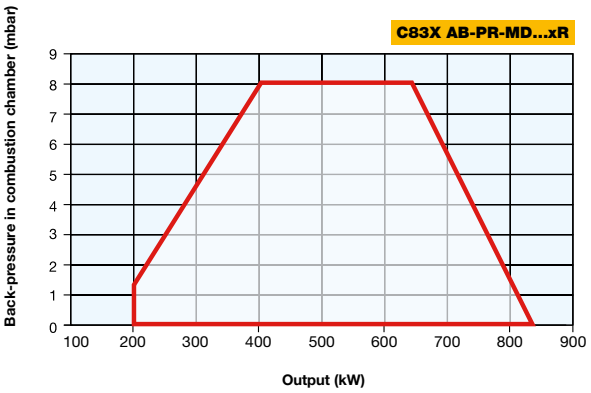
(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

ELECTRONIC OPERATION

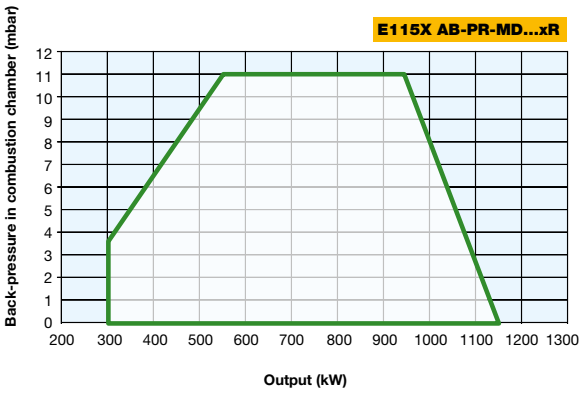
Model	Gas train	Operation	E140X...xR Code	E140X...xR Price €	E190X...xR Code	E190X...xR Price €
M-.PR.SR.xx.A.1.40.EA	1"½	PR	03001675A		03001855A	
M-.PR.LR.xx.A.1.40.EA	1"½	PR	03001685A		03001865A	
M-.PR.SR.xx.A.1.50.EA	2"	PR	03001615A		03001875A	
M-.PR.LR.xx.A.1.50.EA	2"	PR	03001625A		03001885A	
M-.PR.SR.xx.A.1.65.EA	DN65	PR	03001635A		03001895A	
M-.PR.LR.xx.A.1.65.EA	DN65	PR	03001645A		03001905A	
M-.PR.SR.xx.A.1.80.EA	DN80	PR	03001655A		03001915A	
M-.PR.LR.xx.A.1.80.EA	DN80	PR	03001665A		03001925A	
M-.MD.SR.xx.A.1.40.EA	1"½	MD(*)	03001675E		03001855E	
M-.MD.LR.xx.A.1.40.EA	1"½	MD(*)	03001685E		03001865E	
M-.MD.SR.xx.A.1.50.EA	2"	MD(*)	03001615E		03001875E	
M-.MD.LR.xx.A.1.50.EA	2"	MD(*)	03001625E		03001885E	
M-.MD.SR.xx.A.1.65.EA	DN65	MD(*)	03001635E		03001895E	
M-.MD.LR.xx.A.1.65.EA	DN65	MD(*)	03001645E		03001905E	
M-.MD.SR.xx.A.1.80.EA	DN80	MD(*)	03001655E		03001915E	
M-.MD.LR.xx.A.1.80.EA	DN80	MD(*)	03001665E		03001925E	
M-.MD.SR.xx.A.1.40.ES	1"½	MD(*)	03001675S		03001855S	
M-.MD.LR.xx.A.1.40.ES	1"½	MD(*)	03001685S		03001865S	
M-.MD.SR.xx.A.1.50.ES	2"	MD(*)	03001615S		03001875S	
M-.MD.LR.xx.A.1.50.ES	2"	MD(*)	03001625S		03001885S	
M-.MD.SR.xx.A.1.65.ES	DN65	MD(*)	03001635S		03001895S	
M-.MD.LR.xx.A.1.65.ES	DN65	MD(*)	03001645S		03001905S	
M-.MD.SR.xx.A.1.80.ES	DN80	MD(*)	03001655S		03001915S	
M-.MD.LR.xx.A.1.80.ES	DN80	MD(*)	03001665S		03001925S	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192).
In compliance with GAR DIRECTIVE 2016/426/EU

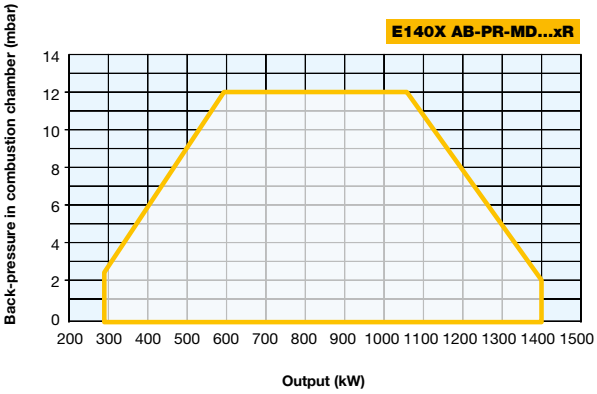
C83X AB-PR-MD...xR



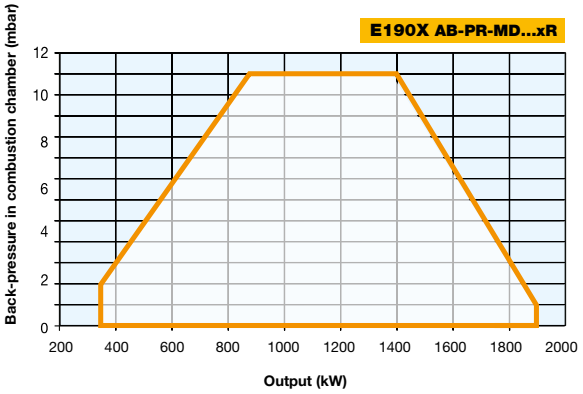
E115X AB-PR-MD...xR



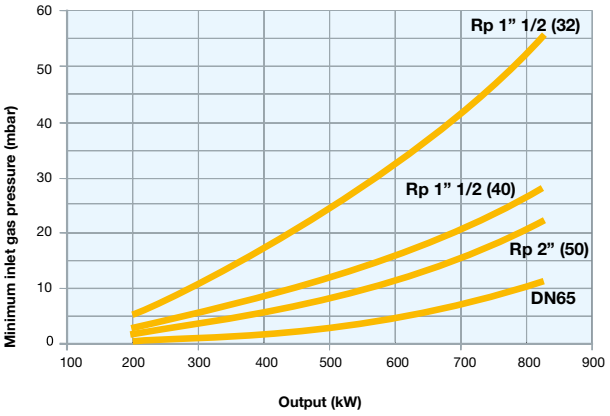
E140X AB-PR-MD...xR



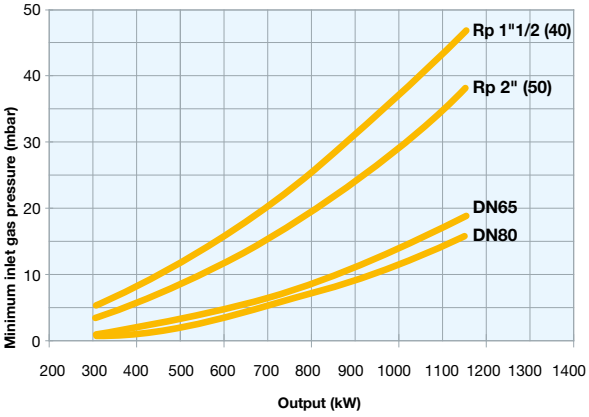
E190X AB-PR-MD...xR



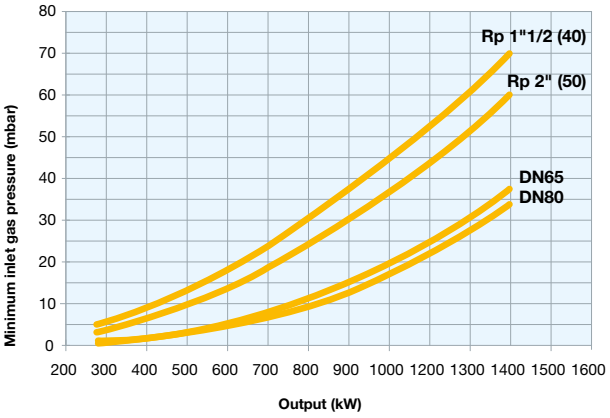
C83X AB-PR-MD...xR



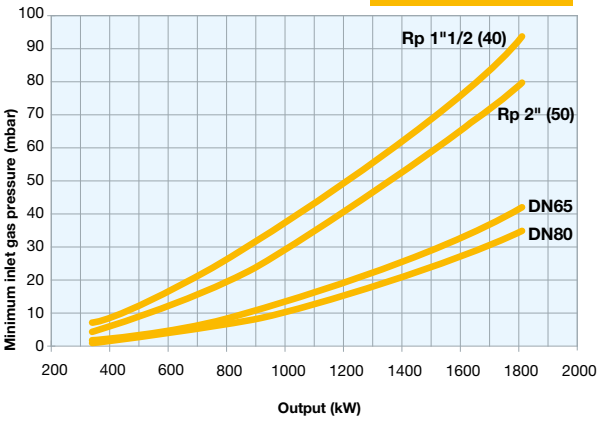
E115X AB-PR-MD...xR



E140X AB-PR-MD...xR



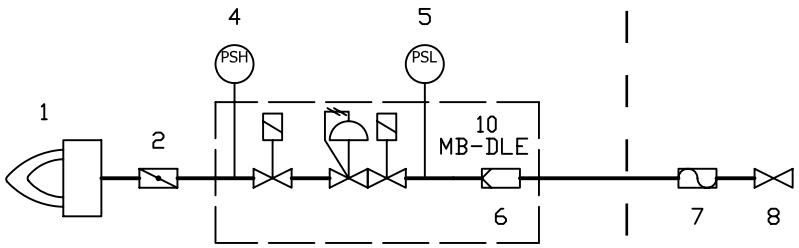
E190X AB-PR-MD...xR



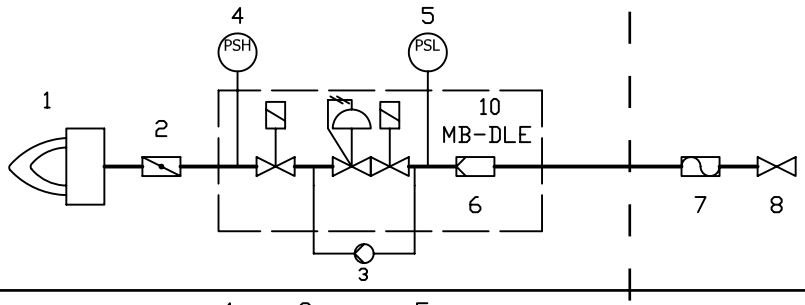
Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

MANUFACTURER | INSTALLER

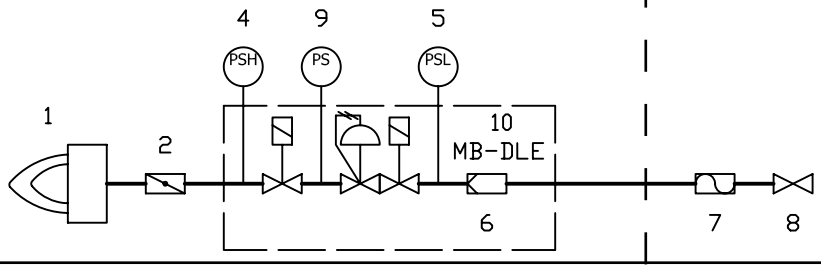
Gas train with valves group MB-DLE
(2 valves + gas filter + pressure governor).



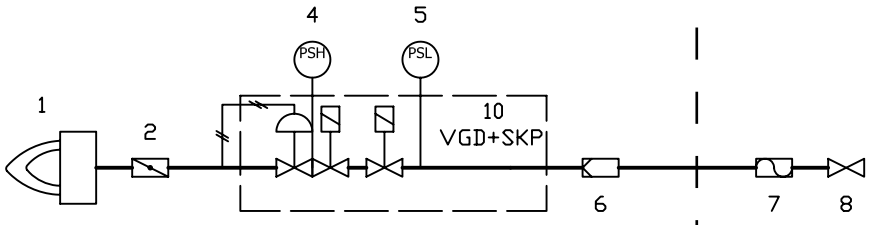
Gas train with valves group MB-DLE
(2 valves + gas filter + pressure
governor) + leakage control VPS504.



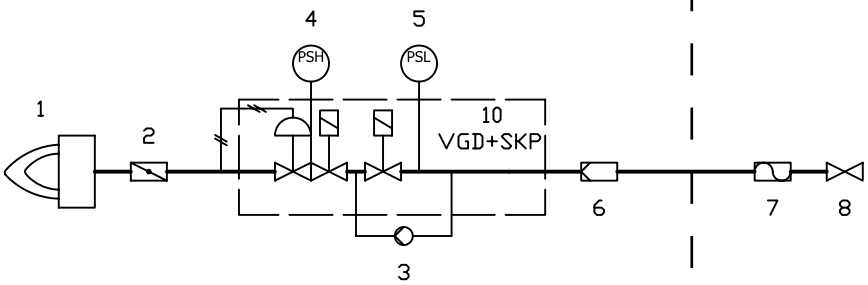
Gas train with valves group MB-DLE
(2 valves + gas filter + pressure
governor) + leakage control pressure
switch.



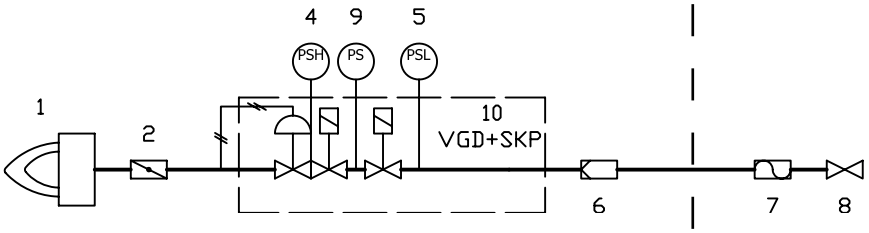
Gas train with valves group VGD
with built-in gas pressure governor.



Gas train with valves group VGD
with built-in gas pressure governor +
leakage control VPS504.



Gas train with valves group VGD
with built-in gas pressure governor +
leakage control pressure switch



KEY

1 Burner
2 Butterfly valve
3 Leakage control device (optional if output < 1200 kW))
4 Maximum gas pressure switch (optional)
5 Minimum gas pressure switch
6 Gas filter
7 Anti-vibrating joint
8 Manual cut off valve
9 Leakage control pressure switch (optional if output < 1200 kW)
10 Valves group

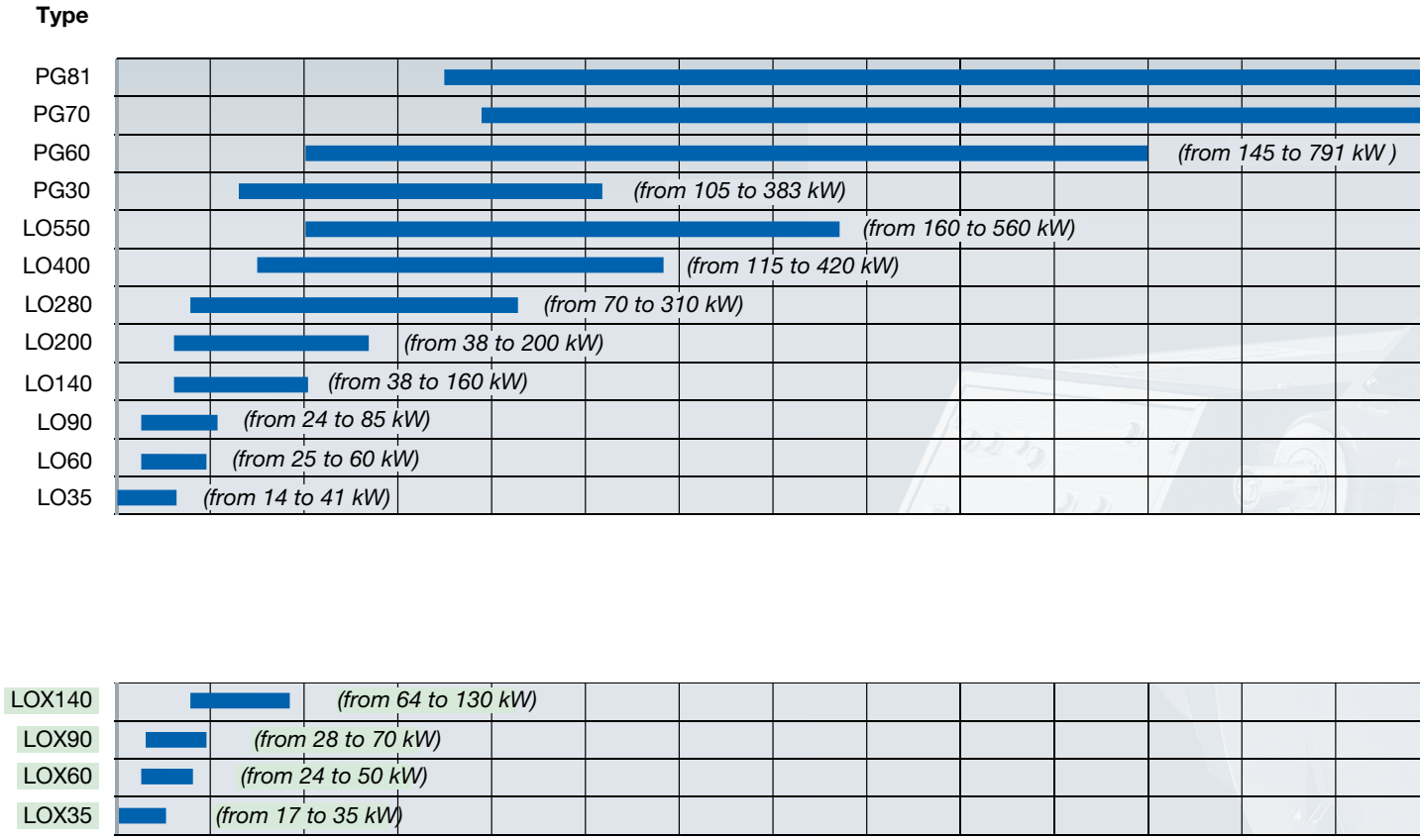
LIGHT OIL BURNERS

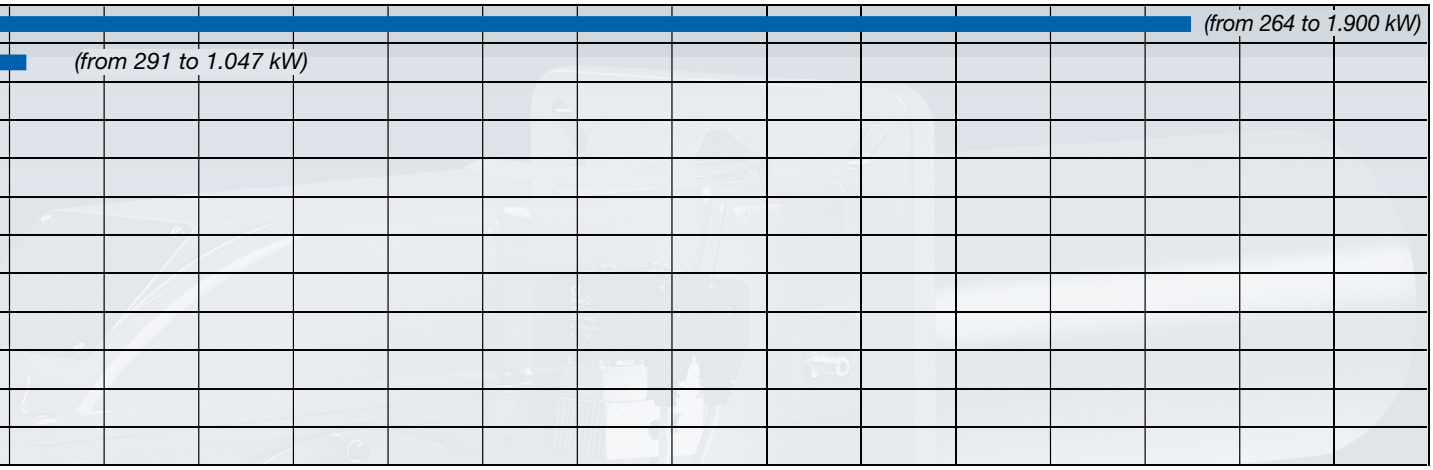
idea series

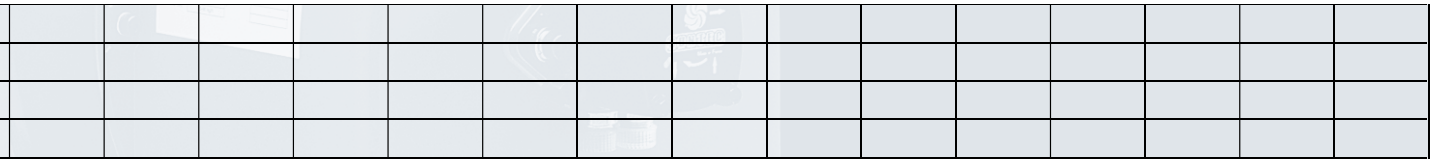
LO35 - TN
LO60 - TN/AB
LO90 - TN/AB
LO140 - TN/AB
LO200 - TN/AB
LO280 - TN/AB
LO400 - TN/AB
LO550 - TN/AB
LOX35 - TN
LOX60 - TN
LOX90 - TN
LOX140 - TN

tecnopress series

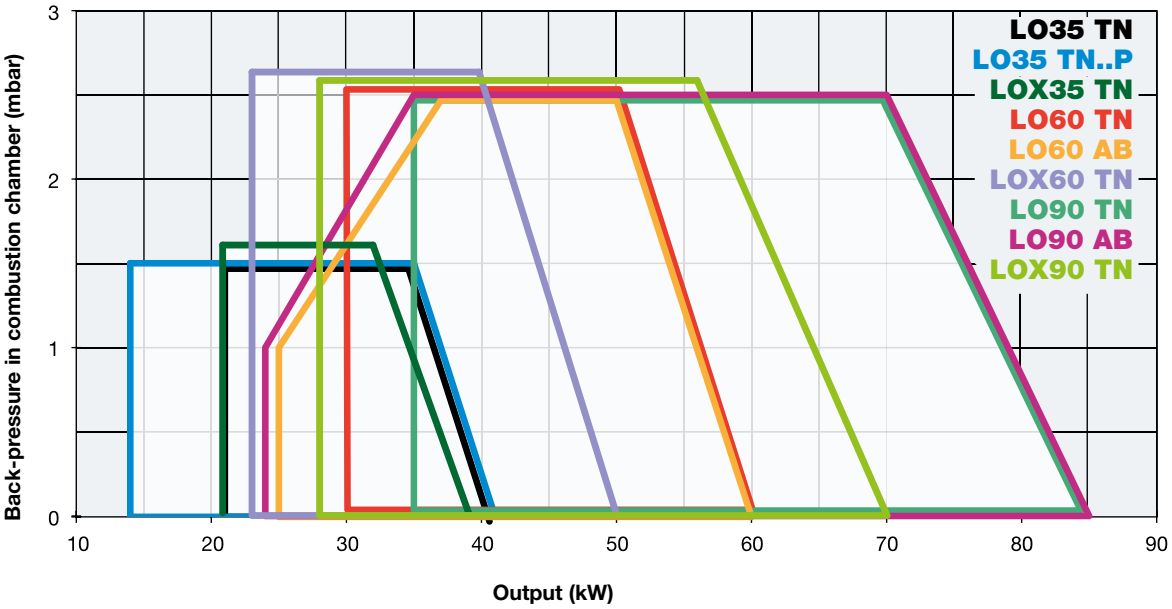
PG30 - AB/PR/MD
PG60 - AB/PR/MD
PG70 - AB/PR/MD
PG81 - AB/PR/MD




(from 264 to 1.900 kW)
(from 291 to 1.047 kW)



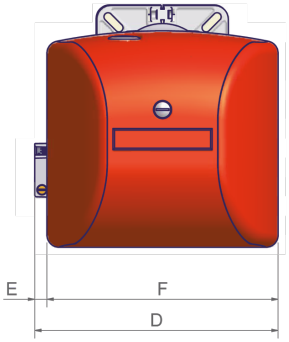
These light oil burners cover most of the civil installations and represent the best solution in terms of design and reliability. IDEA burners satisfy the specific requirements of the market, ensuring the maximum efficiency of the performance and easy maintenance. In particular, the removable baking plate of the components - common to the whole IDEA seires - simplifies the technical assistance operations ensuring shorter maintenance times and great maneuverability.
Recently the new LOW NO_x series has been implemented.

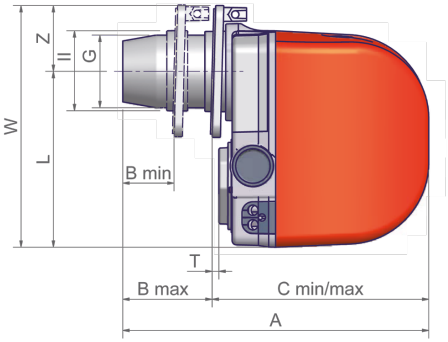


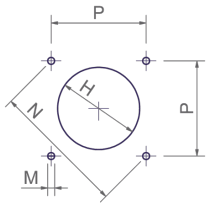
LO35 LOX35 LO60 LOX60 LO90 LOX90 idea SERIES

TECHNICAL DETAILS

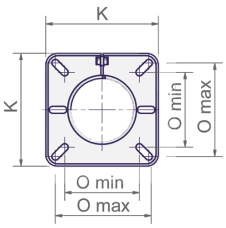
Type	Model	Power kW		Electric power	Fan motor
		min.	max.		kW
LO35	G-.TN.x.xx.A	21	41	230 V 1N ac	0,075
LO35	G-.TN.x.xx.A.P	14	41	230 V 1N ac	0,075
LOX35	G-.TN.x.xx.A	17	35	230 V 1N ac	0,075
LO60	G-.TN.x.xx.A	30	60	230 V 1N ac	0,10
LO60	G-.AB.x.xx.A	25	60	230 V 1N ac	0,10
LOX60	G-.TN.x.xx.A	24	50	230 V 1N ac	0,10
LO90	G-.TN.x.xx.A	35	85	230 V 1N ac	0,10
LO90	G-.AB.x.xx.A	24	85	230 V 1N ac	0,10
LOX90	G-.TN.x.xx.A	28	70	230 V 1N ac	0,10







Suggested boiler drilling



Burner flange

Type	Packaging dimensions** (mm)			
	l	p	h	kg
LO35	290	260	490	10
LOX35	290	260	490	10
LO60	400	300	520	14
LOX60	400	300	520	14
LO90	400	300	520	14
LOX90	400	300	520	14

** Approximate values

Type	Model	Overall dimensions** (mm)																				
		A	B		C		D	E	F	G	H	II	K	L	M	N	O		P	T	W	Z
			min.	max.	min.	max.											min.	max.		min.		
LO35	G-.TN.S.xx.A	338	58	100	238	280	269	14	255	80	95	88	145	194	M8	153	96	120	108	6	266	72
LO35	G-.TN.L.xx.A	416	58	178	238	358	269	14	255	80	95	88	145	194	M8	153	96	120	108	6	266	72
LOX35	G-.TN.S.xx.A	338	58	100	238	280	269	14	255	80	95	88	145	194	M8	153	96	120	108	6	266	72
LOX35	G-.TN.L.xx.A	416	58	178	238	358	269	14	255	80	95	88	145	194	M8	153	96	120	108	6	266	72
LO60	G-.xx.S.xx.A	365	58	71	274	307	305	14	291	80	95	88	145	218	M8	153	96	120	108	2	291	72
LO60	G-.xx.L.xx.A	443	58	169	274	385	305	14	291	80	95	88	145	218	M8	153	96	120	108	2	291	72
LOX60	G-.TN.S.xx.A	365	58	71	274	307	305	14	291	80	95	88	145	218	M8	153	96	120	108	2	291	72
LOX60	G-.TN.L.xx.A	443	58	169	274	385	305	14	291	80	95	88	145	218	M8	153	96	120	108	2	291	72
LO90	G-.xx.S.xx.A	365	58	71	294	307	305	14	291	80	95	88	145	218	M8	153	96	120	108	2	291	72
LO90	G-.xx.L.xx.A	443	58	149	294	385	305	14	291	80	95	88	145	218	M8	153	96	120	108	2	291	72
LOX90	G-.TN.S.xx.A	365	58	71	294	307	305	14	291	80	95	88	145	218	M8	153	96	120	108	2	291	72
LOX90	G-.TN.L.xx.A	443	58	149	294	385	305	14	291	80	95	88	145	218	M8	153	96	120	108	2	291	72

** Approximate values

MECHANICAL OPERATION

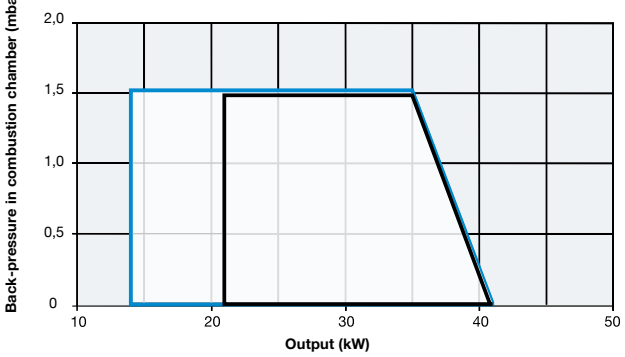
Model	Operation	LO35 Code	LO35 Price €	LO60 Code	LO60 Price €	LO90 Code	LO90 Price €
G-.TN.S.xx.A	TN	024050101		025050901		025050101	
G-.TN.L.xx.A	TN	024050201		025051001		025050201	
G-.TN.S.xx.Z ◆	TN	024050501		-		-	
G-.TN.L.xx.Z ◆	TN	024050601		-		-	
G-.TN.S.xx.A.P ❖	TN	024050301		-		-	
G-.TN.L.xx.A.P ❖	TN	024050401		-		-	
G-.TN.S.xx.Z.P ◆❖	TN	024050701		-		-	
G-.TN.L.xx.Z.P ◆❖	TN	024050801		-		-	
G-.AB.S.xx.A	AB	-		025050902		025050102	
G-.AB.L.xx.A	AB	-		025051002		025050202	

		LOX35	LOX60	LOX90
G-.TN.S.xx.A	TN	024051101	025051901	025052101
G-.TN.L.xx.A	TN	024050201	025052001	025052201

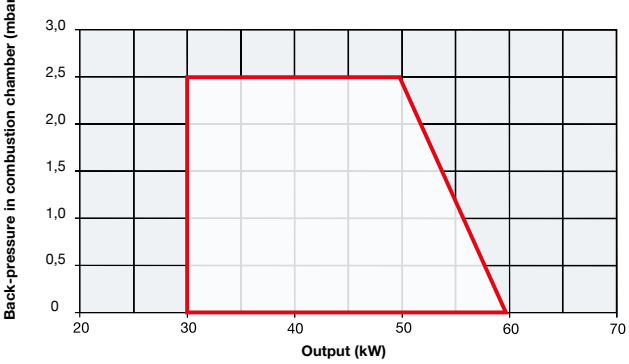
◆ Burner equipped with external air inlet
❖ Burner provided with pre-heating system on the atomization group
In compliance with:
Low Tension Directive 2014/35/UE
Electromagnetic Compatibility Directive 2014/30/UE
Machinery Directive 2006/42/CE

LO35 LOX35 LO60 LOX60 LO90 LOX90 idea SERIES

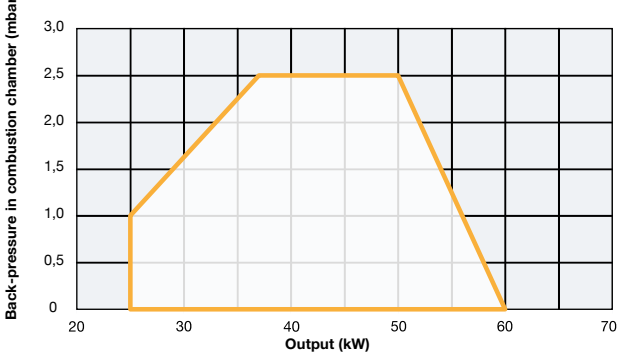
LO35 TN **LO35 TN..P**



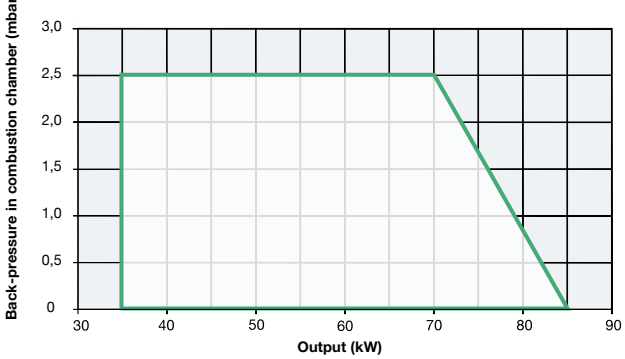
LO60 TN



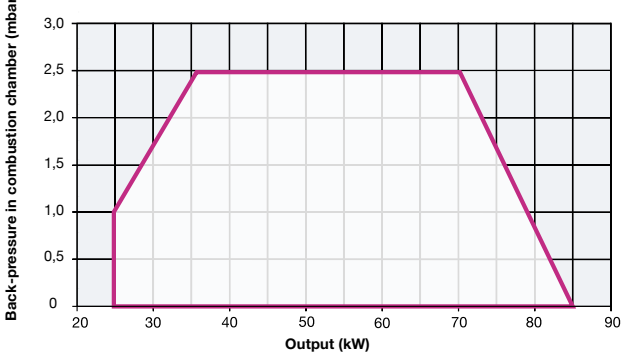
LO60 AB



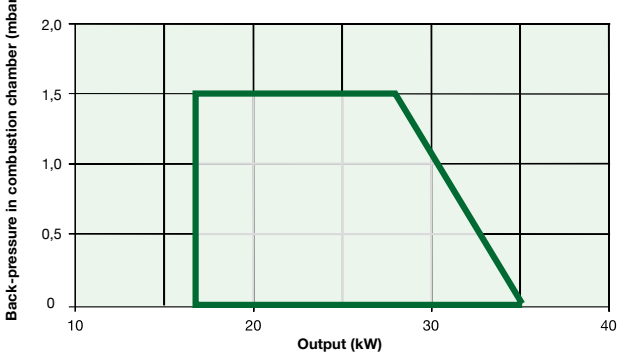
LO90 TN



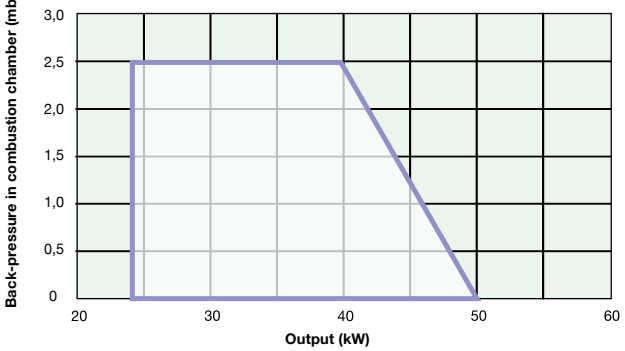
LO90 AB



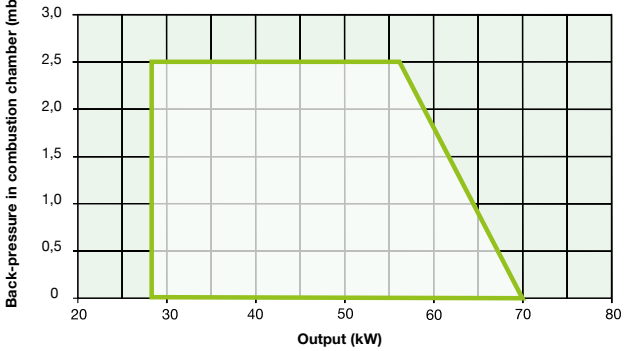
LOX35 TN



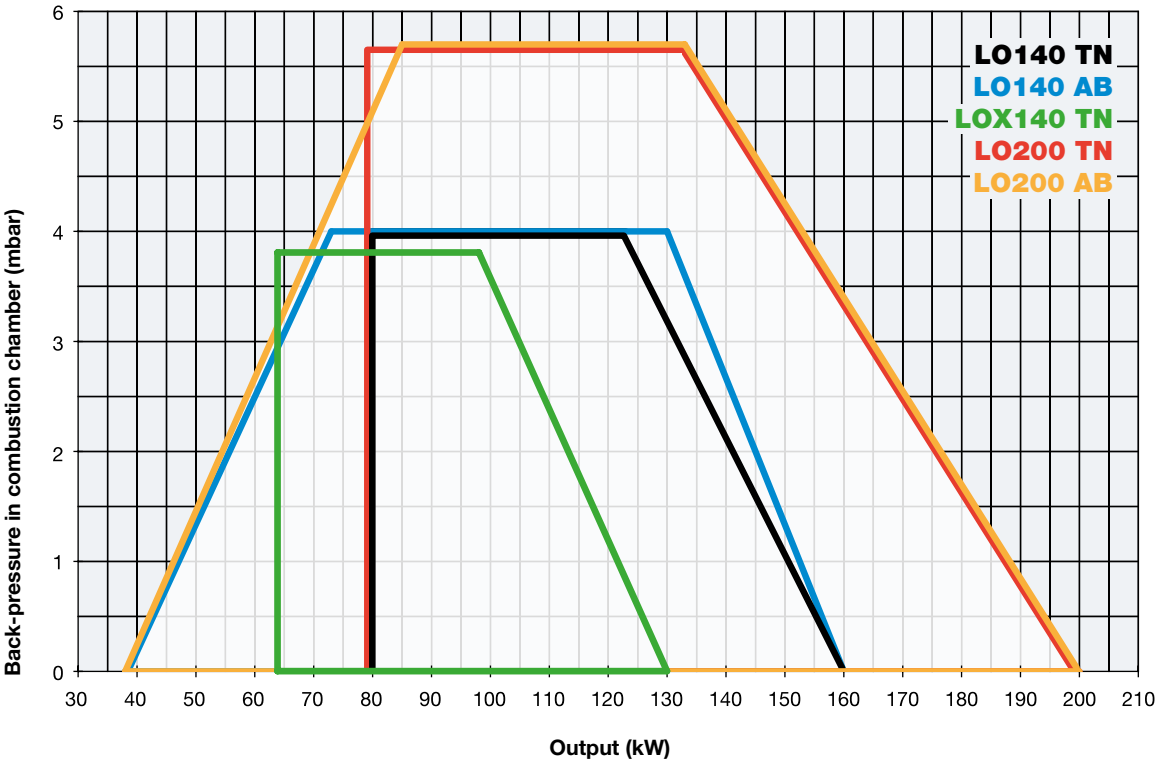
LOX60 TN



LOX90 TN

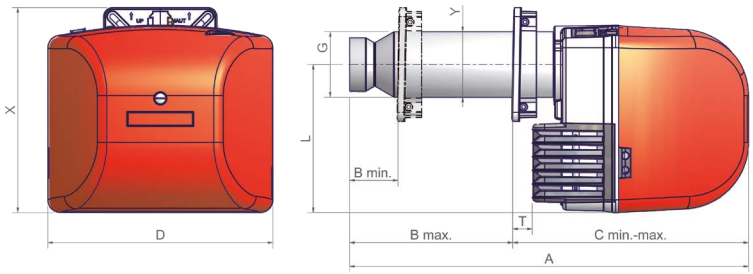


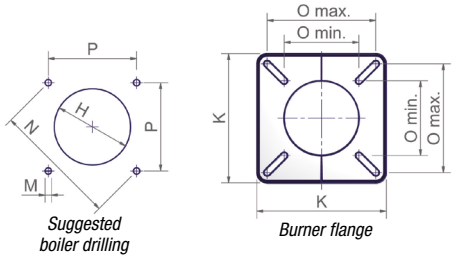
These light oil burners cover most of the civil installations and represent the best solution in terms of design and reliability.
IDEA burners satisfy the specific requirements of the market, ensuring the maximum efficiency of the performance and easy maintenance. In particular, the removable baking plate of the components - common to the whole IDEA seires - simplifies the technical assistance operations ensuring shorter maintenance times and great maneuverability.
Recently the new LOW NO_x series has been implemented.



