CIB UNIGAS

Let's light up tomorrow

50th ANNIVERSARY

CATALOGUE

Medium-small
burners
from 19 kW to 2050 kW

2022/1-2023

www.cibunigas.it

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WE UNDERSTAND YOUR MARKET

The worldwide success of CIB UNIGAS products is due to our adaptability. In fact we are able to adapt our know-how to the different market requests. As a demonstration of this ability, now the 85% of our turnover comes from exports, in particular from 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 products were certificated by German TÜV. From that moment the company has been complying 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.
The new facility accommodates the General Management, commercial offices, control and research labs and production workshops.
The qualification 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

Today the full compliance to emission standards is no longer sufficient to prevent the so called "greenhouse effect". For this reason all our products have always granted a level of pollutant emissions well lower than those imposed by the international regulations. Thanks to its "Zero Emission NO_x" 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 goal to discover burners more and more efficient and environmentally-susteinable. When a prototype is ready, it is tested based on parameters that are tighter than those required by the market. This is the way we produce our products for both industrial and private applications.
CIB Unigas' production method, based on excellence and constant improvement, does not prevent it from maintaining a formidable operation agility. In facts CIB Unigas is able to offer an infinite range of tailor made solutions that are surprisingly competitive in terms of cost 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, it is 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…, KP..

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

FUEL

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

N - HEAVY OIL up to 50 cSt at 50°C (7°E - 50°C)
D - HEAVY OIL up to 400 cSt at 50°C (50°E a 50°C)
MG - DUAL FUEL BURNERS NATURAL GAS - LIGHT OIL
MN - DUAL FUEL BURNERS NATURAL GAS - HEAVY OIL up to 50 cSt at 50°C (7°E - 50°C)
MD - DUAL FUEL BURNERS NATURAL GAS - HEAVY OIL up to 400 cSt at 50°C (50°E a 50°C)
MH - DUAL FUEL BURNERS NATURAL GAS - HEAVY OIL up to 4000 cSt at 50°C (530°E a 50°C)

OPERATION

TN - ON/OFF
AB - HIGH - LOW FLAME
PR - PROGRESSIVE

MD - FULLY MODULATING
SP - SOFT START

COMBUSTION HEAD

M - STANDARD SHORT AND LONG REVERSIBLE COMBUSTION HEAD

S - STANDARD
L - LONG

COUNTRY DESTINATION

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

BURNER MANUFACTURE

A STANDARD
Y SPECIAL
B BAKERY OVENS
C BAKERY OVENS WITH EXTERNAL AIR INLET
D CHEF

G CONTROL PANEL AND JUNCTION BOX
E JUNCTION BOX
Z WITH EXTERNAL AIR INLET

EQUIPMENT

0 2 GAS VALVES
1 2 GAS VALVES AND LEAKAGE CONTROL
8 2 GAS VALVES + LEAKAGE CONTROL AND MAXIMUM GAS PRESSURE SWITCH

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

For burner configurations in Lamtec version with O_2 + CO oxygen control, please contact our sales department.

BURNER IDENTIFICATION FOR TYPE AND NEW MODELS

SERIES
TECNOPRESS

TYPE
C..., E...

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

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
K - KEROSENE
N - HEAVY OIL up to 50 cSt at 50°C (7°E - 50°C)
D - HEAVY OIL up to 400 cSt at 50°C (50°E a 50°C)
MG - DUAL FUEL BURNERS NATURAL GAS - LIGHT OIL
MN - DUAL FUEL BURNERS NATURAL GAS - HEAVY OIL up to 50 cSt at 50°C (7°E - 50°C)

OPERATION

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

COMBUSTION HEAD AND AIR INLET

SP - STANDARD COMBUSTION HEAD WITH ALUMINIUM AIR INLET
SR - STANDARD COMBUSTION HEAD WITH SILENCER
LP - LONG COMBUSTION HEAD WITH ALUMINIUM AIR INLET
LR - LONG COMBUSTION HEAD WITH SILENCER

COUNTRY DESTINATION

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
8 2 GAS VALVES + LEAKAGE CONTROL AND MAXIMUM GAS PRESSURE SWITCH

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
EF Medium-small burners complete with electronic cam and temperature-compensated flue gas recirculation FGR without O_2 monitoring, without inverter
EG Medium-small burners complete with electronic cam, inverter and temperature-compensated flue gas recirculation FGR without O_2 monitoring
EP Medium-small burners complete with electronic cam and temperature-compensated flue gas recirculation FGR with O_2 monitoring and without inverter
ER Medium-small burners complete with electronic cam, inverter and temperature-compensated flue gas recirculation FGR with O_2 monitoring

FLUE GAS RECIRCULATION

FGR Flue gas recirculation

For burner configurations in Lamtec version with O_2 + CO oxygen control, please contact our sales department.

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**

- E — Model
- 165 — Output
- A — Standard combustion head
- M- — Natural gas
- PR — Progressive
- SP — Standard combustion head with aluminium air inlet
- GB — Country United Kingdom
- A — Standard
- 1 — 2 gas valves and leakage control
- 50 — 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**

- C — Model
- 83 — Output
- X — Low NO_X combustion head
- M- — Natural gas
- MD — Fully modulating
- LR — Long combustion head with silencer
- GB — Country United Kingdom
- Y — Special
- 1 — 2 gas valves and leakage control
- 32 — Gas connection
- EA — Electronic version

CIB UNIGAS BURNERS

CIB UNIGAS S.P.A.

Via L.Galvani, 9 35011
Campodarsego (PD) ITALIA

CE 0476

Type	E150X
Model	MG.MD.LR.GB.A.1.65.EC
Year	2021
S. Number	2192727
El. Supply	400V 3N a.c. 50Hz
El.Consump.	3,25 kW
Fan Motor	2,20 kW
Protection	IP40
Output	250 -1550 kW
Fuel	GAS/LIGHT OIL
Category	I2H
Gas pressure	Max 500 mbar
Destination	UNITED KINGDOM
P.I.N.	0476CQ0750

TYPE	MODEL
E 150 X	**MG. MD. LR. GB. A. 1. 65. EC**

- E — Model
- 150 — Output
- X — Low NO_X combustion head
- MG — Natural gas Light oil
- MD — Fully modulating
- LR — Long combustion head with silencer
- GB — Country United Kingdom
- A — Standard
- 1 — 2 gas valves and leakage control
- 65 — Gas connection
- EC — Electronic version

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ELECTRONIC BURNERS

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LOW NOx GAS BURNERS (Class 2 EN676)

	Type	Output kW	Operation	Page
	IDEA SERIES NG35 - NG70 - NG90	19÷85	TN AB	40
	IDEA SERIES NG120 - NG140 - NG200	35÷200	TN AB PR MD	45
	IDEA SERIES NG280 - NG350 - NG400 - NG550	65÷570	TN AB PR MD	50
	TECNOPRESS SERIES P61 - P65 - P71	160÷1.650	AB PR MD	56
	TECNOPRESS SERIES C85A...xP - C120A...xP E165A...xP - E205A...xP	230÷2.050	AB PR MD	61
	TECNOPRESS SERIES C85A...xR - C120A...xR E165A...xR - E205A...xR	230÷2.050	AB PR MD	66
	MINIFLAM SERIES **For kitchens and bakery ovens** Tecnopan S5 - S10 - S18 Chef S5	35÷200	TN	71
	TECNOPRESS SERIES FC85A - FE120A - FE140A - FE186A	810÷1.860	MD	Contact our Sales Offices

LOW NOx GAS BURNERS (Class 3 EN676)

	Type	Output kW	Operation	Page
	IDEA SERIES NGX35 - NGX70	21÷65	TN AB	78
	IDEA SERIES NGX120 - NGX200	35÷150	TN AB PR MD	82
	IDEA SERIES NGX280 - NGX350 NGX400 - NGX550	60÷490	TN AB PR MD	86
	TECNOPRESS SERIES E115X...xP - E150X...xP E180X...xP	250÷1.800	AB PR MD	92
	TECNOPRESS SERIES C83X...xR - E115X...xR E150X...xR - E180X...xR	200÷1.800	AB PR MD	96

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EMISSIONS NOx < 50 mg/kWh

	Type	Output kW	Operation	Page
	TECNOPRESS SERIES C83X...FGR - E115X...FGR E150X...FGR - E180X...FGR		PR MD	Contact our Sales Offices
	TECNOPRESS SERIES C83X...FGR - E115X...FGR E150X...FGR - E180X...FGR		PR MD	Contact our Sales Offices

EMISSIONS NOx < 30 mg/kWh

	Type	Output kW	Operation	Page
	TECNOPRESS SERIES C83X...FGR - E115X...FGR E150X...FGR - E180X...FGR		PR MD	Contact our Sales Offices
	TECNOPRESS SERIES C83X...FGR - E115X...FGR E150X...FGR - E180X...FGR		PR MD	Contact our Sales Offices

EMISSIONS NOx < 80 - 50 - 30 mg/kWh

	Type	Output kW	Operation	Page
	TECNOPRESS SERIES FC83X - FE115X - FE140X - FE175X	810÷1.750	PR MD	Contact our Sales Offices
	FGR... with silencer		PR MD	Contact our Sales Offices

GAS TRAINS

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LIGHT OIL BURNERS
LIGHT OIL BURNERS LOW NOx

	Type	Output kW	Operation	Page
	IDEA SERIES LO35 - LO60 - LO90	14÷85	TN - AB	104
	LOX35 - LOX60 - LOX90	17÷70	TN	
	IDEA SERIES LO140 - LO200	38÷200	TN - AB	108
	LOX140	64÷130	TN	
	IDEA SERIES LO280 - LO400 - LO550	70÷560	TN AB	111
	TECNOPRESS SERIES PG30 - PG60 - PG70 - PG81	105÷1.900	AB PR MD	114
	MINIFLAM SERIES **For kitchens and bakery ovens** Tecnopan G6 - G10 - G18 Chef G5 - G6	29÷209	TN	118
	MINIFLAM 24 Volt DC SERIES **(Direct Current)** G6 - G10 - G18	29÷209	TN	120

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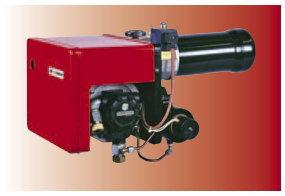
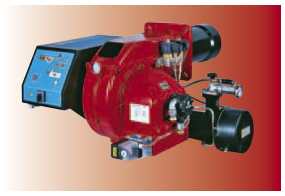
HEAVY OIL BURNERS
with viscosity up to 400 cSt at 50°C (50°E at 50°C)

	Type	Output kW	Operation	Page
	**MINIFLAM SERIES** **Mechanical atomization** N18	105÷209	TN	124
	**TECNOPRESS SERIES** **Mechanical atomization** PN30 - PN60 - PN70 - PN81	105÷1.900	TN AB PR MD	126

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

	Type	Output kW	Operation	Page
	MINIFLAM SERIES HS5 - HS10 - HS18	35÷200	TN	132
	TECNOPRESS SERIES HP20 - HP30 - HP60 - HP65 - HP72	85÷1.550	AB PR MD	136
	TECNOPRESS SERIES C92A...SP - C120A...SP	250÷1.200	AB PR MD	142
	TECNOPRESS SERIES E165A...SR - E205A...SR	320÷2.050	PR MD	147