TECHNICAL DETAILS

Type	Model	Power kW		Electric power	Fan motor
		min.	max.		kW
L0140	G-.TN.x.xx.A	80	160	230 V 1N ac	0,18
L0140	G-.AB.x.xx.A	38	160	230 V 1N ac	0,18
LOX140	G-.TN.x.xx.A	64	130	230 V 1N ac	0,18
L0200	G-.TN.x.xx.A	80	200	230 V 1N ac	0,18
L0200	G-.AB.x.xx.A	38	200	230 V 1N ac	0,18





Suggested boiler drilling

Burner flange

Type	Packaging dimensions** (mm)			
	l	p	h	kg
L0140..S	600	370	400	25
L0140..L	750	370	400	25
LOX140..S	600	370	400	25
LOX140..L	750	370	400	25
L0200..S	600	370	400	25
L0200..L	750	370	400	25

** Approximate values

Type	Model	Overall dimensions** (mm)											Suggested boiler drilling (mm)				Burner flange (mm)		
		A	B		C		D	G	Y	L	T	X	H	M	N	P	K	O	
			min.	max.	min.	max.												min.	max.
L0140	G-.xx.S.xx.A	560	80	170	390	475	373	108	108	244	32	338	128	M8	188	133	188	108	158
L0140	G-.xx.L.xx.A	660	80	270	390	575	373	108	108	244	32	338	128	M8	188	133	188	108	158
LOX140	G-.xx.S.xx.A	560	80	170	390	475	373	108	108	244	32	338	128	M8	188	133	188	108	158
LOX140	G-.xx.L.xx.A	660	80	270	390	575	373	108	108	244	32	338	128	M8	188	133	188	108	158
L0200	G-.xx.S.xx.A	560	65	170	390	475	373	108	108	244	32	338	128	M8	188	133	188	108	158
L0200	G-.xx.L.xx.A	660	65	270	390	575	373	108	108	244	32	338	128	M8	188	133	188	108	158

** Approximate values

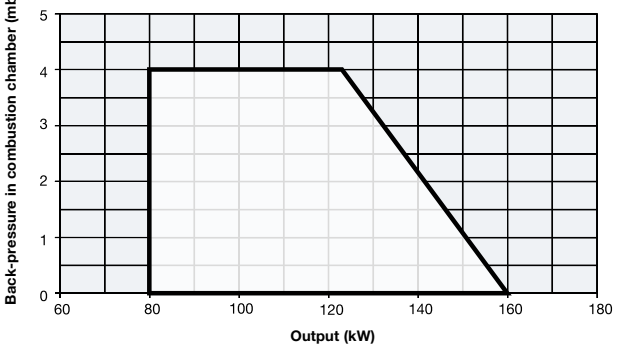
MECHANICAL OPERATION

Model	Operation	L0140		L0200	
		Code	Price €	Code	Price €
G-.TN.S.xx.A	TN	026050101		026050301	
G-.TN.L.xx.A	TN	026050201		026050401	
G-.AB.S.xx.A	AB	026050102		026050302	
G-.AB.L.xx.A	AB	026050202		026050402	

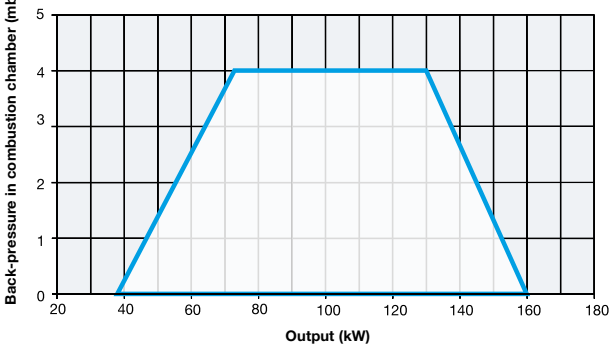
Model	Operation	LOX140	
		Code	Price €
G-.TN.S.xx.A	TN	026050901	
G-.TN.L.xx.A	TN	026051001	

In compliance with: Low Tension Directive 2014/35/UE - Electromagnetic Compatibility Directive 2014/30/UE - Machinery Directive 2006/42/CE

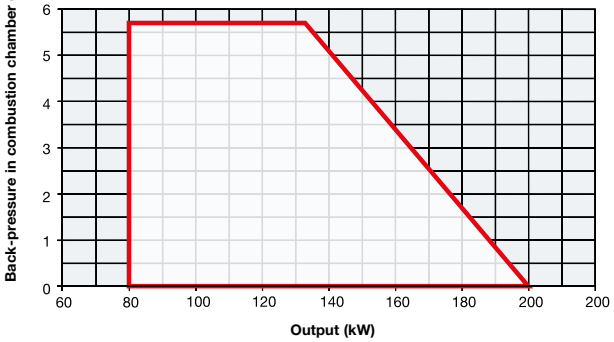
LO140 TN



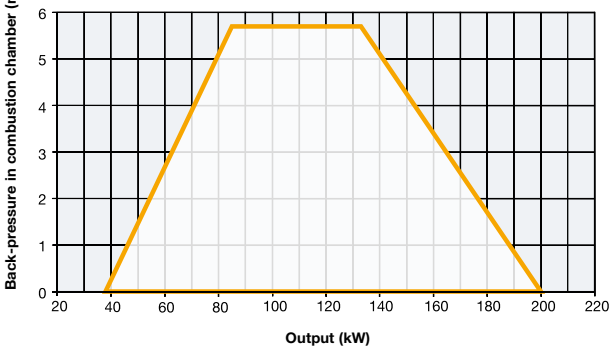
LO140 AB



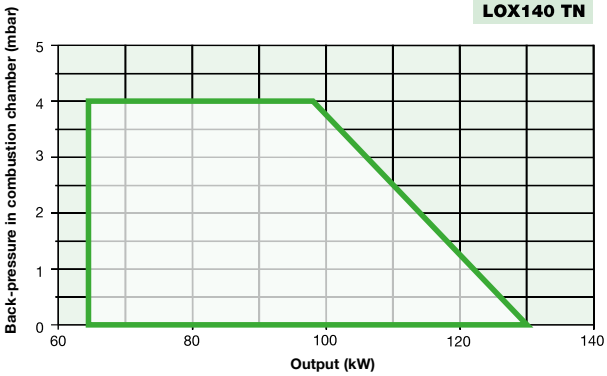
LO200 TN



LO200 AB

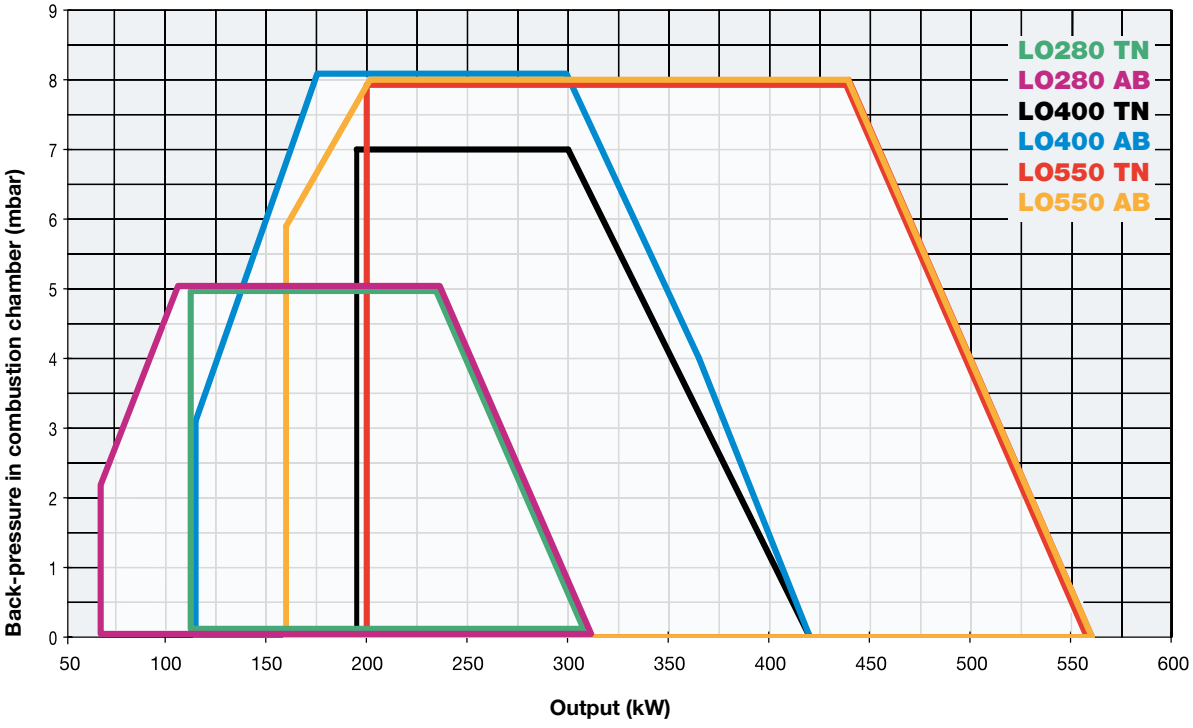


LOX140 TN



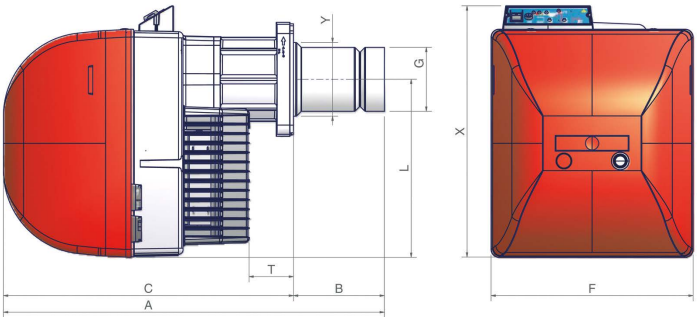
LO280 LO400 LO550 idea SERIES

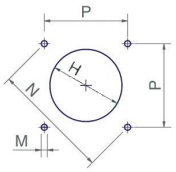
Thanks to the new line IDEA, CIB UNIGAS presents a brand new range of small and medium size burners designed to be aesthetic and functional giving at the same time prominence to innovative technologies.
Compactness, versatility and the optimum configuration of all the electronic and mechanical components inside the burner, ensure minimum overall dimensions and higher efficiency. These light oil burners are equipped with a stainless steel blast tube whose length is adjustable according to boiler requirements. Light oil version fits a nozzleholder designed to reduce the air resistance and the special diffuser can be easily moved along a graduated gauge on the nozzle-holder.
Like the gas burners, also the light oil range is designed to make servicing easier: universal pre-wired electrical plug connections avoid wiring mistakes; mechanical components are fitted onto a backing plate which can be moved and attached to special hinges on the burner; a special combustion air intake maximises the air pressure; the reduced thickness of the flange allows for exploitation of small spaces; the position of the combustion head is adjustable by means of a graduated screw.



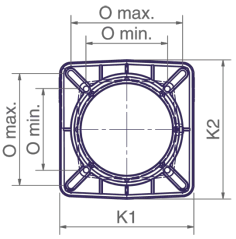
TECHNICAL DETAILS

Type	Model	Power kW		Electric power	Fan motor
		min.	max.		kW
LO280	G-.TN.x.xx.A	115	310	230 V 1N ac	0,25
LO280	G-.AB.x.xx.A	70	310	230 V 1N ac	0,25
LO400	G-.TN.M.xx.A	195	420	230 V 1N ac	0,37
LO400	G-.AB.M.xx.A	115	420	230 V 1N ac	0,37
LO550	G-.TN.x.xx.A	200	560	230 V 1N ac	0,62
LO550	G-.AB.x.xx.A	160	560	230 V 1N ac	0,62





Suggested boiler drilling



Burner flange

Type	Packaging dimensions** (mm)			
	l	p	h	kg
LO280/350/400	1120	440	580	42
LO550	1200	460	630	55

** Approximate values

Type	Model	Overall dimensions** (mm)											Suggested boiler drilling (mm)				Burner flange (mm)			
		A	AL	B	BL	C	F	G	Y	L	T	X	H	M	N	P	O min.	O max.	K1	K2
LO280	G-.TN.x.xx.A	733	878	163	308	570	396	108	108	348	128	460	128	M10	219	155	131	179	215	223
LO280	G-.AB.x.xx.A	733	878	163	308	570	396	108	108	348	128	492	128	M10	219	155	131	179	215	223
LO400	G-.xx.x.xx.A	748	878	178	308	570	396	125	144	348	89	491	164	M10	219	155	131	179	215	223
LO550	G-.xx.x.xx.A	843	943	253	353	590	426	155	155	384	69	533	175	M10	247	174	157	192	241	241

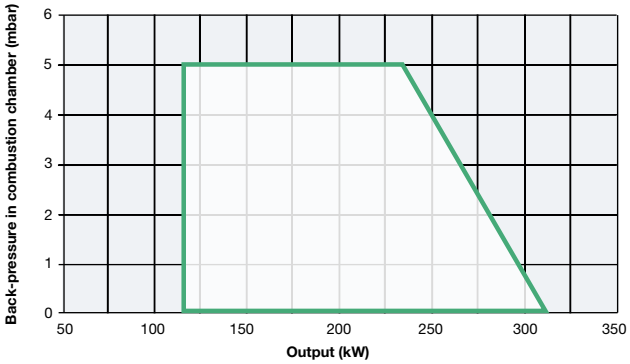
** Approximate values

Model	Operation	LO280		LO400		LO550	
		Code	Price €	Code	Price €	Code	Price €
G-.TN.S.xx.A	TN	027050701		-		028050101	
G-.TN.L.xx.A	TN	027050801		-		028050201	
G-.TN.M.xx.A	TN	-		027050301		-	
G-.AB.S.xx.A	AB	027050702		-		028050102	
G-.AB.L.xx.A	AB	027050802		-		028050202	
G-.AB.M.xx.A	AB	-		027050302			
G-.AB.S.xx.A.M ▲	AB	-		-		028050502	
G-.AB.L.xx.A.M ▲	AB	-		-		028050602	
G-.AB.M.xx.A.M ▲	AB	-		027050402		-	

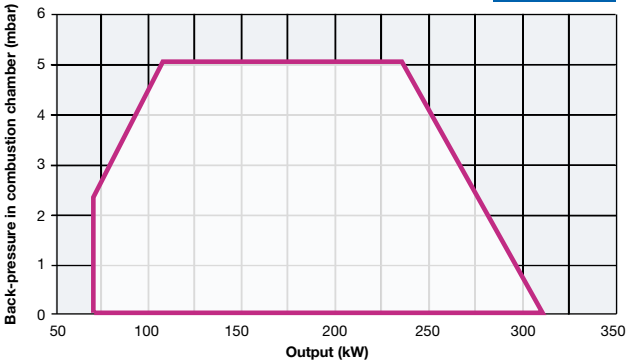
▲ Version with hydraulic ram

In compliance with: Low Tension Directive 2014/35/UE - Electromagnetic Compatibility Directive 2014/30/UE - Machinery Directive 2006/42/CE

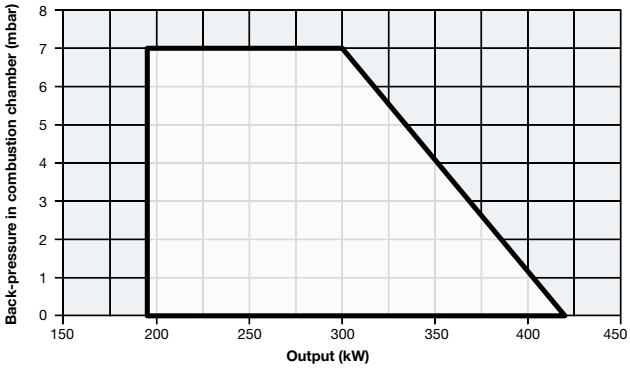
LO280 TN



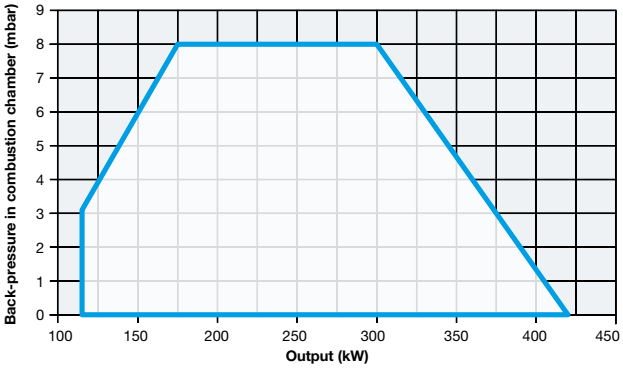
LO280 AB



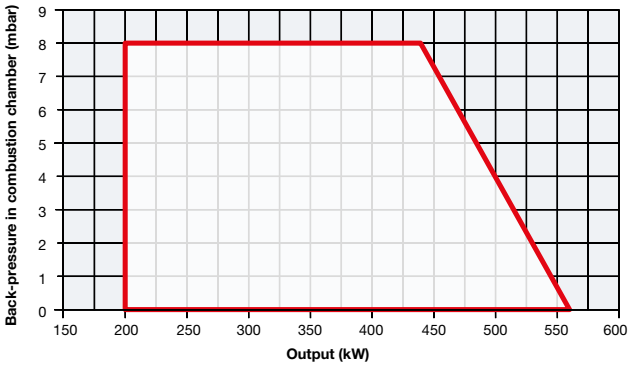
LO400 TN



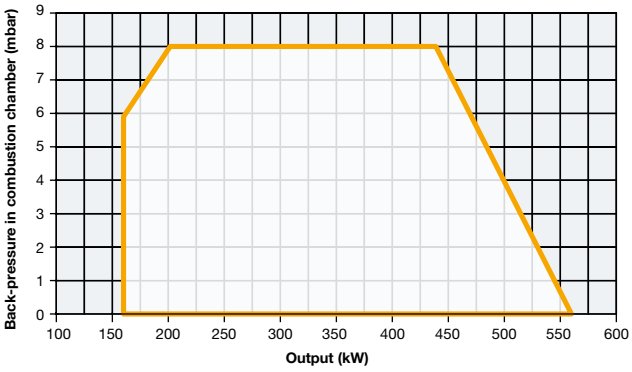
LO400 AB

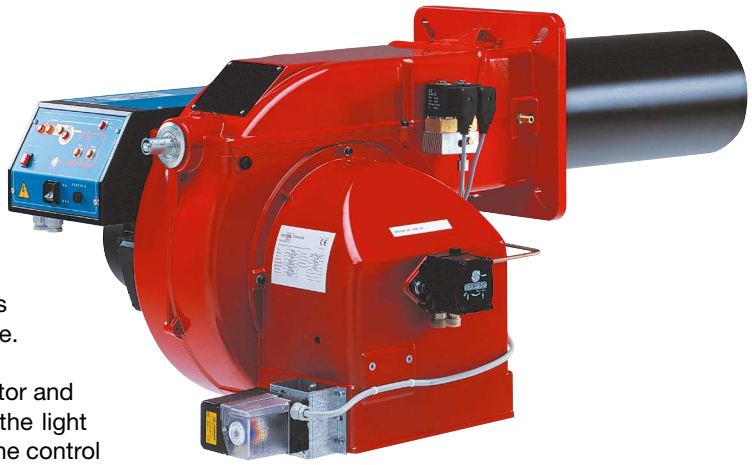


LO550 TN

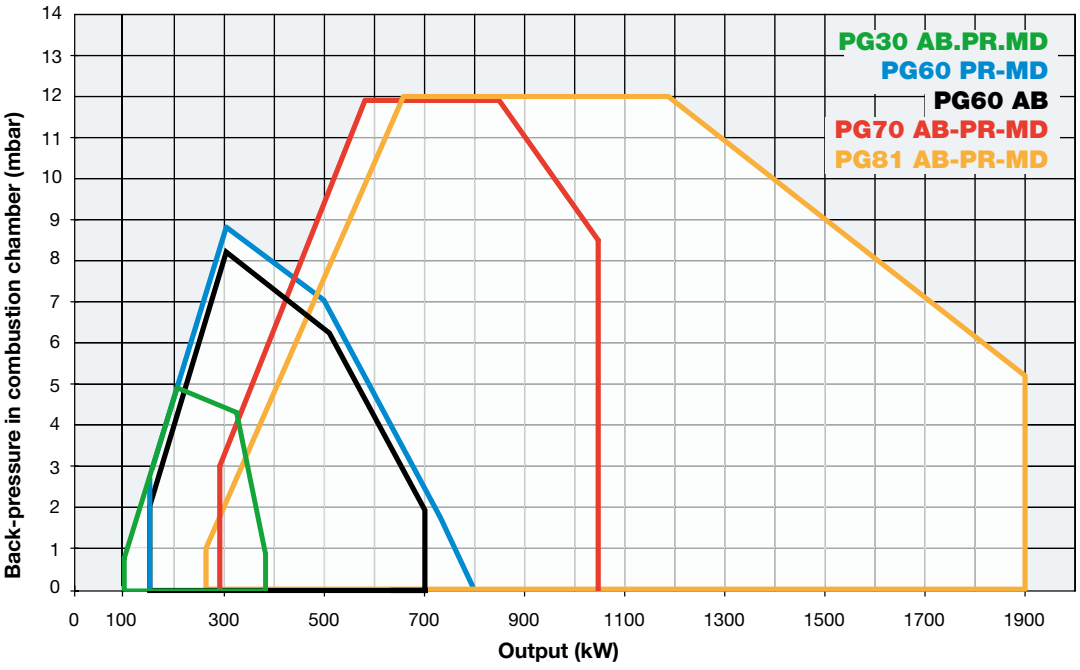


LO550 AB



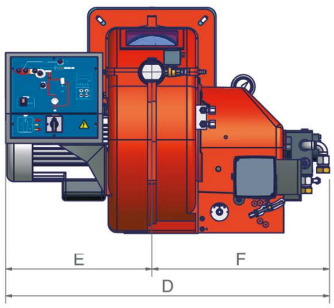


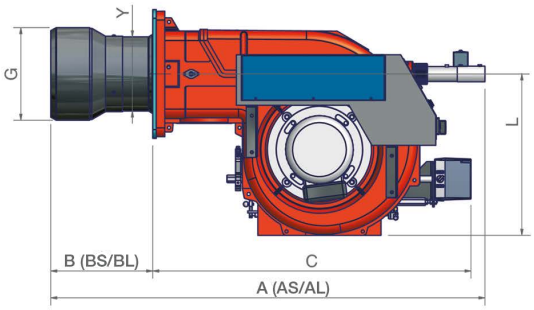
These burners are rated from 105 to 1900 kW and they have a field of application that ranges from pressurized boilers; hot water, steam or overheated water to medium capacity ovens for heat treatments. The simple operation and the safety ensured by the constant tests performed in our laboratory and by the conformity to EC directives, makes these burners sophisticated and reliable. A biodiesel version is also available. All burners are equipped with a fan motor and a separate motor for the operation of the light oil pump through a flexible coupling. The control panel is completed with an electronic control box and with a photoresistor. The control logic is incorporated on a printed circuit. The atomization and fuel supply systems include: nozzle, ignition electrodes, flexibles and filters.



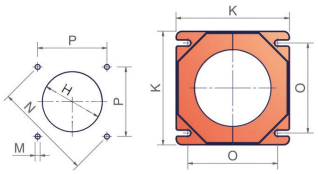
TECHNICAL DETAILS

Type	Model	Power kW		Electric power	Fan motor	Pump motor
		min.	max.		kW	kW
PG30	G-.xx.x.xx.A	105	383	230 V 1N ac	0,37	-
PG60	G-.AB.x.xx.A	145	698	230/400 V 3N ac	1,10	-
PG60	G-.xx.x.xx.A	151	791	230/400 V 3N ac	1,10	-
PG70	G-.xx.x.xx.A	291	1.047	230/400 V 3N ac	2,20	-
PG81	G-.xx.x.xx.A	264	1.900	230/400 V 3N ac	3,00	-





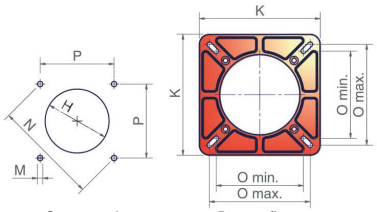
PG30 - PG60



Suggested boiler drilling

Burner flange

PG70 - PG81



Suggested boiler drilling

Burner flange

Tipo	Modello	Overall dimensions** (mm)											Suggested boiler drilling (mm)				Burner flange (mm)			Packaging dimensions** (mm)			
		AS	AL	BS	BL	C	D	E	F	G	L	Y	H	M	N	P	O		K	l	p	h	kg
																	min.	max.					
PG30	G-.xx.x.xx.A	662	852	150	340	512	516	267	249	121	284	131	151	M10	219	155	155	155	190	1000	550	460	30
PG60	G-.AB.x.xx.A	874	1072	244	442	630	615	330	285	153	350	162	182	M10	269	190	190	190	240	1200	670	540	65
PG60	G-.xx.x.xx.A	1004	1202	244	442	760	630	330	300	153	350	162	182	M10	269	190	190	190	240	1200	670	540	65
PG70	G-.AB.x.xx.A	995	1145	310	460	685	710	360	350	198	375	198	228	M10	330	233	216	250	300	1280	850	760	82
PG70	G-.xx.x.xx.A	1035	1185	310	460	725	780	360	420	198	375	198	228	M10	330	233	216	250	300	1280	850	760	87
PG81	G-.AB.x.xx.A	1025	1175	340	490	685	765	400	365	234	375	198	264	M10	330	233	216	250	300	1280	850	760	95
PG81	G-.xx.x.xx.A	1165	1315	340	490	825	820	400	420	234	375	198	264	M10	330	233	216	250	300	1280	850	760	100

** Approximate values

MECHANICAL OPERATION

Model	Operation	PG30 Code	PG30 Price €	PG60 Code	PG60 Price €
G-.AB.S.xx.A	AB	003050102		004050102	
G-.AB.L.xx.A	AB	003050202		004050202	
G-.PR.S.xx.A	PR	003050103		004050103	
G-.PR.L.xx.A	PR	003050203		004050203	
G-.MD.S.xx.A	MD(*)	003050104		004050104	
G-.MD.L.xx.A	MD(*)	003050204		004050204	

Model	Operation	PG70 Code	PG70 Price €	PG81 Code	PG81 Price €
G-.AB.S.xx.A	AB	008050102		008051302	
G-.AB.L.xx.A	AB	008050202		008051402	
G-.PR.S.xx.A	PR	008050103		008051303	
G-.PR.L.xx.A	PR	008050203		008051403	
G-.MD.S.xx.A	MD(*)	008050104		008051304	
G-.MD.L.xx.A	MD(*)	008050204		008051404	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)
In compliance with:
Low Tension Directive 2014/35/UE
Electromagnetic Compatibility Directive 2014/30/UE
Machinery Directive 2006/42/CE

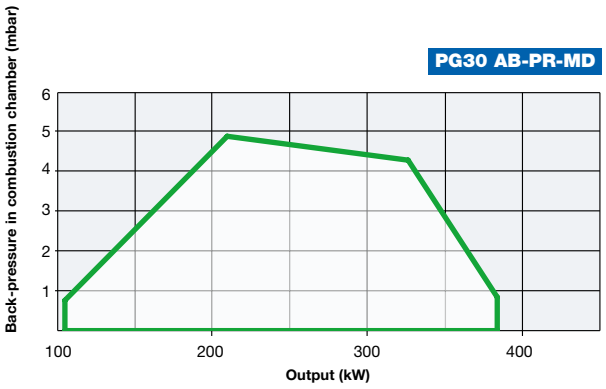
ELECTRONIC OPERATION

Model	Operation	PG30 Code	PG30 Price €	PG60 Code	PG60 Price €
G-.PR.S.xx.A.EA	PR	00305010A		00405010A	
G-.PR.L.xx.A.EA	PR	00305020A		00405020A	
G-.MD.S.xx.A.EA	MD(*)	00305010E		00405010E	
G-.MD.L.xx.A.EA	MD(*)	00305020E		00405020E	

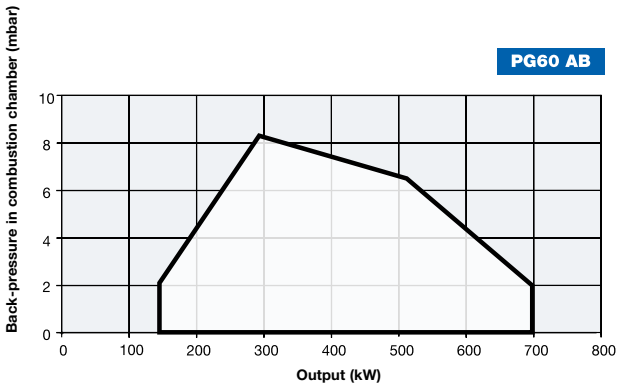
Model	Operation	PG70 Code	PG70 Price €	PG81 Code	PG81 Price €
G-.PR.S.xx.A.EA	PR	00805010A		00805130A	
G-.PR.L.xx.A.EA	PR	00805020A		00805140A	
G-.MD.S.xx.A.EA	MD(*)	00805010E		00805130E	
G-.MD.L.xx.A.EA	MD(*)	00805020E		00805140E	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)
In compliance with:
Low Tension Directive 2014/35/UE
Electromagnetic Compatibility Directive 2014/30/UE
Machinery Directive 2006/42/CE

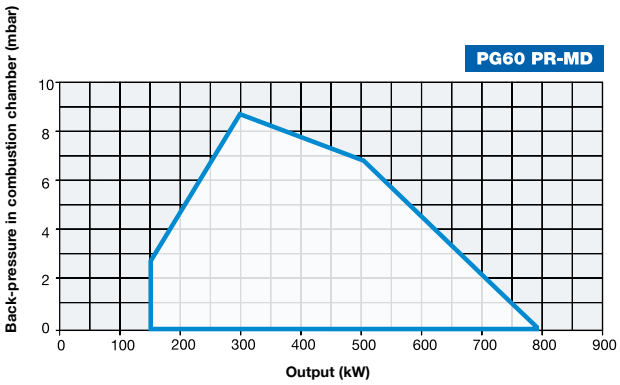
PG30 AB-PR-MD



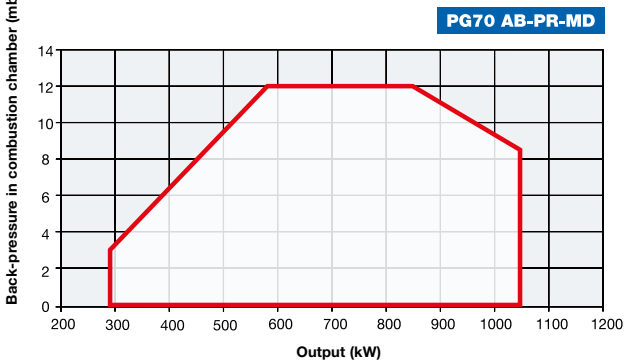
PG60 AB



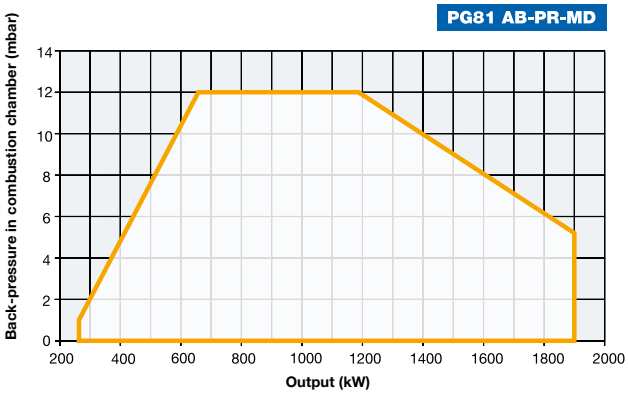
PG60 PR-MD



PG70 AB-PR-MD



PG81 AB-PR-MD



miniflam SERIES tecnopan G6 G10 G18 - chef G5 G6

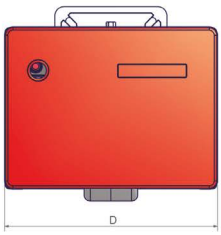
LIGHT OIL

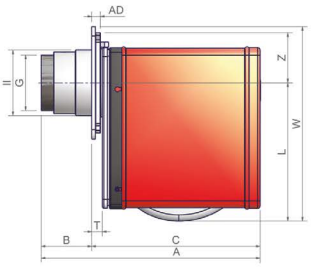
BURNERS FOR BAKERY OVENS AND KITCHENS

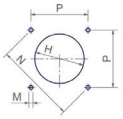
This burners series has been produced to work on bakery and rotary ovens. The customers of this series are commercial kitchens, big hotels and restaurants.
These burners are equipped with a double protection shield and a blast tube in thermalsteel for high temperature operation.

TECHNICAL DETAILS

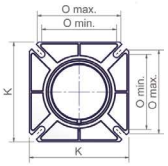
Type	Model	Power kW		Electric power	Fan motor
		min.	max.		kW
Tecnopan G6	G-.TN.x.xx.B	29	70	230 V 1N ac	0,10
Tecnopan G10	G-.TN.x.xx.B	58	116	230 V 1N ac	0,15
Tecnopan G18	G-.TN.x.xx.B	105	209	230 V 1N ac	0,18
Chef G5	G-.TN.S.xx.D	29	35	230 V 1N ac	0,10
Chef G6	G-.TN.S.xx.D	29	70	230 V 1N ac	0,10







Suggested boiler drilling



Burner flange

Type	Packaging dimensions** (mm)			
	l	p	h	kg
G6	360	300	560	15
G10	420	340	630	18
G18	420	340	630	18
G5	360	300	560	15
G6	360	300	560	15

** Approximate values

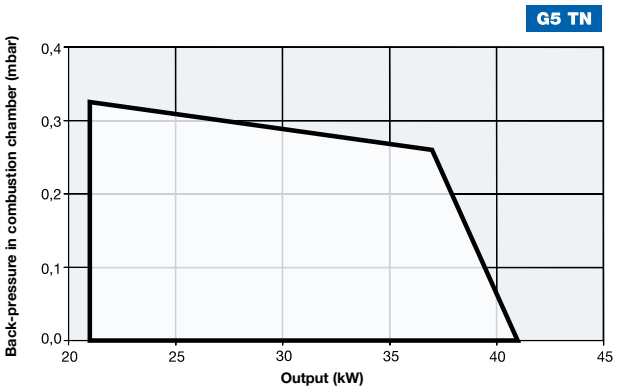
Type	Model	Overall dimensions** (mm)													Burner flange (mm)			Suggested boiler drilling (mm)			
		AS	AL	AD	BS	BL	CS	CL	D	G	II	L	T	Z	W	K	O		H	M	N	P
		min. ÷ max.											min.				min.	max.				
G6	G-.TN.x.xx.B	345	455	12	53÷67	53÷177	278÷292	278÷402	310	80	-	187	-	80	265	162	86	138	101	M8	156	112
G10	G-.TN.x.xx.B	351	471	14	81	201	270	270	342	89	105	221	17	80	311	160	120	134	125	M8	187	132
G18	G-.TN.x.xx.B	351	471	14	81	201	270	270	342	115	-	221	17	80	311	160	120	134	134	M8	187	132
G5	G-.TN.x.xx.D	310	-	12	0÷33	-	278÷310	-	310	80	-	187	-	80	265	162	86	138	98	M8	156	112
G6	G-.TN.x.xx.D	310	-	12	0÷33	-	278÷310	-	310	80	-	187	-	80	265	162	86	138	98	M8	156	112

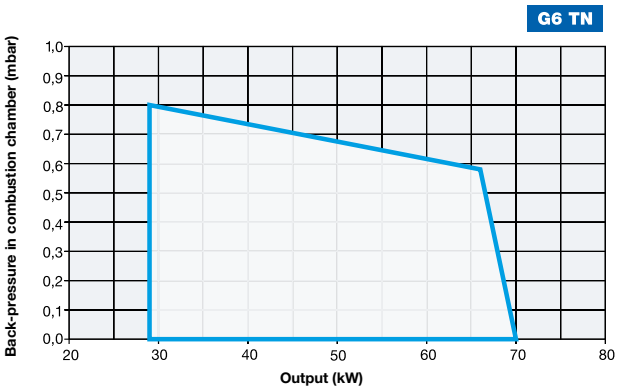
** Approximate values

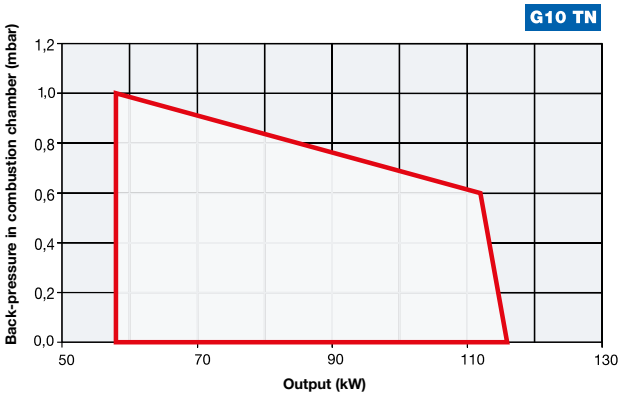
MECHANICAL OPERATION

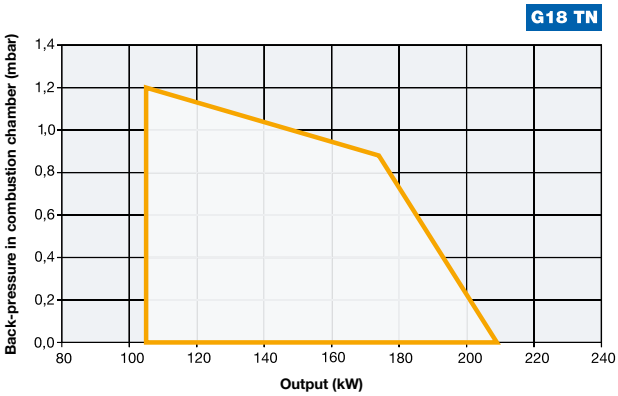
Modello	Operation	G5		G6		G10		G18	
		Code	Price €	Code	Price €	Code	Price €	Code	Price €
G-.TN.S.xx.D	TN	001050701		001050801		-		-	
G-.TN.S.xx.B	TN	-		001050501		002050901		002051101	
G-.TN.L.xx.B	TN	-		001050601		002051001		002051201	

In compliance with:
Low Tension Directive 2014/35/UE
Electromagnetic Compatibility Directive 2014/30/UE
Machinery Directive 2006/42/CE







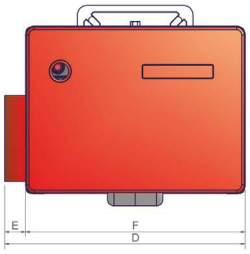


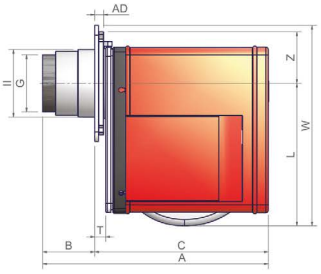
miniflam SERIES G6 G10 G18 (24 Volt DC)

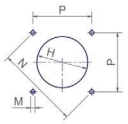
The originality of this new burner series is the electrical supply at 24V DC. They cover applications such as the cleaning of rubbish skips or streets. These burners are derived from the series made for bakery ovens and from it they take the sturdy construction: an essential element for this kind of installations.
The components of the light oil circuit are the same of the traditional burners from which they keep the same friendly user maintenance. The control box, the motor and the solenoid coils are all suitable to be used at 24 V DC.
The burners are produced in three versions “On-Off” with a range from 29 to 209 kW. With this new series, CIB UNIGAS wants to introduce a product suitable to an highly specific market.

TECHNICAL DETAILS

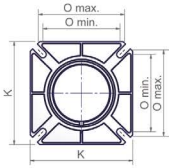
Type	Model	Power kW		Electric power	Fan motor
		min.	max.		kW
G6	G-.TN.x.xx.Y	29	70	24 V DC	0,11
G10	G-.TN.x.xx.Y	58	116	24 V DC	0,18
G18	G-.TN.x.xx.Y	105	209	24 V DC	0,18







Suggested boiler drilling



Burner flange

Type	Packaging dimensions** (mm)			
	l	p	h	kg
G6	360	300	560	18
G10	420	340	630	21
G18	420	340	630	21

** Approximate values

Type	Model	Overall dimensions** (mm)															Burner flange (mm)			Suggested boiler drilling (mm)			
		AS	AL	AD	BS	BL	C	CL	D	E	F	G	II	L	T	Z	W	K	O		H	M	N	P
		min. ÷ max.													min.			min. max.						
G6	G-.TN.x.xx.Y	345	455	12	53÷67	53÷177	278÷292	278÷402	375	65	310	80	-	187	-	80	265	162	86	138	101	M8	156	112
G10	G-.TN.x.xx.Y	351	471	14	81	201	270	270	375	33	342	89	105	221	17	80	311	160	120	134	125	M8	187	132
G18	G-.TN.x.xx.Y	351	471	14	81	201	270	270	375	33	342	115	-	221	17	80	311	160	120	134	134	M8	187	132

** Approximate values

MECHANICAL OPERATION

Model	Operation	G6		G10		G18	
		Code	Price €	Code	Price €	Code	Price €
G-.TN.S.xx.Y	TN	001052201		002054301		002054501	
G-.TN.L.xx.Y	TN	001052301		002054401		002054601	

HEAVY OIL BURNERS

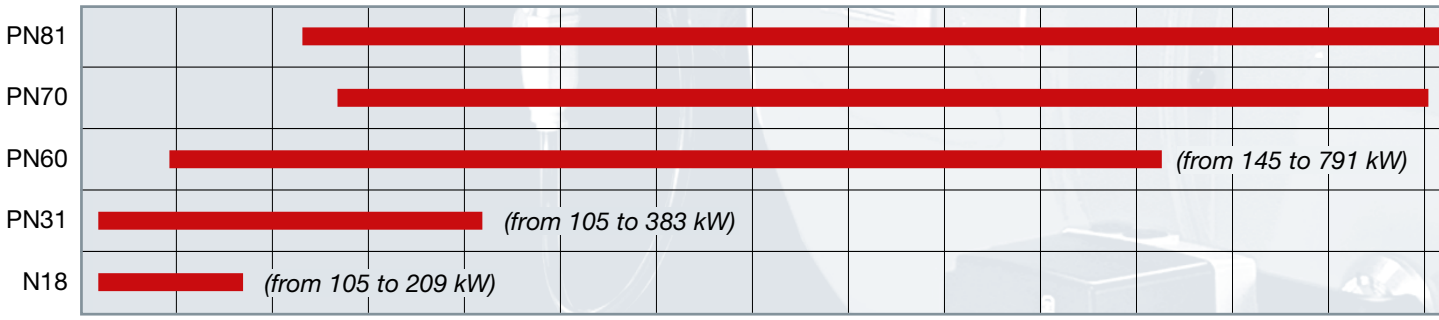
mechanical atomization
miniflam series

N18 - TN

mechanical atomization
tecnopress series

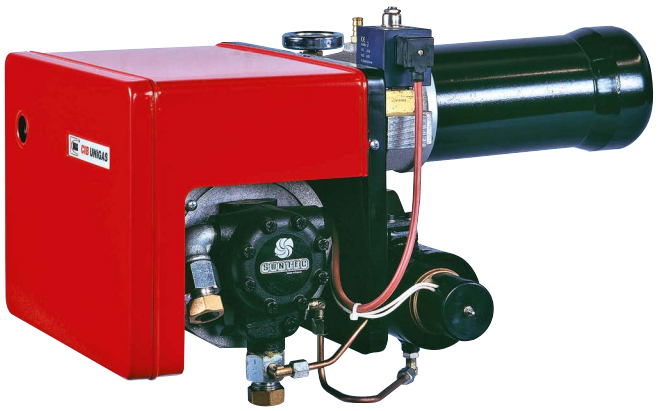
PN30 - TN/AB
PN60 - AB/PR/MD
PN70 - AB/PR/MD
PN81 - AB/PR/MD

Type mechanical atomization

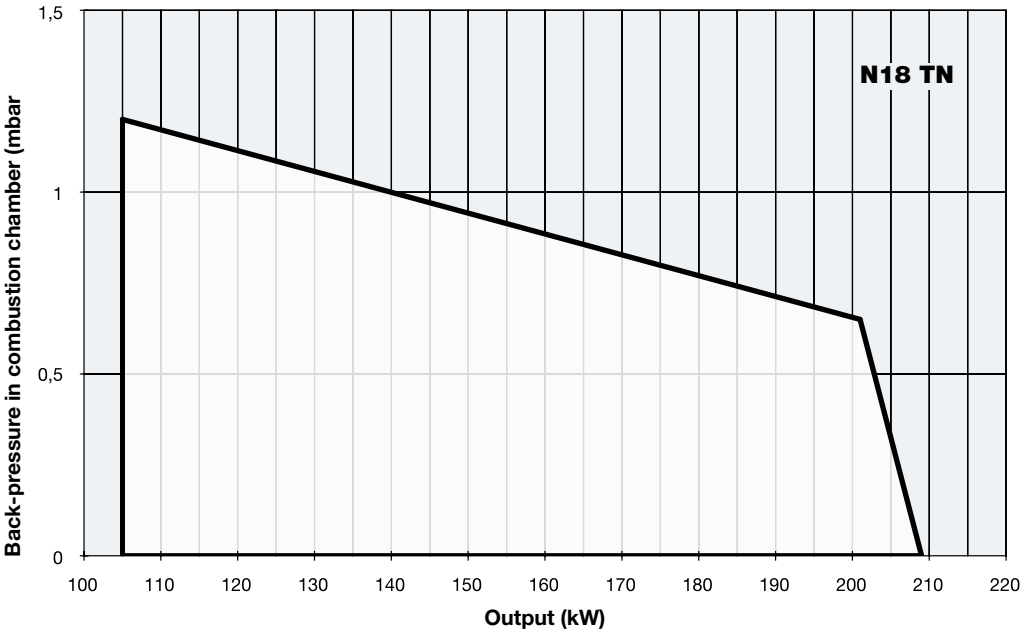


													(from 264 to 1.900 kW)
(from 291 to 1.047 kW)													

miniflam SERIES N18
MECHANICAL ATOMIZATION

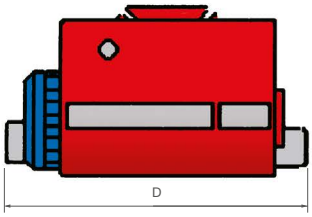


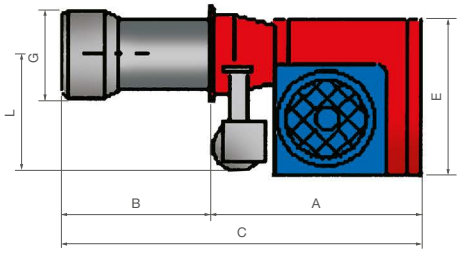
This burner, in its standard version, is suitable to burn oil with max viscosity of 50 cSt at 50°C (7°E at 50°C). Upon request we can also provide a version with viscosity up to 110 cSt at 50°C (15°E at 50°) .
The oil heater consists of a tank with an electric element while a system of preset thermostats controls the regulation of the fuel temperature in order to ensure the optimum performance of the fuel used.
The burner is provided with a cover, to protect the internal components, which is easily removable for maintenance purposes. The links to the electrical supply line and to the temperature regulators are quite easy and safe thanks to the pre-wired connectors.
Upon request we can supply the components necessary to ensure that the oil supply line complies with UNI 9248.

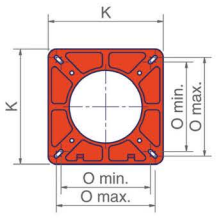


TECHNICAL DETAILS

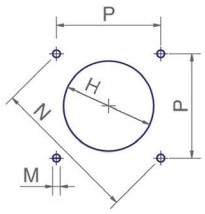
Type	Model	Power kW		Electric power	Fan motor	Resistor
		min.	max.	supply	kW	kW
N18	N-.TN.S.xx.A	105	209	230/400 V 3N ac	0,55	1,5







Burner flange



Suggested boiler drilling

Type	Model	Overall dimensions** (mm)							Suggested boiler drilling (mm)				Burner flange (mm)			Packaging dimensions** (mm)			
		A	B	C	D	E	G	L	H	M	N	P	K	O		l	p	h	kg
														min.	max.				
N18	N-.TN.S.xx.A	400	69÷201	600	480	300	126	270	133	M8	171	121	160	103	130	800	750	560	59

** Approximate values

In compliance with :

Low Tension Directive 2014/35/UE

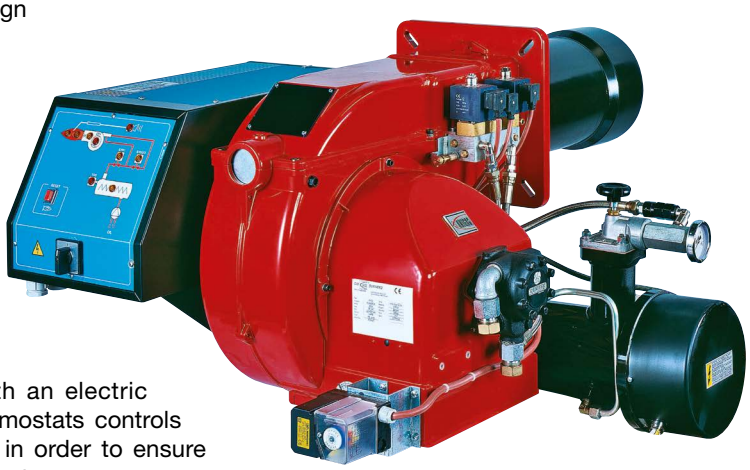
Electromagnetic Compatibility Directive 2014/30/UE

Machinery Directive 2006/42/CE

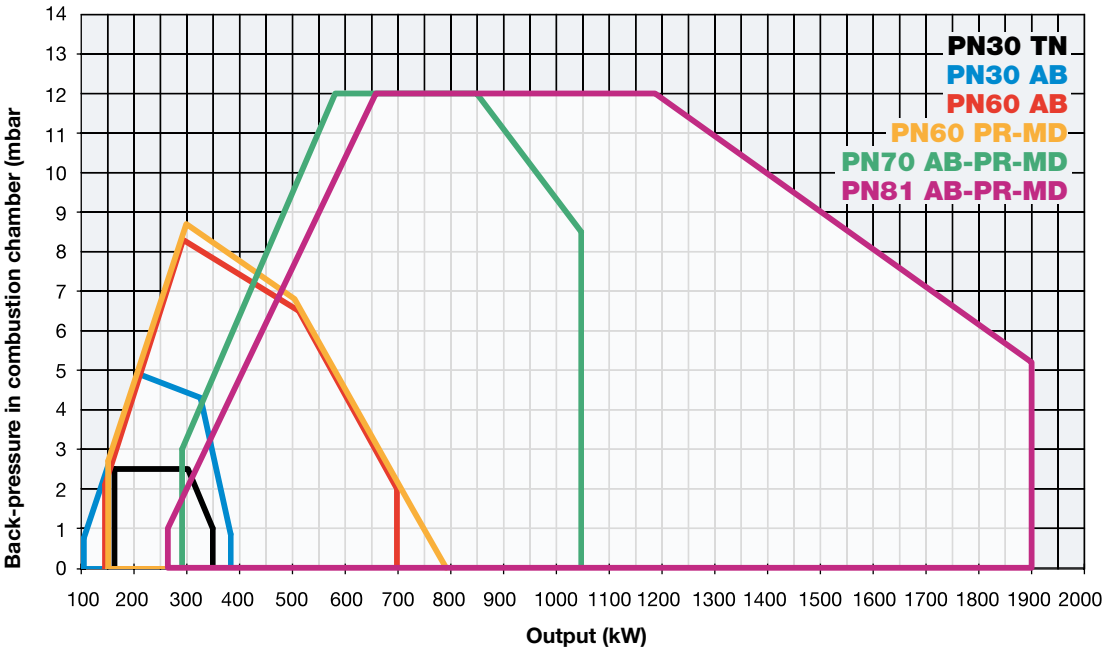
Model	Operation	N18 Code	Price €
HEAVY OIL 50 cSt a 50°C (7°E to 50°C)			
N-.TN.S.xx.A	TN	002060201	
HEAVY OIL 110 cSt a 50°C (15°E to 50°C)			
E-.TN.S.xx.A	TN	002150201	

tecnopress SERIES PN30 PN60 PN70 PN81

MECHANICAL ATOMIZATION

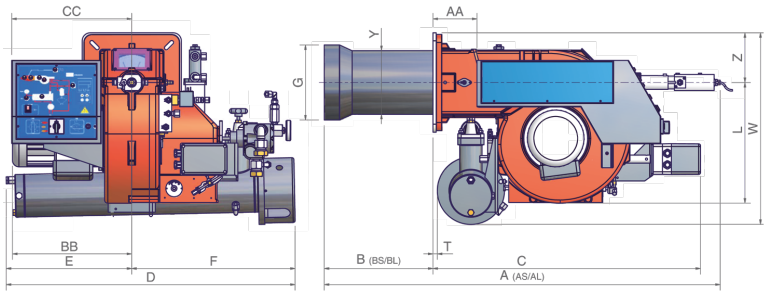


Our thirty years experience in the design and production of oil burners, has allowed us to develop and to produce an a highly technical series of products renowned worldwide for their reliability.
These burners are available for oil with standard viscosity up to 110 cSt at 50°C (15°E at 50°C).
Upon request we can also supply a model for heavy oil up to 400 cSt at 50°C (50°E at 50°C).
The oil heater consists of a tank with an electric element while a system of preset thermostats controls the regulation of the fuel temperature in order to ensure the optimum performance of the fuel used.
Upon request we can supply the components necessary to ensure that the oil supply line complies with UNI 9248.

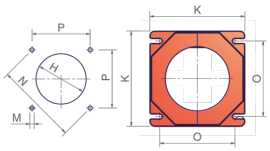


TECHNICAL DETAILS

Type	Model	Power kW		Electric power supply	Fan motor kW	Resistor kW
		min.	max.			
PN30	x-.TN.x.xx.A	163	349	230/400 V 3N ac	0,75	2,4
PN30	x-.AB.x.xx.A	105	383	230/400 V 3N ac	0,75	2,4
PN60	x-.AB.x.xx.A	145	698	230/400 V 3N ac	1,10	4,5
PN60	x-.xx.x.xx.A	151	791	230/400 V 3N ac	1,10	4,5
PN70	x-.xx.x.xx.A	291	1.047	230/400 V 3N ac	2,20	8,0
PN81	x-.xx.x.xx.A	264	1.900	230/400 V 3N ac	3,00	12,0

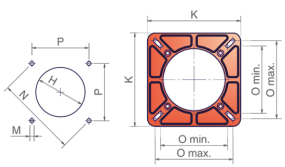


PN30 - PN60



Suggested boiler drilling *Burner flange*

PN70 - PN81



Suggested boiler drilling *Burner flange*

Type	Packaging dimensions** (mm)			
	l	p	h	kg
PN30	1180	930	720	90
PN60	1210	1020	790	130
PN70/81	1580	1010	860	170

** Approximate values

Type	Model	Overall dimensions** (mm)																							
		AA	AL	AS	BB	BL	BS	C	CC	D	E	F	G	H	K	L	M	N	O		P	T	W	Y	Z
																			min.	max.					
PN30	x-.xx.x.xx.A	-	860	670	-	340	150	520	-	720	270	450	121	151	190	400	M10	219	155	155	155	-	-	131	-
PN60	x-.AB.x.xx.A	102	1062	864	274	442	244	620	365	660	330	330	153	182	240	400	M10	269	190	190	190	92	520	162	120
PN60	x-.PR.x.xx.A	102	1186	1051	274	459	324	727	365	861	365	496	208	238•	240	344	M10	269	190	190	190	92	613	162	120
PN70	x-.AB.x.xx.A	138	1256	1106	373	557	407	699	376	871	360	511	220	250	300	475	M10	330	216	250	233	14	630	198	155
PN70	x-.PR.x.xx.A	138	1394	1244	373	557	407	837	376	871	360	511	220	250	300	475	M10	330	216	250	233	14	630	198	155
PN81	x-.AB.x.xx.A	138	1230	1080	373	490	340	699	376	903	392	511	234	264	300	376	M10	330	216	250	233	14	587	198	155
PN81	x-.PR.x.xx.A	138	1389	1239	373	490	340	837	376	903	392	511	234	264	300	376	M10	330	216	250	233	14	598	198	155

** Approximate values

• Install a counter-flange between the burner and the boiler or in alternative, drill the H hole smaller but higher than the Y point and assemble the blast tube inside the boiler

MECHANICAL OPERATION

Model	Operation	PN30 Code	PN30 Price €	PN60 Code	PN60 Price €	PN70 Code	PN70 Price €	PN81 Code	PN81 Price €
HEAVY OIL 50 cSt at 50°C (7°E at 50°C)									
N-.TN.S.xx.A	TN	003060101		-		-		-	
N-.TN.L.xx.A	TN	003060201		-		-		-	
N-.AB.S.xx.A	AB	003060102		004060102		008060102		008060502	
N-.AB.L.xx.A	AB	003060202		004060202		008060202		008060602	
N-.PR.S.xx.A	PR	-		004060103		008060103		008060503	
N-.PR.L.xx.A	PR	-		004060203		008060203		008060603	
N-.MD.S.xx.A	MD(*)	-		004060104		008060104		008060504	
N-.MD.L.xx.A	MD(*)	-		004060204		008060204		008060604	
HEAVY OIL 110 cSt at 50°C (15°E at 50°C)									
E-.TN.S.xx.A	TN	003150101		-		-		-	
E-.TN.L.xx.A	TN	003150201		-		-		-	
E-.AB.S.xx.A	AB	003150102		004150102		008150102		008150502	
E-.AB.L.xx.A	AB	003015202		004150202		008150202		008150602	
E-.PR.S.xx.A	PR	-		004150103		008150103		008150503	
E-.PR.L.xx.A	PR	-		004150203		008150203		008150603	
E-.MD.S.xx.A	MD(*)	-		004150104		008150104		008150504	
E-.MD.L.xx.A	MD(*)	-		004150204		008150204		008150604	
HEAVY OIL 400 cSt at 50°C (50°E at 50°C)									
D-.TN.S.xx.A	TN	003180101		-		-		-	
D-.TN.L.xx.A	TN	003180201		-		-		-	
D-.AB.S.xx.A	AB	003180102		004180102		008180102		008180502	
D-.AB.L.xx.A	AB	003180202		004180202		008180202		008180602	
D-.PR.S.xx.A	PR	-		004180103		008180103		008180503	
D-.PR.L.xx.A	PR	-		004180203		008180203		008180603	
D-.MD.S.xx.A	MD(*)	-		004180104		008180104		008180504	
D-.MD.L.xx.A	MD(*)	-		004180204		008180204		008180604	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)

In compliance with :

Low Tension Directive 2014/35/UE

Electromagnetic Compatibility Directive 2014/30/UE

Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

Model	Operation	PN60		PN70		PN81	
		Code	Price €	Code	Price €	Code	Price €
HEAVY OIL 50 cSt at 50°C (7°E at 50°C)							
N-.MD.S.xx.A.ES	MD(*)	00406010S		00806010S		00806050S	
N-.MD.L.xx.A.ES	MD(*)	00406020S		00806020S		00806060S	
HEAVY OIL 110 cSt at 50°C (15°E at 50°C)							
E-.MD.S.xx.A.ES	MD(*)	00415010S		00815010S		00815050S	
E-.MD.L.xx.A.ES	MD(*)	00415020S		00815020S		00815060S	
HEAVY OIL 400 cSt at 50°C (50°E at 50°C)							
D-.MD.S.xx.A.ES	MD(*)	00418010S		00818010S		00818050S	
D-.MD.L.xx.A.ES	MD(*)	00418020S		00818020S		00818060S	

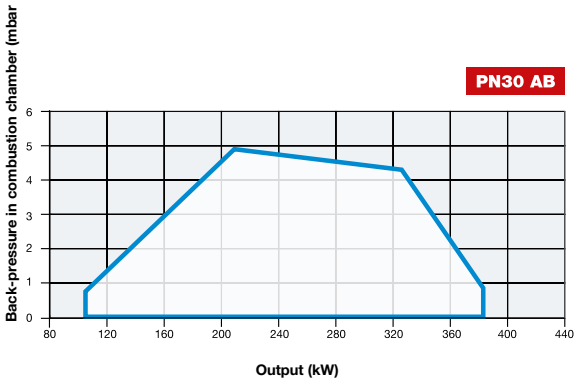
(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)

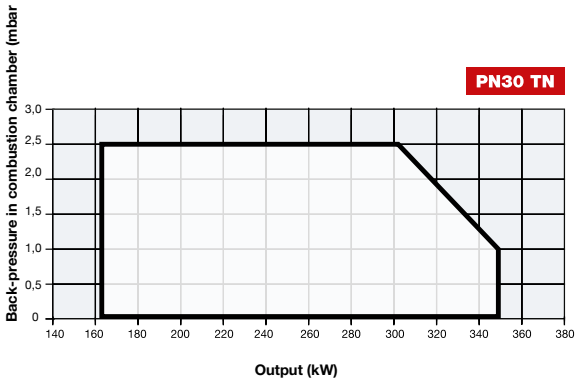
In compliance with :

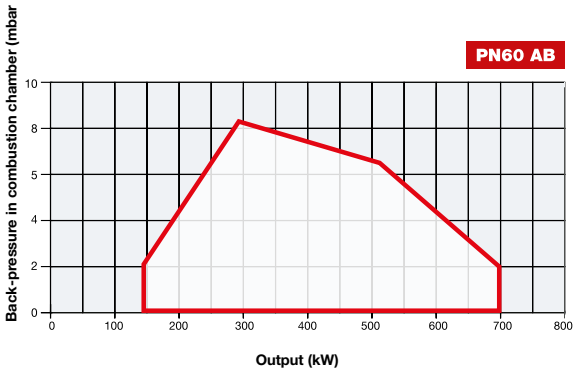
Low Tension Directive 2014/35/UE

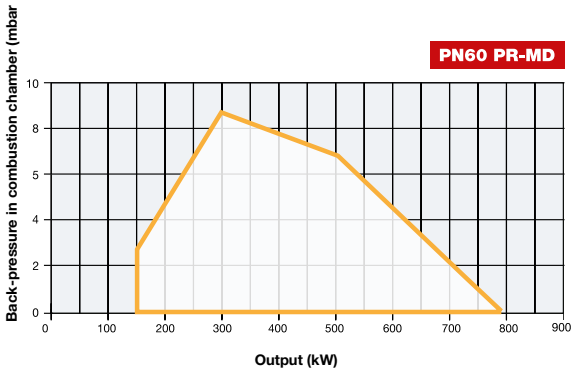
Electromagnetic Compatibility Directive 2014/30/UE

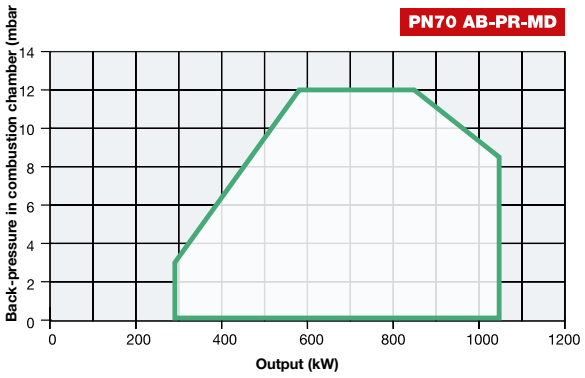
Machinery Directive 2006/42/CE

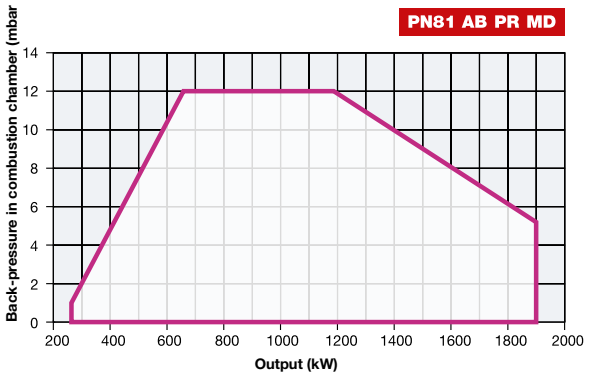

PN30 AB
Back-pressure in combustion chamber (mbar
0 1 2 3 4 5 6
80 120 160 200 240 280 320 360 400 440
Output (kW)


PN30 TN
Back-pressure in combustion chamber (mbar
0 0,5 1,0 1,5 2,0 2,5 3,0
140 160 180 200 220 240 260 280 300 320 340 360 380
Output (kW)


PN60 AB
Back-pressure in combustion chamber (mbar
0 2 4 5 8 10
0 100 200 300 400 500 600 700 800
Output (kW)

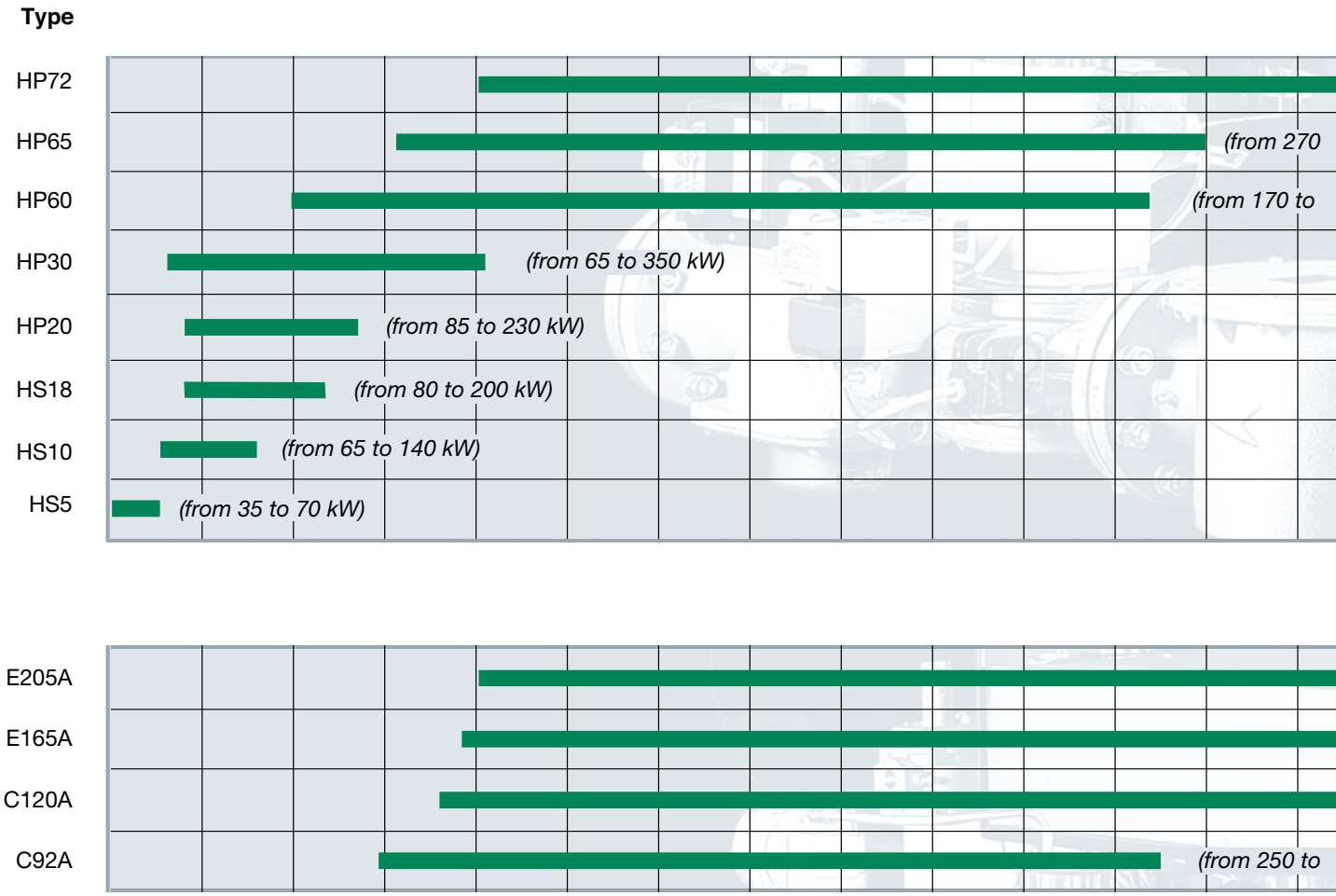

PN60 PR-MD
Back-pressure in combustion chamber (mbar
0 2 4 5 8 10
0 100 200 300 400 500 600 700 800 900
Output (kW)

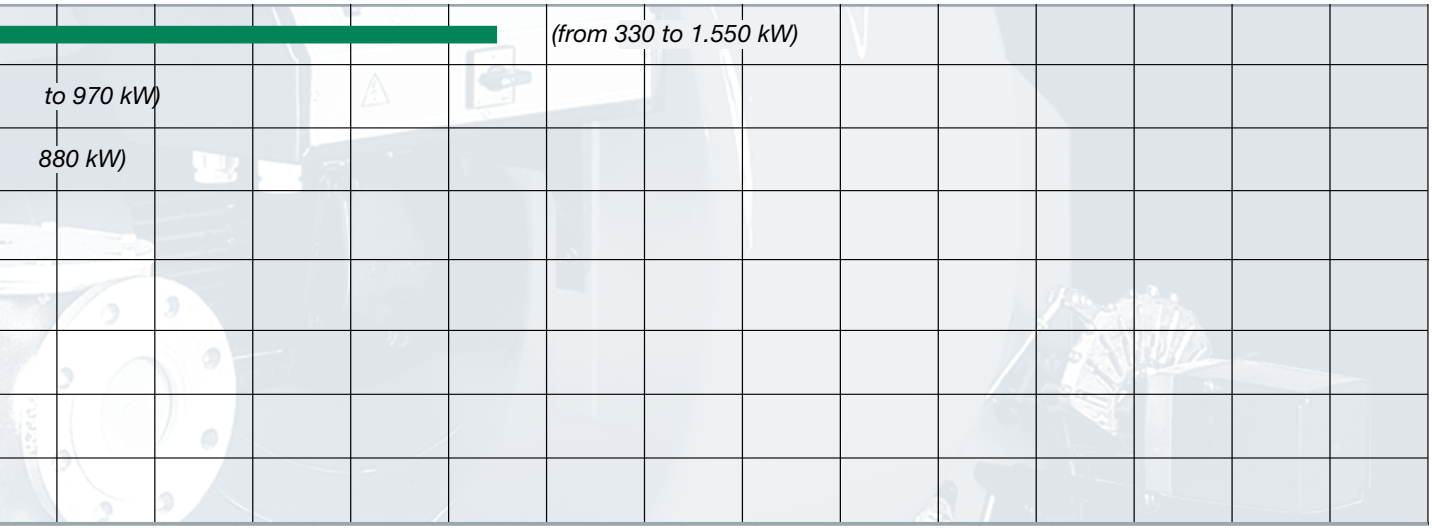

PN70 AB-PR-MD
Back-pressure in combustion chamber (mbar
0 2 4 6 8 10 12 14
0 200 400 600 800 1000 1200
Output (kW)

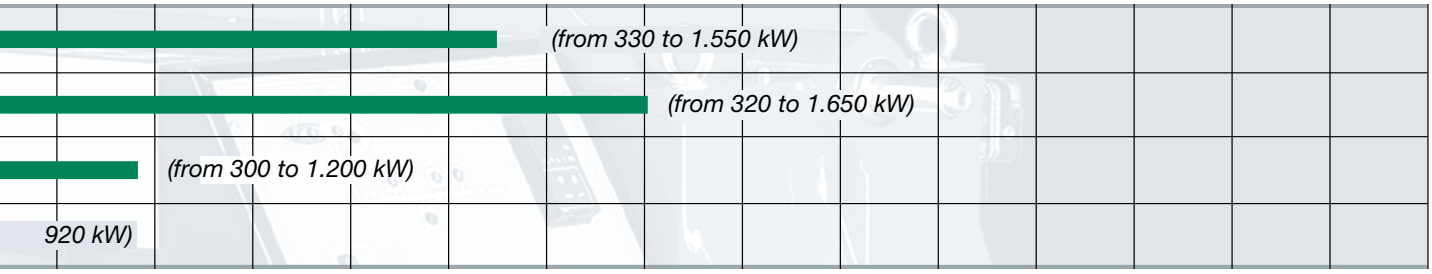

PN81 AB PR MD
Back-pressure in combustion chamber (mbar
0 2 4 6 8 10 12 14
200 400 600 800 1000 1200 1400 1600 1800 2000
Output (kW)

DUAL FUEL BURNERS NATURAL GAS/LIGHT OIL

miniflam series	tecnopress series	NEW tecnopress series
HS5 - TN	**HP20** - AB/PR/MD	**HP65** - AB/PR/MD	**C92A** - AB/PR/MD...SP	**E165A** - PR/MD...SR
HS10 - TN	**HP30** - AB/PR/MD	**HP72** - AB/PR/MD	**C120A** - AB/PR/MD...SP	**E205A** - PR/MD...SR
HS18 - TN	**HP60** - AB/PR/MD			



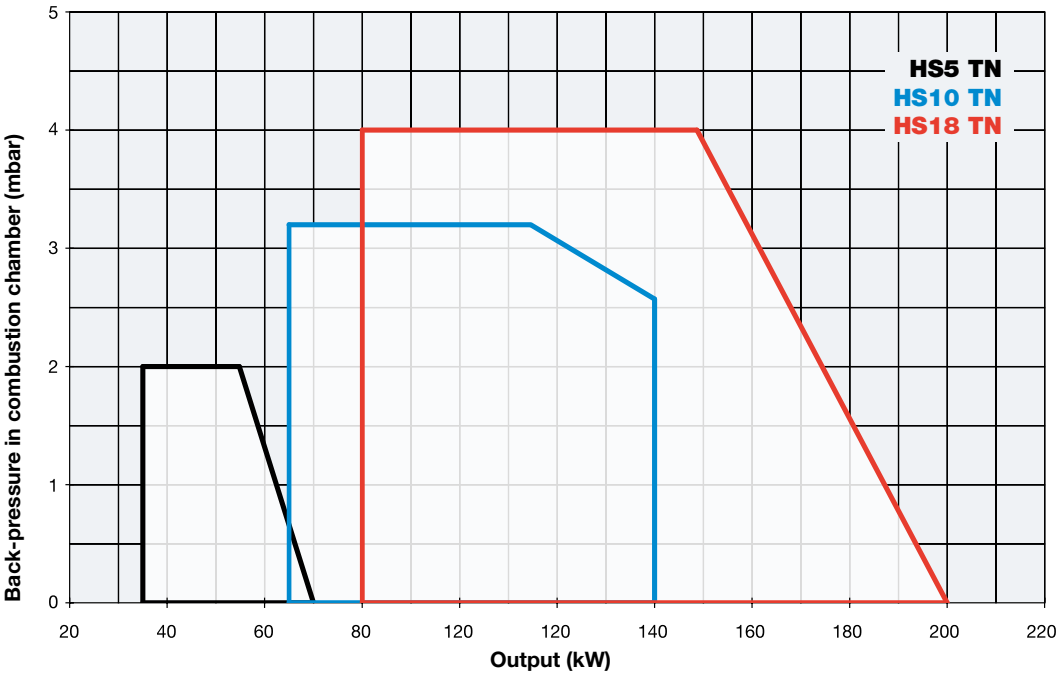

(from 330 to 1.550 kW)
to 970 kW)
880 kW)


(from 330 to 1.550 kW)
(from 320 to 1.650 kW)
(from 300 to 1.200 kW)
920 kW)

miniflam SERIES HS5 HS10 HS18

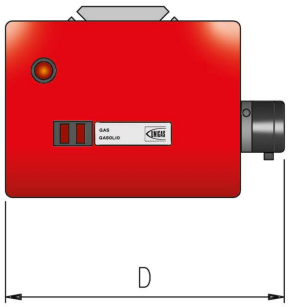
GAS/LIGHT OIL

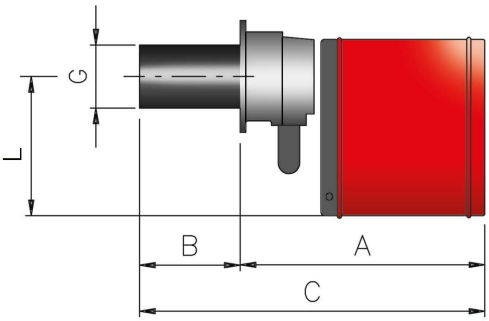
This small output series can work both with gas and light oil according to the fuel availability on the plant.
Of course all mechanisms have been carefully studied to give the maximum efficiency and are perfectly compatible to work with gas and liquid fuels; in fact fuel change over is simply achieved by a single electrical switch which prompts the burner to carry out a controlled shutdown.
The high perfomance fuel pump is driven by a separate motor running only when oil firing is selected.
Moreover, thanks to its small dimensions, this series is particularly suitable to a quick maintenance.
The burners' features are: an housing made in aluminium die-cast, the cover can be easily taken off, a grill on the air inlet prevents any foreign object being drawn into the fan.
The combustion head can be adjusted by means of a graduated screw.