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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	154
	TECNOPRESS SERIES E115X...xR - E150X...xR - E180X...xR	250÷1.800	PR MD	158

EMISSIONS NOx < 50 mg/kWh

	Type	Output kW	Operation	Page
	TECNOPRESS SERIES C83X...FGR - E115X...FGR E150X...FGR - E180X...FGR		PR MD	Contact our Sales Offices
	TECNOPRESS SERIES C83X...FGR - E115X...FGR E150X...FGR - E180X...FGR		PR MD	Contact our Sales Offices

EMISSIONS NOx < 30 mg/kWh

	Type	Output kW	Operation	Page
	TECNOPRESS SERIES C83X...FGR - E115X...FGR E150X...FGR - E180X...FGR		PR MD	Contact our Sales Offices
	TECNOPRESS SERIES C83X...FGR - E115X...FGR E150X...FGR - E180X...FGR		PR MD	Contact our Sales Offices

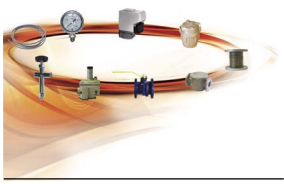
DUAL FUEL BURNERS NATURAL GAS/HEAVY OIL with viscosity up to 400 cSt at 50°C (50°E at 50°C)

	Type	Output kW	Operation	Page
	TECNOPRESS SERIES **Mechanical atomization** KP60 - KP72 - KP73	160÷2.100	PR MD	164

DUAL FUEL BURNERS NATURAL GAS/HEAVY OIL with viscosity up to 4000 cSt at 50°C (530°E at 50°C)

	Type	Output kW	Operation	Page
	TECNOPRESS SERIES **Pneumatic atomization** KPBY72 - KPBY73	291÷2.050	PR MD	169

FITTINGS / OPTIONS

		Page
	**OPTIONS BURNER**	173
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MATCHING LOW NO_x BURNER AND HEAT GENERATOR	191
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ACOUSTIC HOODS BOX ASSEMBLED ON WHEELED FRAME	198

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 with O_2 control and with Inverter

EF Medium-small burners complete with electronic cam and temperature-compensated flue gas recirculation FGR without O_2 monitoring, without inverter

EG Medium-small burners complete with electronic cam, inverter and temperature-compensated flue gas recirculation FGR without O_2 monitoring

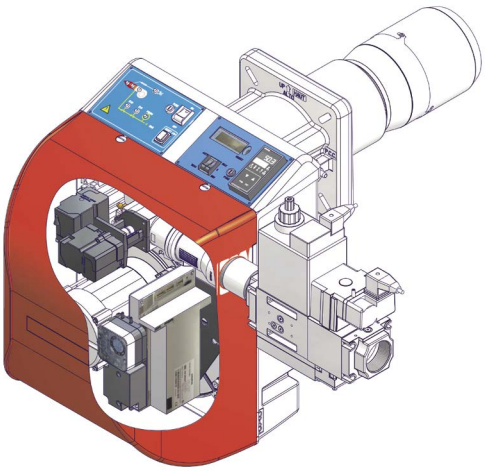
EP Medium-small burners complete with electronic cam and temperature-compensated flue gas recirculation FGR with O_2 monitoring and without inverter

ER Medium-small burners complete with electronic cam, inverter and temperature-compensated flue gas recirculation FGR with O_2 monitoring

For burner configurations in Lamtec version with O_2 + CO oxygen control, please contact our sales department.

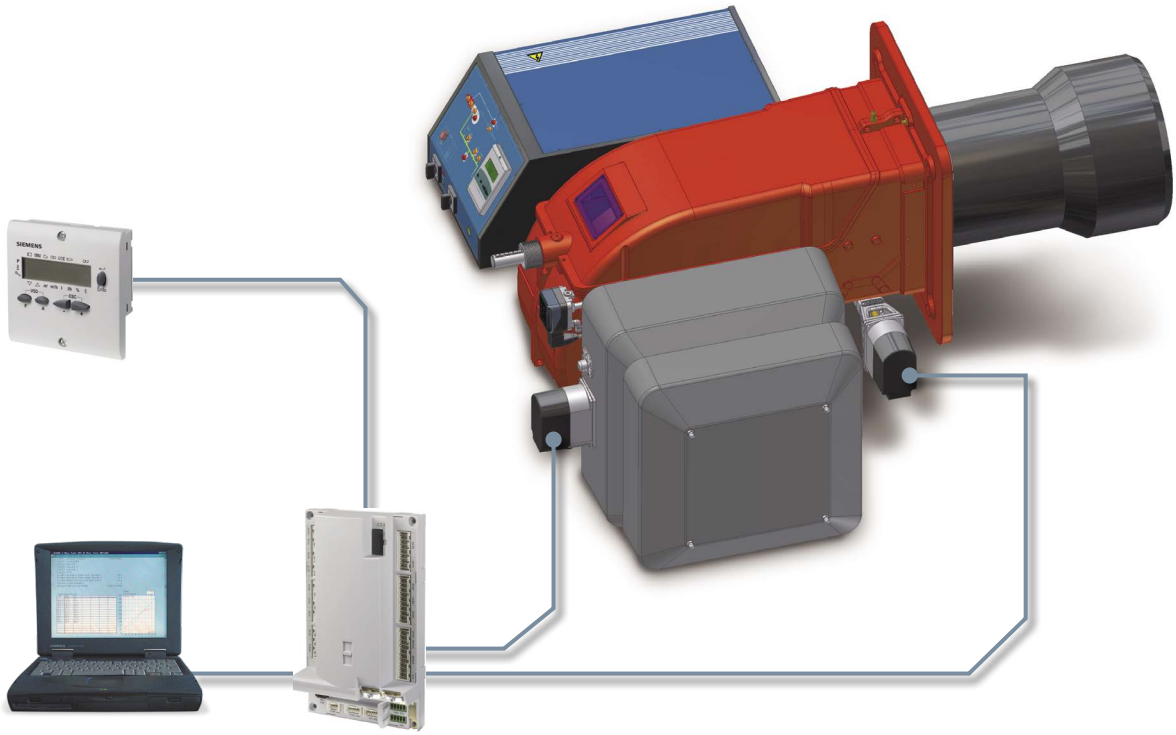
WITH LMV 2... 3... MICROPROCESSOR
for medium-small power burners

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	NGX280 ...EA NGX350 ...EA NGX400 ...EA NGX550 ...EA	

Version EA (Tecnopress)

LMV 20...

AZL 23

Servomotor
AIR SQM33...

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 C120A... 1.40/50/65/80 ...EA E165A... 1.40/50 ...EA* E205A... 1.40/50 ...EA*	
GAS	C83X... 1.32 /40/50/65 ...EA E115X... 1.40/50 ...EA* E150X... 1.40/50 ...EA* E180X... 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	C85A... 1.65 ...EA E165A... 1.65/80 ...EA E205A... 1.65/80 ...EA	
GAS	E115X... 1.65/80 ...EA E150X... 1.65/80 ...EA E180X... 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 C120A... 1.40/50 ...EB** E165A... 1.40/50 ...EB** E205A... 1.40/50 ...EB*	
GAS	C83X... 1.32 /40/50/65 ...EB E115X... 1.40/50 ...EB** E150X... 1.40/50 ...EB** E180X... 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	C85A... 1.65 ...EB E165A... 1.65/80 ...EB E205A... 1.65/80 ...EB	
GAS	E115X... 1.65/80 ...EB E150X... 1.65/80 ...EB E180X... 1.65/8 ...EB	

LIGHT OIL BURNERS WITH LMV 20...
Electronically Operated without Inverter

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 37...
Electronically Operated with Inverter

Version EB (Tecnopress)

LMV 37...

AZ L23

** Servomotor
AIR SQM33...

** Servomotor
LIGHT OIL SQM33...

Inverter

Series	Burner Type	Extra charge €
GASOLIO	PG60 ...EB PG70 ...EB PG81 ...EB	

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

DUAL FUEL BURNERS GAS/LIGHT OIL GAS/HEAVY OIL WITH LMV 26...
Electronically Operated without Inverter
complete with leakage control

Version EC (Tecnopress)

LMV 26...

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/LIGHT OIL	C83X... MG...1.32 /40/50/65 ...EC	
DUAL FUEL GAS/LIGHT OIL	E115X... MG...1.40/50/65/80 ...EC E150X... MG... 1.40/50/65/80 ...EC E180X...MG... 1.40/50/65/80 ...EC	
DUAL FUEL GAS/HEAVY OIL	KP60 ...EC KP72 ...EC KP73 ...EC	
DUAL FUEL GAS/HEAVY OIL	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...

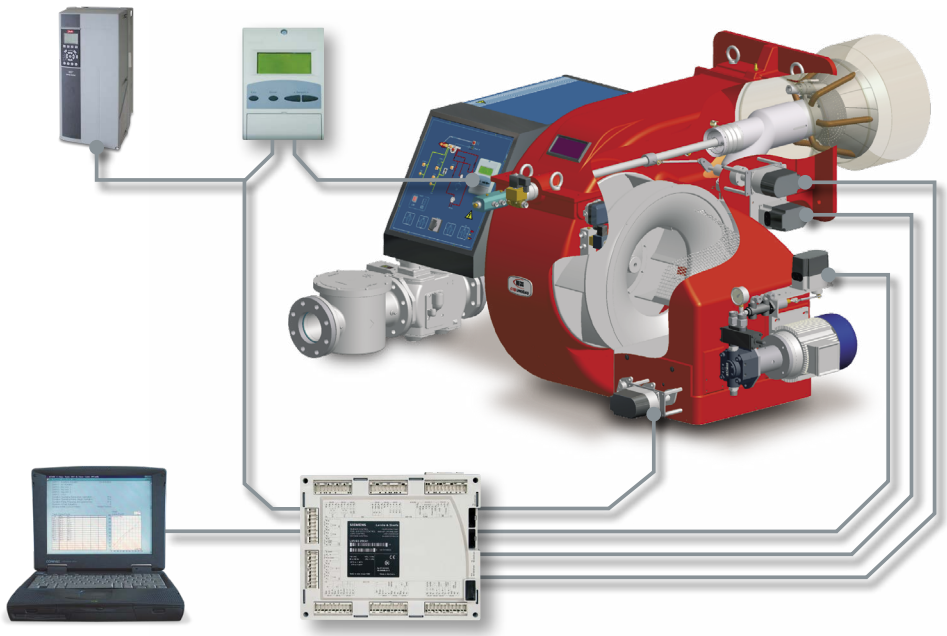
Inverter

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/LIGHT OIL	C83X... MG...1.32 /40/50/65 ...ED	
DUAL FUEL GAS/LIGHT OIL	E115X... MG... 1.40/50/65/80 ...ED E150X... MG... 1.40/50/65/80 ...ED E180X... 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 52.200	LMV 52.400
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			●	
EF	TECNOPRESS	gas				●
EF	TECNOPRESS	dual fuel burners				●
EG	TECNOPRESS	gas				●
EG	TECNOPRESS	dual fuel burners				●
EP	TECNOPRESS	gas				●
EP	TECNOPRESS	dual fuel burners				●
ER	TECNOPRESS	gas				●
ER	TECNOPRESS	dual fuel burners				●

* Only monitoring

For burner configurations in Lamtec version with O_2 + CO oxygen control, please contact our sales department.