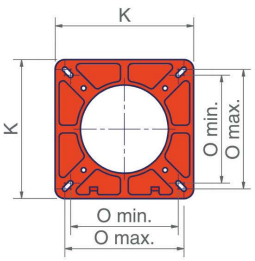


TECHNICAL DETAILS

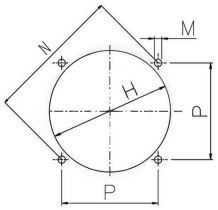
Type	Model	Power kW		Electric power	Fan motor	Pump motor	Gas connections
		min.	max.	supply	kW	kW	
HS5	MG.TN.x.xx.A.0.15	35	70	230 V 1N ac	0,10	0,1	½"
HS10	MG.TN.x.xx.A.0.20	65	140	230 V 1N ac	0,15	0,1	¾"
HS18	MG.TN.x.xx.A.0.25	80	200	230 V 1N ac	0,15	0,1	1"







Burner flange



Suggested boiler drilling

Type	Packaging dimensions** (mm)			
	l	p	h	kg
HS5	580	580	360	23
HS10	510	350	730	30
HS15	510	350	730	31

** Approximate values

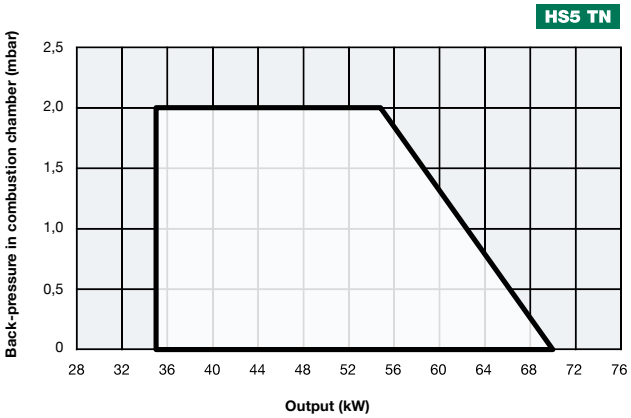
Type	Model	Overall dimensions** (mm)								Suggested boiler drilling (mm)					Burner flange (mm)		
		A	B	BL	C	CL	D	G	L	H	M	N	P		K	O	
													min.	max.		min.	max.
HS5	MG.TN.x.xx.A.0.15	320	0÷61	0÷160	380	480	400	80	190	90	M8	130÷189	92	134	162	86	138
HS10	MG.TN.x.xx.A.0.20	351	159	254	510	605	430	108	210	115	M8	148÷189	105	134	162	103	103
HS18	MG.TN.x.xx.A.0.25	348	177	267	525	615	430	126	210	135	M8	148÷189	105	134	162	103	103

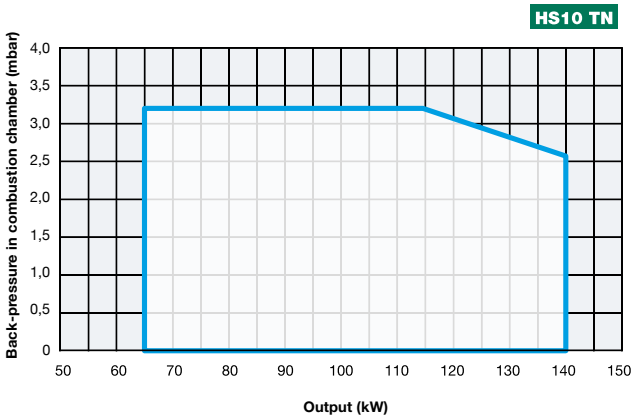
** Approximate values

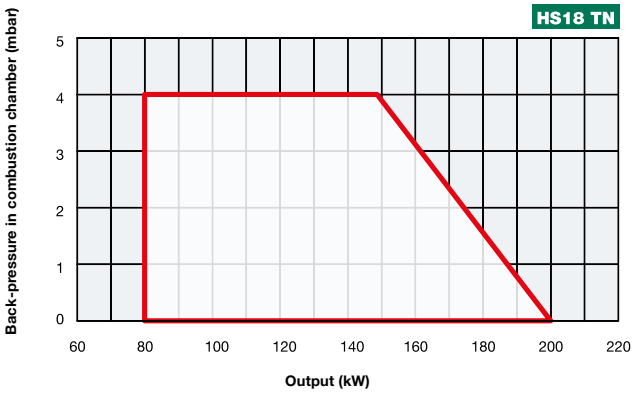
Model	Gas train	Operation	HS5 Code	HS5 Price €	HS10 Code	HS10 Price €
MG.TN.S.xx.A.0.15	½”	TN	001070141		-	
MG.TN.L.xx.A.0.15	½”	TN	001070241		-	
MG.TN.S.xx.A.0.20	¾”	TN	-		002070141	
MG.TN.L.xx.A.0.20	¾”	TN	-		002070241	

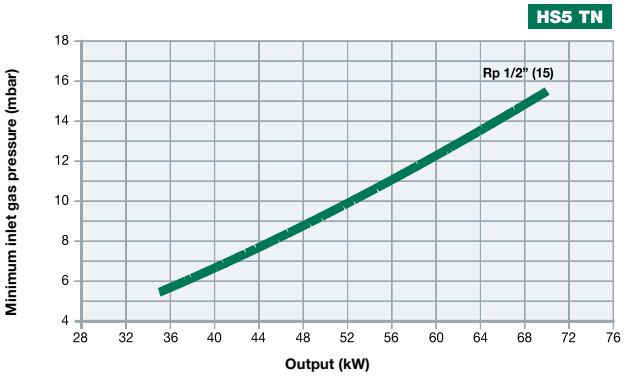
Model	Gas train	Operation	HS18 Code	HS18 Price €
MG.TN.S.xx.A.0.25	1”	TN	002070341	
MG.TN.L.xx.A.0.25	1”	TN	002070441	

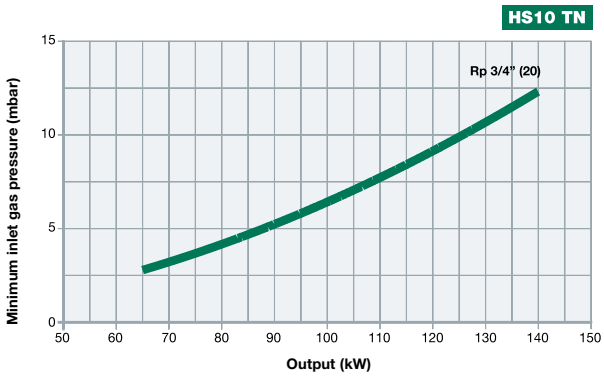
In compliance with:
- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

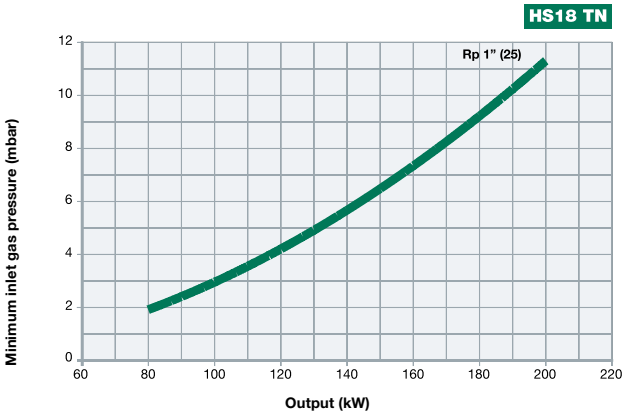












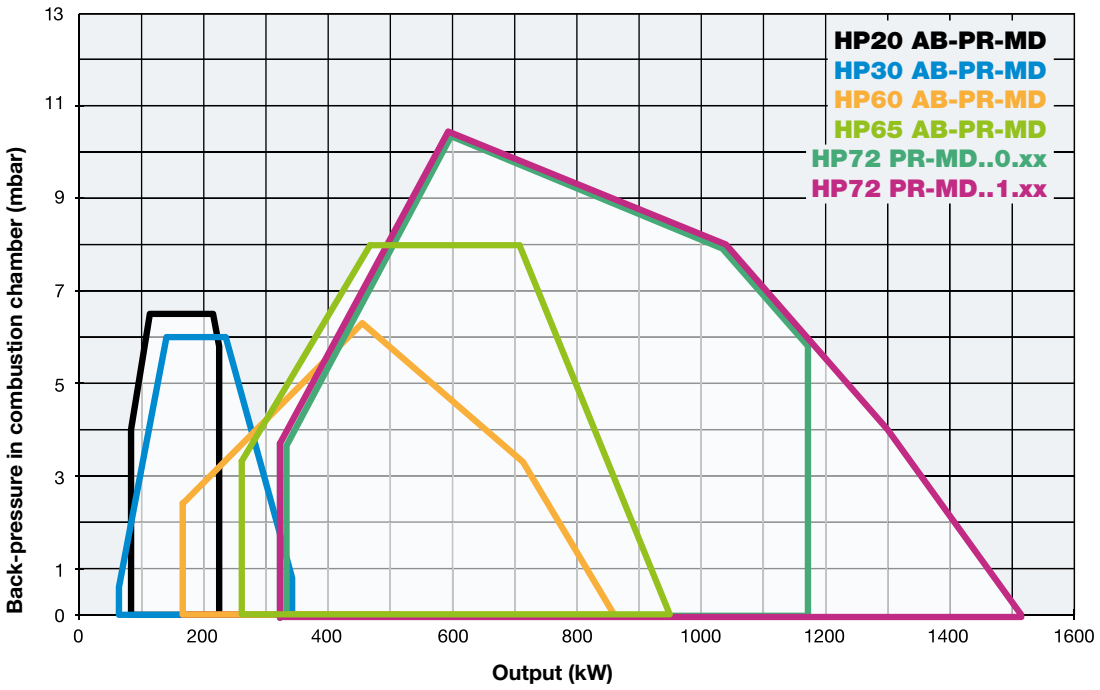
Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

tecnopress SERIES HP20 HP30 HP60 HP65 HP72

GAS/LIGHT OIL

These burners are characterized by the "spiral" line typical of the series TECNOPRESS. They are suitable both for big and for small outputs (up to 1.550 kW). Moreover they are suitable to burn either natural gas or light oil thanks to the adjustable combustion head which allows a good performance with both fuels.
The control panel is printed with a mimic diagram fitted with neon lamps to indicate the different stages of the burner operation.
Like all other models, they can work with standard and long blast tube. If the blast tube is shorter than the standard one, a spacer is available to adjust the insertion length into the combustion chamber.
All regulations and settings devices are simple and practical for both fuels thanks to high quality leverages.

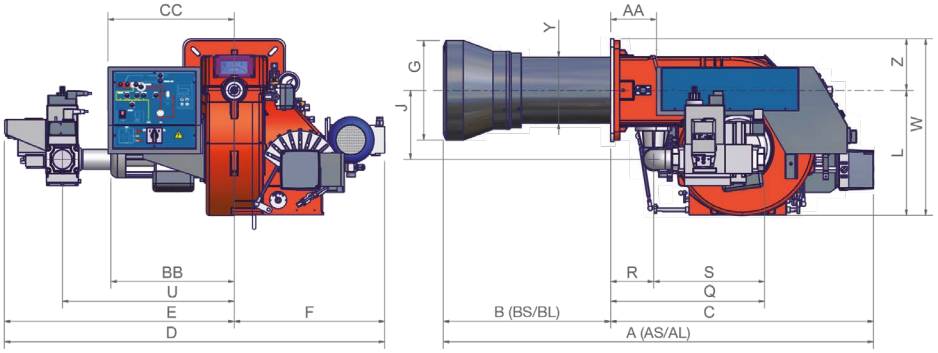
Electronic set up (optional)



TECHNICAL DETAILS

Type	Model	Power kW		Electric power	Fan motor	Pump motor	Gas connections
		min.	max.	supply	kW	kW	
HP20	MG.xx.x.xx.A.0.25	85	230	230 V 1N ac	0,37	0,18	1”
HP30	MG.xx.S.xx.A.0.xx	65	350	230 V 1N ac	0,37	0,18	1”¼ - 1”½
HP60	MG.xx.S.xx.A.0.xx	170	880	230/400 V 3N ac	1,10	0,55	1”¼ - 1”½ - 2” - DN65
HP65	MG.xx.S.xx.A.x.xx	270	970	230/400 V 3N ac	1,50	0,55	1”½ - 2” - DN65
HP72	MG.xx.S.xx.A.0.xx	330	1200	230/400 V 3N ac	2,20	0,55	1”½ - 2” - DN65 - DN80
HP72	MG.xx.S.xx.A.1.xx	330	1550	230/400 V 3N ac	2,20	0,55	1”½ - 2” - DN65 - DN80

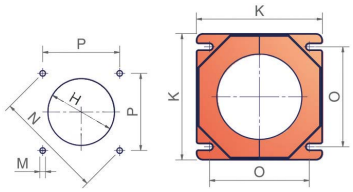
For the configuration of the gas train, see page 113



Type	Packaging dimensions** (mm)			
	l	p	h	kg
HP20/HP30	980	800	620	75
HP60	1360	930	820	120
HP65	1370	1130	820	130
HP72	1370	1130	820	160

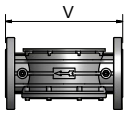
** Approximate values

HP20 - HP30 - HP60

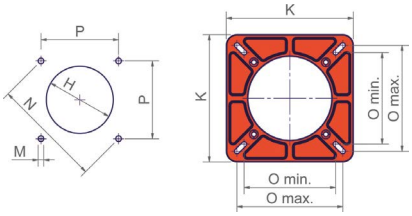


Suggested boiler drilling *Burner flange*

DN65 - DN80



HP65 - HP72



Suggested boiler drilling *Burner flange*

Type	Model	Overall dimensions** (mm)																												
		AA	AL	AS	BB	BL	BS	C	CC	D	E	F	G	H	J	K	L	M	N	O		P	Q	R	S	U	V	W	Y	Z
																				min.	max.									
HP20	MG.xx.x.xx.A.0.25	-	813	728	-	258	173	555	-	830	510	320	126	151	178	190	290	M10	219	155	155	155	-	-	-	360	-	-	115	-
HP30	MG.xx.S.xx.A.0.xx	-	-	855	-	-	300	555	-	830	510	320	150	162	178	190	290	M10	219	155	155	155	-	-	-	360	-	-	133	-
HP60	MG.xx.S.xx.A.0.32	99	-	1119	314	-	383	736	362	930	500	430	240	280•	210	240	344	M10	269	190	190	190	445	112	327	444	-	464	162	120
HP60	MG.xx.S.xx.A.0.40	99	-	1119	314	-	383	736	362	930	500	430	240	280•	210	240	344	M10	269	190	190	190	445	112	327	444	-	464	162	120
HP60	MG.xx.S.xx.A.0.50	99	-	1119	314	-	383	736	362	930	500	430	240	280•	210	240	344	M10	269	190	190	190	445	112	335	444	-	464	162	120
HP60	MG.xx.S.xx.A.0.65	99	-	1119	314	-	383	736	362	1115	685	430	240	280•	250	240	420	M10	269	190	190	190	845	112	403	540	292	540	162	120
HP65	MG.xx.S.xx.A.1.40	139	-	1156	347	-	362	794	380	1148	694	454	240	280	208	300	376	M10	330	216	250	233	457	130	327	519	-	531	162	155
HP65	MG.xx.S.xx.A.1.50	139	-	1156	347	-	362	794	380	1148	694	454	240	280	208	300	376	M10	330	216	250	233	465	130	335	519	-	531	162	155
HP65	MG.xx.S.xx.A.1.65	139	-	1156	347	-	362	794	380	1226	772	454	240	280	275	300	393	M10	330	216	250	233	533	130	403	565	292	548	162	155
HP72	MG.xx.S.xx.A.0.40	139	-	1299	373	-	505	794	382	1022	568	454	300	340•	208	300	376	M10	330	216	250	233	465	130	335	519	-	531	198	155
HP72	MG.xx.S.xx.A.0.50	139	-	1299	373	-	505	794	382	1022	568	454	300	340•	208	300	376	M10	330	216	250	233	457	130	327	519	-	531	198	155
HP72	MG.xx.S.xx.A.0.65	139	-	1299	373	-	505	794	382	1120	666	454	300	340•	275	300	393	M10	330	216	250	233	533	130	403	565	292	548	198	155
HP72	MG.xx.S.xx.A.0.80	139	-	1299	373	-	505	794	382	1120	666	454	300	340•	275	300	407	M10	330	216	250	233	574	130	444	565	310	562	198	155
HP72	MG.xx.S.xx.A.1.40	139	-	1299	373	-	505	794	382	1148	694	454	300	340•	208	300	376	M10	330	216	250	233	465	130	335	519	-	531	198	155
HP72	MG.xx.S.xx.A.1.50	139	-	1299	373	-	505	794	382	1148	694	454	300	340•	208	300	376	M10	330	216	250	233	457	130	327	519	-	531	198	155
HP72	MG.xx.S.xx.A.1.65	139	-	1299	373	-	505	794	382	1226	772	454	300	340•	275	300	393	M10	330	216	250	233	533	130	403	565	292	548	198	155
HP72	MG.xx.S.xx.A.1.80	139	-	1299	373	-	505	794	382	1228	774	454	300	340•	275	300	407	M10	330	216	250	233	574	130	444	565	310	562	198	155

• Install a counter-flange between the burner and the boiler or in alternative, drill the H hole smaller but higher than the Y point and assemble the blast tube inside the boiler.
** Approximate values

MECHANICAL OPERATION

Model	Gas train	Operation	HP20 Code	HP20 Price €	HP30 Code	HP30 Price €
MG.AB.S.xx.A.0.25	1”	AB	003070142		-	-
MG.AB.L.xx.A.0.25	1”	AB	003070242		-	
MG.PR.S.xx.A.0.25	1”	PR	003070143		-	
MG.PR.L.xx.A.0.25	1”	PR	003070243		-	
MG.MD.S.xx.A.0.25	1”	MD(*)	003070144		-	
MG.MD.L.xx.A.0.25	1”	MD(*)	003070244		-	
MG.AB.S.xx.A.0.32	1”¼	AB	-		003070342	
MG.AB.S.xx.A.0.40	1”½	AB	-		003070542	
MG.PR.S.xx.A.0.32	1”¼	PR	-		003070343	
MG.PR.S.xx.A.0.40	1”½	PR	-		003070543	
MG.MD.S.xx.A.0.32	1”¼	MD(*)	-		003070344	
MG.MD.S.xx.A.0.40	1”½	MD(*)	-		003070544	

Model	Gas train	Operation	HP60 Code	HP60 Price €	HP65 Code	HP65 Price €
MG.AB.S.xx.A.0.32	1”¼	AB	004070542		-	
MG.AB.S.xx.A.0.40	1”¼	AB	004070141		008071242	
MG.AB.S.xx.A.0.50	2”	AB	004070242		008071042	
MG.AB.S.xx.A.0.65	DN65	AB	004070342		008071142	
MG.PR.S.xx.A.0.32	1”¼	PR	004070543		-	
MG.PR.S.xx.A.0.40	1”½	PR	004070143		008071243	
MG.PR.S.xx.A.0.50	2”	PR	004070243		008071043	
MG.PR.S.xx.A.0.65	DN65	PR	004070343		008071143	
MG.MD.S.xx.A.0.32	1”¼	MD(*)	004070544		-	
MG.MD.S.xx.A.0.40	1”½	MD(*)	004070144		008071244	
MG.MD.S.xx.A.0.50	2”	MD(*)	004070244		008071044	
MG.MD.S.xx.A.0.65	DN65	MD(*)	004070344		008071144	

▪ Burner equipped with external air inlet

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)

In compliance with:

- GAR Directive 2016/426/EU

- Low Tension Directive 2014/35/UE

- Electromagnetic Compatibility Directive 2014/30/UE

- Machinery Directive 2006/42/CE

MECHANICAL OPERATION

Model	Gas train	Operation	HP72 Code	HP72 Price €
MG.AB.S.xx.A.0.40	1”½	AB	008070442	
MG.AB.S.xx.A.0.50	2”	AB	008070142	
MG.AB.S.xx.A.0.65	DN65	AB	008070242	
MG.AB.S.xx.A.0.80	DN80	AB	008070342	
MG.AB.S.xx.A.1.40	1”½	AB	008070452	
MG.AB.S.xx.A.1.50	2”	AB	008070152	
MG.AB.S.xx.A.1.65	DN65	AB	008070252	
MG.AB.S.xx.A.1.80	DN80	AB	008070352	
MG.PR.S.xx.A.0.40	1”½	PR	008070443	
MG.PR.S.xx.A.0.50	2”	PR	008070143	
MG.PR.S.xx.A.0.65	DN65	PR	008070243	
MG.PR.S.xx.A.0.80	DN80	PR	008070343	
MG.PR.S.xx.A.1.40▪	1”½	PR	008070453	
MG.PR.S.xx.A.1.50▪	2”	PR	008070153	
MG.PR.S.xx.A.1.65▪	DN65	PR	008070253	
MG.PR.S.xx.A.1.80▪	DN80	PR	008070353	
MG.MD.S.xx.A.0.40	1”½	MD(*)	008070444	
MG.MD.S.xx.A.0.50	2”	MD(*)	008070144	
MG.MD.S.xx.A.0.65	DN65	MD(*)	008070244	
MG.MD.S.xx.A.0.80	DN80	MD(*)	008070344	
MG.MD.S.xx.A.1.40▪	1”½	MD(*)	008070454	
MG.MD.S.xx.A.1.50▪	2”	MD(*)	008070154	
MG.MD.S.xx.A.1.65▪	DN65	MD(*)	008070254	
MG.MD.S.xx.A.1.80▪	DN80	MD(*)	008070354	

▪ Burner equipped with external air inlet

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

Model	Gas train	Operation	HP20 Code	HP20 Price €	HP30 Code	HP30 Price €
MG.PR.S.xx.A.1.25.EC	1”	PR	00307015C		-	
MG.PR.L.xx.A.1.25.EC	1”	PR	00307025C		-	
MG.PR.S.xx.A.1.32.EC	1”¼	PR	-		00307035C	
MG.MD.S.xx.A.1.25.EC	1”	MD(*)	00307015G		-	
MG.MD.L.xx.A.1.25.EC	1”	MD(*)	00307025G		-	
MG.MD.S.xx.A.1.32.EC	1”¼	MD(*)	-		00307035G	

Model	Gas train	Operation	HP60 Code	HP60 Price €	HP65 Code	HP65 Price €
MG.PR.S.xx.A.1.32.EC	1”¼	PR	00407055C			
MG.PR.S.xx.A.1.40.EC	1”½	PR	00407015C		00807125C	
MG.PR.S.xx.A.1.50.EC	2”	PR	00407025C		00807105C	
MG.PR.S.xx.A.1.65.EC	DN65	PR	00407035C		00807115C	
MG.MD.S.xx.A.1.32.EC	1”¼	MD(*)	00407055G		-	
MG.MD.S.xx.A.1.40.EC	1”½	MD(*)	00407015G		00807125G	
MG.MD.S.xx.A.1.50.EC	2”	MD(*)	00407025G		00807105G	
MG.MD.S.xx.A.1.65.EC	DN65	MD(*)	00407035G		00807115G	

Model	Gas train	Operation	HP72 Code	HP72 Price €
MG.PR.S.xx.A.1.40.EC	1”½	PR	00807045C	
MG.PR.S.xx.A.1.50.EC	2”	PR	00807015C	
MG.PR.S.xx.A.1.65.EC	DN65	PR	00807025C	
MG.PR.S.xx.A.1.80.EC	DN80	PR	00807035C	
MG.MD.S.xx.A.1.40.EC	1”½	MD(*)	00807045G	
MG.MD.S.xx.A.1.50.EC	2”	MD(*)	00807015G	
MG.MD.S.xx.A.1.65.EC	DN65	MD(*)	00807025G	
MG.MD.S.xx.A.1.80.EC	DN80	MD(*)	00807035G	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)

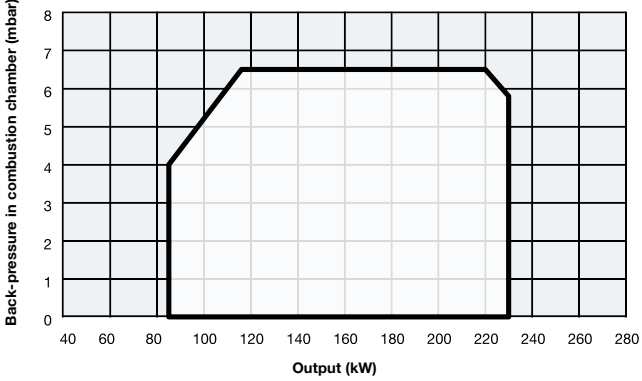
In compliance with:

- **GAR Directive 2016/426/EU**
- **Low Tension Directive 2014/35/UE**
- **Electromagnetic Compatibility Directive 2014/30/UE**
- **Machinery Directive 2006/42/CE**

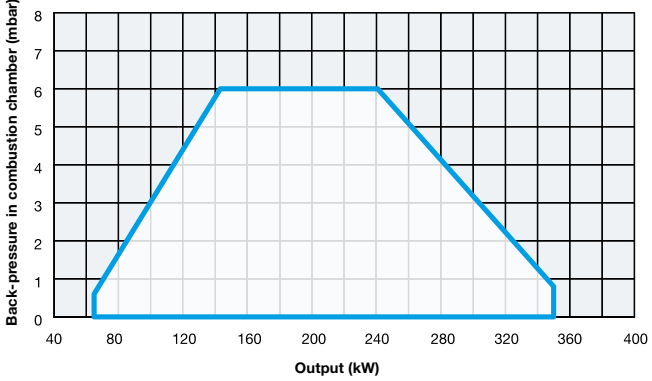
CIB UNIGAS < 120 mg/kWh CLASS 2 Low NOx

HP20 HP30 HP60 HP65 HP72 tecnopress SERIES

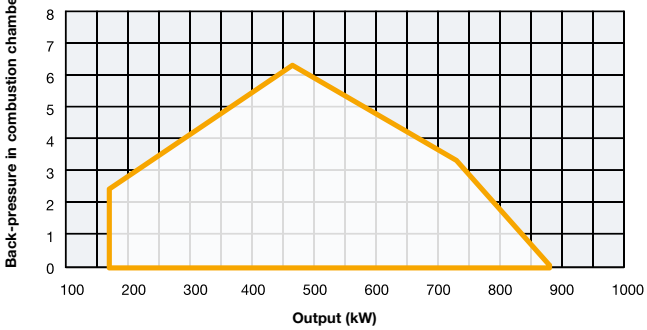
HP20 AB-PR-MD



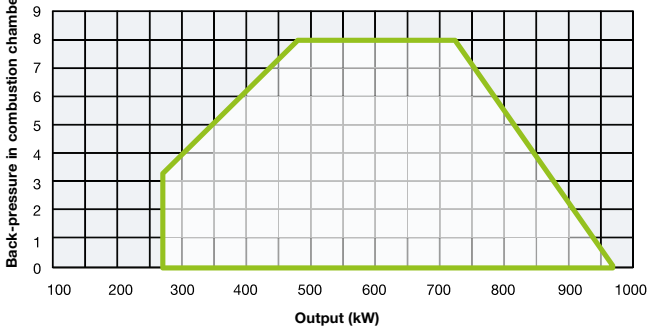
HP30 AB-PR-MD



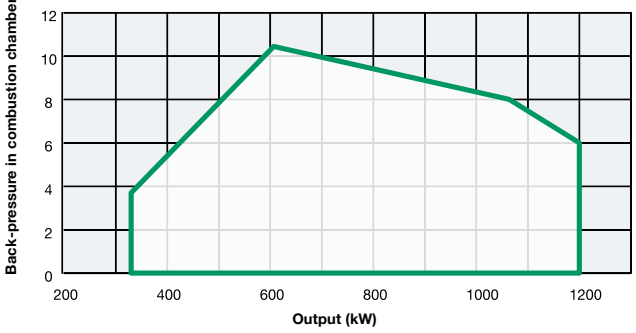
HP60 AB-PR-MD



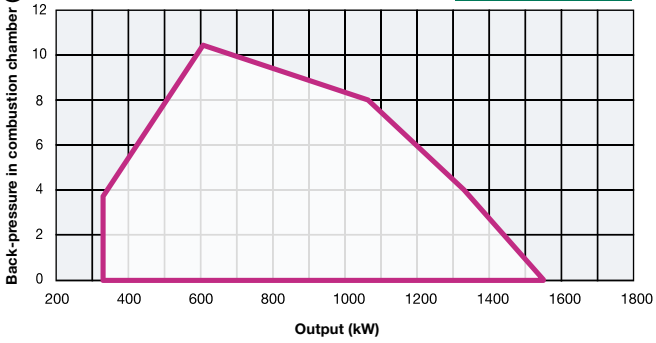
HP65 AB-PR-MD



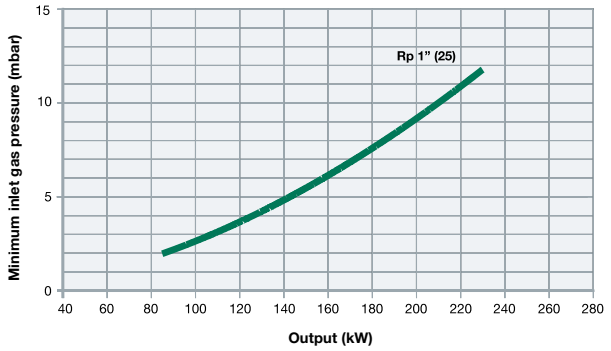
HP72 AB-PR-MD



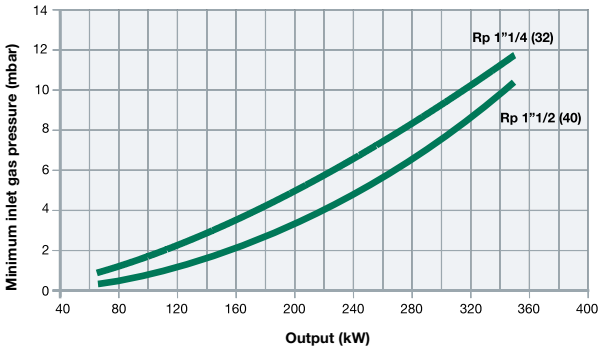
HP72 PR-MD..1.xx



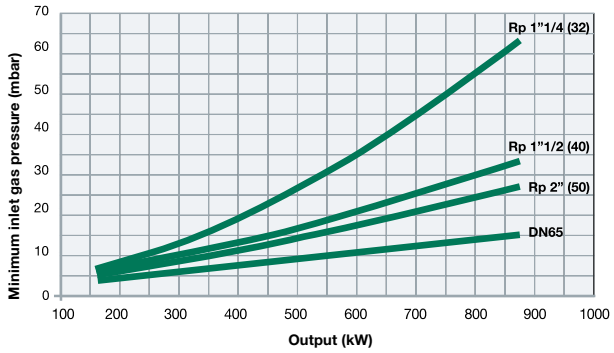
HP20 AB-PR-MD



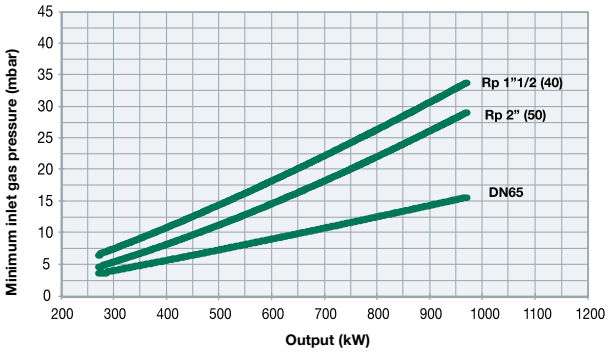
HP30 AB-PR-MD



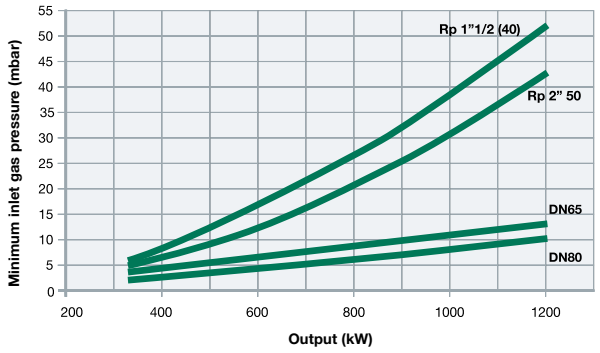
HP60 AB-PR-MD



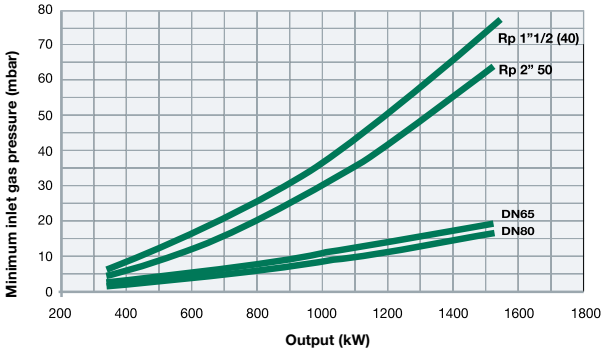
HP65 AB-PR-MD



HP72 AB-PR-MD

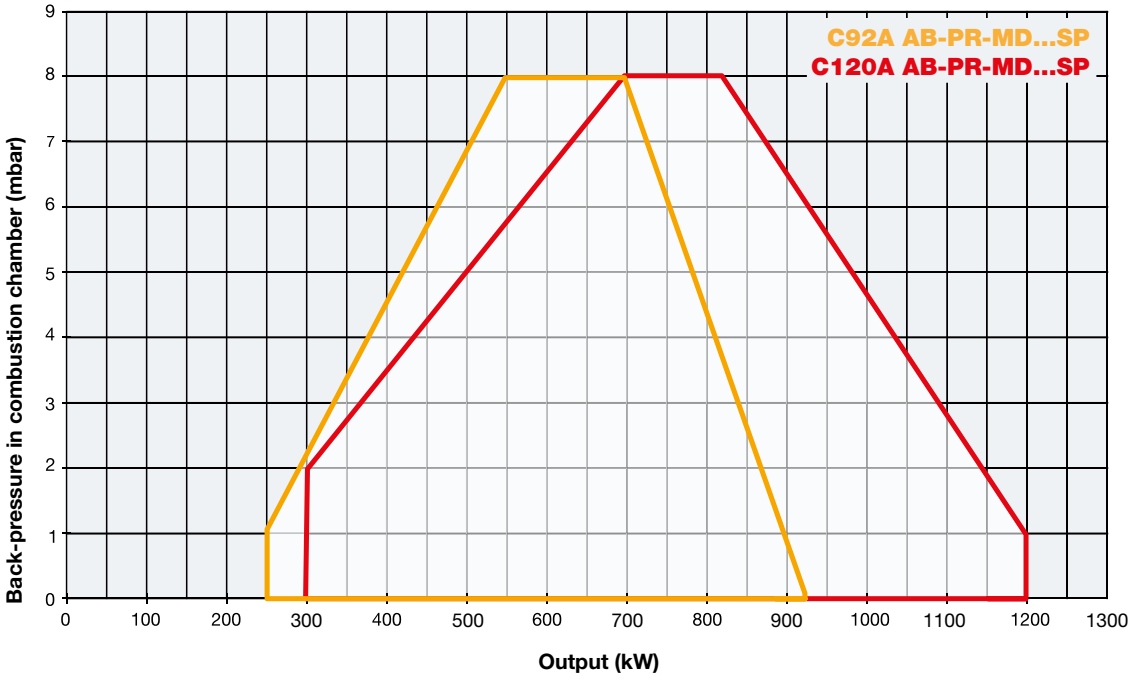


HP72 PR-MD..1.xx



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

Like all the other dual fuels models, this series perfectly combine the mechanical devices and systems typical of gas burners with the ones of light oil burners. In this way this series can burn the two flues separately.
This is possible because these burners are equipped with an independent electric motor for the activation of the oil pump. As a consequence during gas firing, the oil pump motor does not operate and remains off.
They are equipped with a high performance combustion head designed to achieve the maximum efficiency when they work on natural gas; combustion head is also equipped with a by-passing nozzle which, using a pressure regulator, can reach a turndown ratio 1:3.
The control panel is printed with a mimic diagram fitted with neon lamps to indicate the different stages of the burner operation. The burner is provided by an UV photocell to detect the flame during operation.

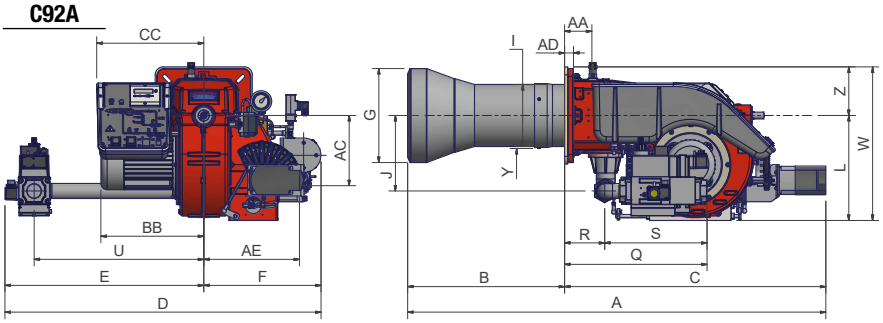


TECHNICAL DETAILS

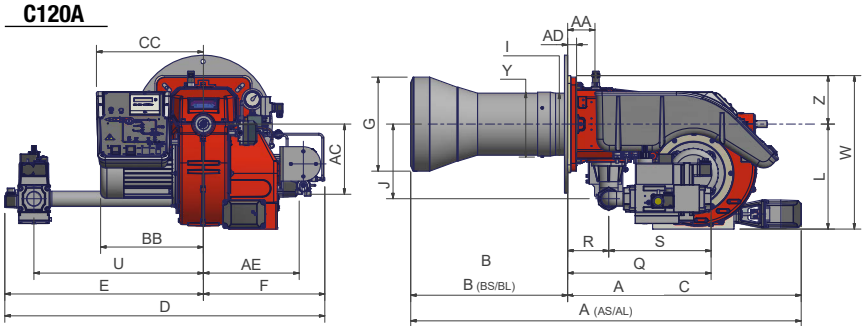
Type	Model	Power kW		Electric power	Fan motor	Pump motor	Gas connections	Noise level
		min.	max.	supply	kW	kW		dBA
C92A	MG.xx.SP.xx.0.xx	250	920	230/400 V 3N ac	1,1	0,45	1"½ - 1"¼ - 2" - DN65	< 80
C120A	MG.xx.SP.xx.0.xx	300	1.200	230/400 V 3N ac	1,5	0,45	1"½ - 2" - DN65 - DN80	< 80

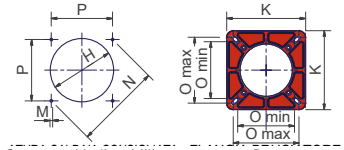
For the configuration of the gas train, see page 113

C92A



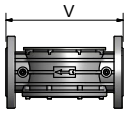
C120A

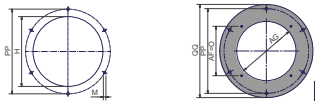




Suggested boiler drilling *Burner flange*

DN65 DN80





Suggested boiler drilling *Counterflange*

Type	Packaging dimensions** (mm)			
	l	p	h	kg
C92A	1730	1280	1020	140
C120A	1730	1280	1020	140

** Approximate values

Type	Model	Overall dimensions** (mm)																																
		AA	AC	AD	AE	AG	A	BB	B	C	CC	D	E	F	G	H	I	J	K	L	M	N	O min	O max	P	PP	Q	R	S	U	V	W	Y	Z
C92A	MG.xx.SP.xx.A.0.32	87	224	28	306	-	1192	328	358	834	342	1008	634	374	240	270	198	241	300	335	M10	330	216	250	233	-	387	131	256	541	-	490	162	155
C92A	MG.xx.SP.xx.A.0.40	87	224	28	306	-	1192	328	358	834	342	1008	634	374	240	270	198	241	300	335	M10	330	216	250	233	-	458	131	327	541	-	490	162	155
C92A	MG.xx.SP.xx.A.0.50	87	224	28	306	-	1192	328	358	834	342	1008	634	374	240	270	198	241	300	335	M10	330	216	250	233	-	471	131	340	525	-	490	162	155
C92A	MG.xx.SP.xx.A.0.65	87	224	28	306	-	1192	328	358	834	342	1094	720	374	240	270	198	241	300	335	M10	330	216	250	233	-	571	131	440	593	292	490	162	155
C120A	MG.xx.SP.xx.A.1.40	87	224	28	306	280	1335	328	501	834	342	993	619	374	300	330	211	238	300	335	M12	330	216	250	233	400	458	131	327	541	-	490	198	155
C120A	MG.xx.SP.xx.A.1.50	87	224	28	306	280	1335	328	501	834	342	993	619	374	300	330	211	238	300	335	M12	330	216	250	233	400	469	131	338	541	-	490	198	155
C120A	MG.xx.SP.xx.A.1.65	87	224	28	306	280	1335	328	501	834	342	1064	690	374	300	330	211	284	300	335	M12	330	216	250	233	400	539	131	408	565	292	490	198	155
C120A	MG.xx.SP.xx.A.1.80	87	224	28	306	280	1335	328	501	834	342	1064	690	374	300	330	211	284	300	335	M12	330	216	250	233	400	559	131	428	565	310	490	198	155

** Approximate values

MECHANICAL OPERATION

Model	Gas train	Operation	C92A...SP Code	Price €
MG.AB.SP.xx.A.0.32	1"¼	AB	033070142	
MG.AB.SP.xx.A.0.40	1"½	AB	033070242	
MG.AB.SP.xx.A.0.50	2"	AB	033070342	
MG.AB.SP.xx.A.0.65	DN65	AB	033070442	
MG.PR.SP.xx.A.0.32	1"¼	PR	033070143	
MG.PR.SP.xx.A.0.40	1"½	PR	033070243	
MG.PR.SP.xx.A.0.50	2"	PR	033070343	
MG.PR.SP.xx.A.0.65	DN65	PR	033070443	
MG.MD.SP.xx.A.0.32	1"¼	MD(*)	033070144	
MG.MD.SP.xx.A.0.40	1"½	MD(*)	033070244	
MG.MD.SP.xx.A.0.50	2"	MD(*)	033070344	
MG.MD.SP.xx.A.0.65	DN65	MD(*)	033070444	

Model	Gas train	Operation	C120A ...SP Code	Price €
MG.AB.SP.xx.A.0.40	1"½	AB	033070542	
MG.AB.SP.xx.A.0.50	2"	AB	033070642	
MG.AB.SP.xx.A.0.65	DN65	AB	033070742	
MG.AB.SP.xx.A.0.80	DN80	AB	033070842	
MG.PR.SP.xx.A.0.40	1"½	PR	033070543	
MG.PR.SP.xx.A.0.50	2"	PR	033070643	
MG.PR.SP.xx.A.0.65	DN65	PR	033070743	
MG.PR.SP.xx.A.0.80	DN80	PR	033070843	
MG.MD.SP.xx.A.0.40	1"½	MD(*)	033070544	
MG.MD.SP.xx.A.0.50	2"	MD(*)	033070644	
MG.MD.SP.xx.A.0.65	DN65	MD(*)	033070744	
MG.MD.SP.xx.A.0.80	DN80	MD(*)	033070844	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)
In compliance with:
- **GAR Directive 2016/426/EU**
- **Low Tension Directive 2014/35/UE**
- **Electromagnetic Compatibility Directive 2014/30/UE**
- **Machinery Directive 2006/42/CE**

ELECTRONIC OPERATION

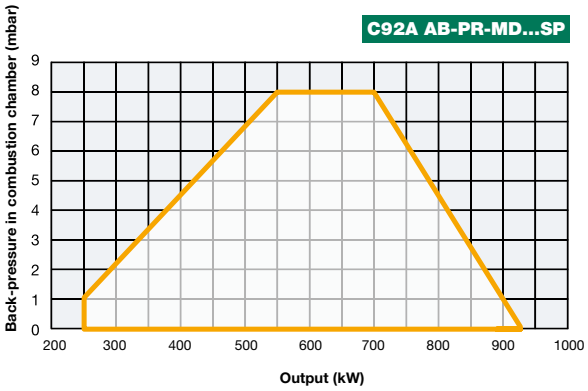
Model	Gas train	Operation	C92A Code	C92A Price €
MG.PR.SP.xx.A.1.32.EC	1"¼	PR	03307015C	
MG.PR.SP.xx.A.1.40.EC	1"½	PR	03307025C	
MG.PR.SP.xx.A.1.50.EC	2"	PR	03307035C	
MG.PR.SP.xx.A.1.65.EC	DN65	PR	03307045C	
MG.MD.SP.xx.A.1.32.EC	1"¼	MD(*)	03307015G	
MG.MD.SP.xx.A.1.40.EC	1"½	MD(*)	03307025G	
MG.MD.SP.xx.A.1.50.EC	2"	MD(*)	03307035G	
MG.MD.SP.xx.A.1.65.EC	DN65	MD(*)	03307045G	
MG.MD.SP.xx.A.1.32.ES	1"¼	MD(*)	03307015S	
MG.MD.SP.xx.A.1.40.ES	1"½	MD(*)	03307025S	
MG.MD.SP.xx.A.1.50.ES	2"	MD(*)	03307035S	
MG.MD.SP.xx.A.1.65.ES	DN65	MD(*)	03307045S	

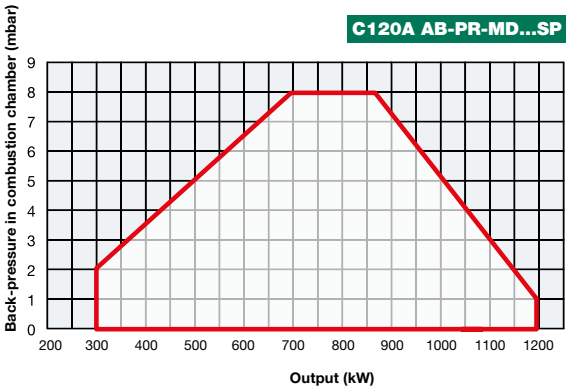
Model	Gas train	Operation	C120A Code	C120A Price €
MG.PR.SP.xx.A.1.40.EC	1"½	PR	03307055C	
MG.PR.SP.xx.A.1.50.EC	2"	PR	03307065C	
MG.PR.SP.xx.A.1.65.EC	DN65	PR	03307075C	
MG.PR.SP.xx.A.1.80.EC	DN80	PR	03307085C	
MG.MD.SP.xx.A.1.40.EC	1"½	MD(*)	03307055G	
MG.MD.SP.xx.A.1.50.EC	2"	MD(*)	03307065G	
MG.MD.SP.xx.A.1.65.EC	DN65	MD(*)	03307075G	
MG.MD.SP.xx.A.1.80.EC	DN80	MD(*)	03307085G	
MG.MD.SP.xx.A.1.40.ES	1"½	MD(*)	03307055S	
MG.MD.SP.xx.A.1.50.ES	2"	MD(*)	03307065S	
MG.MD.SP.xx.A.1.65.ES	DN65	MD(*)	03307075S	
MG.MD.SP.xx.A.1.80.ES	DN80	MD(*)	03307085S	

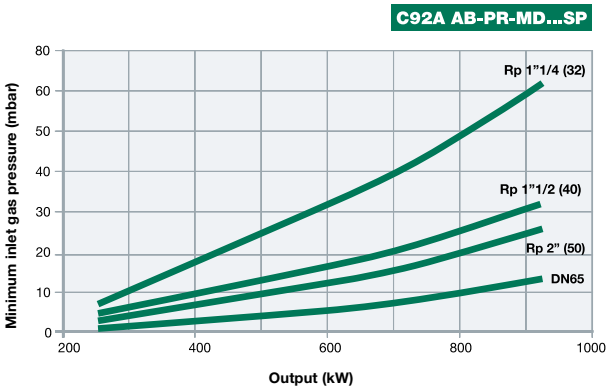
(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)

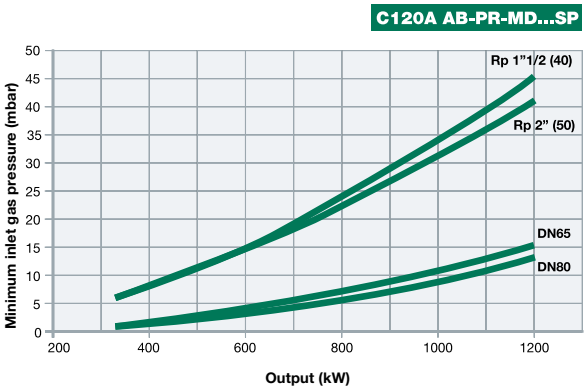
In compliance with:

- **GAR Directive 2016/426/EU**
- **Low Tension Directive 2014/35/UE**
- **Electromagnetic Compatibility Directive 2014/30/UE**
- **Machinery Directive 2006/42/CE**







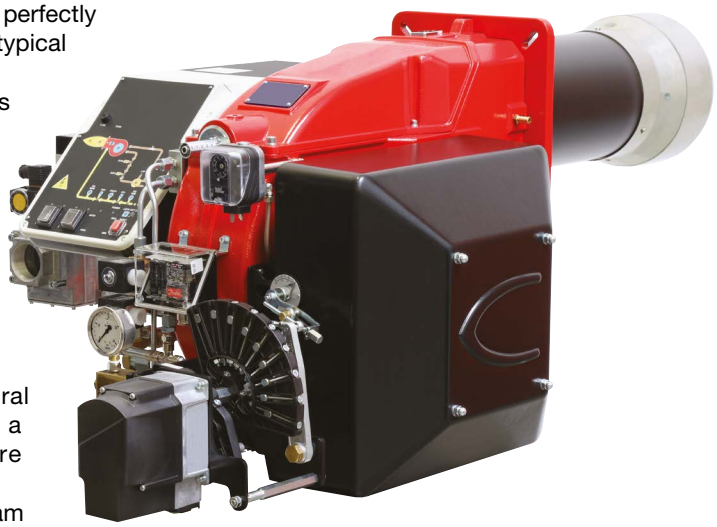


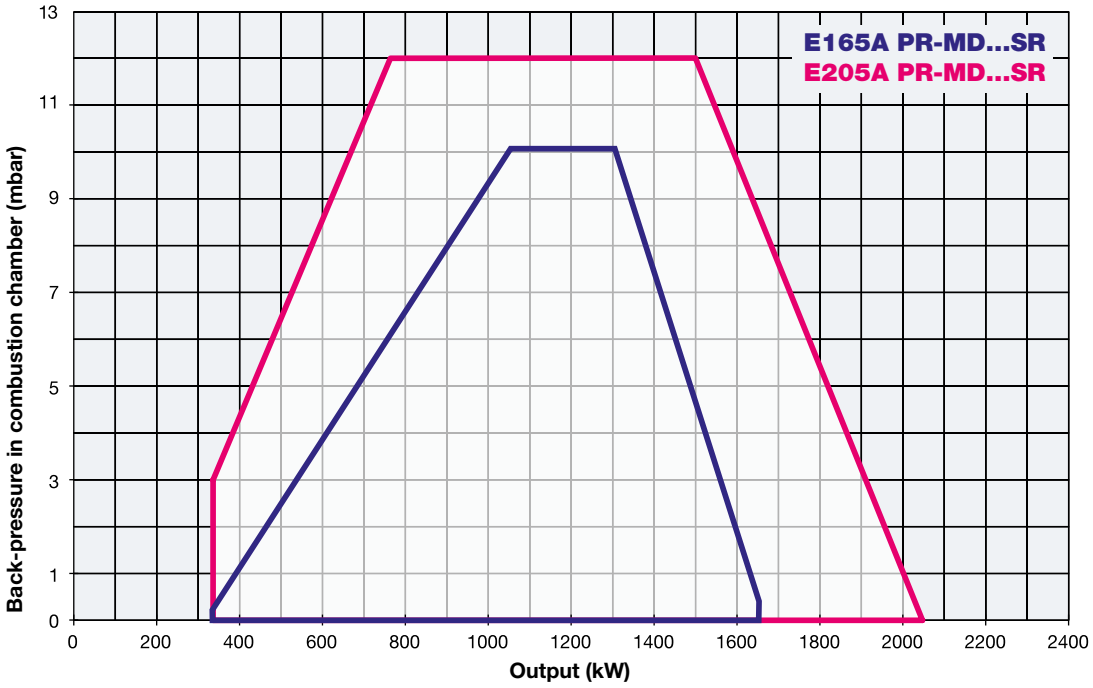
Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

tecnopress SERIES E165A E205A...SR

GAS/LIGHT OIL

Like all the other dual fuels models, this series perfectly combine the mechanical devices and systems typical of gas burners with the ones of light oil burners.
In this way this series can burn the two flues separately.
This is possible because these burners are equipped with an independent electric motor for the activation of the oil pump.
As a consequence during gas firing, the oil pump motor does not operate and remains off.
They are equipped with a high performance combustion head designed to achieve the maximum efficiency when they work on natural gas; combustion head is also equipped with a by-passing nozzle which, using a pressure regulator, can reach a turndown ratio 1:3.
The control panel is printed with a mimic diagram fitted with neon lamps to indicate the different stages of the burner operation. The burner is provided by an UV photocell to detect the flame during operation.

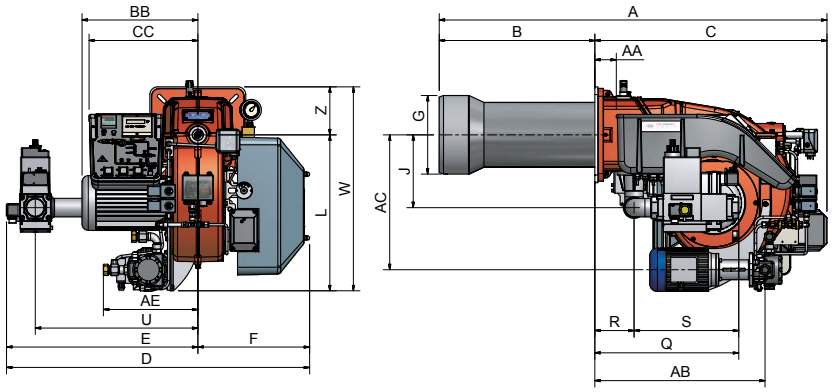


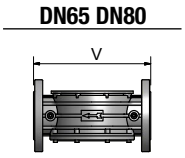


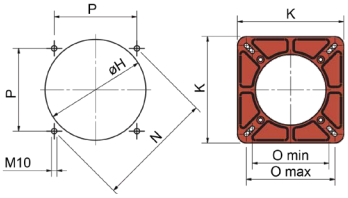
TECHNICAL DETAILS

Type	Model	Power kW min.	Power kW max.	Electric power supply	Fan motor kW	Pump motor kW	Gas connections dBA	Noise level
E165A	MG.xx.SR.xx.A.1.xx	320	1.650	230/400 V 3N ac	2,2	0,55	1"½ - 2" - DN65 - DN80	< 75
E205A	MG.xx.SR.xx.A.1.xx	340	2.050	230/400 V 3N ac	3,0	0,55	1"½ - 2" - DN65 - DN80	< 75

For the configuration of the gas train, see page 113







Suggested boiler drilling *Burner flange*

Type	Packaging dimensions** (mm) l	p	h	kg
E165A	1730	1280	1020	160
E205A	1730	1280	1020	160

** Approximate values

Type	Model	Overall dimensions** (mm) A	AA	AB	B	BB	C	CC	D	E	F	G	H	J	K	L	M	N	O min.	O max.	P	Q	R	S	U	V	W	Z
E165A	MG.xx.SR.xx.A.1.40	1329	69	550	498	372	831	352	1050	716	362	234	264	233	300	503	M10	330	216	250	233	457	130	327	541	-	658	155
E165A	MG.xx.SR.xx.A.1.50	1329	69	550	498	372	831	352	985	651	362	234	264	233	300	503	M10	330	216	250	233	472	130	342	526	-	658	155
E165A	MG.xx.SR.xx.A.1.65	1329	69	550	498	372	831	352	1134	800	362	234	264	233	300	503	M10	330	216	250	233	562	130	432	593	292	658	155
E165A	MG.xx.SR.xx.A.1.80	1329	69	550	498	372	831	352	1108	774	362	234	264	233	300	503	M10	330	216	250	233	562	130	432	565	310	658	155
E205A	MG.xx.SR.xx.A.1.40	1334	69	550	503	403	831	352	1050	716	362	254	270	235	300	503	M10	330	216	250	233	457	130	327	541	-	658	155
E205A	MG.xx.SR.xx.A.1.50	1334	69	550	503	403	831	352	985	651	362	254	270	235	300	503	M10	330	216	250	233	472	130	342	526	-	658	155
E205A	MG.xx.SR.xx.A.1.65	1334	69	550	503	403	831	352	1134	800	362	254	270	235	300	503	M10	330	216	250	233	562	130	432	593	292	658	155
E205A	MG.xx.SR.xx.A.1.80	1334	69	550	503	403	831	352	1108	774	362	254	270	235	300	503	M10	330	216	250	233	558	130	428	565	310	658	155

** Approximate values

MECHANICAL OPERATION

Model	Gas train	Operation	E165A...SR Code	E165A...SR Price €	E205A...SR Code	E205A...SR Price €
MG.PR.SR.xx.A.1.40	1"½	PR	030071753		030072153	
MG.PR.SR.xx.A.1.50	2"	PR	030071853		030072253	
MG.PR.SR.xx.A.1.65	DN65	PR	030071953		030072353	
MG.PR.SR.xx.A.1.80	DN80	PR	030072053		030072453	
MG.MD.SR.xx.A.1.40	1"½	MD(*)	030071754		030072154	
MG.MD.SR.xx.A.1.50	2"	MD(*)	030071854		030072254	
MG.MD.SR.xx.A.1.65	DN65	MD(*)	030071954		030072354	
MG.MD.SR.xx.A.1.80	DN80	MD(*)	030072054		030072454	

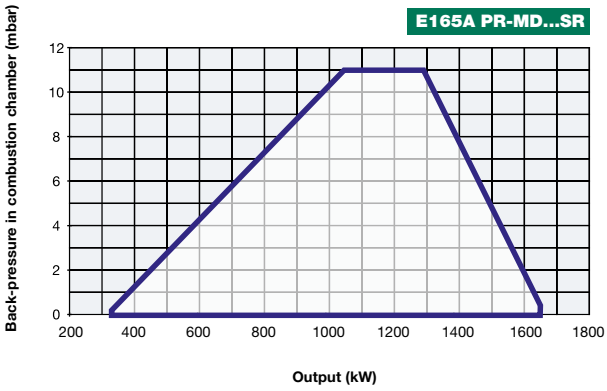
ELECTRONIC OPERATION

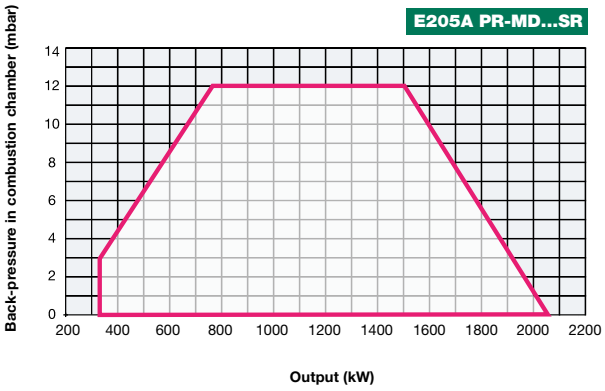
Model	Gas train	Operation	E165A...SR Code	E165A...SR Price €	E205A...SR Code	E205A...SR Price €
MG.PR.SR.xx.A.1.40.EC	1"½	PR	03007175C		03007215C	
MG.PR.SR.xx.A.1.50.EC	2"	PR	03007185C		03007225C	
MG.PR.SR.xx.A.1.65.EC	DN65	PR	03007195C		03007235C	
MG.PR.SR.xx.A.1.80.EC	DN80	PR	03007205C		03007245C	
MG.MD.SR.xx.A.1.40.EC	1"½	MD(*)	03007175G		03007215G	
MG.MD.SR.xx.A.1.50.EC	2"	MD(*)	03007185G		03007225G	
MG.MD.SR.xx.A.1.65.EC	DN65	MD(*)	03007195G		03007235G	
MG.MD.SR.xx.A.1.80.EC	DN80	MD(*)	03007205G		03007245G	
MG.MD.SR.xx.A.1.40.ES	1"½	MD(*)	03007175S		03007215S	
MG.MD.SR.xx.A.1.50.ES	2"	MD(*)	03007185S		03007225S	
MG.MD.SR.xx.A.1.65.ES	DN65	MD(*)	03007195S		03007235S	
MG.MD.SR.xx.A.1.80.ES	DN80	MD(*)	03007205S		03007245S	

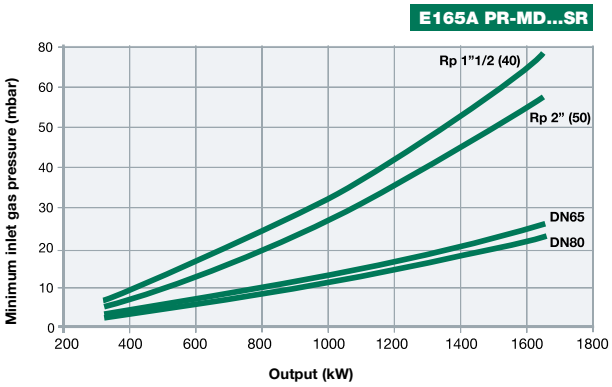
(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)

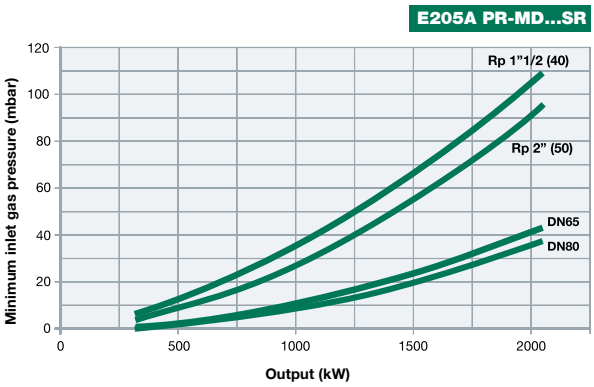
In compliance with:

- **GAR Directive 2016/426/EU**
- **Low Tension Directive 2014/35/UE**
- **Electromagnetic Compatibility Directive 2014/30/UE**
- **Machinery Directive 2006/42/CE**









Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

LOW NO_x DUAL FUEL BURNERS NATURAL GAS/LIGHT OIL

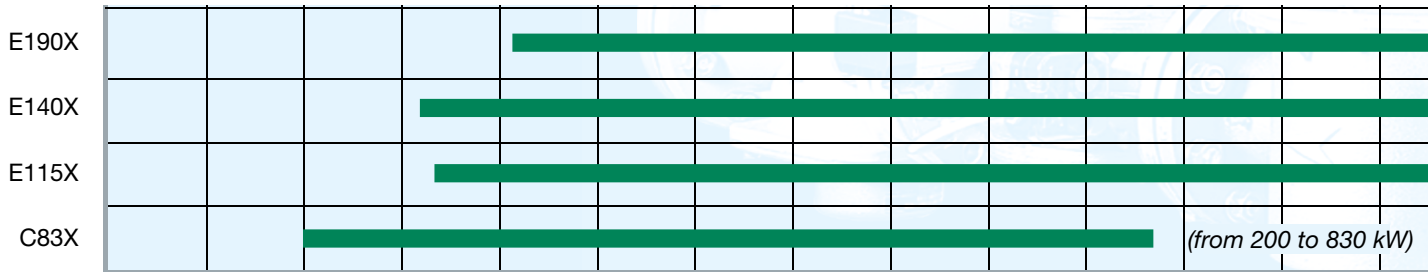
NEW **tecnopress series**

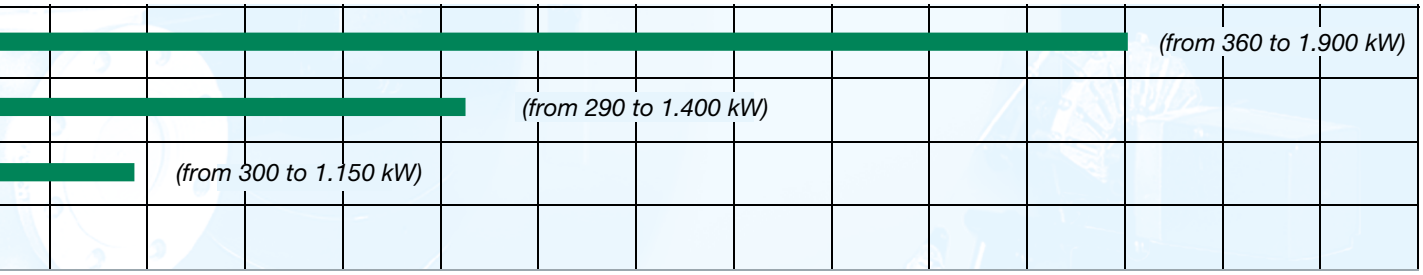
C83X...xP - PR/MD

NEW **tecnopress series**

E115X...xR - PR/MD
E140X...xR - PR/MD
E190X...xR - PR/MD

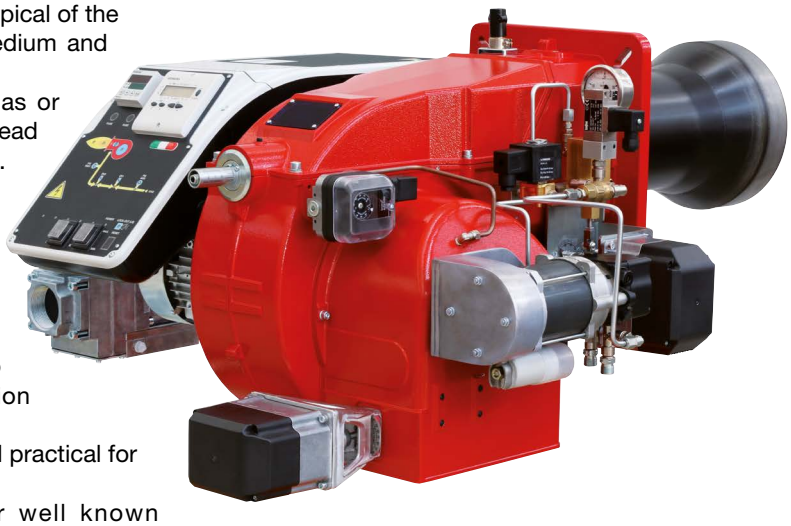
Type



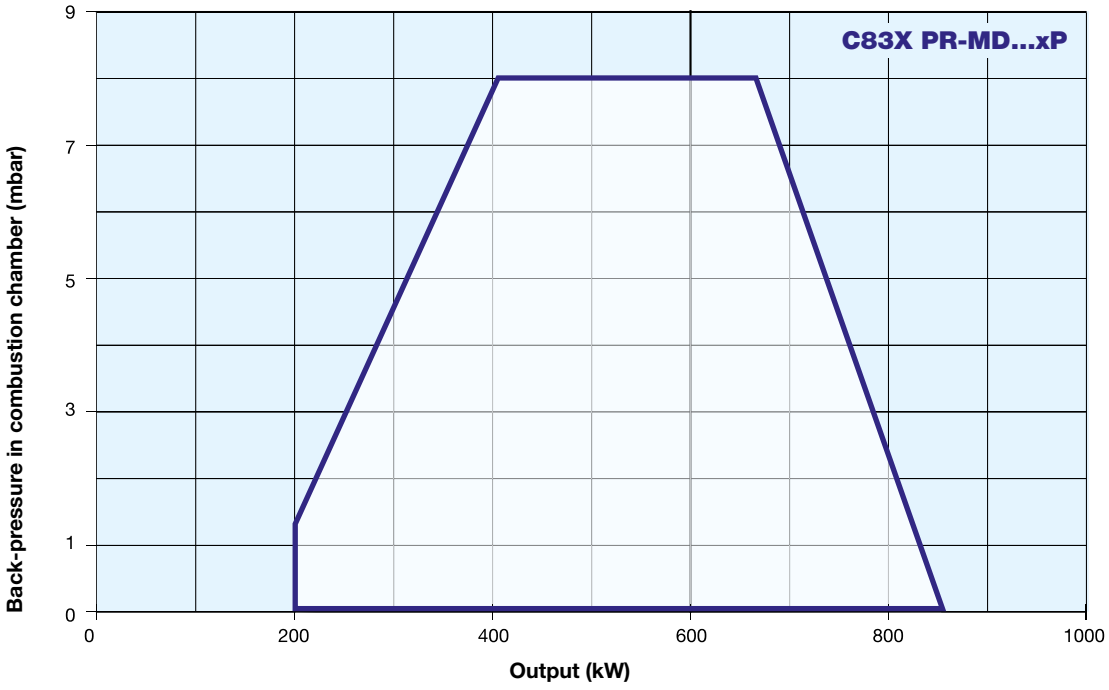

(from 360 to 1.900 kW)
(from 290 to 1.400 kW)
(from 300 to 1.150 kW)

tecnopress SERIES C83X...xP

GAS/LIGHT OIL



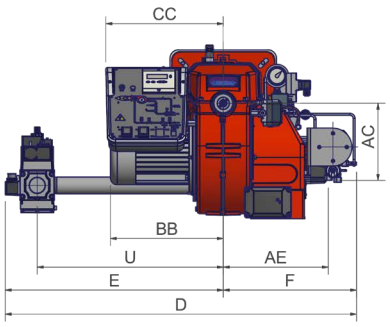
This burner is characterized by the «spiral» line typical of the series TECNOPRESS. It is suitable both for medium and small output up to 830 kW.
Moreover it is suitable to burn either natural gas or light oil, thanks to the adjustable combustion head which allows a good performance with both fuels.
The control panel is printed with a mimic diagram fitted with neon lamps to indicate the different stages of the burner operation and any abnormalities.
Like all other models, it can work with standard and long blast tube. If the blast tube is shorter than the standard one, a spacer is available to adjust the insertion length into the combustion chamber.
All regulations and setting devices are simple and practical for both fuels thanks to the high quality leverages.
This new series of burners integrates our well known performance and reliability characteristics with the new air inlet system equipped with a silencer and a new combustion head which guarantees low pollutant emissions (gas side < 80mg/kWh Class 3 EN676).

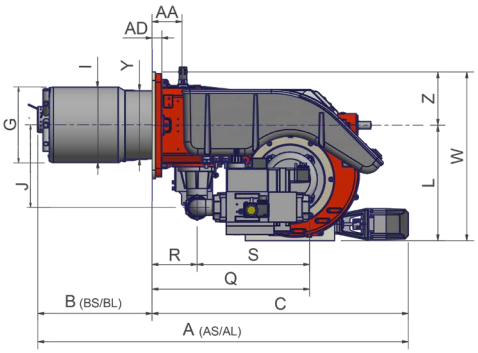


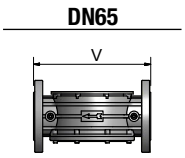
TECHNICAL DETAILS

Type	Model	Power kW		Electric power	Fan motor	Pump motor	Gas connections	Noise level
		min.	max.	supply	kW	kW		dBA
C83X	MG.xx.xP.xx.0.xx	200	830	230/400 V 3N ac	1,1	0,45	1”¼ - 1”½ - 2” - DN65	< 80

For the configuration of the gas train, see page 113







Type	Packaging dimensions** (mm)			
	l	p	h	kg
C83X	1730	1280	1020	140

** Approximate values

Type	Model	Overall dimensions** (mm)																															
		AA	AC	AD	AE	AS	AL	BB	BS	BL	C	CC	D	E	F	G	H	I	J	K	L	M	N	O		P	Q	R	S	U	V	W	Y	Z
																								min.	max.									
C83X	MG.xx.xP.xx.A.0.32	87	224	28	306	1134	1284	328	300	450	834	342	1008	634	374	240	270	198	241	300	335	M10	330	216	250	233	387	131	256	541	-	490	162	155
C83X	MG.xx.xP.xx.A.0.40	87	224	28	306	1134	1284	328	300	450	834	342	1008	634	374	240	270	198	241	300	335	M10	330	216	250	233	458	131	327	541	-	490	162	155
C83X	MG.xx.xP.xx.A.0.50	87	224	28	306	1134	1284	328	300	450	834	342	1008	634	374	240	270	198	241	300	335	M10	330	216	250	233	471	131	340	525	-	490	162	155
C83X	MG.xx.xP.xx.A.0.65	87	224	28	306	1134	1284	328	300	450	834	342	1094	720	374	240	270	198	241	300	335	M10	330	216	250	233	571	131	440	593	292	490	162	155

** Approximate values

MECHANICAL OPERATION

Model	Gas train	Operation	C83X...xP Code	C83X...xP Price €
MG.PR.SP.xx.A.0.32	1"¼	PR	033070943	
MG.PR.LP.xx.A.0.32	1"¼	PR	033071043	
MG.PR.SP.xx.A.0.40	1"½	PR	033071143	
MG.PR.LP.xx.A.0.40	1"½	PR	033071243	
MG.PR.SP.xx.A.0.50	2"	PR	033071343	
MG.PR.LP.xx.A.0.50	2"	PR	033071443	
MG.PR.SP.xx.A.0.65	DN65	PR	033071543	
MG.PR.LP.xx.A.0.65	DN65	PR	033071643	
MG.MD.SP.xx.A.0.32	1"¼	MD(*)	033070944	
MG.MD.LP.xx.A.0.32	1"¼	MD(*)	033071044	
MG.MD.SP.xx.A.0.40	1"½	MD(*)	033071144	
MG.MD.LP.xx.A.0.40	1"½	MD(*)	033071244	
MG.MD.SP.xx.A.0.50	2"	MD(*)	033071344	
MG.MD.LP.xx.A.0.50	2"	MD(*)	033071444	
MG.MD.SP.xx.A.0.65	DN65	MD(*)	033071544	
MG.MD.LP.xx.A.0.65	DN65	MD(*)	033071644	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)

In compliance with:

- **GAR Directive 2016/426/EU**
- **Low Tension Directive 2014/35/UE**
- **Electromagnetic Compatibility Directive 2014/30/UE**
- **Machinery Directive 2006/42/CE**

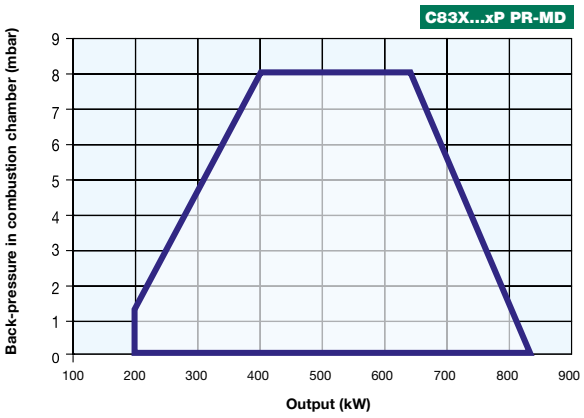
ELECTRONIC OPERATION

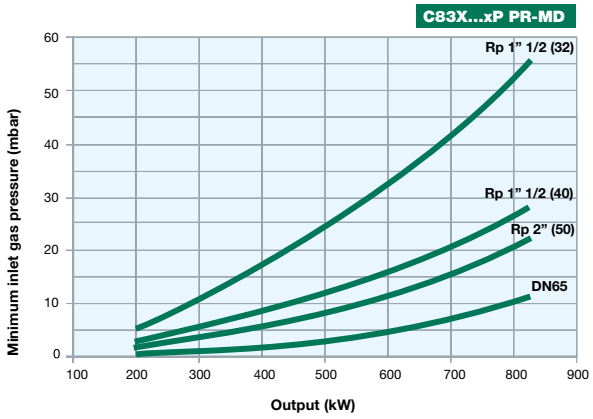
Model	Gas train	Operation	C83X...xP Code	C83X...xP Price €
MG.PR.SP.xx.A.1.32.EC	1"¼	PR	03307095C	
MG.PR.LP.xx.A.1.32.EC	1"¼	PR	03307105C	
MG.PR.SP.xx.A.1.40.EC	1"½	PR	03307115C	
MG.PR.LP.xx.A.1.40.EC	1"½	PR	03307125C	
MG.PR.SP.xx.A.1.50.EC	2"	PR	03307135C	
MG.PR.LP.xx.A.1.50.EC	2"	PR	03307145C	
MG.PR.SP.xx.A.1.65.EC	DN65	PR	03307155C	
MG.PR.LP.xx.A.1.65.EC	DN65	PR	03307165C	
MG.MD.SP.xx.A.1.32.EC	1"¼	MD(*)	03307095G	
MG.MD.LP.xx.A.1.32.EC	1"¼	MD(*)	03307105G	
MG.MD.SP.xx.A.1.40.EC	1"½	MD(*)	03307115G	
MG.MD.LP.xx.A.1.40.EC	1"½	MD(*)	03307125G	
MG.MD.SP.xx.A.1.50.EC	2"	MD(*)	03307135G	
MG.MD.LP.xx.A.1.50.EC	2"	MD(*)	03307145G	
MG.MD.SP.xx.A.1.65.EC	DN65	MD(*)	03307155G	
MG.MD.LP.xx.A.1.65.EC	DN65	MD(*)	03307165G	
MG.MD.SP.xx.A.1.32.ES	1"¼	MD(*)	03307095S	
MG.MD.LP.xx.A.1.32.ES	1"¼	MD(*)	03307105S	
MG.MD.SP.xx.A.1.40.ES	1"½	MD(*)	03307115S	
MG.MD.LP.xx.A.1.40.ES	1"½	MD(*)	03307125S	
MG.MD.SP.xx.A.1.50.ES	2"	MD(*)	03307135S	
MG.MD.LP.xx.A.1.50.ES	2"	MD(*)	03307145S	
MG.MD.SP.xx.A.1.65.ES	DN65	MD(*)	03307155S	
MG.MD.LP.xx.A.1.65.ES	DN65	MD(*)	03307165S	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)

In compliance with:

- **GAR Directive 2016/426/EU**
- **Low Tension Directive 2014/35/UE**
- **Electromagnetic Compatibility Directive 2014/30/UE**
- **Machinery Directive 2006/42/CE**



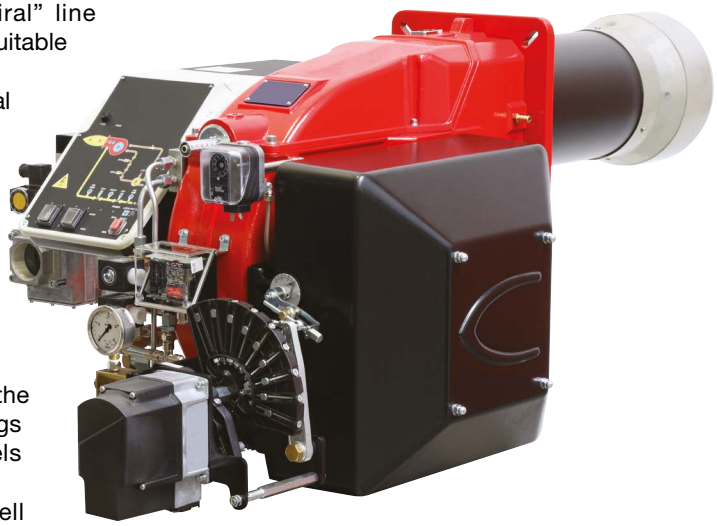


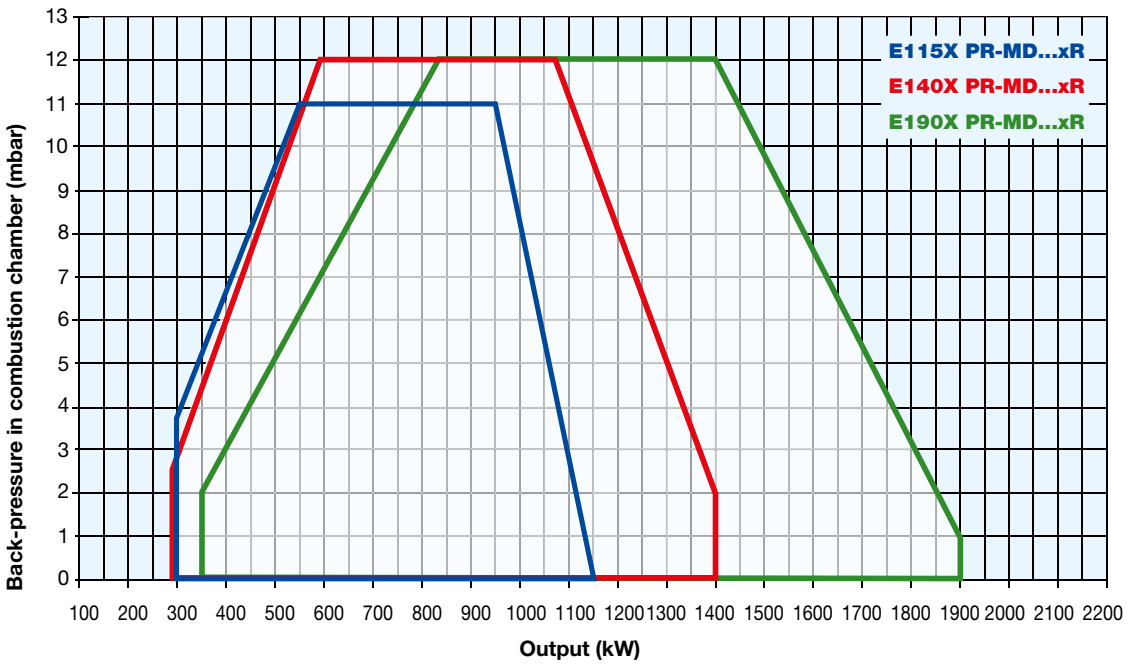
Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

tecnopress SERIES E115X E140X E190X...xR

GAS/LIGHT OIL

These burners are characterized by the “spiral” line typical of the series TECNOPRESS. They are suitable both for big and for small outputs up to 1900 kW.
Moreover they are suitable to burn either natural gas or light oil thanks to the adjustable combustion head which allows a good performance with both fuels.
The control panel is printed with a mimic diagram fitted with neon lamps to indicate the different stages of the burner operation.
Like all other models, they can work with standard and long blast tube. If the blast tube is shorter than the standard one, a spacer is available to adjust the insertion length into the combustion chamber. All regulations and settings devices are simple and practical for both fuels thanks to high quality leverages.
This new series of burners integrates the well known performance and reliability characteristics and has the new air inlet system with built-in silencer and the new combustion head that is particularly Eco friendly (gas side <80mg/kWh class 3 EN 676).