	AZL 5x	SQM4x air	SQM4x gas	SQM4x liquid fuel	SQM4x FGR	O_2 PROBE	FGR 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 E150X... 1.40/50/65/80 ...ES E180X... 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... MG... 1.32 /40/50/65 ...ES C120A... MG... 1.40/50/65/80 ...ES E165A... MG 1.40/50/65/80 ...ES E205A... MG... 1.40/50/65/80 ...ES	
DUAL FUEL GAS/LIGHT OIL	C83X... MG... 1.32 /40/50/65 ...ES E115X... MG... 1.40/50/65/80 ...ES E150X... MG... 1.40/50/65/80 ...ES E180X... MG... 1.40/50/65/80 ...ES	
DUAL FUEL GAS/HEAVY OIL	KP60 - KP72 -KP73 ...ES	

Version EO (Tecnopress)

LMV 52...

AZL 5

SQM4...

SQM4...

O2... 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 E150X... 1.40/50/65/80 ...E0 E180X... 1.40/50/65/80 ...E0	

Version EO (Tecnopress)

LMV 52...

AZL 5

SQM4...

SQM4...

SQM4...

O2... PROBE

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

Series	Burner Type	Extra charge €
DUAL FUEL GAS/LIGHT OIL	C92A...MG... 1.32 /40/50/65 ...E0 C120A...MG... 1.40/50/65/80 ...E0 E165A...MG 1.40/50/65/80 ...E0 E205A...MG... 1.40/50/65/80 ...E0	
DUAL FUEL GAS/LIGHT OIL	C83X...MG... 1.32 /40/50/65 ...E0 E115X...MG... 1.40/50/65/80 ...E0 E150X...MG... 1.40/50/65/80 ...E0 E180X...MG... 1.40/50/65/80 ...E0	
DUAL FUEL GAS/HEAVY OILE****	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 E150X... 1.40/50/65/80 ...EI E180X... 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...MG... 1.32 /40/50/65 ...EI C120A...MG... 1.40/50/65/80 ...EI E165A...MG 1.40/50/65/80 ...EI E205A...MG... 1.40/50/65/80 ...EI	
DUAL FUEL GAS/LIGHT OIL	C83X...MG... 1.32 /40/50/65 ...EI E115X...MG... 1.40/50/65/80 ...EI E150X...MG... 1.40/50/65/80 ...EI E180X...MG... 1.40/50/65/80 ...EI	
DUAL FUEL GAS/HEAVY OIL	KP60 - KP72 -KP73 ...EI	

Version EK (Tecnopress)

LMV 52...

AZL 5

SQM4...

SQM4...

O2... 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 E150X... 1.40/50/65/80 ...EK E180X... 1.40/50/65/80 ...EK	

Version EK (Tecnopress)

LMV 52...

AZL 5

SQM4...

SQM4...

SQM4...

O2... PROBE

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...MG... 1.32 /40/50/65 ...EK C120A...MG... 1.40/50/65/80 ...EK E165A...MG 1.40/50/65/80 ...EK E205A...MG... 1.40/50/65/80 ...EK	
DUAL FUEL GAS/LIGHT OIL	C83X...MG... 1.32 /40/50/65 ...EK E115X...MG... 1.40/50/65/80 ...EK E150X...MG... 1.40/50/65/80 ...EK E180X...MG... 1.40/50/65/80 ...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

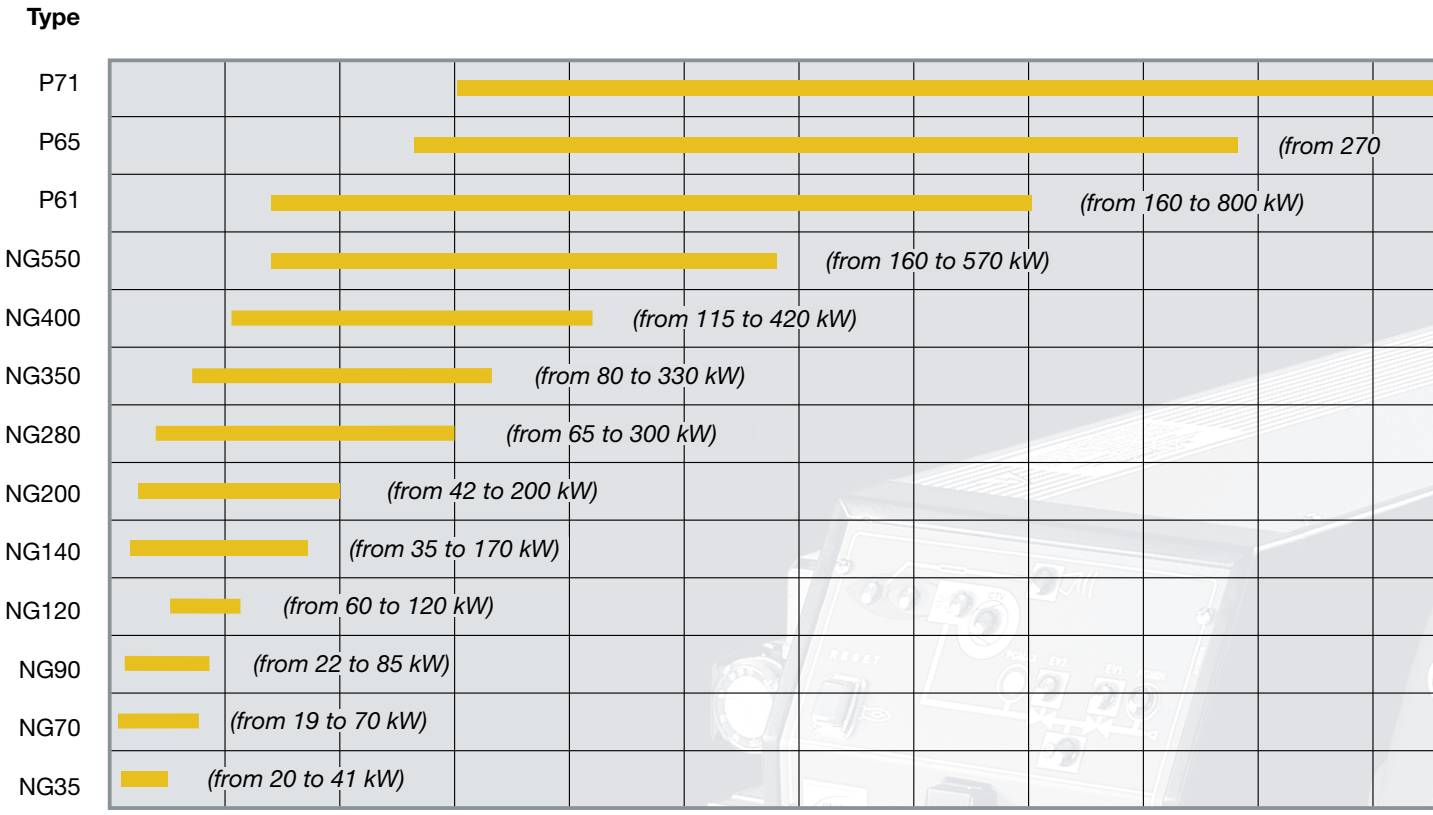
NG35 - TN
NG70 - TN/AB
NG90 - TN/AB
NG120 - TN
NG140 - TN/AB/PR/MD
NG200 - TN/AB/PR/MD
NG280 - TN/AB/PR/MD
NG350 - TN/PR/MD
NG400 - TN/PR/MD
NG550 - TN/PR/MD

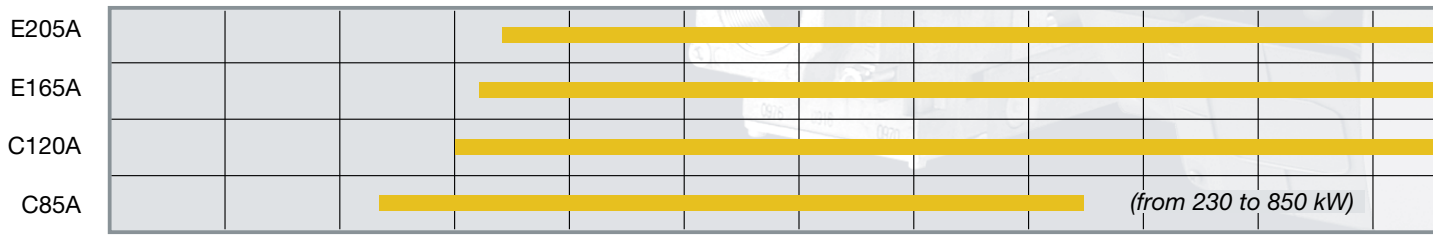
tecnopress series

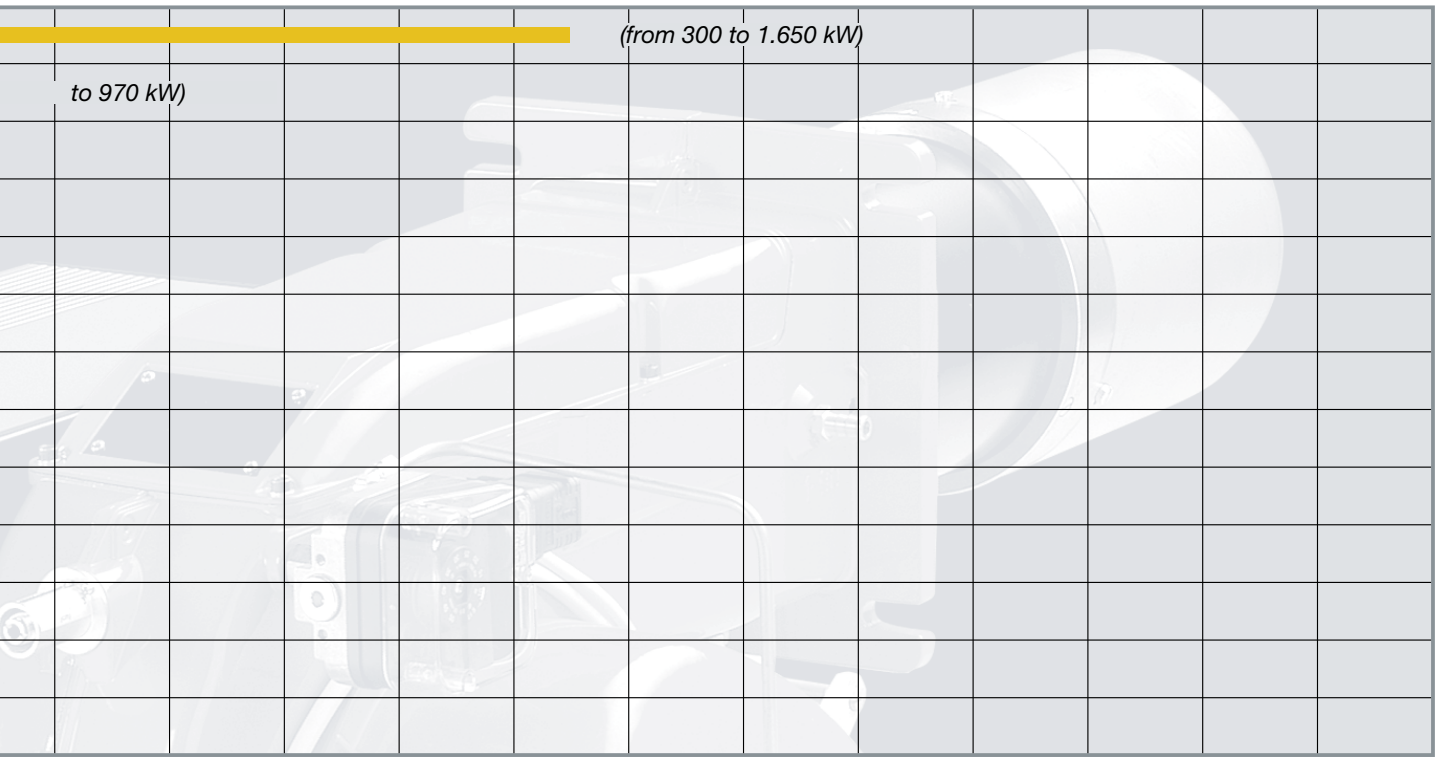
P61 - AB/PR/MD
P65 - AB/PR/MD
P71 - AB/PR/MD

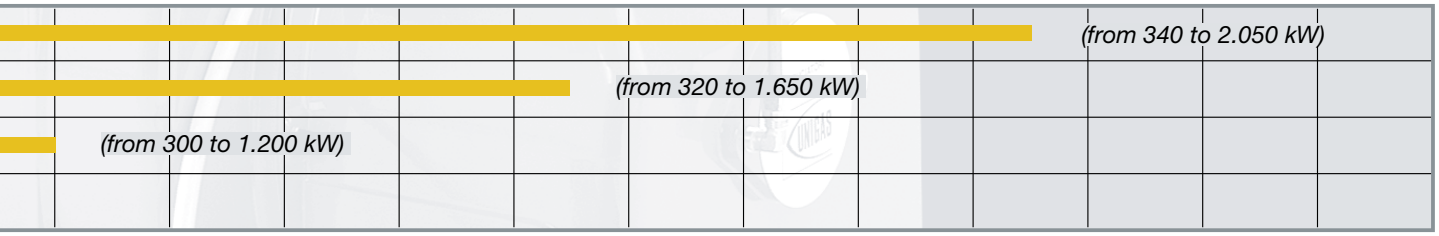
NEW tecnopress series

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



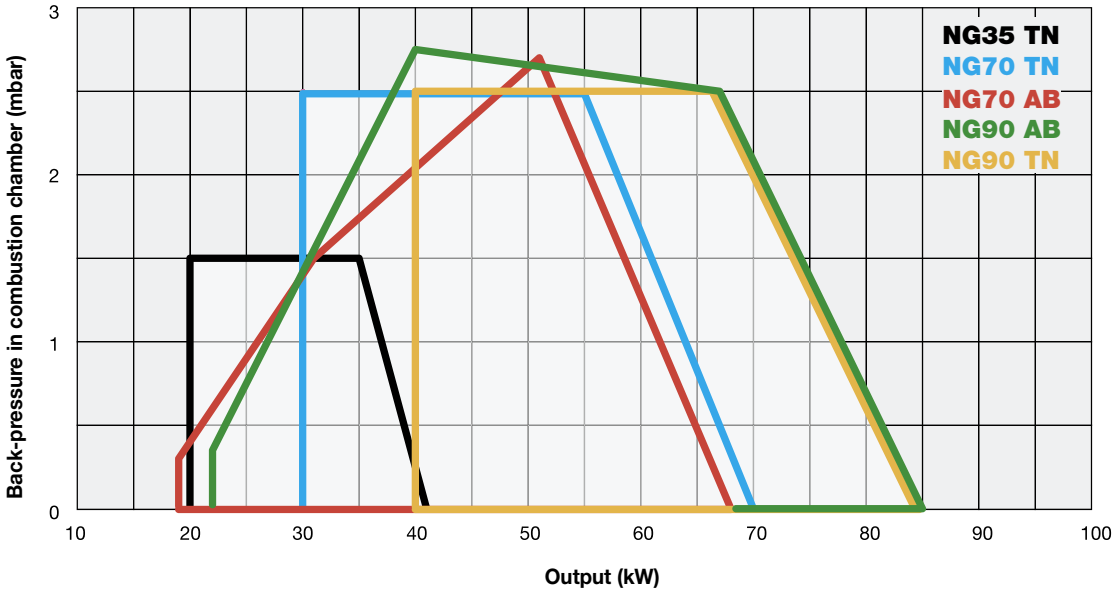



(from 300 to 1.650 kW)
to 970 kW)


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

idea SERIES NG35 NG70 NG90

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.

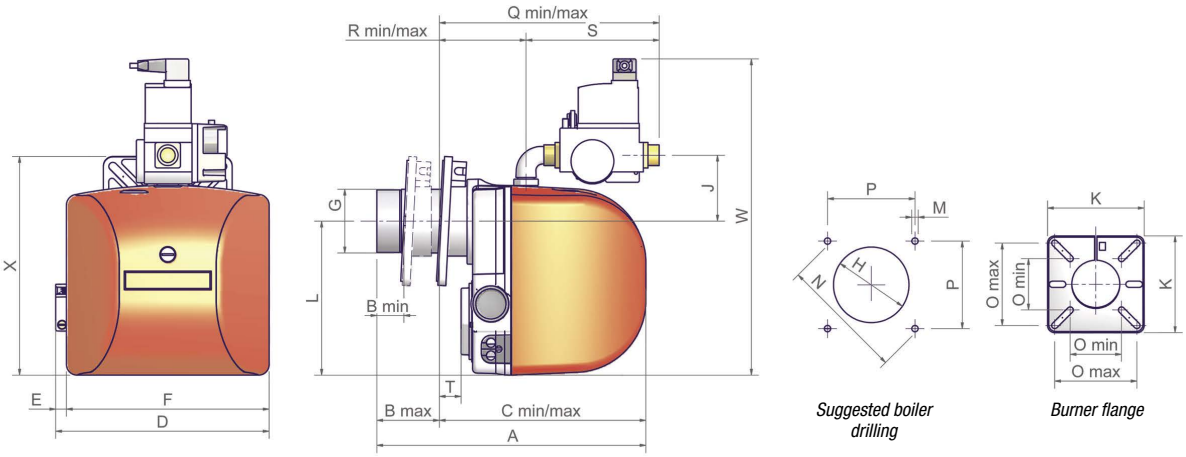


NG35 NG70 NG90 idea SERIES

TECHNICAL DETAILS

Type	Model	Power kW min.	Power kW max.	Electric power supply	Fan motor kW	Gas connections
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 101.



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

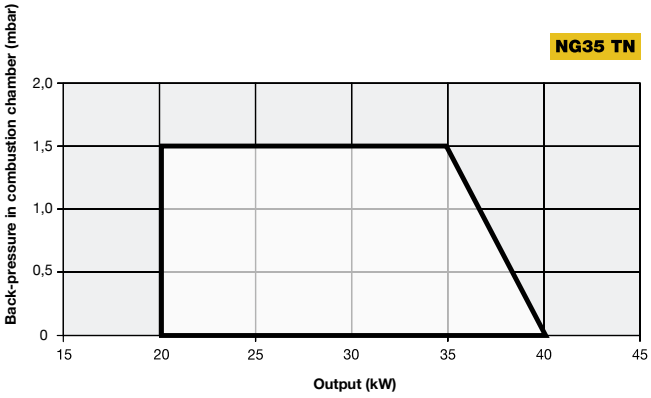
Type	Model	Overall dimensions (mm) A	B min.	B max.	C min.	C max.	D	E	F	G	H	J	K	L	M	N	O min.	O max.	P	Q min.	Q max.	R min.	R max.	S	T min.	W	X
NG35	M-.TN.S.xx.A.0.15	338	34	78	260	305	269	14	255	80	95	86	162	194	M8	158	86	138	112	277	322	109	154	180	27	400	275
NG35	M-.TN.L.xx.A.0.15	416	34	156	260	383	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

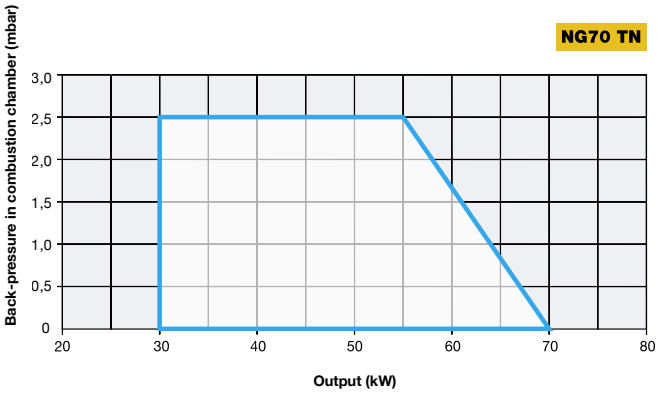
Approximate values

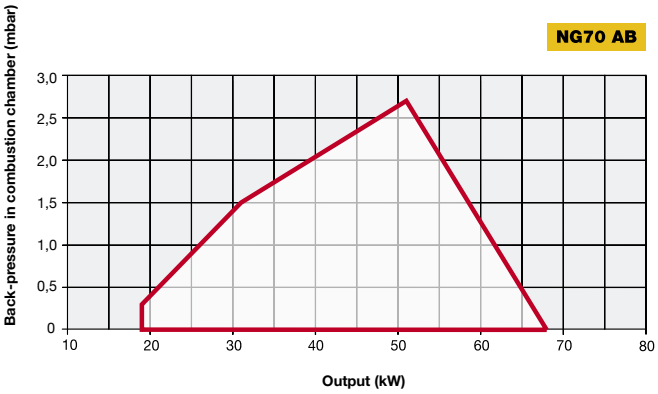
MECHANICAL OPERATION

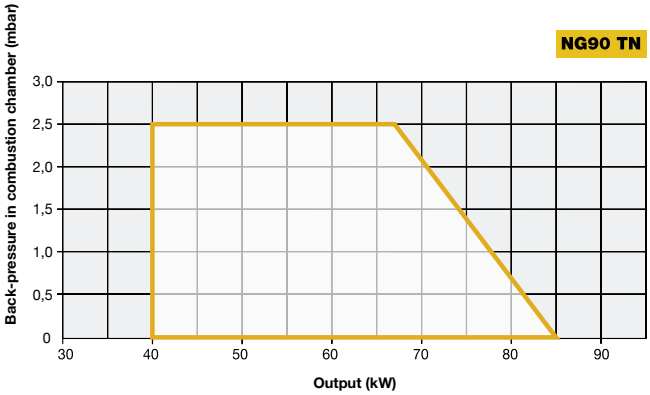
Model	Gas train	Operation	NG35		NG70		NG90	
			Code	Price €	Code	Price €	Code	Price €
M-.TN.S.xx.A.0.15	½”	TN	024011041		025010941		025010541	
M-.TN.S.xx.A.0.20	¾”	TN	-		-		025010741	
M-.TN.S.xx.Z.0.15 ◆	½”	TN	024011241		-		-	
M-.AB.S.xx.A.0.15	½”	AB	-		025010942		025010542	
M-.AB.S.xx.A.0.20	¾”	AB	-		-		025010742	