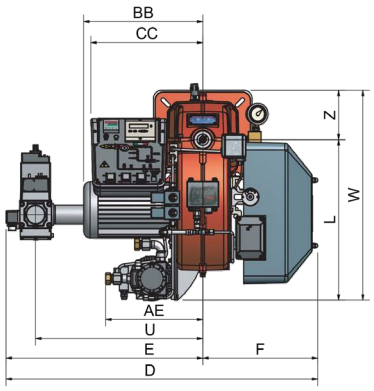


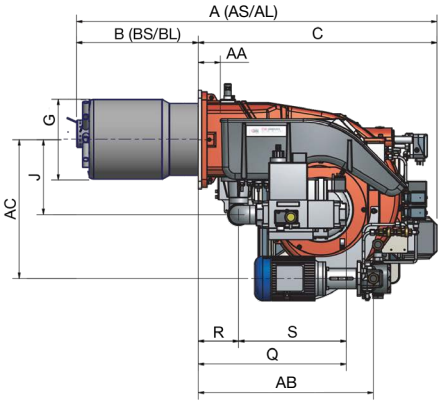


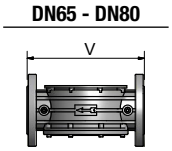
TECHNICAL DETAILS

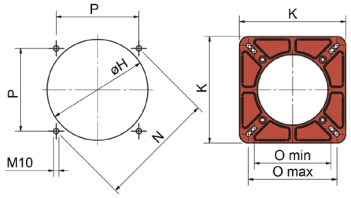
Type	Model	Power kW		Electric power	Fan motor	Pump motor	Gas connections	Noise level
		min.	max.	supply	kW	kW		dBA
E115X	MG.xx.xR.xx.0.xx	300	1.150	230/400 V 3N ac	2,2	0,45	1"½ - 2" - DN65 - DN80	< 75
E140X	MG.xx.xR.xx.1.xx	290	1.400	230/400 V 3N ac	2,2	0,45	1"½ - 2" - DN65 - DN80	< 75
E190X	MG.xx.xR.xx.1.xx	360	1.900	230/400 V 3N ac	3,0	0,55	1"½ - 2" - DN65 - DN80	< 75

For the configuration of the gas train, see page 113









Suggested boiler drilling *Burner flange*

Type	Packaging dimensions** (mm)			
	l	p	h	kg
E115X	1730	1280	1020	160
E140X	1730	1280	1020	160
E190X*	1730	1280	1020	160

** Approximate values
* Approximate values (regarding model with gas train DN 80)

Type	Model	Overall dimensions** (mm)																												
		AA	AB	AS	AL	BB	BS	BL	C	CC	D	E	F	G	H	J	K	L	M	N	O		P	Q	R	S	U	V	W	Z
																					min.	max.								
E115X	MG.xx.SR.xx.A.0.40	69	550	1170	1255	372	305	390	831	352	925	591	362	210	240	233	300	503	M10	330	216	250	233	457	130	327	541	-	658	155
E115X	MG.xx.SR.xx.A.0.50	69	550	1170	1255	372	305	390	831	352	860	526	362	210	240	233	300	503	M10	330	216	250	233	472	130	342	526	-	658	155
E115X	MG.xx.SR.xx.A.0.65	69	550	1170	1255	372	305	390	831	352	1052	718	362	210	240	233	300	503	M10	330	216	250	233	562	130	432	593	292	658	155
E115X	MG.xx.SR.xx.A.0.80	69	550	1170	1255	372	305	390	831	352	1026	692	362	210	240	233	300	503	M10	330	216	250	233	558	130	428	565	310	658	155
E140X	MG.xx.SR.xx.A.1.40	69	550	1265	1331	372	400	500	831	352	1050	716	362	259	280	233	300	503	M10	330	216	250	233	457	130	327	541	-	658	155
E140X	MG.xx.SR.xx.A.1.50	69	550	1265	1331	372	400	500	831	352	985	651	362	259	280	233	300	453	M10	330	216	250	233	472	130	342	526	-	658	155
E140X	MG.xx.SR.xx.A.1.65	69	550	1265	1331	372	400	500	831	352	1134	800	362	259	280	233	300	453	M10	330	216	250	233	562	130	432	593	292	658	155
E140X	MG.xx.SR.xx.A.1.80	69	550	1265	1331	372	400	500	831	352	1108	774	362	259	280	233	300	453	M10	330	216	250	233	562	130	432	565	310	658	155
E190X	MG.xx.SR.xx.A.1.40	69	550	1265	1365	403	400	500	831	352	1050	716	362	259	280	235	300	420	M10	330	216	250	233	457	130	327	541	-	658	155
E190X	MG.xx.SR.xx.A.1.50	69	550	1265	1365	403	400	500	831	352	985	651	362	259	280	235	300	453	M10	330	216	250	233	472	130	342	526	-	658	155
E190X	MG.xx.SR.xx.A.1.65	69	550	1265	1365	403	400	500	831	352	1134	800	362	259	280	235	300	453	M10	330	216	250	233	562	130	432	593	292	658	155
E190X	MG.xx.SR.xx.A.1.80	69	550	1265	1365	403	400	500	831	352	1108	774	362	259	280	235	300	453	M10	330	216	250	233	558	130	428	565	310	658	155

** Approximate values

MECHANICAL OPERATION

Model	Gas train	Operation	E115X...xR Code	E115X...xR Price €
MG.PR.SR.xx.A.0.40	1"½	PR	030072543	
MG.PR.LR.xx.A.0.40	1"½	PR	030072643	
MG.PR.SR.xx.A.0.50	2"	PR	030072743	
MG.PR.LR.xx.A.0.50	2"	PR	030072843	
MG.PR.SR.xx.A.0.65	DN65	PR	030072943	
MG.PR.LR.xx.A.0.65	DN65	PR	030073043	
MG.PR.SR.xx.A.0.80	DN80	PR	030073143	
MG.PR.LR.xx.A.0.80	DN80	PR	030073243	
MG.MD.SR.xx.A.0.40	1"½	MD(*)	030072544	
MG.MD.LR.xx.A.0.40	1"½	MD(*)	030072644	
MG.MD.SR.xx.A.0.50	2"	MD(*)	030072744	
MG.MD.LR.xx.A.0.50	2"	MD(*)	030072844	
MG.MD.SR.xx.A.0.65	DN65	MD(*)	030072944	
MG.MD.LR.xx.A.0.65	DN65	MD(*)	030073044	
MG.MD.SR.xx.A.0.80	DN80	MD(*)	030073144	
MG.MD.LR.xx.A.0.80	DN80	MD(*)	030073244	

Model	Gas train	Operation	E140X...xR Code	E140X...xR Price €	E190X...xR Code	E190X...xR Price €
MG.PR.SR.xx.A.1.40	1"½	PR	030073353		030074153	
MG.PR.LR.xx.A.1.40	1"½	PR	030073453		030074253	
MG.PR.SR.xx.A.1.50	2"	PR	030073553		030074353	
MG.PR.LR.xx.A.1.50	2"	PR	030073653		030074453	
MG.PR.SR.xx.A.1.65	DN65	PR	030073753		030074553	
MG.PR.LR.xx.A.1.65	DN65	PR	030073853		030074653	
MG.PR.SR.xx.A.1.80	DN80	PR	030073953		030074753	
MG.PR.LR.xx.A.1.80	DN80	PR	030074053		030074853	
MG.MD.SR.xx.A.1.40	1"½	MD(*)	030073354		030074154	
MG.MD.LR.xx.A.1.40	1"½	MD(*)	030073454		030074254	
MG.MD.SR.xx.A.1.50	2"	MD(*)	030073554		030074354	
MG.MD.LR.xx.A.1.50	2"	MD(*)	030073654		030074454	
MG.MD.SR.xx.A.1.65	DN65	MD(*)	030073754		030074554	
MG.MD.LR.xx.A.1.65	DN65	MD(*)	030073854		030074654	
MG.MD.SR.xx.A.1.80	DN80	MD(*)	030073954		030074754	
MG.MD.LR.xx.A.1.80	DN80	MD(*)	030074054		030074854	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)

In compliance with:

- **GAR Directive 2016/426/EU**
- **Low Tension Directive 2014/35/UE**
- **Electromagnetic Compatibility Directive 2014/30/UE**
- **Machinery Directive 2006/42/CE**

ELECTRONIC OPERATION

Model	Gas train	Operation	E115X...xR Code	E115X...xR Price €
MG.PR.SR.xx.A.1.40.EC	1"½	PR	03007255C	
MG.PR.LR.xx.A.1.40.EC	1"½	PR	03007265C	
MG.PR.SR.xx.A.1.50.EC	2"	PR	03007275C	
MG.PR.LR.xx.A.1.50.EC	2"	PR	03007285C	
MG.PR.SR.xx.A.1.65.EC	DN65	PR	03007295C	
MG.PR.LR.xx.A.1.65.EC	DN65	PR	03007305C	
MG.PR.SR.xx.A.1.80 EC	DN80	PR	03007315C	
MG.PR.LR.xx.A.1.80 EC	DN80	PR	03007325C	
MG.MD.SR.xx.A.1.40.EC	1"½	MD(*)	03007255G	
MG.MD.LR.xx.A.1.40.EC	1"½	MD(*)	03007265G	
MG.MD.SR.xx.A.1.50.EC	2"	MD(*)	03007275G	
MG.MD.LR.xx.A.1.50.EC	2"	MD(*)	03007285G	
MG-.MD.SR.xx.A.1.65.EC	DN65	MD(*)	03007295G	
MG-.MD.LR.xx.A.1.65.EC	DN65	MD(*)	03007305G	
MG-.MD.SR.xx.A.1.80.EC	DN80	MD(*)	03007315G	
MG-.MD.L.xx.A.1.80.EC	DN80	MD(*)	03007325G	
MG.MD.SR.xx.A.1.40.ES	1"½	MD(*)	03007255S	
MG.MD.LR.xx.A.1.40.ES	1"½	MD(*)	03007265S	
MG.MD.SR.xx.A.1.50.ES	2"	MD(*)	03007275S	
MG.MD.LR.xx.A.1.50.ES	2"	MD(*)	03007285S	
MG.MD.SR.xx.A.1.65.ES	DN65	MD(*)	03007295S	
MG.MD.LR.xx.A.1.65.ES	DN65	MD(*)	03007305S	
MG.MD.SR.xx.A.1.80.ES	DN80	MD(*)	03007315S	
MG.MD.LR.xx.A.1.80.ES	DN80	MD(*)	03007325S	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)

In compliance with:

- **GAR Directive 2016/426/EU**
- **Low Tension Directive 2014/35/UE**
- **Electromagnetic Compatibility Directive 2014/30/UE**
- **Machinery Directive 2006/42/CE**

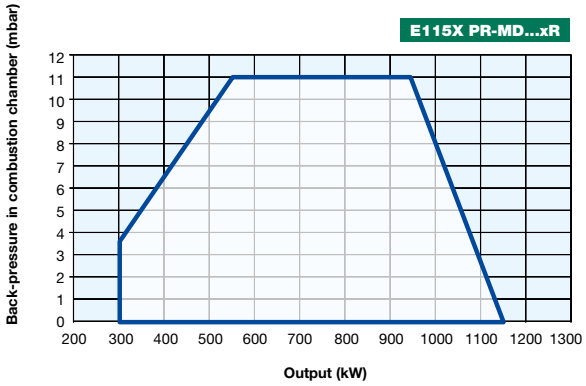
ELECTRONIC OPERATION

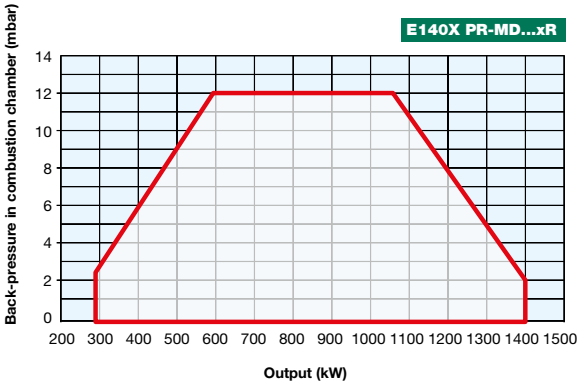
Model	Gas train	Operation	E140X...xR Code	E140X...xR Price €	E190X...xR Code	E190X...xR Price €
MG.PR.SR.xx.A.1.40.EC	1"½	PR	03007335C		03007415C	
MG.PR.LR.xx.A.1.40.EC	1"½	PR	03007345C		03007425C	
MG.PR.SR.xx.A.1.50.EC	2"	PR	03007355C		03007435C	
MG.PR.LR.xx.A.1.50.EC	2"	PR	03007365C		03007445C	
MG.PR.SR.xx.A.1.65.EC	DN65	PR	03007375C		03007455C	
MG.PR.LR.xx.A.1.65.EC	DN65	PR	03007385C		03007465C	
MG.PR.SR.xx.A.1.80 EC	DN80	PR	03007395C		03007475C	
MG.PR.LR.xx.A.1.80 EC	DN80	PR	03007405C		03007485C	
MG.MD.SR.xx.A.1.40.EC	1"½	MD(*)	03007335G		03007415G	
MG.MD.LR.xx.A.1.40.EC	1"½	MD(*)	03007345G		03007425G	
MG.MD.SR.xx.A.1.50.EC	2"	MD(*)	03007355G		03007435G	
MG.MD.LR.xx.A.1.50.EC	2"	MD(*)	03007365G		03007445G	
MG.MD.SR.xx.A.1.65.EC	DN65	MD(*)	03007375G		03007455G	
MG.MD.LR.xx.A.1.65.EC	DN65	MD(*)	03007385G		03007465G	
MG.MD.SR.xx.A.1.80.EC	DN80	MD(*)	03007395G		03007475G	
MG.MD.LR.xx.A.1.80.EC	DN80	MD(*)	03007405G		03007485G	
MG.MD.SR.xx.A.1.40.ES	1"½	MD(*)	03007335S		03007415S	
MG.MD.LR.xx.A.1.40.ES	1"½	MD(*)	03007345S		03007425S	
MG.MD.SR.xx.A.1.50.ES	2"	MD(*)	03007355S		03007435S	
MG.MD.LR.xx.A.1.50.ES	2"	MD(*)	03007365S		03007445S	
MG.MD.SR.xx.A.1.65.ES	DN65	MD(*)	03007375S		03007455S	
MG.MD.LR.xx.A.1.65.ES	DN65	MD(*)	03007385S		03007465S	
MG.MD.SR.xx.A.1.80.ES	DN80	MD(*)	03007395S		03007475S	
MG.MD.LR.xx.A.1.80.ES	DN80	MD(*)	03007405S		03007485S	

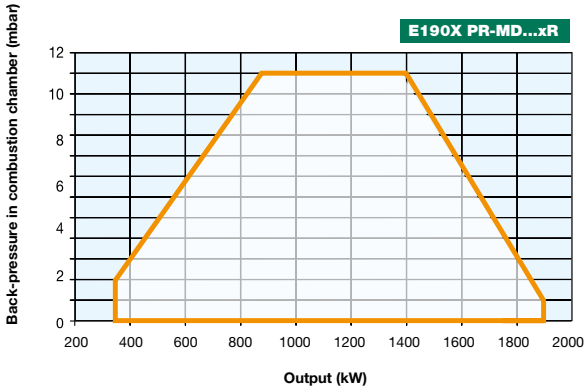
(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)

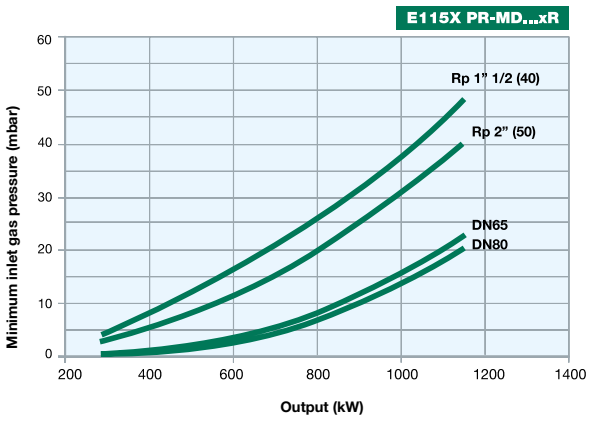
In compliance with:

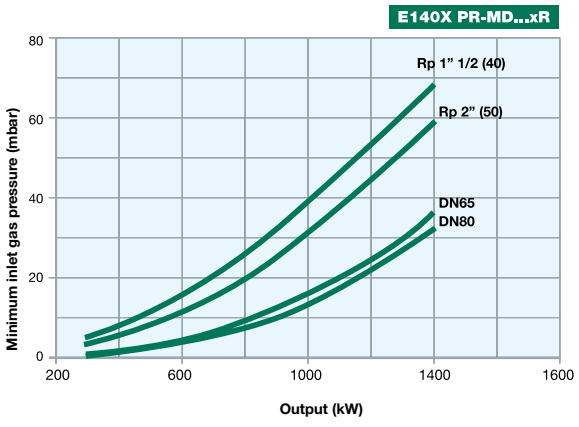
- **GAR Directive 2016/426/EU**
- **Low Tension Directive 2014/35/UE**
- **Electromagnetic Compatibility Directive 2014/30/UE**
- **Machinery Directive 2006/42/CE**

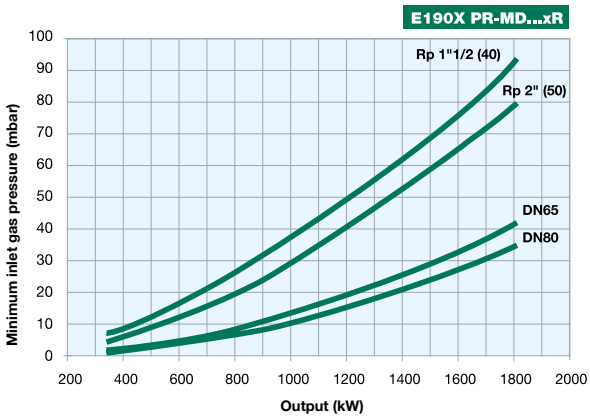












Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

DUAL FUEL BURNERS GAS/HEAVY OIL

mechanical atomization

tecnopress series

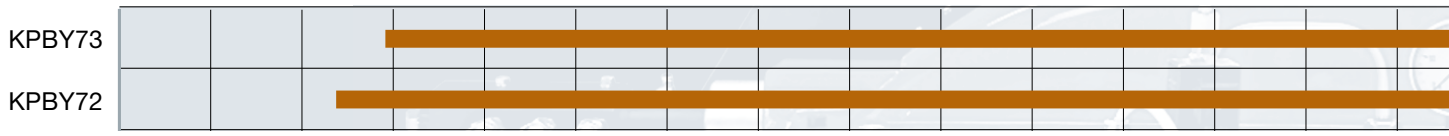
KP60 - PR/MD
KP72 - PR/MD
KP73 - PR/MD

pneumatic atomization

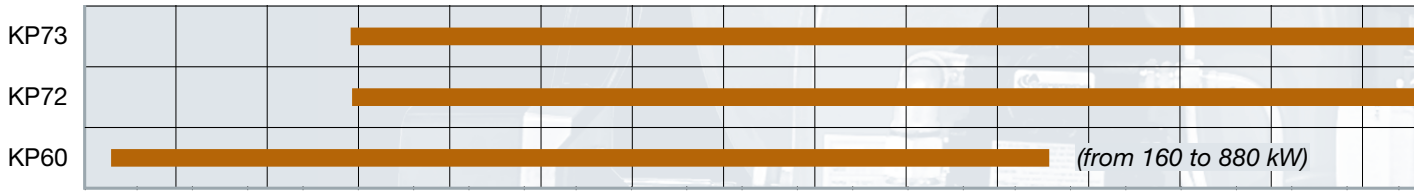
tecnopress series

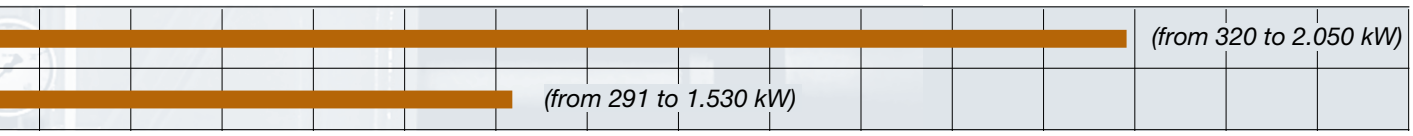
KPBY72 - PR/MD
KPBY73 - PR/MD

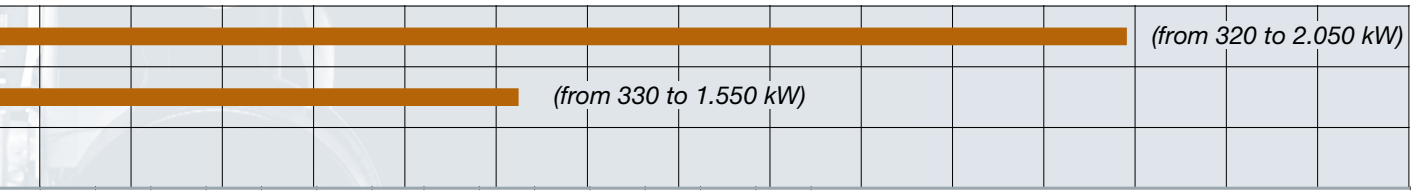
Type pneumatic atomization



Type mechanical atomization




(from 320 to 2.050 kW)
(from 291 to 1.530 kW)

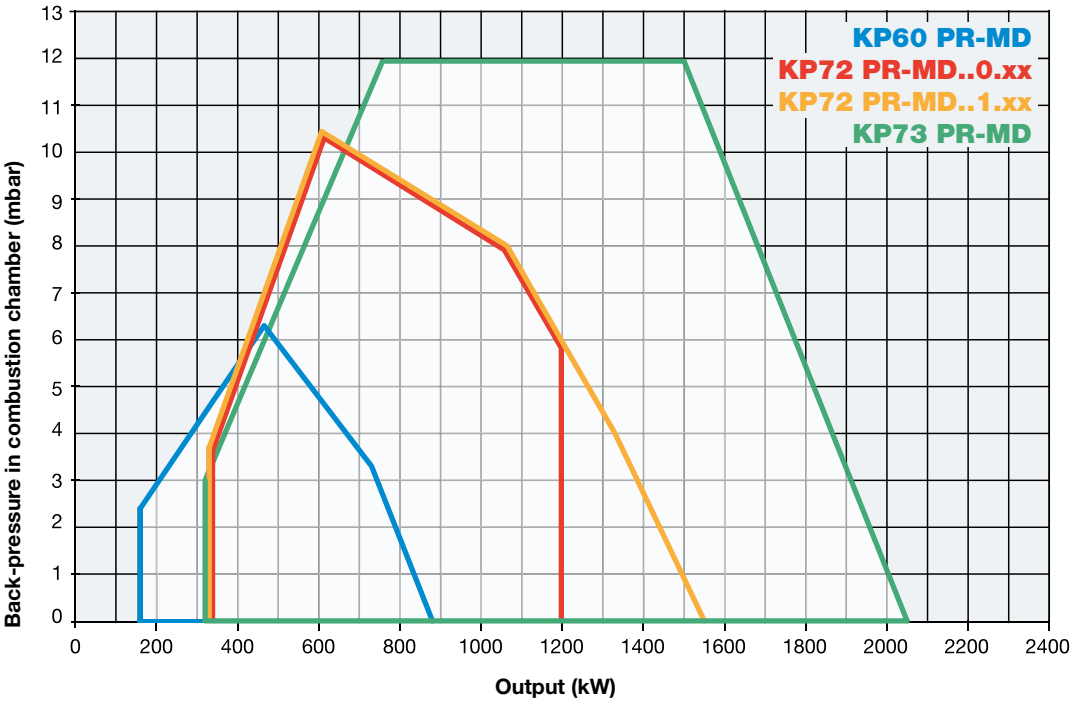

(from 320 to 2.050 kW)
(from 330 to 1.550 kW)

tecnopress SERIES KP60 KP72 KP73

MECHANICAL ATOMIZATION

The need to meet particular requests, as building burners able to burn either natural gas or heavy oil, has lead us to create the KP burner series, suitable for medium and large outputs and for industrial purposes.
The output of this series, from 170 to 2050 kW, allows many adjustments to satisfy all requests.
All the burners with progressive or modulating operation, have been built to burn oil whose standard viscosity is 50 cSt at 50°C (7°E at 50°C).
Upon request it is available the version for heavy oil up to 400 cSt at 50°C (50°E at 50°C). In order to keep the oil fluid, the burner is provided with a pre-heating tank equipped with low thermical load electrical resistance.

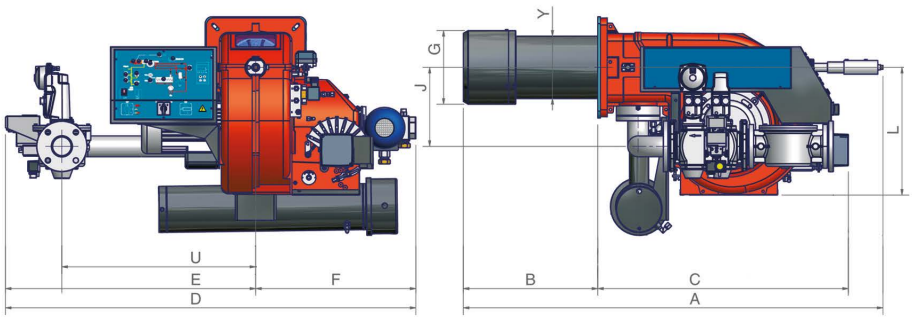
Electronic set up (optional)



TECHNICAL DETAILS

Type	Model	Power kW		Electric power	Fan motor	Pump motor	Resistor	Gas connections
		min.	max.	supply	kW	kW	kW	
KP60	MN.xx.S.xx.A.0.xx	160	880	230/400 V 3N ac	1,1	0,55	4,5	1”½ - 2” - DN65
KP72	MN.xx.S.xx.A.0.xx	330	1.200	230/400 V 3N ac	2,2	0,55	8,0	2” - DN65 - 80
KP72	MN.xx.S.xx.A.1.xx	330	1.550	230/400 V 3N ac	2,2	0,55	8,0	2” - DN65 - 80
KP73	MN.xx.S.xx.A.1.xx	320	2.050	230/400 V 3N ac	3,0	1,10	12,0	2” - DN65 - 80

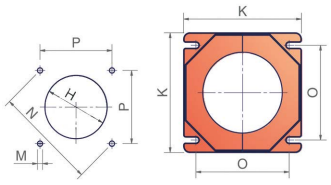
For the configuration of the gas train, see page 113.



Type	Packaging dimensions** (mm)			
	l	p	h	kg
KP60	1730	1280	1020	176
KP72/KP73	1730	1280	1020	280

** Approximate values

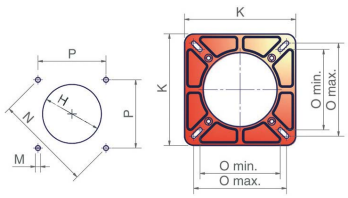
KP60



Suggested boiler drilling

Burner flange

KP72 - KP73



Suggested boiler drilling

Burner flange

Type	Model	Overall dimensions** (mm)											Boiler drilling (mm)				Burner flange (mm)		
		A	B	C	D	E	F	G	J	L	U	Y	H	M	N	P	K	O	
																		min.	max.
KP60	MN.xx.S.xx.A.0.xx	1116	376	740	1205	685	520	250	250	520	540	190	280•	M10	269	190	240	190	190
KP72	MN.xx.S.xx.A.0.xx	1325	505	820	1365	825	540	300	265	580	560	212	340•	M10	330	233	300	216	250
KP73	MN.xx.S.xx.A.0.xx	1320	500	820	1365	825	540	234	265	580	560	212	264	M10	330	233	300	216	250

** Approximate values

• Install a counter-flange between the burner and the boiler or in alternative, drill the H hole smaller but higher than the Y point and assemble the blast tube inside the boiler.

MECHANICAL OPERATION

Model	Gas train	Operation	KP60 Code	KP60 Price €	KP72 Code	KP72 Price €
HEAVY OIL 50 cSt at 50°C (7°E at 50°C)						
MN.PR.S.xx.A.0.32	1"¼	PR	004080543		-	
MN.PR.S.xx.A.0.40	1"½	PR	004080143		008080443	
MN.PR.S.xx.A.0.50	2"	PR	004080243		008080143	
MN.PR.S.xx.A.0.65	DN65	PR	004080343		008080243	
MN.PR.S.xx.A.0.80	DN80	PR	-		008080343	
MN.PR.S.xx.A.1.40▪	1"½	PR	-		008080453	
MN.PR.S.xx.A.1.50▪	2"	PR	-		008080153	
MN.PR.S.xx.A.1.65▪	DN65	PR	-		008080253	
MN.PR.S.xx.A.1.80▪	DN80	PR	-		008080353	
MN.MD.S.xx.A.0.32	1"¼	MD(*)	004080544		-	
MN.MD.S.xx.A.0.40	1"½	MD(*)	004080144		008080444	
MN.MD.S.xx.A.0.50	2"	MD(*)	004080244		008080144	
MN.MD.S.xx.A.0.65	DN65	MD(*)	004080344		008080244	
MN.MD.S.xx.A.0.80	DN80	MD(*)	-		008080344	
MN.MD.S.xx.A.1.40▪	1"½	MD(*)	-		008080454	
MN.MD.S.xx.A.1.50▪	2"	MD(*)	-		008080154	
MN.MD.S.xx.A.1.65▪	DN65	MD(*)	-		008080254	
MN.MD.S.xx.A.1.80▪	DN80	MD(*)	-		008080354	

Model	Gas train	Operation	KP73 Code	KP73 Price €
HEAVY OIL 50 cSt at 50°C (7°E at 50°C)				
MN.PR.S.xx.A.1.50▪	2"	PR	008080553	
MN.PR.S.xx.A.1.65▪	DN65	PR	00808065	
MN.PR.S.xx.A.1.80▪	DN80	PR	008080753	
MN.MD.S.xx.A.1.50▪	2"	MD(*)	008080554	
MN.MD.S.xx.A.1.65▪	DN65	MD(*)	008080654	
MN.MD.S.xx.A.1.80▪	DN80	MD(*)	008080754	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)
▪ = Burner equipped with gas leakage control
In compliance with:
- GAR DIRECTIVE 2016/426/EU
- LOW TENSION DIRECTIVE 2014/35/UE
- ELECTROMAGNETIC COMPATIBILITY DIRECTIVE 2014/30/UE
- MACHINERY DIRECTIVE 2006/42/CE

MECHANICAL OPERATION

Model	Gas train	Operation	KP60 Code	KP60 Price €	KP72 Code	KP72 Price €
HEAVY OIL 400 cSt at 50° (50°E at 50°C)						
MD.PR.S.xx.A.0.32	1"¼	PR	004190543		-	
MD.PR.S.xx.A.0.40	1"½	PR	004190143		008190443	
MD.PR.S.xx.A.0.50	2"	PR	004190243		008190143	
MD.PR.S.xx.A.0.65	DN65	PR	004190343		008190243	
MD.PR.S.xx.A.0.80	DN80	PR	-		008190343	
MD.PR.S.xx.A.1.40▪	1"½	PR	-		008190453	
MD.PR.S.xx.A.1.50▪	2"	PR	-		008190153	
MD.PR.S.xx.A.1.65▪	DN65	PR	-		008190253	
MD.PR.S.xx.A.1.80▪	DN80	PR	-		008190353	
MD.MD.S.xx.A.0.32	1"¼	MD(*)	004190544		-	
MD.MD.S.xx.A.0.40	1"½	MD(*)	004190144		008190444	
MD.MD.S.xx.A.0.50	2"	MD(*)	004190244		008190144	
MD.MD.S.xx.A.0.65	DN65	MD(*)	004190344		008190244	
MD.MD.S.xx.A.0.80	DN80	MD(*)	-		008190344	
MD.MD.S.xx.A.1.40▪	1"½	MD(*)	-		008190454	
MD.MD.S.xx.A.1.50▪	2"	MD(*)	-		008190154	
MD.MD.S.xx.A.1.65▪	DN65	MD(*)	-		008190254	
MD.MD.S.xx.A.1.80▪	DN80	MD(*)	-		008190354	

Model	Gas train	Operation	KP73 Code	KP73 Price €
HEAVY OIL 400 cSt at 50° (50°E at 50°C)				
MD.PR.S.xx.A.1.50▪	2"	PR	008190553	
MD.PR.S.xx.A.1.65▪	DN65	PR	008190653	
MD.PR.S.xx.A.1.80▪	DN80	PR	008190753	
MD.MD.S.xx.A.1.50▪	2"	MD(*)	008190554	
MD.MD.S.xx.A.1.65▪	DN65	MD(*)	008190654	
MD.MD.S.xx.A.1.80▪	DN80	MD(*)	008190754	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)
▪ = Burner equipped with gas leakage control
In compliance with:
- GAR DIRECTIVE 2016/426/EU
- LOW TENSION DIRECTIVE 2014/35/UE
- ELECTROMAGNETIC COMPATIBILITY DIRECTIVE 2014/30/UE
- MACHINERY DIRECTIVE 2006/42/CE

ELECTRONIC OPERATION

Model	Gas train	Operation	KP60 Code	KP60 Price €	KP72 Code	KP72 Price €
HEAVY OIL 50 cSt at 50°C (7°E at 50°C)						
MN.PR.S.xx.A.1.32.EC	1"¼	PR	00408054C		-	
MN.PR.S.xx.A.1.40.EC	1"½	PR	00408014C		00808045C	
MN.PR.S.xx.A.1.50.EC	2"	PR	00408024C		00808015C	
MN.PR.S.xx.A.1.65.EC	DN65	PR	00408034C		00808025C	
MN.PR.S.xx.A.1.80.EC	DN80	PR	-		00808035C	
MN.MD.S.xx.A.1.32.EC	1"¼	MD(*)	00408054G		-	
MN.MD.S.xx.A.1.40.EC	1"½	MD(*)	00408014G		00808045G	
MN.MD.S.xx.A.1.50.EC	2"	MD(*)	00408024G		00808015G	
MN.MD.S.xx.A.1.65.EC	DN65	MD(*)	00408034G		00808025G	
MN.MD.S.xx.A.1.80.EC	DN80	MD(*)	-		00808035G	