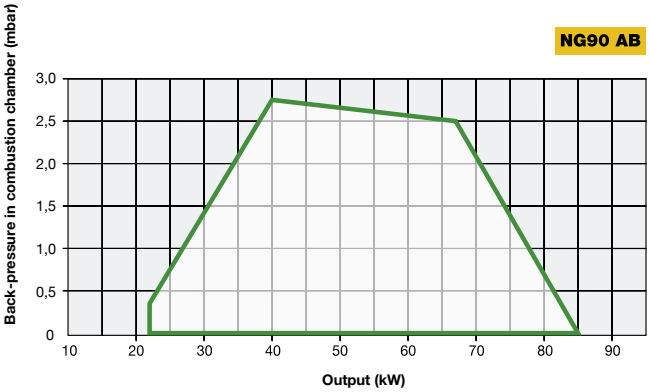
S = Standard combustion head (BS)
L = For long combustion head version (BL) increase the price (see price list)
◆ Burner equipped with external air inlet.
In compliance with GAR DIRECTIVE 2016/426/EU


NG35 TN
Back-pressure in combustion chamber (mbar)
2,0
1,5
1,0
0,5
0
15
20
25
30
35
40
45
Output (kW)


NG70 TN
Back-pressure in combustion chamber (mbar)
3,0
2,5
2,0
1,5
1,0
0,5
0
20
30
40
50
60
70
80
Output (kW)

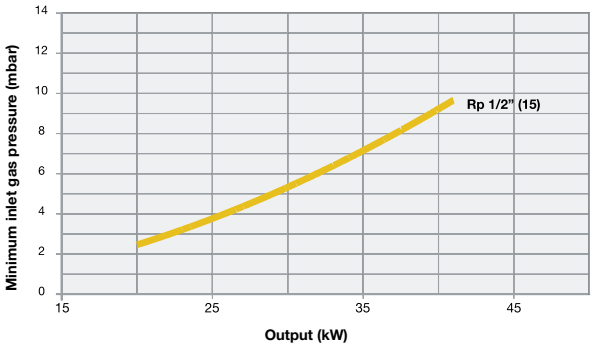

NG70 AB
Back-pressure in combustion chamber (mbar)
3,0
2,5
2,0
1,5
1,0
0,5
0
10
20
30
40
50
60
70
80
Output (kW)


NG90 TN
Back-pressure in combustion chamber (mbar)
3,0
2,5
2,0
1,5
1,0
0,5
0
30
40
50
60
70
80
90
Output (kW)

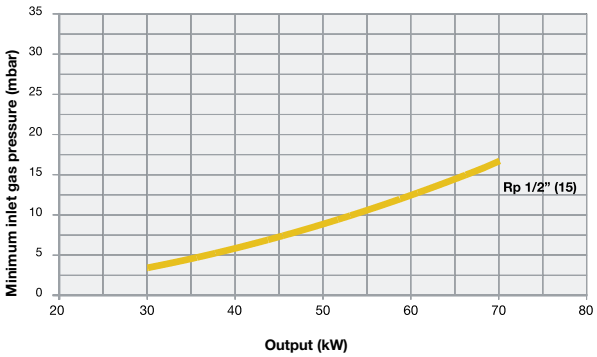

NG90 AB
Back-pressure in combustion chamber (mbar)
3,0
2,5
2,0
1,5
1,0
0,5
0
10
20
30
40
50
60
70
80
90
Output (kW)

NG35 NG70 NG90

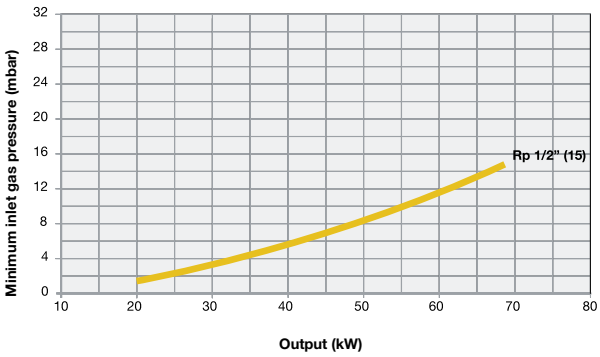
NG35 TN



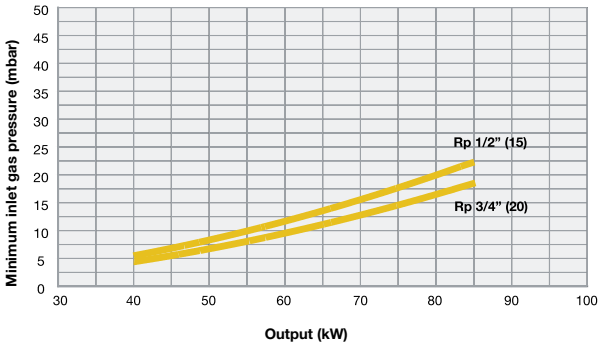
NG70 TN



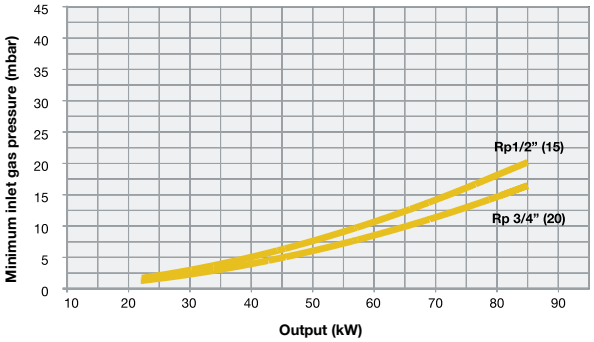
NG70 AB



NG90 TN



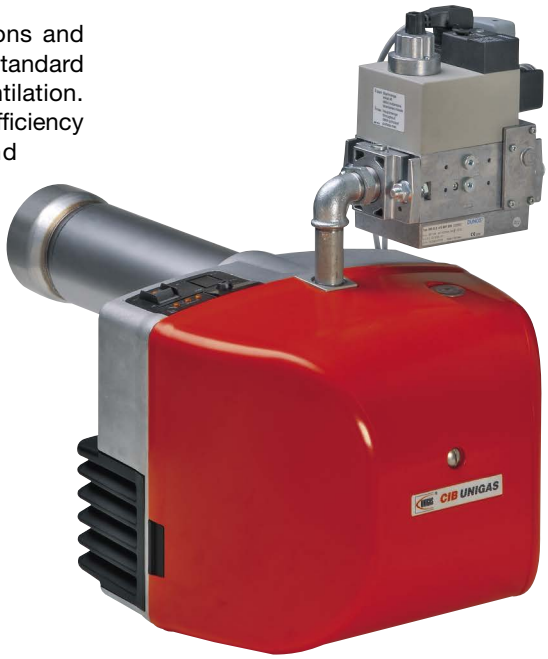
NG90 AB

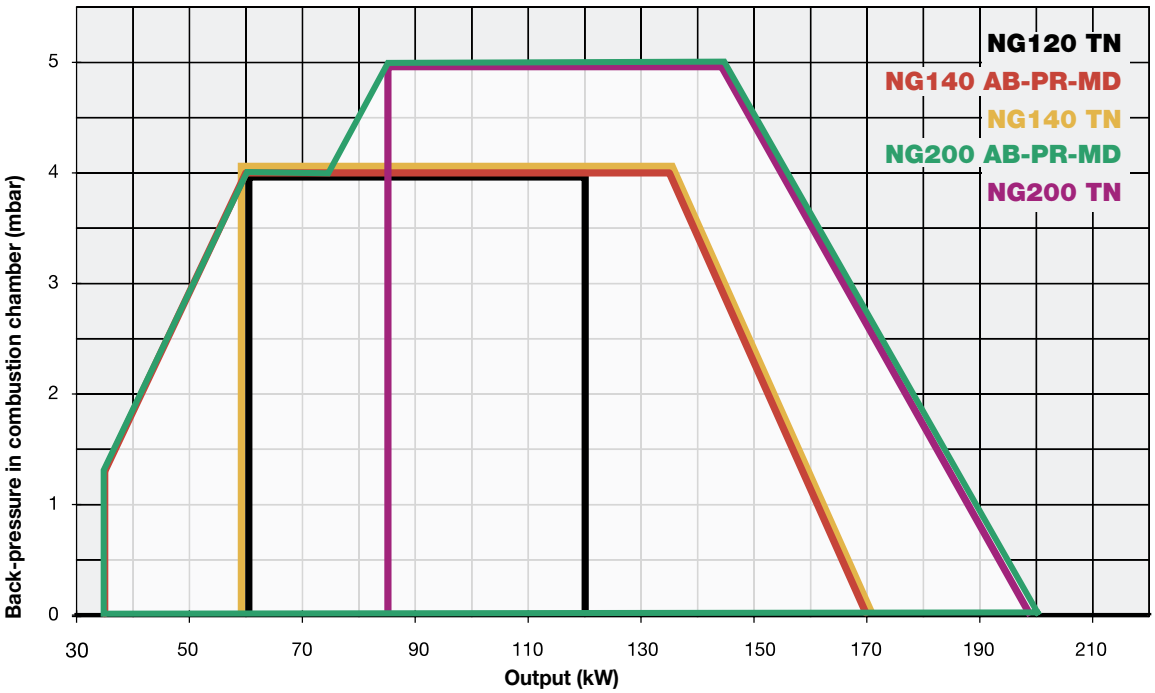


Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

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 particularly 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.



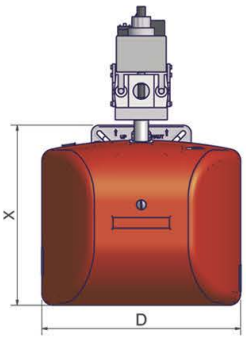


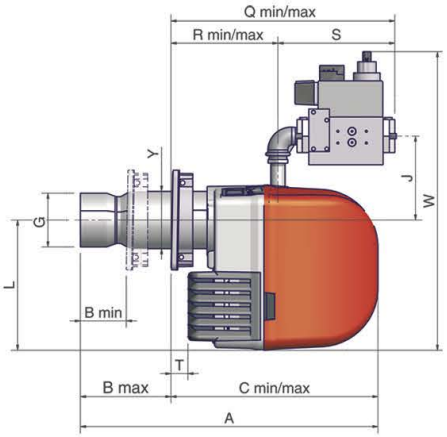
NG120 NG140 NG200

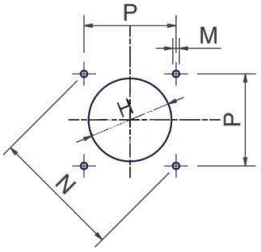
TECHNICAL DETAILS

Type	Model	Power kW		Electric power supply	Fan motor kW	Gas connections
		min.	max.			
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”

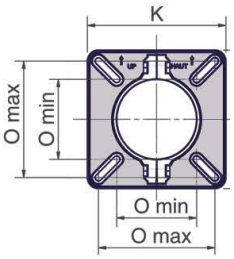
For the configuration of the gas train, see page 101.