Model	Gas train	Operation	KP73 Code	KP73 Price €
HEAVY OIL 50 cSt at 50°C (7°E at 50°C)				
MN.PR.S.xx.A.1.50.EC	2"	PR	00808055C	
MN.PR.S.xx.A.1.65.EC	DN65	PR	00808065C	
MN.PR.S.xx.A.1.80.EC	DN80	PR	00808075C	
MN.MD.S.xx.A.1.50.EC	2"	MD(*)	00808055G	
MN.MD.S.xx.A.1.65.EC	DN65	MD(*)	00808065G	
MN.MD.S.xx.A.1.80.EC	DN80	MD(*)	00808075G	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)
In compliance with:
- GAR DIRECTIVE 2016/426/EU
- LOW TENSION DIRECTIVE 2014/35/UE
- ELECTROMAGNETIC COMPATIBILITY DIRECTIVE 2014/30/UE
- MACHINERY DIRECTIVE 2006/42/CE

ELECTRONIC OPERATION

Model	Gas train	Operation	KP60 Code	KP60 Price €	KP72 Code	KP72 Price €
HEAVY OIL 400 cSt at 50° (50°E at 50°C)						
MD.PR.S.xx.A.1.32.EC	1"¼	PR	00419054C		-	
MD.PR.S.xx.A.1.40.EC	1"½	PR	00419014C		00819045C	
MD.PR.S.xx.A.1.50.EC	2"	PR	00419024C		00819015C	
MD.PR.S.xx.A.1.65.EC	DN65	PR	00419034C		00819025C	
MD.PR.S.xx.A.1.80.EC	DN80	PR	-		00819035C	
MD.MD.S.xx.A.1.32.EC	1"¼	MD(*)	00419054G		-	
MD.MD.S.xx.A.1.40.EC	1"½	MD(*)	00419014G		00808045G	
MD.MD.S.xx.A.1.50.EC	2"	MD(*)	00419024G		00808015G	
MD.MD.S.xx.A.1.65.EC	DN65	MD(*)	00419034G		00808025G	
MD.MD.S.xx.A.1.80.EC	DN80	MD(*)	-		00819035G	

Model	Gas train	Operation	KP73 Code	KP73 Price €
HEAVY OIL 400 cSt at 50° (50°E at 50°C)				
MD.PR.S.xx.A.1.50.EC	2"	PR	00819055C	
MD.PR.S.xx.A.1.65.EC	DN65	PR	00819065C	
MD.PR.S.xx.A.1.80.EC	DN80	PR	00819075C	
MD.MD.S.xx.A.1.50.EC	2"	MD(*)	00819055C	
MD.MD.S.xx.A.1.65.EC	DN65	MD(*)	00819065C	
MD.MD.S.xx.A.1.80.EC	DN80	MD(*)	00819075C	

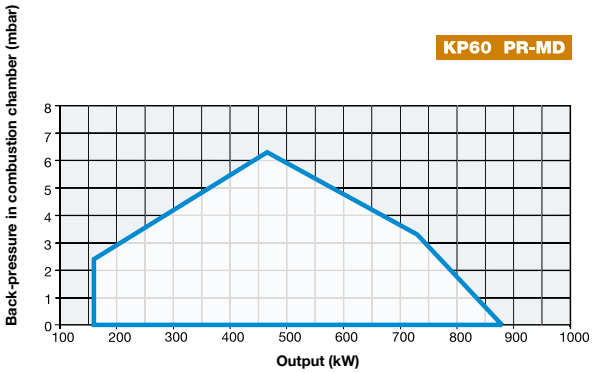
Model	Gas train	Operation	KP60 Code	KP60 Price €	KP72 Code	KP72 Price €	KP73 Code	KP73 Price €
HEAVY OIL 50 cSt at 50°C (7°E at 50°C)								
MN.MD.S.xx.A.1.32.ES	1"½	MD(*)	00408055S		-		-	
MN.MD.S.xx.A.1.40.ES	1"½	MD(*)	00408015S		00808045S		-	
MN.MD.S.xx.A.1.50.ES	2"	MD(*)	00408025S		00808015S		00808055S	
MN.MD.S.xx.A.1.65.ES	DN65	MD(*)	00408035S		00808025S		00808065S	
MN.MD.S.xx.A.1.80.ES	DN80	MD(*)	-		00808035S		00808075S	
HEAVY OIL 400 cSt at 50° (50°E at 50°C)								
MD.MD.S.xx.A.1.32.ES	1"½	MD(*)	00419055S		-		-	
MD.MD.S.xx.A.1.40.ES	1"½	MD(*)	00419015S		00819045S		-	
MD.MD.S.xx.A.1.50.ES	2"	MD(*)	00419025S		00819015S		00819055S	
MD.MD.S.xx.A.1.65.ES	DN65	MD(*)	00419035S		00819025S		00819065S	
MD.MD.S.xx.A.1.80.ES	DN80	MD(*)	-		00819035S		00819075S	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)

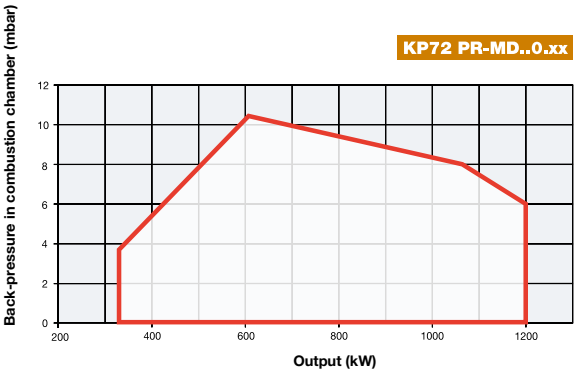
In compliance with:

- **GAR DIRECTIVE 2016/426/EU**
- **LOW TENSION DIRECTIVE 2014/35/UE**
- **ELECTROMAGNETIC COMPATIBILITY DIRECTIVE 2014/30/UE**
- **MACHINERY DIRECTIVE 2006/42/CE**

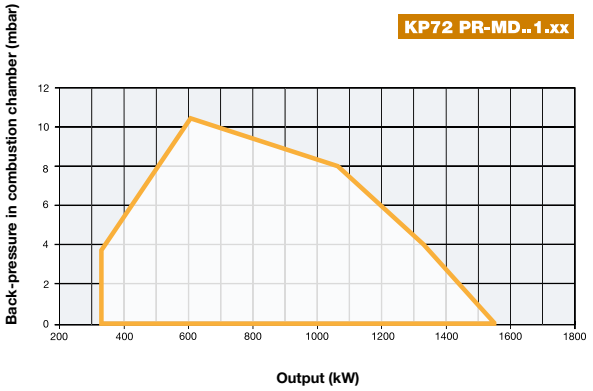
KP60 PR-MD



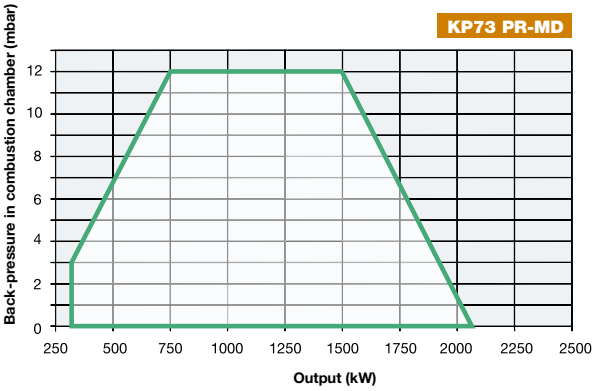
KP72 PR-MD..0.xx



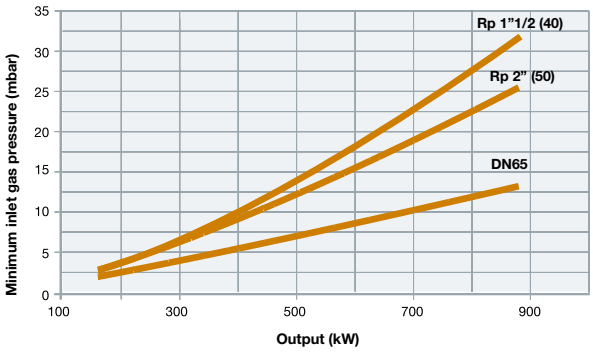
KP72 PR-MD..1.xx



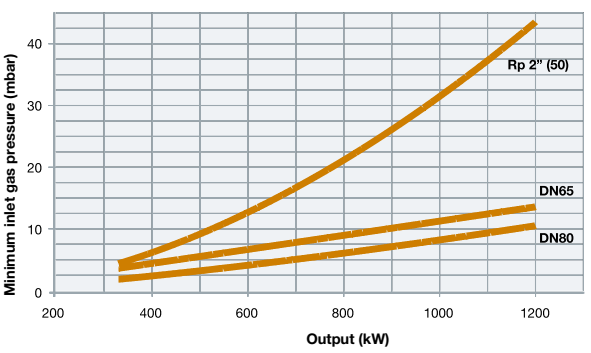
KP73 PR-MD



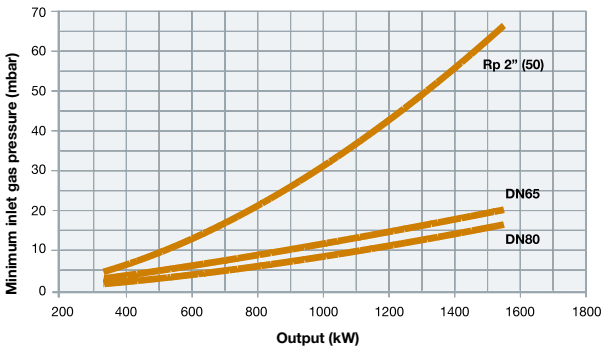
KP60 PR-MD



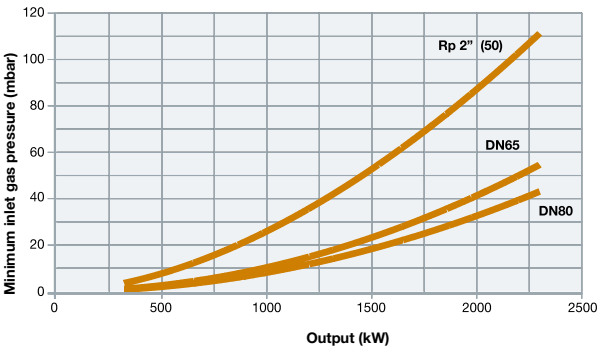
KP72 PR-MD..0.xx



KP72 PR-MD..1.xx



KP73 PR-MD



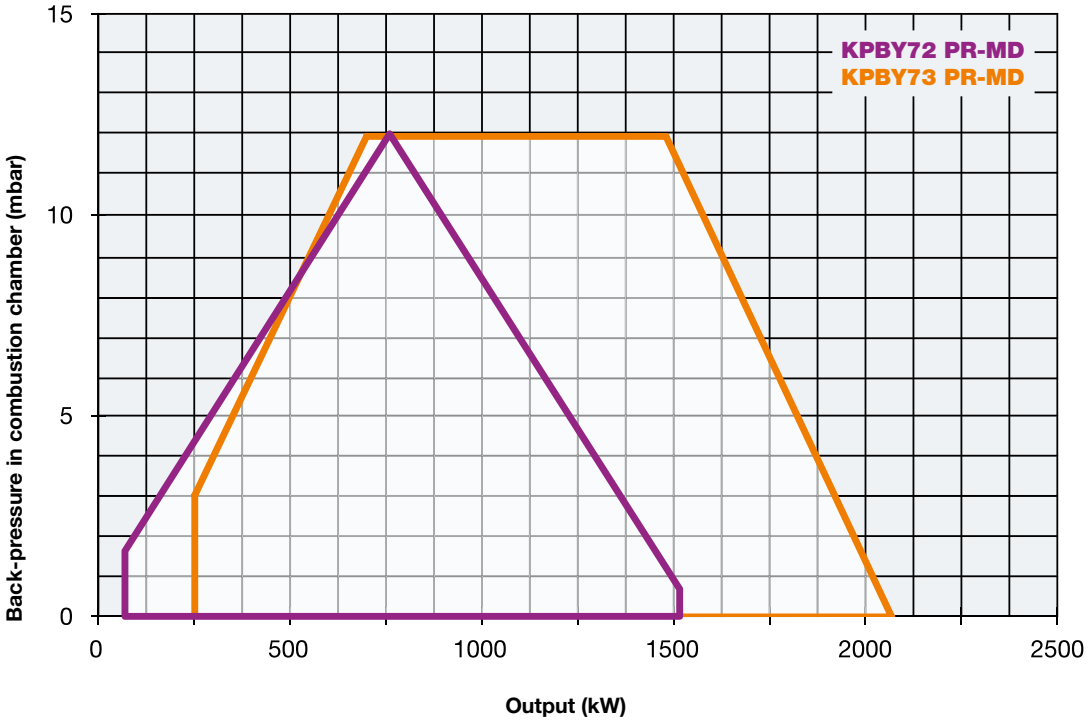
Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

KPBY72 KPBY73 tecnopress SERIES

PNEUMATIC ATOMIZATION WITH ELECTRONIC OPERATION

This particular gas/heavy oil burners series has been developed in order to use compressed air or, alternatively, steam as a fluid to atomize the fuel which gives better combustion results when compared to the traditional atomizing systems.
These burners are provided with a low pressure nozzle which allows consumption levels to be kept low and that limits the general wear of the whole atomization system.
All burners are progressive and are completed with an electrical control cabinet, a pump set, to be installed separately by the final user, and the nozzle performs an automatic cleaning process at the end of each cycle.
The plant must be provided with compressed air or steam at 8 bar.
Burners are ignited through a pilot which can work both with natural gas or LPG and are suitable to be used with fuels up to 4000 cSt at 50°C (530°E at 50°C).
The standard burner is set up to atomize only with compressed air, when steam is requested for atomization, the burner will be modified through a specific kit. Compressed air must, however, always be present at the burner in the following cases:
- cold start ups when no steam is available
- valve opening for automatic nozzle cleaning

These burners are supplied only in the electronic version in order to optimize the adjustment and to maintain a perfect combustion.



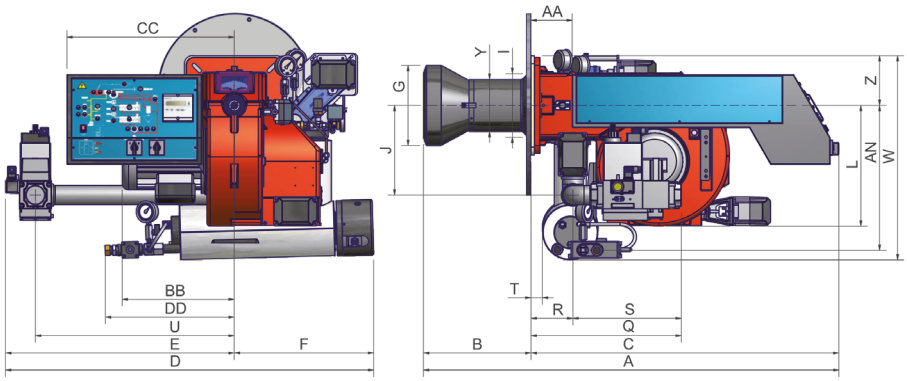
tecnopress SERIES KPBY72 KPBY73

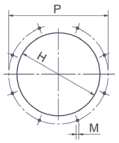
PNEUMATIC ATOMIZATION WITH ELECTRONIC OPERATION

TECHNICAL DETAILS

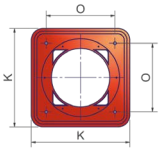
Type	Model	Power kW		Electric power	Fan motor	Pump motor	Resistor	Gas connections
		min.	max.	supply	kW	kW	kW	
KPBY72	MH.xx.S.xx.A.1.xxx	291	1.530	230/400 V 3N ac	2,2	0,75	4,5	2" - DN65 - 80
KPBY73	MH.xx.S.xx.A.1.xxx	320	2.050	230/400 V 3N ac	3,0	0,75	8,0	2" - DN65 - 80

For the configuration of the gas train, see page 113.

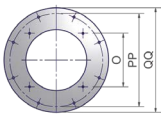




Suggested boiler drilling



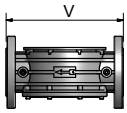
Burner flange



Counterflange

Low pressure pump set (pump, motor and filter) is included, but supplied loose (not assembled on the burner).

DN65 - DN80



Type	Packaging dimensions** (mm)			
	l	p	h	kg
KPBY72	1720	1420	1130	370
KPBY73	1720	1420	1130	370

** Approximate values

Type	Model	Overall dimensions** (mm)																													
		A	AA	AN	B*	BB	C	CC	D	DD	E	F	G	H	J	K	L	M	O		P	R	S	U	V	W	Z	T	Y	PP	QQ
																			min.	max											
KPBY72	MH.xx.x.xx.1.50	1443	150	517	474	373	969	525	1411	470	895	390	320	360	221	300	374	M12	216	250	500	150	338	720	-	667	150	43	210	500	550
KPBY72	MH.xx.x.xx.1.65	1443	150	517	474	373	969	525	1400	470	884	390	320	360	456	300	374	M12	216	250	500	150	483	678	292	667	150	43	210	500	550
KPBY72	MH.xx.x.xx.1.80	1443	150	517	474	373	969	525	1435	470	919	390	320	360	456	300	374	M12	216	250	500	150	535	710	322	667	150	43	210	500	550
KPBY73	MH.xx.x.xx.1.50	1493	150	517	524	373	969	525	1411	470	895	387	320	360	221	300	374	M12	216	250	500	150	338	720	-	667	150	43	210	500	550
KPBY73	MH.xx.x.xx.1.65	1493	150	517	524	373	969	525	1400	470	884	387	320	360	456	300	374	M12	216	250	500	150	483	678	292	667	150	43	210	500	550
KPBY73	MH.xx.x.xx.1.80	1493	150	517	524	373	969	525	1435	470	919	387	320	360	456	300	374	M12	216	250	500	150	535	710	322	667	150	43	210	500	550

* The dimension B is reduced by 20 mm with counterflange and gasket
** Approximate values

In compliance with:
- **GAR DIRECTIVE 2016/426/EU**
- **LOW TENSION DIRECTIVE 2014/35/UE**
- **ELECTROMAGNETIC COMPATIBILITY DIRECTIVE 2014/30/UE**
- **MACHINERY DIRECTIVE 2006/42/CE**

Model	Gas train	Operation	KPBY72 Code	KPBY72 Price €	KPBY73 Code	KPBY73 Price €
HEAVY OIL 4000 cSt at 50°C (530°E at 50°C)						
MH.PR.S.xx.A.1.50.EC	2"	PR	-		-	
MH.PR.S.xx.A.1.65.EC	DN65	PR	-		-	
MH.PR.S.xx.A.1.80.EC	DN80	PR	-		-	
MH.MD.S.xx.A.1.50.EC	2"	MD(*)	-		-	
MH.MD.S.xx.A.1.65.EC	DN65	MD(*)	-		-	
MH.MD.S.xx.A.1.80.EC	DN80	MD(*)	-		-	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 192)

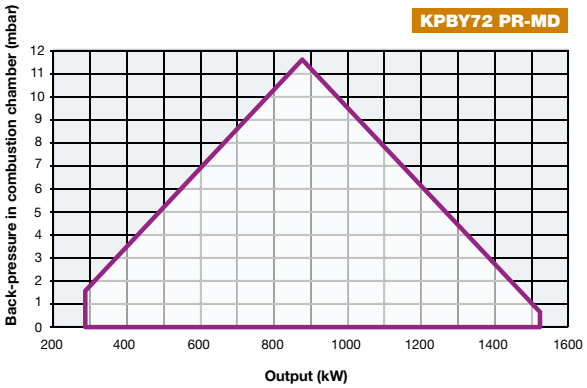
In compliance with:

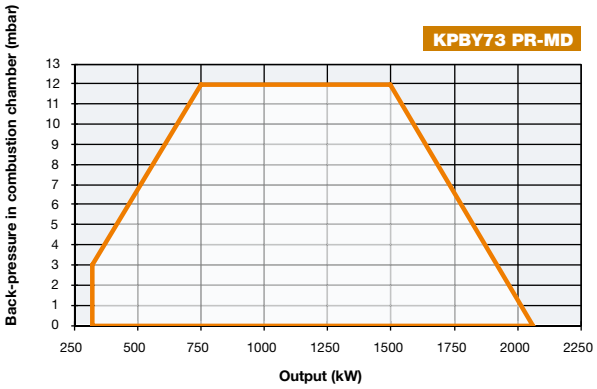
- GAR DIRECTIVE 2016/426/EU

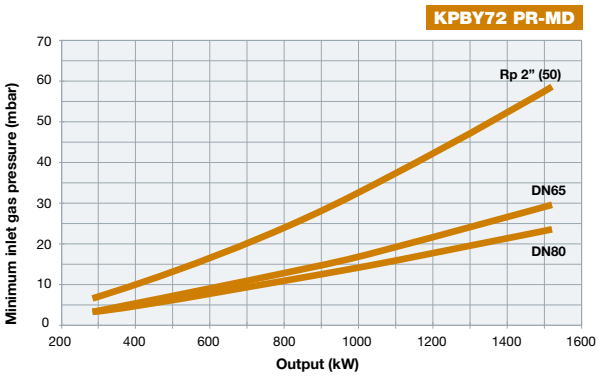
- LOW TENSION DIRECTIVE 2014/35/UE

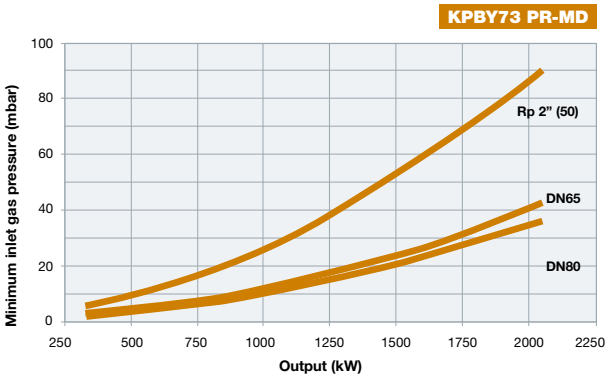
- ELECTROMAGNETIC COMPATIBILITY DIRECTIVE 2014/30/UE

- MACHINERY DIRECTIVE 2006/42/CE

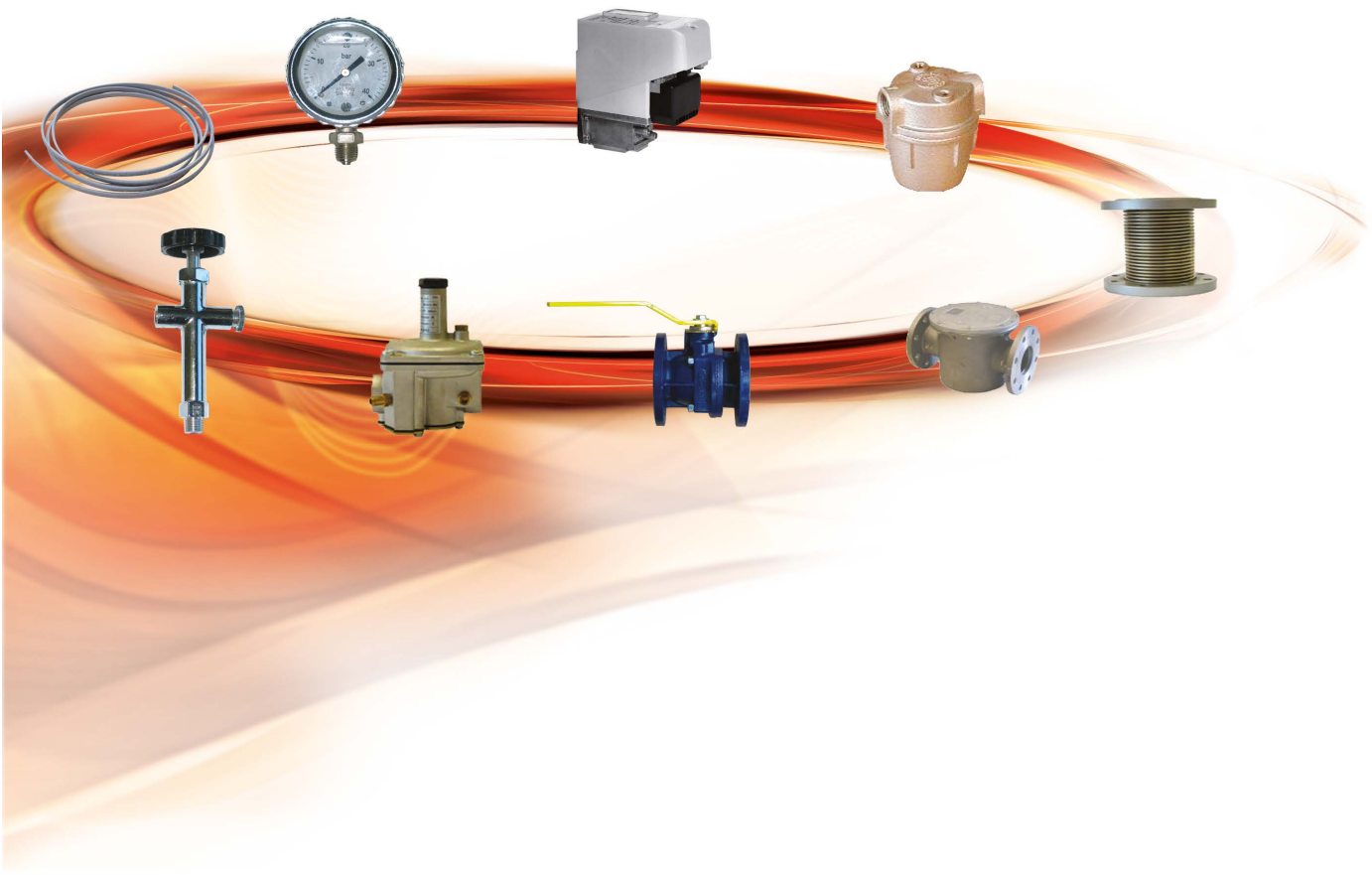








Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.



PROBES FOR MODULATORS

Variable to be checked	Temperature/Pressure scale	Code	Price €
Temperature*	-15 ÷ 50 °C	2.56.01.35	
Temperature	30 ÷ 130 °C	2.56.01.C3	
Temperature	0 ÷ 400 °C	2.56.01.45	
Temperature	0 ÷ 1200 °C	2.56.01.42	
Pressure	3 bar	2.56.01.C4	
Pressure	10 bar	2.56.01.C5	
Pressure	16 bar	2.56.01.C6	
Pressure	25 bar	2.56.01.C7	
Pressure	40 bar	2.56.01.C8	

* Hot air probe

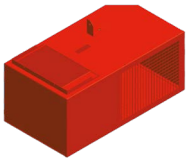
Special components

PNEUMATICALLY OPERATED SLIDE FOR BURNERS UP TO 800 kW (without stokehole closing, neither automatic nor manual)

Description	Code	Price €
For burners P61 (control fluid: 8 bar compressed air)	3.11.00.14	
For burners P65 - P71 - R73A (control fluid: 8 bar compressed air)	3.11.00.15	

ACOUSTIC HOODS BOX Assembled on wheeled frame (made in sheet steel, oven painted and coated with soundproofing material)

Description	Price €
Idea series	
Tecnopress series	



AIR INLET ATTENUATORS directly mounted on the burner (made in sheet steel, oven painted and coated with soundproofing material)

Description	Code	Price €
Suitable for burners up to 800 kW (P61)	3.15.01.13	
Suitable for burners up to 1.650 kW (P65 - P71)	3.15.01.08	

KIT for automatic fuel switch

Model	Code	Price €
MIXMATIC	-	

COUNTER

Model	Code	Price €
Crouzet (87610150)	6220008	

SPACERS

Height mm	Burner type	Code	Price €
100	S10 - 18	3.07.03.04	
175	S10 - 18	3.07.03.05	
50	NG/LO350 - 400	3.07.03.48	
80	NG/LO350 - 400	3.07.03.47	
100	NG/LO350 - 400	3.07.03.11	
100	NG/LO550	3.07.03.12	
200	NG/LO550	3.07.03.13	
50	P-PG-PN-HP-60-61	3.07.03.14	
100	P-PG-PN-HP-60-61	3.07.03.15	
150	P-PG-PN-HP-60-61	3.07.03.17	
200	P-PG-PN-HP-60-61	3.07.03.18	
70	P-R-PG-PN-HP 65-71-72-70-81 C - E 85A-120A-165A-205A- 83X-115X-140X-190X	3.07.03.20	
100	P-R-PG-PN-HP 65-71-72-70-81 C - E 85A-120A-165A-205A- 83X-115X-140X-190X	3.07.03.21	
150	P-R-PG-PN-HP 65-71-72-70-81 C - E 85A-120A-165A-205A- 83X-115X-140X-190X	3.07.03.23	
220	P-R-PG-PN-HP 65-71-72-70-81 C - E 85A-120A-165A-205A- 83X-115X-140X-190X	3.07.03.25	
250	P-R-PG-PN-HP 65-71-72-70-81 C - E 85A-120A-165A-205A- 83X-115X-140X-190X	3.07.03.26	

INVERTER FOR ELECTRONIC CAM BURNERS

INVERTER FOR ELECTRONIC CAM BURNERS	
Variants:	Packaging included
	Inverter supplied loose
	IP20 version to be fitted inside the electrical panel c/w remote keyboard
	Complete version c/w electrical panel upon request
	IP54 version to be placed by the burner

Inverter power kW	Burner Type	IP 20 version Price €	IP 54 version Price €
1,1	60/61/85A/83X		
1,5	65/120A		
2,2	70/71/165/115X/140X		
3,0	73/75/81/205A/190X		

* IP65 version on request

OPTIONS GAS BURNERS

MANUAL CUT OFF VALVES, THREADED (ball valve)

Gas connections	Model	Code	Price €
½"	V15	2.81.00.01	
¾"	V20	2.81.00.02	
1"	V25	2.81.00.03	
1"¼	V32	2.81.00.04	
1"½	V40	2.81.00.05	
2"	V50	2.81.00.06	

MANUAL CUT OFF VALVES, FLANGED (ball valve)

Gas connections	Model	Code	Price €
DN65	V65	2.81.00.12	
DN80	V80	2.81.00.13	

ANTI VIBRATING JOINT (threaded)

Gas connections	Model	Code	Price €
½"	GA15	2.34.00.62	
¾"	GA20	2.34.00.63	
1"	GA25	2.34.00.64	
1"¼	GA32	2.34.00.80	
1"½	GA40	2.34.00.65	
2"	GA50	2.34.00.66	

ANTI VIBRATING JOINT (flanged)

Gas connections	Model	Code	Price €
DN65	GA65	2.34.00.81	
DN80	GA80	2.34.00.82	

GAS FILTERS (threaded)

Gas connections	Model	Code	Price €
½"	F15	2.09.01.01	
¾"	F20	2.09.01.02	

GAS FILTERS (max inlet pressure 2 bar)

Gas connections	Model	Code	Price €
1"	F25	2.09.01.15	
1"½	F40	2.09.01.05	
2"	F50	2.09.01.06	

GAS FILTERS (flanged: max inlet pressure 2 bar)

Gas connections	Model	Code	Price €
DN65	F65	2.09.01.17	
DN80	F80	2.09.01.18	

PRESSURE GOVERNORS WITH GAS FILTERS (threaded: Pe max 1 bar)

Gas connections	Model	Code	Price €
½”	S.P.15	2.80.00.85	
¾”	S.P.20	2.80.00.94	
1”	S.P.25	2.80.00.72	
1”½	S.P.40	2.80.00.65	
2”	S.P.50	2.80.00.67	

PRESSURE GOVERNORS WITH GAS FILTERS (flanged: Pe max 1 bar)

Gas connections	Model	Code	Price €
DN65	S.P.65	2.80.00.69	
DN80	S.P.80	2.80.00.71	

LEAKAGE CONTROLS

Description	Code	Price €
DUNGS VPS 504 with plug	2.19.16.06	

LEAKAGE CONTROLS MOUNTING KITS (for groups with separate valves only)

Description	Code	Price €
DUNGS VPS 504	2.19.12.01	

MAXIMUM PRESSURE

Description	Code	Price €
Gas maximum pressure switch kit	2.19.12.41	

SUPPORT FOR PRESSURE GAUGE

Model	Code	Price €
Push botton valve	2810010	

MANOMETER

Model	Code	Price €
Glycerine gauge 0 ÷ 60 mbar	2520001	
Glycerine gauge 0 ÷ 400 mbar	2520028	
Glycerine gauge 0 ÷ 1 bar	2520030	

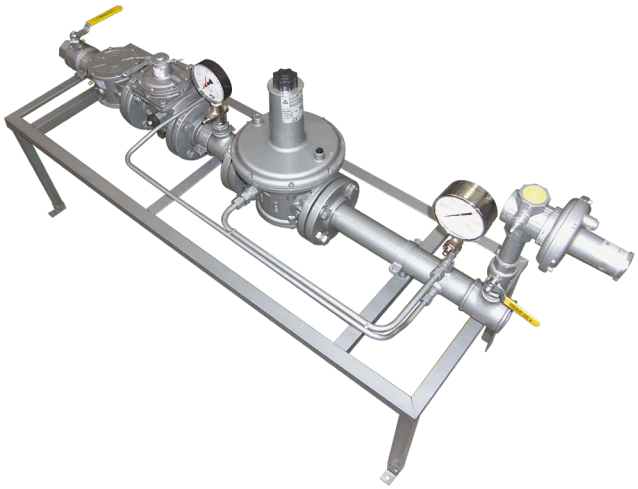
OPTIONS GAS BURNERS

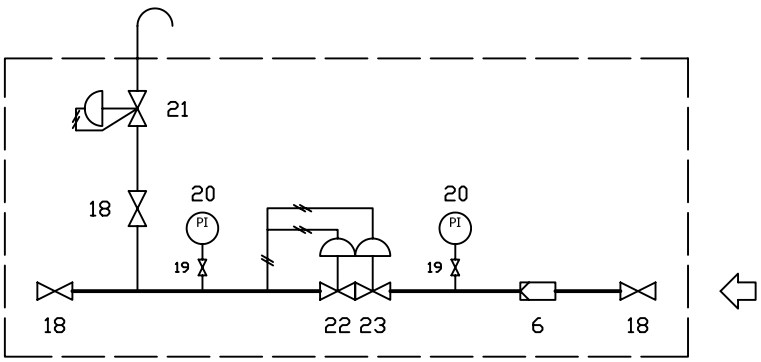
GAS PRESSURE REDUCING STATIONS

Gas pressure reducing stations (available for inlet pressures up to 6 bar

Tipo	Power (kW)	Capacity (Nm³/h)	Burners*	Max pressure (bar)	Price €
GRG2	200	21	NG200	6	
GRG6	550	60	NG550	6	
GRG17	1600	170	P71	6	

Gas pressure reducing station according to the below scheme
The station includes all the components as shown in the picture (see scheme and legend)
The station is pre-assembled on a frame
Packaging included
The stations are ready to work with natural gas, matching and sizes can vary according to the pressure and type of gas.
Max inlet pressure over 6 bar: price upon request
*The burner in an example of a typical installation, however the same station can supply different burners of smaller size.





KEY			
6	Gas filter	21	Relief valve
18	Manual cut off (ball valve)	22	Reducer
19	Manual cut off for manometer	23	Safety block valve
20	Manometer		

VACUUM GAUGE

Model	Code	Price €
Glycerine vacuum gauge -1 ÷ 0 bar (¼" connection)	2520008	

FILTERS

Model	Code	Price €
Filter ⅜" 0,06 PL	2090001	
Filter ⅜" 0,1 P	2090025	
Filter 1" 0,1 small	2090017	
Filter 1" 0,1 big	2090018	
Filter 1" 0,3 small	2090202	
Filter 1" 0,3 big	2090207	

MANOMETER

Model	Code	Price €
Glycerine gauge 0 ÷ 40 bar (¼" connection)	2520003	
Glycerine gauge 0 ÷ 6 bar (¼" connection)	2520006	
Glycerine gauge 0 ÷ 10 bar (¼" connection)	2520015	
Glycerine gauge 0 ÷ 16 bar (¼" connection)	2520014	
Glycerine gauge 0 ÷ 25 bar (¼" connection)	2520027	

SUPPORT FOR PRESSURE GAUGE manometer/vacuum gauge

Model	Gas connections	Code	Price €
Isolating valve (¼" connection)	¼"	2520005	

OPTIONS HEAVY OIL BURNERS

AIR COMPRESSORS

The tables in this page include useful data to match the correct compressor in case compressed air is needed to atomize the liquid fuel (burners PBY/RBY/KPBY/KRBY).

Compressors can be supplied upon request.

Burners with pneumatic atomization are never supplied with compressor.

Air conditions are referred to standard (15°C and 1013 mbar).

In case steam is preferred to air, the characteristics are exactly the same. Steam must be saturated and dry. In any case the max pressure of the steam must not be over 12 bar (190°C).

Type	Power (kW)	Air capacity (kg/h)	Air capacity (l/second)	Air pressure (bar)	Price €
KPBY72	1530	16,5	3,7	6÷8	
KPBY73	2050	22,0	4,9	6÷8	

HEAVY OIL FILTERS

Model	Code	Price €
Filter 1" 0,3 micron small	2090202	
Filter 1" 0,3 micron big	2090207	
Filter 1½" 0,3 for PBY	2090236	
Filter 51000/05 F (flanged DN 50)*	2090237	
Magnetic filter DN50 1"	2090203	
Magnetic filter 1½"	2090245	

* With 300 W heater

VACUUM GAUGE

Model	Code	Price €
Glycerine vacuum gauge -1 ÷ 0 bar (¼" connection)	2520008	

MANOMETER

Model	Code	Price €
Glycerine gauge 0 ÷ 6 bar (¼" connection)	2520035	
Glycerine gauge 0 ÷ 10 bar (¼" connection)	2520036	
Glycerine gauge 0 ÷ 16 bar (¼" connection)	2520033	
Glycerine gauge 0 ÷ 25 bar (¼" connection)	2520034	
Glycerine gauge 0 ÷ 40 bar (¼" connection)	2520019	

SUPPORT FOR PRESSURE GAUGE manometer / vacuum gauge

Model	Code	Price €
Isolating valve (¼" connection)	2520005	

DEGASSING BOTTLE

Model	Diameter	Code	Price €
Threaded	1"½	3040117	
Flanged	DN 40	3040121	

BELT HEATER CABLE FOR PIPES

Model	Type	Code	Price €
Power 64 Watt/meter	each meter		

MANUAL CUT OFF VALVE (BALL VALVE)

Model	Code	Price €
1"	2810024	
1"½	2810025	
2"	2810031	
2"½	-	

OPTIONS HEAVY OIL BURNERS

OIL PRE-HEATING TANK (STEAM/DIATERMIC OIL)

Type	Capacity kg/h	Tank volume liters	Electrical heaters kW	Max temperature °C	Max pressure bar	Price €
HTS2	200	200	8	80÷100	5	
HTS5	500	500	12	80÷100	5	
HTS10	1.000	1.500	18	80÷100	5	
HTS20	2.000	2.000	24	80÷100	5	

Vertical cylidrical tanks, provided with electrical resistance and spiral heat exchanger.
Upon order please specify if the spiral must be provided for diatermic oil or steam.
Electrical panel mounted aboard.
Packaging included.
The oil flow rate is indicative: it can vary according to the type of fuel and to the thermal step required.

OIL PRE-HEATING TANK (ONLY ELECTRICAL RESISTANCES/HOT WATER)

Type	Capacity kg/h	Tank volume liters	Electrical heaters kW	Max temperature °C	Max pressure bar	Price €
HT2	200	200	8	80÷100	5	
HT5	500	500	12	80÷100	5	
HT10	1.000	1.500	18	80÷100	5	
HT20	2.000	2.000	24	80÷100	5	

Vertical cylidrical tanks, provided with electrical resistance and spiral heat exchanger (optional).
Upon order please specify electrical resistances only or hot water coil.
Packaging included.
The oil flow rate is indicative: it can vary according to the type of fuel and to the thermal step required.

PRESSURE REGULATORS FOR LIGHT/HEAVY OIL RINGS

LIGHT OIL PRESSURE REGULATOR GROUPS

Type	Capacity kg/h	Diameter	Price €
GRP-G2	350	¾”	
GRP-G4	650	¾”	
GRP-G7	1.000	1”	
GRP-G10	1.600	1”	
GRP-G13	2.000	1”½	

Pressure regulator group supplied pre-assembled (no frame)
Packaging included for greater flow rates, quotations upon request

CRUDE AND HEAVY OIL PRESSURE REGULATOR GROUPS

Type	Capacity kg/h	Diameter	Price €
GRP-D2	500	DN 50	
GRP-D4	800	DN 50	
GRP-D7	1.300	DN 50	
GRP-D10	2.000	DN 50	

Pressure regulator group supplied pre-assembled (no frame)
Packaging included for greater flow rates, quotations upon request

OPTIONS HEAVY OIL BURNERS

LOW PRESSURE OIL HANDLING UNIT (RING) - LIGHT OIL - 2 PUMPS IN PARALLEL (ONE AS BACK-UP)

Type	Capacity kg/h	Power kW	Diameter	Dimensions a x b x h (mm)	Price €
GS-G2	350	2.300	1”	1.200 x 900 x 500	
GS-G4	650	4.300	1”½	1.300 x 900 x 600	
GS-G7	1.000	6.600	1”½	1.400 x 1.200 x 600	

LOW PRESSURE OIL HANDLING UNIT (RING) - LIGHT OIL - SINGLE PUMP

Type	Capacity kg/h	Power kW	Diameter	Dimensions a x b x h (mm)	Price €
GS-G2s	350	2.300	1”	1.200 x 600 x 500	
GS-G4s	650	4.300	1”½	1.300 x 600 x 600	
GS-G7s	1.000	6.600	1”½	1.400 x 800 x 600	

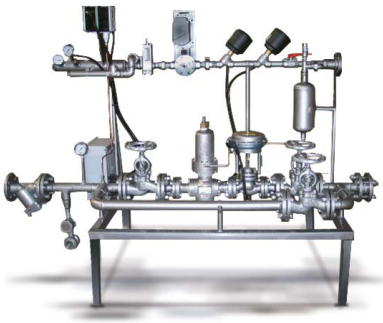
LOW PRESSURE OIL HANDLING UNIT (RING) - HEAVY/RAW OIL - 2 PUMPS IN PARALLEL (ONE AS BACK-UP)

Type	Capacity kg/h	Power kW	Diameter	Dimensions a x b x h (mm)	Price €
GS-D2	500	2.700	DN 50	1.300 x 900 x 800	
GS-D4	800	4.500	DN 50	1.500 x 900 x 800	
GS-D7	1.300	6.900	DN 50	1.600 x 1.200 x 800	

LOW PRESSURE OIL HANDLING UNIT (RING) - HEAVY/RAW OIL - SINGLE PUMP

Type	Capacity kg/h	Power kW	Diameter	Dimensions a x b x h (mm)	Price €
GS-D2s	500	2.700	DN 50	1.300 x 600 x 800	
GS-D4s	800	4.500	DN 50	1.500 x 600 x 800	
GS-D7s	1.300	6.900	DN 50	1.600 x 800 x 800	

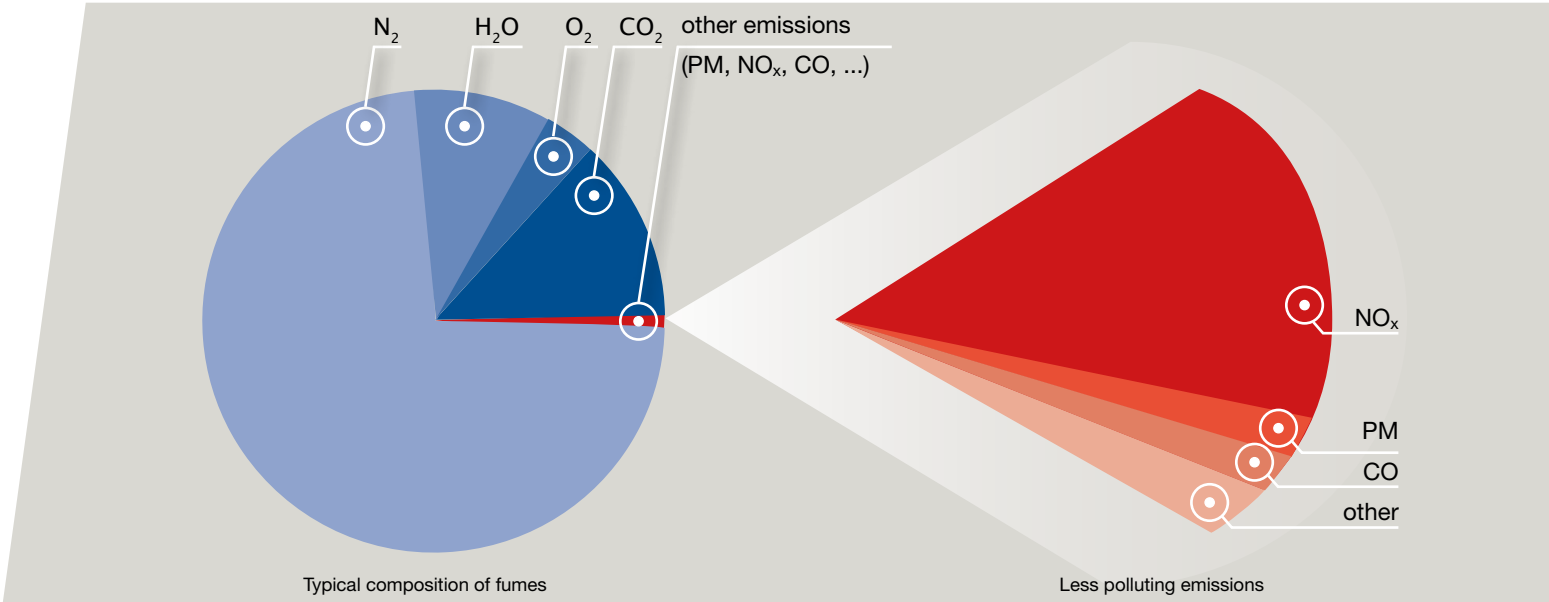
The output is referred to the burners which can be supplied by the low pressure ring.
The flow rate is referred to the heavy oil flow rate pumped into the ring.
Dimensions are indicative.
Dimensions do not include the electrical panel, the panel can be installed on the the oil ring, or wall-hung (dimensions 400x250x600h mm).
For greater flow rates quotations upon request.
In order to pick up the correct oil ring to your application, refer to the output and choose the ring one size larger. Couple the ring with the regulation group of the same size. To finish the job remember to choose the the degassing tanks (the use of degassing tanks is mandatory when 2 or more burners are supplied by the same ring, only recomended in all other cases).



EMISSIONS

The subject of emissions is very wide and complex. The scientific literature in this field is under continuous update and there's no way to describe it briefly.
The boiler room is a source of pollution caused by the combustion of hydrocarbons. Combustion products consist mainly of nitrogen, carbon dioxide and steam delivered into the atmosphere through the chimney. The products of secondary combustion include a long list of chemicals, such as (CO), nitrogen oxides (NO_x), fine particulate matter (PM) and others. The normatives in force provide their max limits.
The level of emissions depends on many factors, including:
- fuel composition;
- shape of the combustion chamber and characteristics of the boiler;
- type of burner head.

For example, liquid fuels usually contain sulphur and other impurities.
These substances do not burn, therefore, if there is a need to reduce emissions, it is necessary to use a high-performance burner or to use complex systems for the treatment of fumes.
The emissions of nitrogen oxide also depend on the characteristics of the combustion chamber and the combustion head.
Due to the fact that the limit values required by the technical standards for the environmental protection are more and more restricted it is necessary to pay particular attention to propose a correct choice of burner and boiler.
CIB UNIGAS Technical Management keeps always an eye on new technologies to reduce emissions. For these reasons CIB UNIGAS has been investing in the development of low environmental impact burners.



All CIB UNIGAS burners are certified for both gaseous and liquid fuels in accordance with European standards and meet the requirements for polluting emissions.
Measurements of CO and NO_x emissions are carried out on standard size boilers, with all test conditions.

TABLE: LIMIT VALUES FOR EMISSIONS OF NITROGEN OXIDES AND CARBON MONOXIDE ACCORDING TO THE EUROPEAN STANDARD

Type of fuel	Burner class	Unit of measurement	CO	NO_x	Standards
natural gas	Class 1	mg/kWh	100	170	UNI EN 676
natural gas	Class 2	mg/kWh	100	120	UNI EN 676
natural gas	Class 3	mg/kWh	100	80	UNI EN 676
LPG gas	Class 1	mg/kWh	100	230	UNI EN 676
LPG gas	Class 2	mg/kWh	100	180	UNI EN 676
LPG gas	Class 3	mg/kWh	100	140	UNI EN 676
light oil	Class 1	mg/kWh	110	250	UNI EN 267
light oil	Class 2	mg/kWh	110	185	UNI EN 267
light oil	Class 3	mg/kWh	60	120	UNI EN 267

CIB UNIGAS burners, NOx emissions:
- Low NO_x gas burners correspond to Class 2, Ultra Low NOx burners without FGR correspond to Class 3.
- LPG burners correspond to Class 1, Low NOx LPG burners correspond to Class 3;
- Oil burners have a maximum NOx emission of 250 mg/kWh (Class 1);
- Heavy fuel oil burners (non-standard fuel oil) can, in the worst case, reach a maximum NOx emission of 700 mg/kWh.

CIB Unigas also offers Low NO_x solutions for complex systems and revamping of existing plants.
As far as carbon monoxide (CO) is concerned, a properly set CIB UNIGAS burner delivers a very small CO level.

If necessary, CIB UNIGAS offers FGR (Flue Gas Recirculation) solutions – these are burners with flue gas recirculation system which deliver emissions of less than 50 or 30 mg/kWh. Burners with FGR are designed for installations with Low NO_x emissions requirements, such as greenhouses or boilers in large residential areas where low levels of contaminants are a priority. Our FGR solutions meet environmental impact requirements.

The burners belonging to the different classes of NO_x emissions are identified by the following logos:

Often non-EU countries follow different normatives and measurement conditions. To ensure that the levels of pollutant emissions are always correct, it is necessary to know exactly the conditions in which tests were carried out, i.e. measurement of the gas, the error, type of fuel, boiler size, atmospheric conditions, etc...
In addition, standards can use different units of measurement*, therefore for the comparison, it is necessary to translate the limit values expressed as follows in mg/kWh (milligrams per kilowatt hour), using the correct formula, depending on the selected fuel and residual oxygen in the exhaust gases.
* For example: ppm (parts per million), mg/Nm^3 (milligrams per normal cubic meter), etc...

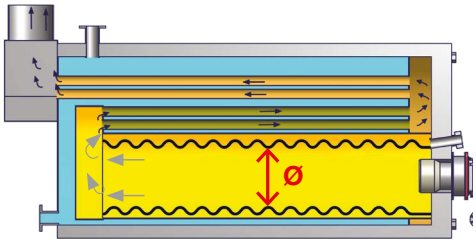
WHY DIFFERENT THERMAL GROUPS RELEASE DIFFERENT LEVELS OF NITROGEN OXIDES AT THE SAME OUTPUT?

The CO, NO_x and other pollutants are strongly influenced by a number of factors, not always burner related. There are factors independent from the thermal plant, such as environmental conditions (altitude, humidity, fuel composition, etc…) and factors related in particular to the design of the generator. The most important factors are summarized below.
It becomes evident that burner and boiler must be evaluated as a single thermal group, in order to comply to the rule on emission levels, or to the specific requirements of designers. The correct match between burner and boiler is discussed in greater detail on the following pages.

BOILER TYPE

↓

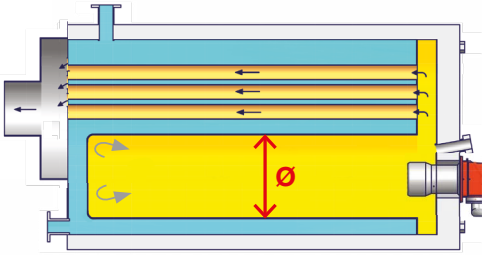
- type of generator (reverse flame, or 3 smoke-pass)
- dwell time of the flame within the combustion chamber
- heat exchange surface
- temperature and type of heat transfer fluid



DIMENSIONS OF THE COMBUSTION CHAMBER

↓

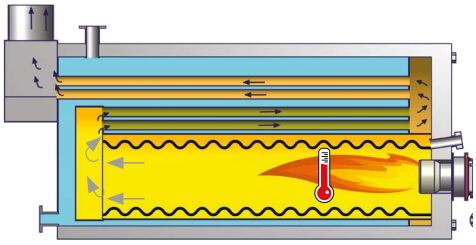
- combustion chamber internal gas circulation
- dwell time of the flame within the combustion chamber
- thermal load of the chamber



THERMAL LOAD OF THE COMBUSTION CHAMBER

↓

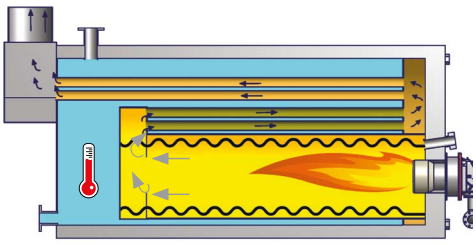
- flame temperature
- speed at which the NO_x is formed



BOILER TEMPERATURE

↓

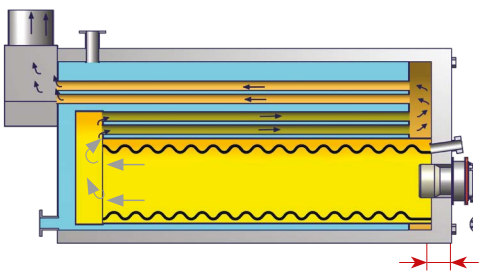
- flame temperature
- speed at which the NO_x is formed



THICKNESS OF THE REFRACTORY OR BOILER DOOR

↓

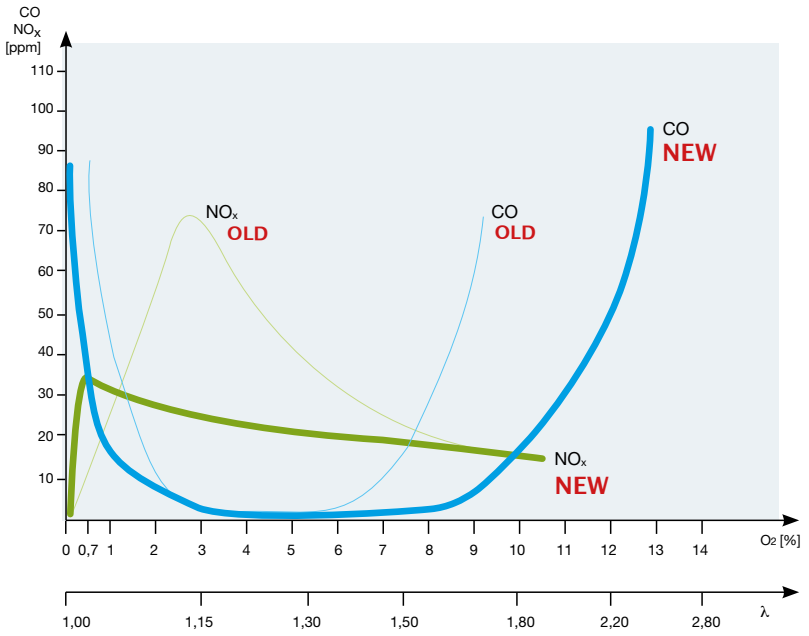
- length of the combustion head
- internal combustion gas circulation



Reverse flame boilers: contact our Technical Department.

Relation between NO_x emissions and CO

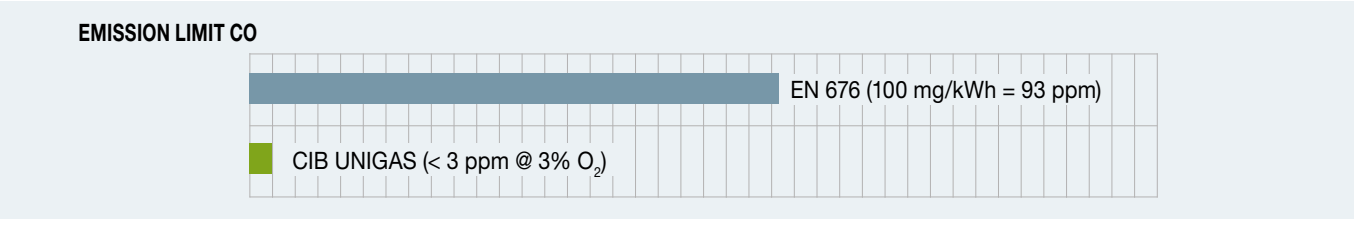
Emissions of nitrogen oxides and carbon monoxide are strongly correlated as both depend on the stoichiometry of the combustion. Excess of air affects both emissions and the efficiency of the generator. In a logic of compromise, reducing fuel consumption requires a reduction of excess air.
The limit is given by the emission of CO.
In the burners of the previous generation this choice had priority on NO_x emissions.

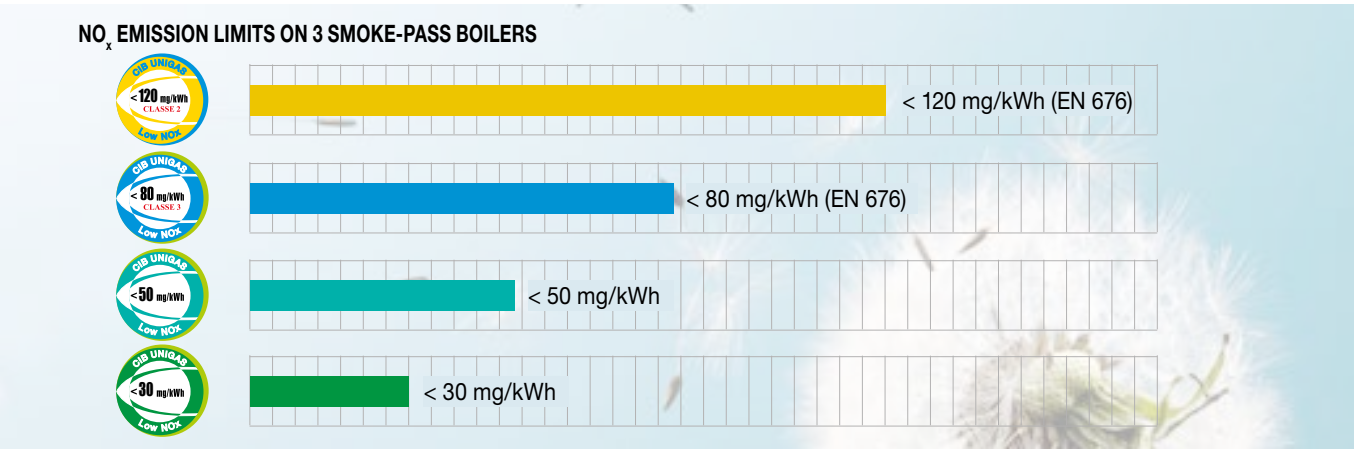


THE "ECOLOGIC" BURNER SERIES HAS REACHED A GREAT GOAL: WIDE RANGE OF COMBUSTION FLEXIBILITY

The development of low burners emissions represent a real revolution in the way NO_x and CO interact when changing the excess of air.
The new series of Low NO_x burners from the CIB UNIGAS ensures zero CO values in a very wide range of operation, with residual oxygen between 0,5 % and 8 %, while maintaining low NO_x emissions almost constant.
The advantage is obvious: the careful choice of the the generator makes possible, for example, to set the oxygen at 1.5% without formation of CO; increasing the efficiency of the thermal group
without deteriorate the NO_x emissions.
Economical and ecological.

ECOLOGIC





Reverse flame boilers: contact our Technical Department.

MATCHING LOW NO_x BURNER AND HEAT GENERATOR

The procedure to match a burner and evaluate the emissions attainable by a thermal unit can be divided in a few simple steps. The first one is to check the operating point of the generator and select a suitable burner size. The next step is to calculate the thermal load of the combustion chamber and use this data to estimate NO_x emissions.
In the case of standard boilers, proceed in the following way.

Let's define:
- combustion chamber diameter D [m]
- chamber length L [m]
- generator nominal power PN [kW]
- boiler efficiency η [%]

The volume V of the combustion chamber is given by the formula

$$V = \frac{\pi}{4} D^2 L \qquad [m^3]$$

The burner required power P_B is equal to

$$P_B = \frac{P_N}{\eta} \qquad [kW]$$

Finally, the thermal load T_L is given by the relationship between power and volume:

$$T_L = \frac{P_B}{V} \qquad [kW/m^3]$$

Example
Suppose you need to match a burner to a 3-smoke pass, hot water boiler, size 1.380 kW.
Efficiency 92%, backpressure 5 mbar
Combustion chamber: diameter 700 mm, length 2.400 mm (including reverse chamber)

The burner required power is then 1.380 / 0,92 = 1.500 kW
The boiler working point is inside the operating range of a low NOx burner size E190X (Fig. 1).

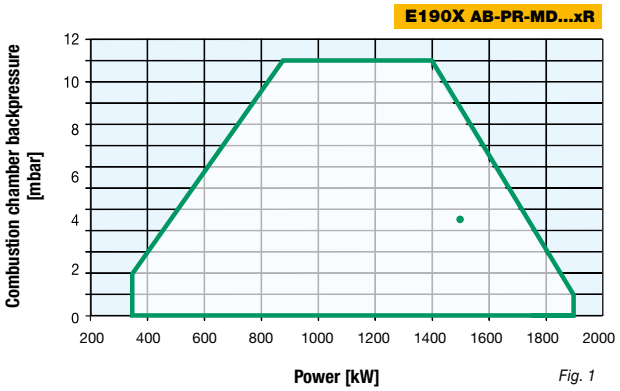


Fig. 1

The steps described above are the same for any other burner.

What follows concerns specifically the matching of "ECOLOGIC" burners serie, with NO_x emissions under 80 mg/kWh.

Combustion chamber volume is equal to
$V = 0,78 \times (0,72)^2 \times 2,4 = 0,96\ m^3$

Thermal load is given by
$TL = 1.500 / 0,96 = 1.560\ kW\ m^3 \approx 1,56\ MW/m^3$

The next step is to use the diagram "Thermal load vs NO_x" (Fig. 2) for the selected burner (K590X): identify thermal load on the abscissa, draw a vertical line till it meet the NO_x curve, then simply read the emissions value on ordinate.

In the cited example, it is possible to estimate, with good approximation, a NO_x emission value of about 72 mg/kWh. Please note NO_x diagrams are located in the following pages.

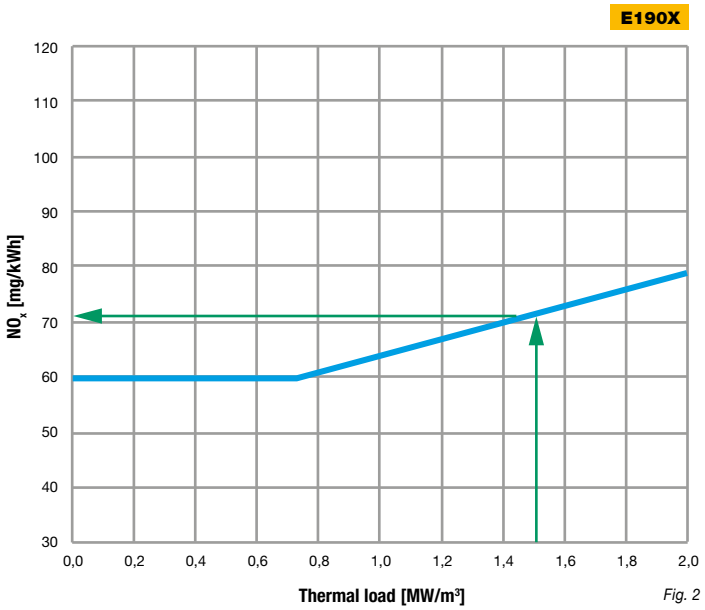


Fig. 2

Reference conditions

- Measurement tolerances according to EN 676 standard
- Temperature: 20 °C
- Dried flue gases
- Barometric pressure: 1013 millibars
- Relative humidity: 70 % (equivalent to 10 g H_2O/kg of air)
- Boiler temperature: 110 °C
- Fuel: G20 (natural gas, 100 % CH_4)
- Three-smoke pass boiler

The final step is to check blast tube dimensions, in relation to combustion chamber, because they are a critical parameter to obtain the expected emissions.
Two conditions should be met:

1) It is recommended that the diameter of the chamber is 2,5 to 3 times larger than the diameter of the burner mouthpiece (blast tube).
2) The low NO_x blast tube must penetrate 150÷200 mm into the combustion chamber.

In the cited example, the boiler chamber diameter was 700 mm, so the optimal blast tube diameter lies in the range between 235 mm and 280 mm.
The dimensional table on page 107 shows that E190X blast tube diameter is equal to 259 mm, thus the first condition is met.
Regarding the blast tube length, suppose the boiler door is 350 mm thick, refractory included. The blast tube must penetrate at least 150 mm as said above, thus the long blast tube variant is selected (500 mm). The short blast tube (400 mm) is insufficient as it only penetrates by 50 mm into the combustion chamber.
To properly install the burner, please refer to Fig. 3 to the side.
Of course, it is possible to carry out the reverse procedure as well: given an emission limit that cannot be exceeded by design, the NOx diagram provides the admissible thermal load for a given heat generator. This way, designer can select a suitable boiler based on project specifications and required power. In any case, burner blast tube dimensions must be checked to complete the matching procedure.

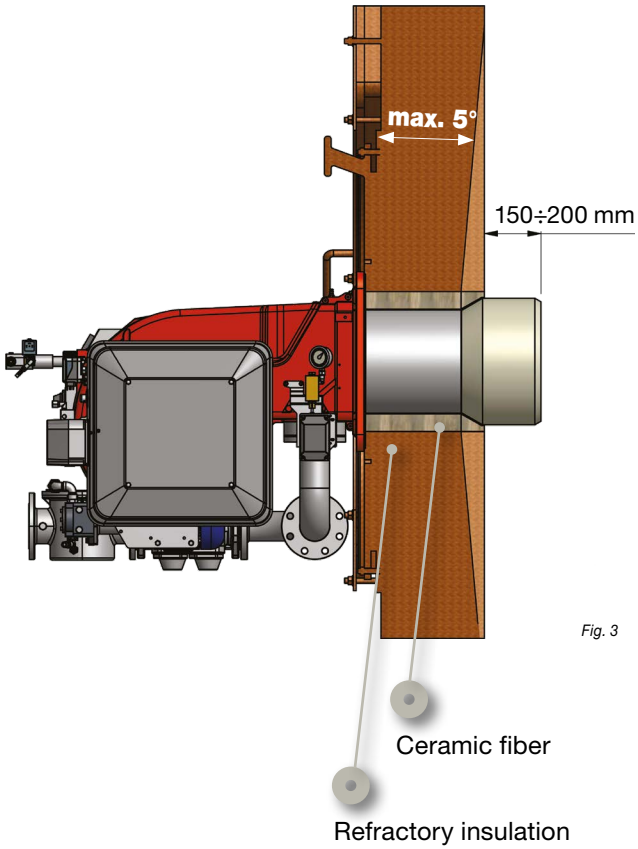


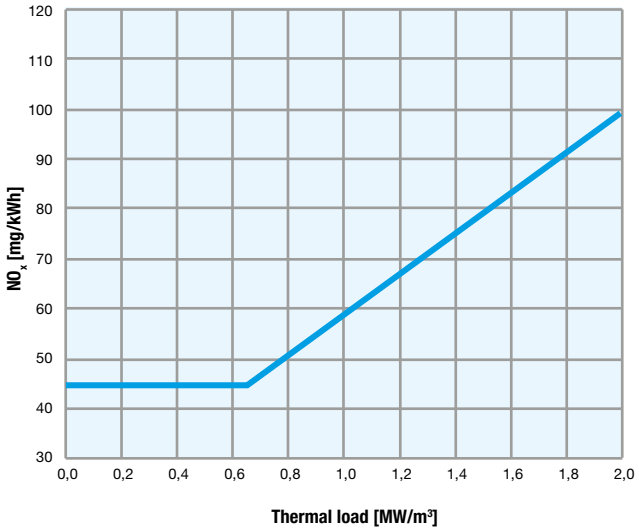
Fig. 3

If design specifications are very demanding, for example if the boiler thermal load is extremely high, CIB Unigas offers a proven low NO_x solution for your needs: the FGR (flue gas recirculation) system.
Please contact our Technical Dept for further details.

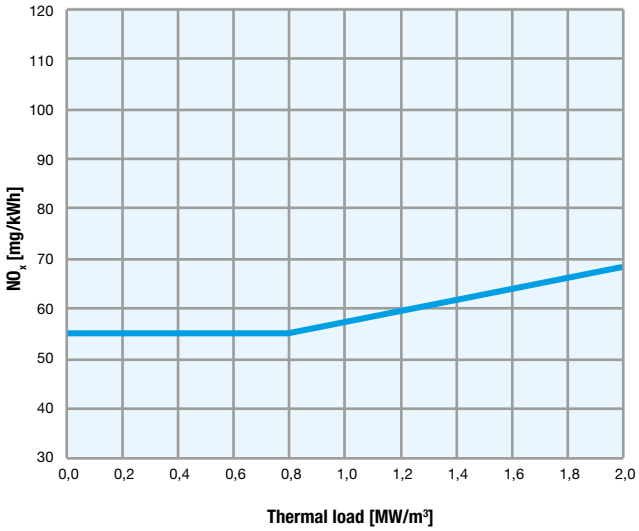
Reverse flame boilers: contact our Technical Department.

MATCHING LOW NO_x BURNER AND HEAT GENERATOR

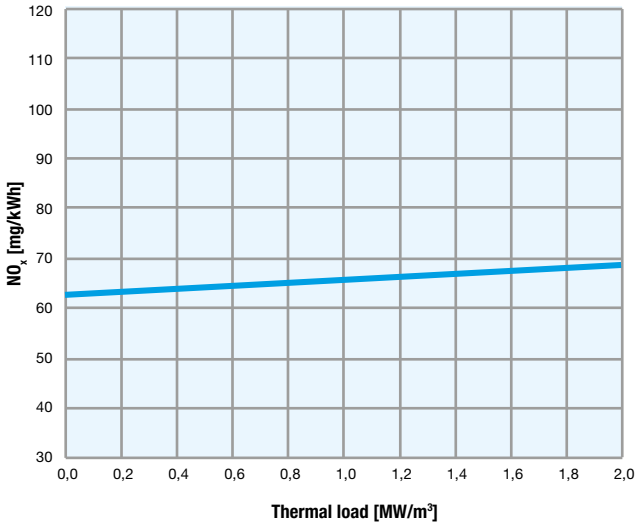
C83X



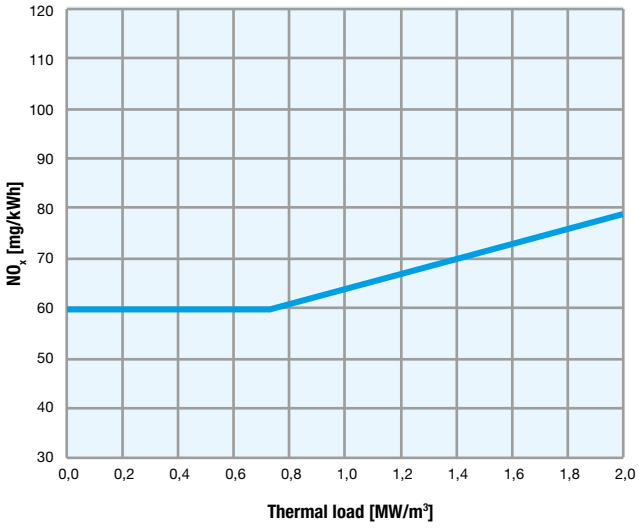
E115X



E140X



E190X



ACOUSTIC HOODS BOX ASSEMBLED ON WHEELED FRAME

All burners in this catalogue have lower noise levels than the standard values.
If a further reduction of the burner noise is required, the customer has at his disposal a series of acoustic hoods box that can be integrated in the system.
The noise reduction range varies from 5 to 15 dB(A), depending on the design specification. For more important reductions, please consult our technical department.

CIB UNIGAS S.p.A.

Via L. Galvani, 9 (Zona Industriale)
35011 CAMPODARSEGO (PD) - Italy
Tel. +39 049 9200944 - Fax +39 049 9201269
E-mail of the order department: ordini@cibunigas.it

COMPANY			
ADDRESS		CITY	CITY CODE
TEL. /		FAX /	

BOILER:

MANUFACTURER:	MODEL:	
BOILER TYPE:	SMOKE TUBES ☐	WATER TUBES ☐
BOILER OUTPUT: (kW)	STEAM PRODUCTION: (kg/h)	
BURNER OUTPUT: (kW)		
COMBUSTION CHAMBER PRESSURE: (mbar)		
COMBUSTION AIR TEMPERATURE (°C):		
COMBUSTION CHAMBER SIZE - LENGHT:	WIDTH (or dia):	HEIGHT:

THERMAL MEDIUM: ☐ STEAM ☐ WATER ☐ OIL ☐ HOT AIR

STEAM PRESSURE	bar
FEEDING MEDIUM TEMPERATURE:	°C
OUTLET MEDIUM TEMPERATURE (water, air, oil)	°C
FUEL DATA	
FUEL:	LOWER CALORIFIC VALUE (kcal/kg):
DENSITY (kg/m^3):	VISCOSITY: °E (a .....°C)
FUEL TEMPERATURE: (°C)	
PRESSURE AT GAS TRAIN INLET:	mbar
OTHER:	

GENERAL:

POWER SUPPLY	VOLT	Hz
COMBUSTION CONTROL: ☐ ON-OFF	☐ HIGH-LOW FLAME	
☐ PROGRESSIVE	☐ MODULATING	
REQUIRED TURN-DOWN 1		
PROBE: ☐ TEMPERATURE °C	☐ PRESSURE (bar)	☐ OTHER

REQUIRED COMPONENTS: ☐ BURNER ☐ CONTROL PANEL

☐ GAS TRAIN ☐ DRAUGHT AIR FAN

OIL HANDLING UNIT

☐ BACK OIL PUMP ☐ BACK UP OIL FILTER ☐ STEAM HEATER ☐ ELECTRIC HEATER

DRAUGHT FAN SPECIFICATION (when existing fan is used):

FLOW RATE (m^3/h)	AT	mbar OUTPUT PRESSURE
ELECTRIC MOTOR POWER (kW)	BLOWER MODEL	

NOTE:	
EDIT BY:	DATE:

ZERTIFIKAT ◆ CERTIFICATE ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

CERTIFICATO

Nr. 50 100 3422 - Rev.007

Si attesta che / This is to certify that

IL SISTEMA QUALITÀ DI
THE QUALITY SYSTEM OF

UNIGAS CIB UNIGAS

C.I.B. UNIGAS S.p.A.

SEDE LEGALE E OPERATIVA:
REGISTERED OFFICE AND OPERATIONAL SITE:
VIA L. GALVANI 9
IT - 35011 CAMPODARSEGO (PD)

SEDE OPERATIVA:
OPERATIONAL SITE:
VIA L. GALVANI 11
IT - 35011 CAMPODARSEGO (PD)

È CONFORME AI REQUISITI DELLA NORMA
HAS BEEN FOUND TO COMPLY WITH THE REQUIREMENTS OF

UNI EN ISO 9001:2015

QUESTO CERTIFICATO È VALIDO PER IL SEGUENTE CAMPO DI APPLICAZIONE
THIS CERTIFICATE IS VALID FOR THE FOLLOWING SCOPE

Progettazione e fabbricazione di bruciatori di gas, gasolio, olio combustibile, combustibili solidi e misti, per uso civile ed industriale. Supporto tecnico ed organizzativo ai centri di assistenza tecnica esterni (IAF 18, 35)

Design and manufacturing of gas, ligth oil, heavy oil, solid fuel and dual- fuel burners for domestic and industrial purpose. Technical and organizing assistance to external after sale service agent (IAF 18, 35)

ACCREDIA

Per l'Organismo di Certificazione
For the Certification Body
TÜV Italia S.r.l.

Validità /*Validity*
Dal / *From:* **2018-09-26**
Al / *To:* **2021-09-25**

Data emissione / *Printing Date*
2018-07-23

PRIMA CERTIFICAZIONE / *FIRST CERTIFICATION:* 2003-10-22

"LA VALIDITÀ DEL PRESENTE CERTIFICATO È SUBORDINATA A SORVEGLIANZA PERIODICA (IL 1° ANNO E AL RIESAME COMPLETO DEL SISTEMA DI GESTIONE DOPO TRE ANNI)"

"THE VALIDITY OF THE PRESENT CERTIFICATE IS APPROVED ON THE ANNUAL SURVEILLANCE (EVERY 12 MONTHS) AND ON THE COMPLETE REVIEW OF COMPANY'S MANAGEMENT SYSTEM (AFTER THREE YEARS)"

June 2020 - M029113CA Rel. 2

CATALOGUE - Burners from 19 kW to 2050 kW

To print this catalogue we have used paper certified FSC®, Forest Stewardship Council®,
supplied by producers respecting the environment, the forests, and who can exhibit specific product certifications.

CIB UNIGAS
Accendiamo il domani

C.I.B. UNIGAS S.p.A.
Via L. Galvani, 9 - 35011 CAMPODARSEGO (PD) - Italy
Tel. +39 049 9200944 - Fax +39 049 9200945 - 9201269
Fax Export +39 049 9202105
cibunigas@cibunigas.it
www.cibunigas.it