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

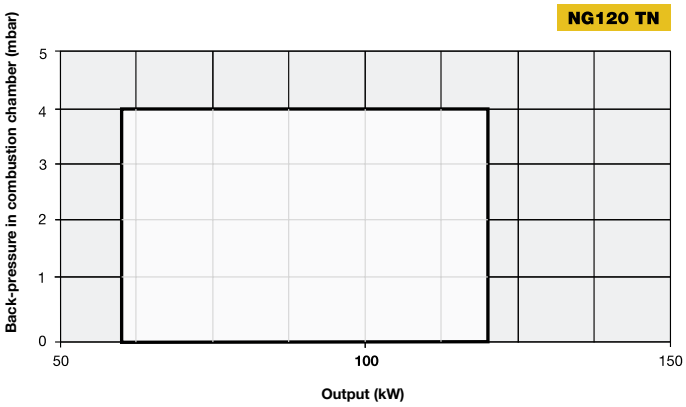
MECHANICAL OPERATION

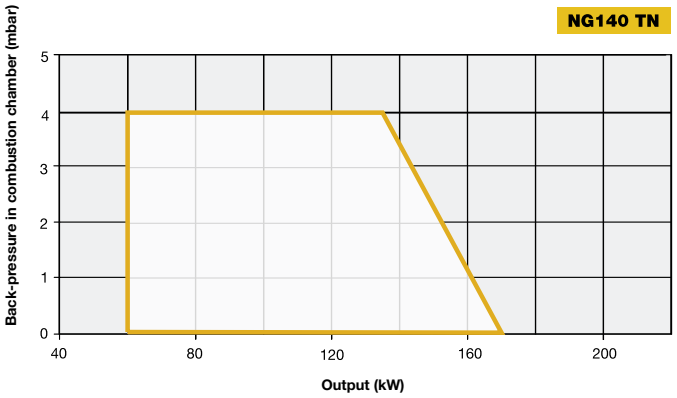
Model	Gas train	Operation	NG120		NG140		NG200	
			Code	Price €	Code	Price €	Code	Price €
M-.TN.S.xx.A.0.15	½”	TN	026010141		-		-	
M-.TN.S.xx.A.0.20	¾”	TN	-		026010341		026010941	
M-.TN.S.xx.A.0.25	1”	TN	-		026010541		026011141	
M-.AB.S.xx.A.0.20	¾”	AB	-		026010342		026010942	
M-.AB.S.xx.A.0.25	1”	AB	-		026010542		026011142	
M-.PR.S.xx.A.0.25	1”	PR (*)	-		026010543		026011143	

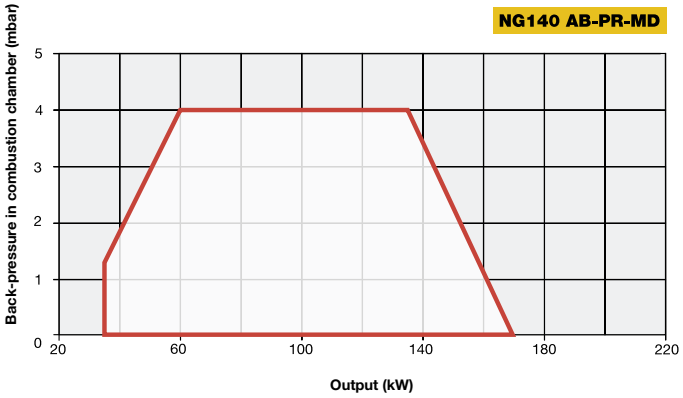
S = Standard combustion head (BS)
L = For long combustion head version (BL) increase the price (see price list)
(*) Progressive PR control, for modulating version MD add (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
In compliance with GAR DIRECTIVE 2016/426/EU

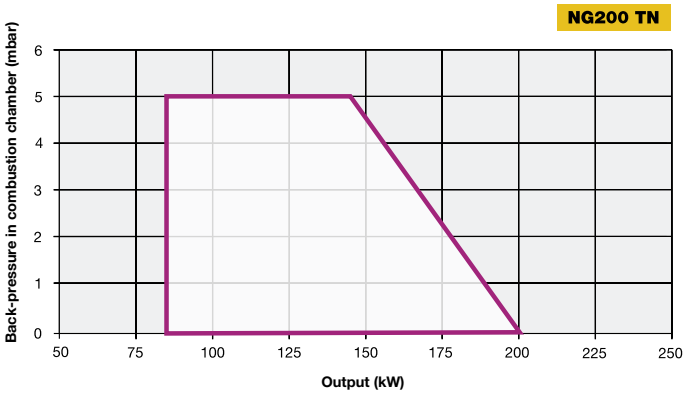
NG120 NG140 NG200

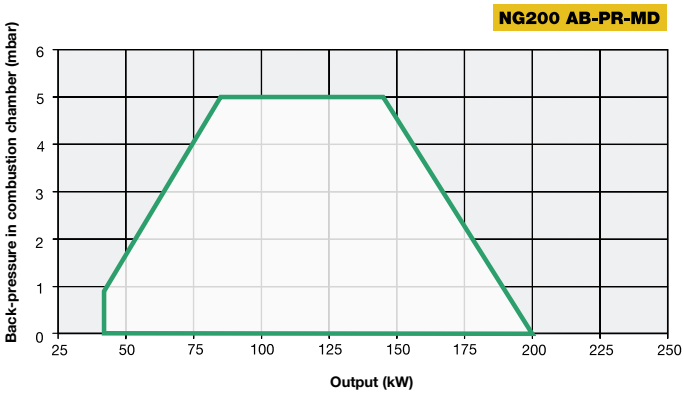
GAS





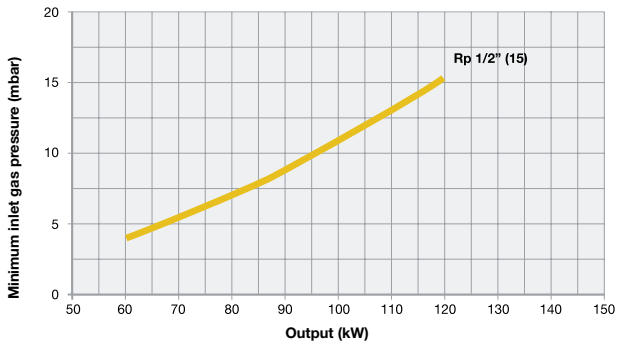




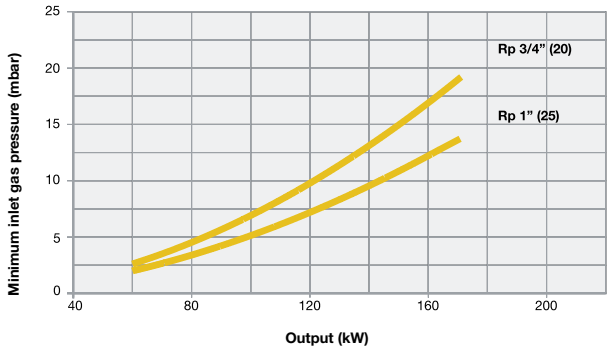


NG120 NG140 NG200 idea SERIES

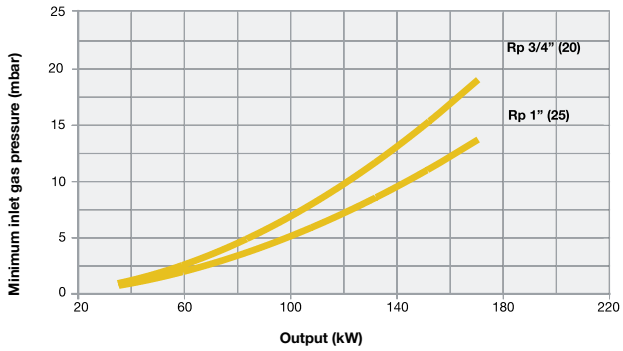
NG120 TN



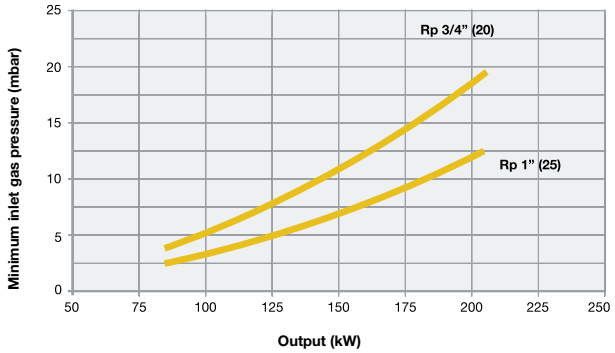
NG140 TN



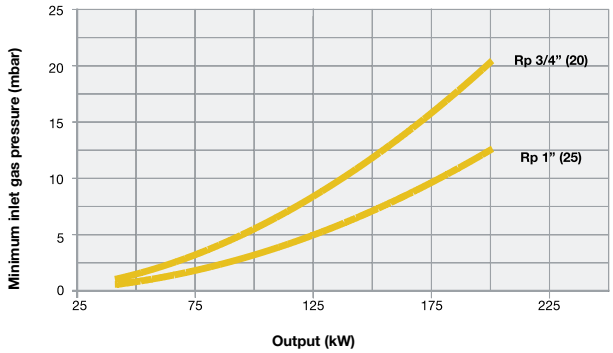
NG140 AB-PR-MD



NG200 TN



NG200 AB-PR-MD

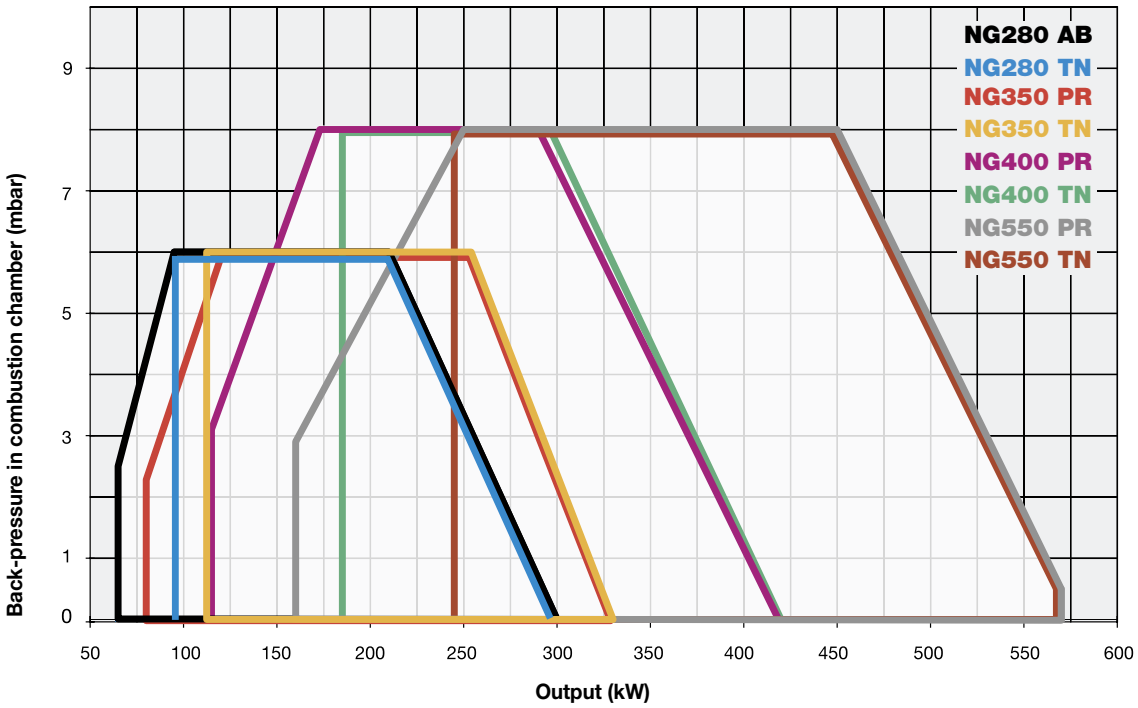


Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

idea SERIES NG280 NG350 NG400 NG550

GAS

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 particularly suitable to work on the boilers with high back pressure.

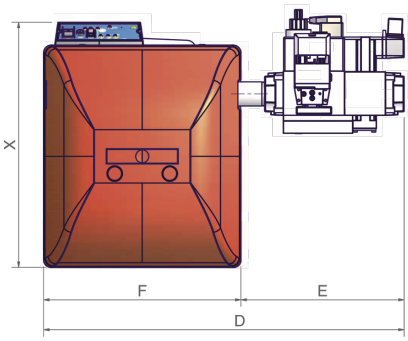


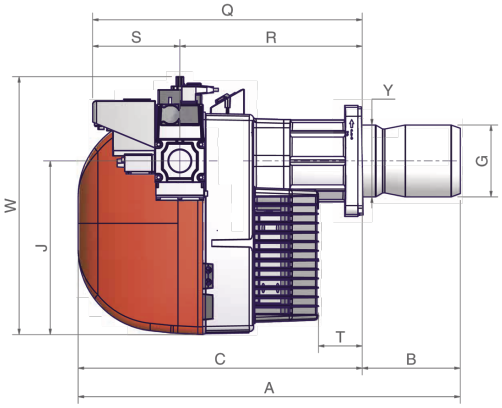
NG280 NG350 NG400 NG550 idea SERIES

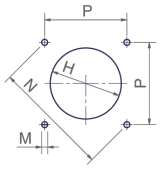
TECHNICAL DETAILS

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"

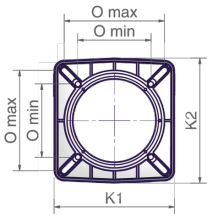
For the configuration of the gas train, see page 101.







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.	long	stand.	long								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 Code	NG280 Price €	NG350 Code	NG350 Price €
M-.TN.S.xx.A.0.25	1”	TN	027011741		-	
M-.TN.S.xx.A.0.32	1”¼	TN	027011941		-	
M-.TN.S.xx.A.0.40	1”½	TN	027012141		-	
M-.AB.S.xx.A.0.25	1”	AB	027011742		-	
M-.AB.S.xx.A.0.32	1”¼	AB	027011942		-	
M-.AB.S.xx.A.0.40	1”½	AB	027012142		-	
M-.PR.S.xx.A.0.25	1”	PR (*)	027011743		-	
M-.PR.S.xx.A.0.32	1”¼	PR (*)	027011943		-	
M-.PR.S.xx.A.0.40	1”½	PR (*)	027012143		-	
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	

Model	Gas train	Operation	NG400 Code	NG400 Price €	NG550 Code	NG550 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-.TN.S.xx.A.0.32	1”¼	TN	-		028010141	
M-.TN.S.xx.A.0.40	1”½	TN	-		028010341	
M-.TN.S.xx.A.0.50	2”	TN	-		028010541	
M-.PR.S.xx.A.0.32	1”¼	PR (*)	-		028010143	
M-.PR.S.xx.A.0.40	1”½	PR (*)	-		028010343	
M-.PR.S.xx.A.0.50	2”	PR (*)	-		028010543	

S = Standard combustion head (BS)
L = For long combustion head version (BL) increase the price (see price list)
M = Short and long reversible combustion head
(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

In compliance with GAR DIRECTIVE 2016/426/EU

ELECTRONIC OPERATION

Model	Gas train	Operation	NG280 Code	NG280 Price €	NG350 Code	NG350 Price €
M-.PR.S.xx.A.1.25.EA	1”	PR (*)	02701175A		-	
M-.PR.S.xx.A.1.32.EA	1”¼	PR (*)	02701195A		-	
M-.PR.S.xx.A.1.40.EA	1”½	PR (*)	02701215A		-	
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	

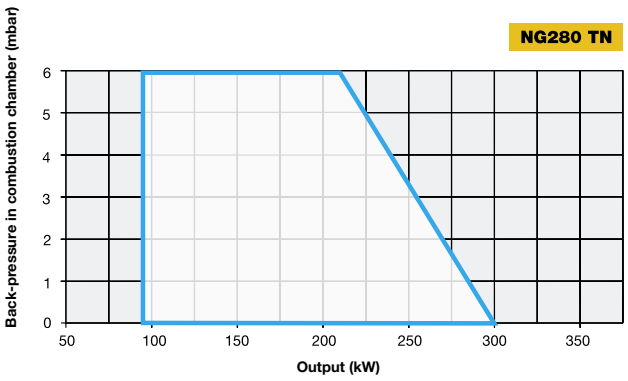
Model	Gas train	Operation	NG400 Code	NG400 Price €	NG550 Code	NG550 Price €
M-.PR.M.xx.A.1.25.EA	1”	PR (*)	02701045A		-	
M-.PR.M.xx.A.1.32.EA	1”¼	PR (*)	02701055A		-	
M-.PR.M.xx.A.1.40.EA	1”½	PR (*)	02701065A		-	
M-.PR.M.xx.A.1.50.EA	2”	PR (*)	02701075A		-	
M-.PR.S.xx.A.1.32.EA	1”¼	PR (*)	-		02801015A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

S = Standard combustion head (BS)
L = For long combustion head version (BL) increase the price (see price list)
M = Short and long reversible combustion head
(*) Progressive PR control, for modulating version MD add € (see price list).
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

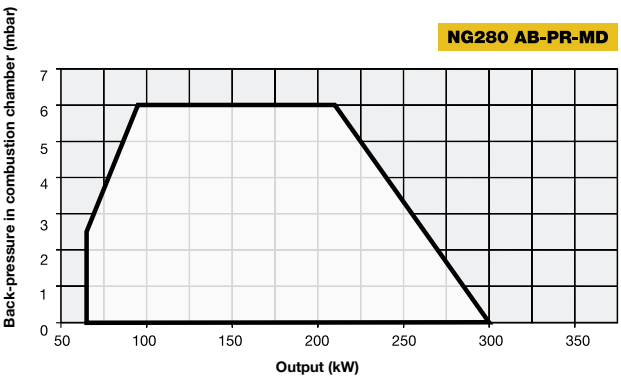
In compliance with GAR DIRECTIVE 2016/426/EU

NG280 NG350 NG400 NG550

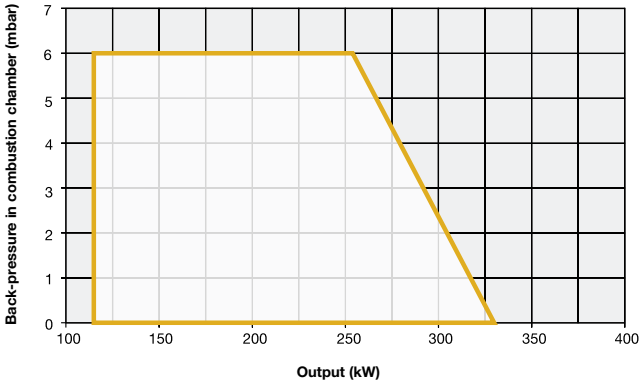
NG280 TN



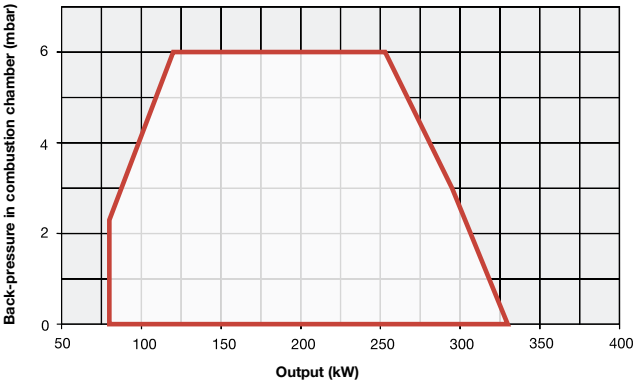
NG280 AB-PR-MD



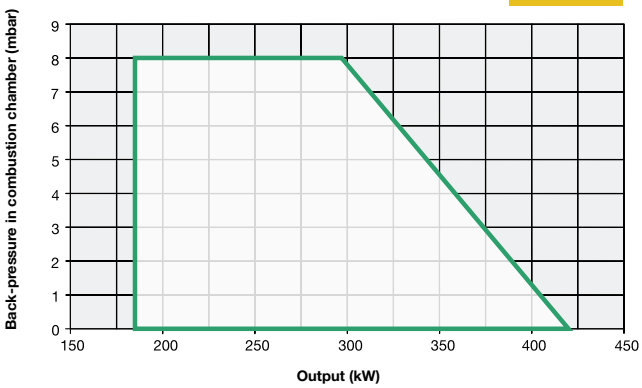
NG350 TN



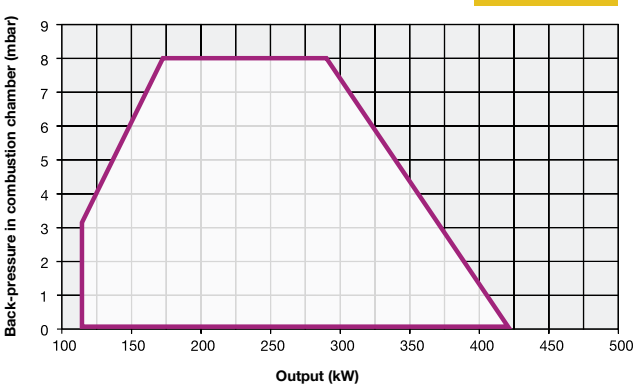
NG350 PR MD



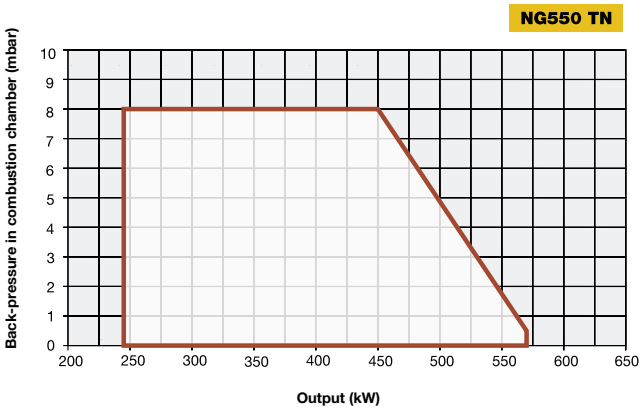
NG400 TN



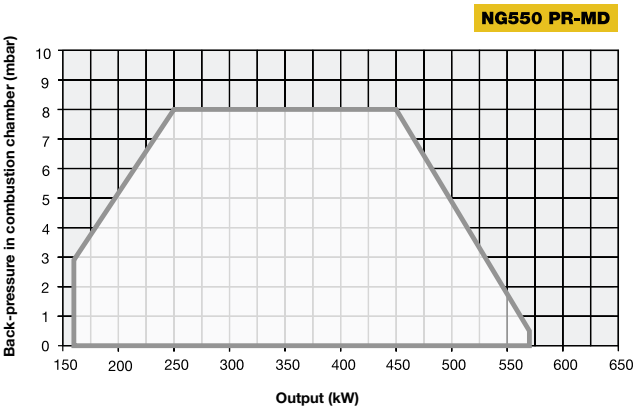
NG400 PR-MD



NG550 TN

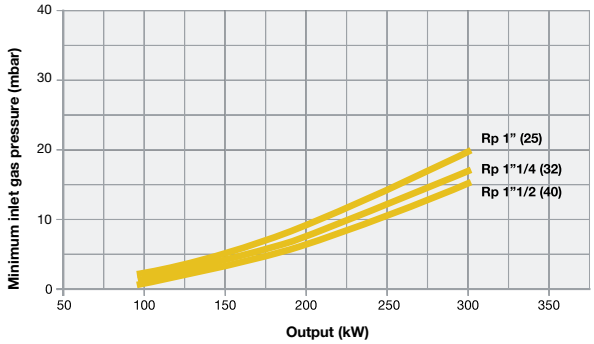


NG550 PR-MD

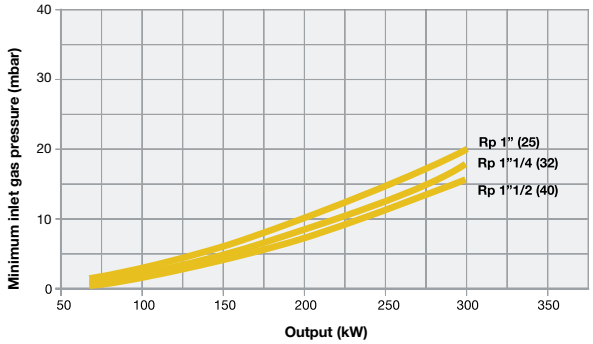


NG280 NG350 NG400 NG550 idea SERIES

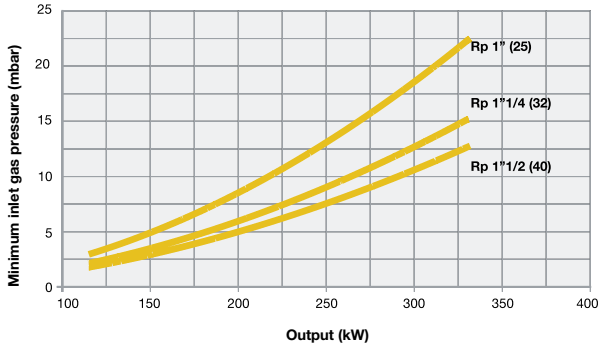
NG280 TN



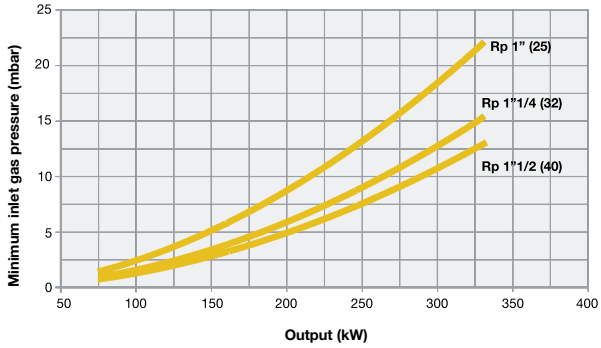
NG280 AB-PR-MD



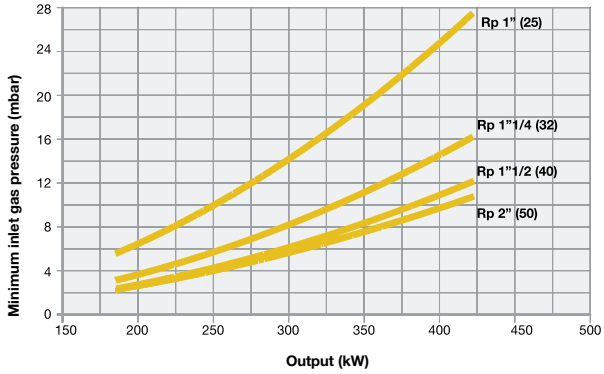
NG350 TN



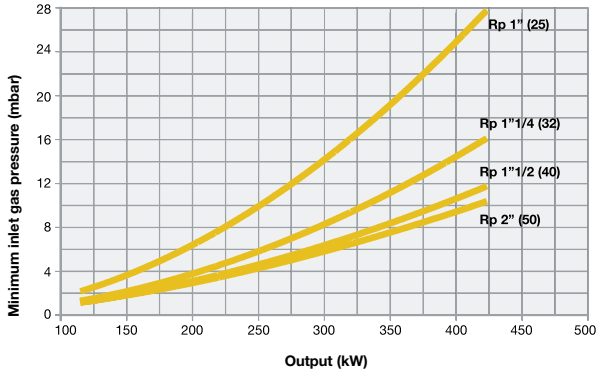
NG350 PR-MD



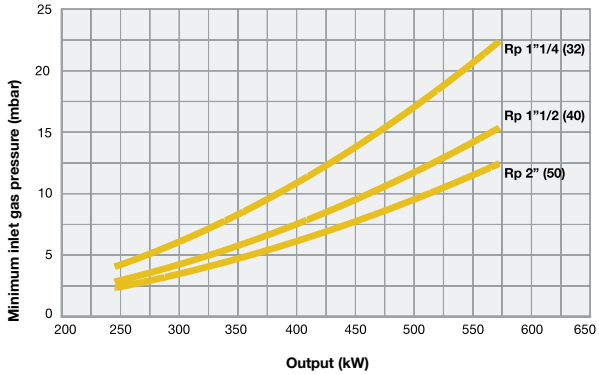
NG400 TN



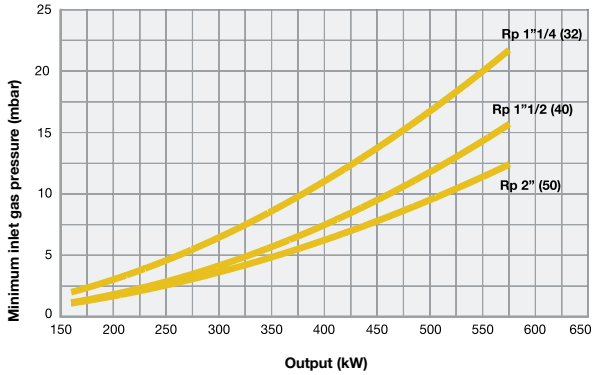
NG400 PR-MD



NG550 TN



NG550 PR-MD

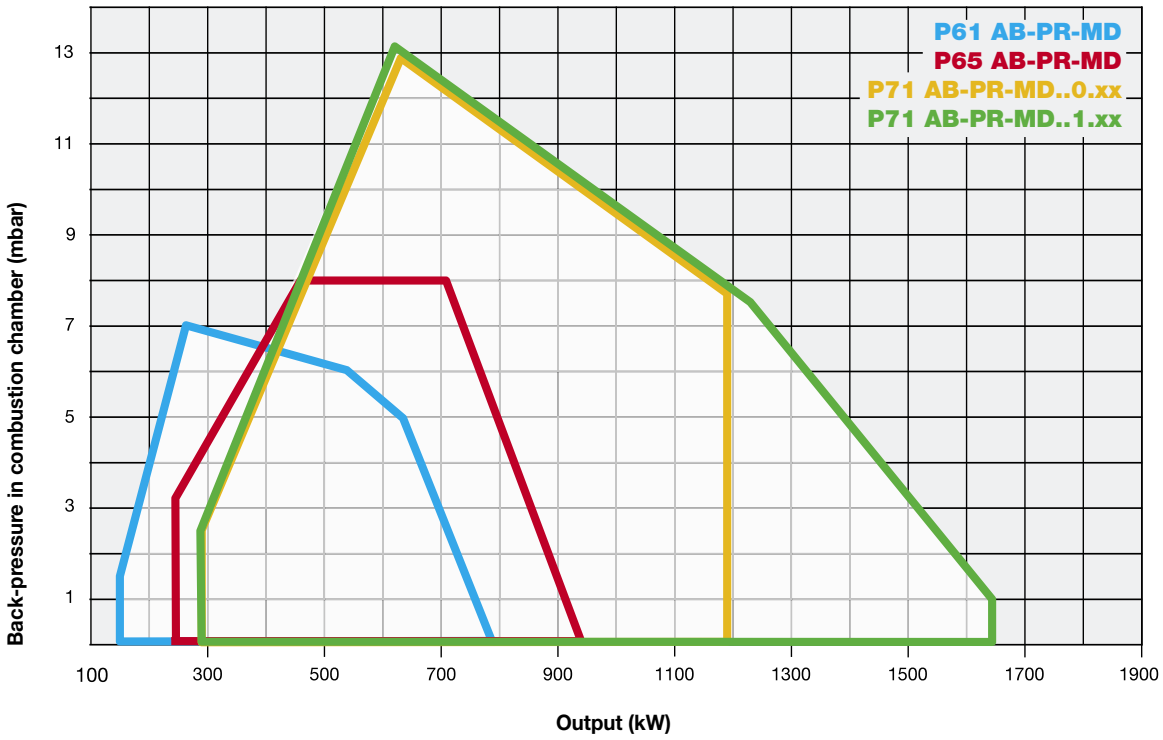


Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

tecnopress SERIES P61 P65 P71

GAS

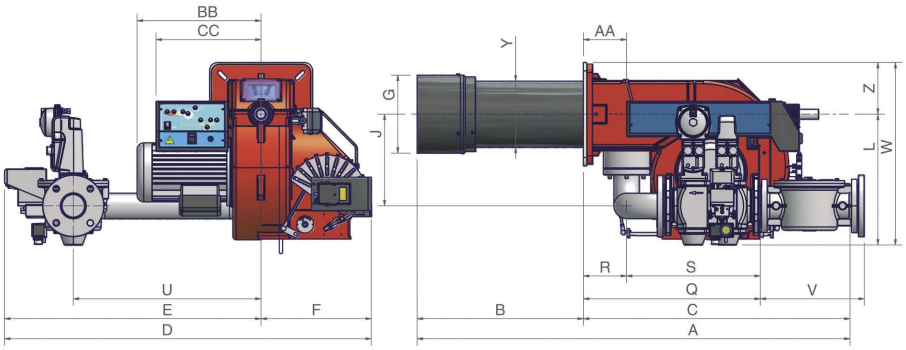
TECNOPRESS burners **Low NO_x Class 2 (< 120 mg/kWh)**, cover a wide range of applications from 160 to 2.050 kW and are suitable either for heating generators with high back pressure or suction in combustion chamber. The bell-shaped combustion head is able to produce high performance flame.



TECHNICAL DETAILS

Type	Model	Power kW		Electric power 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

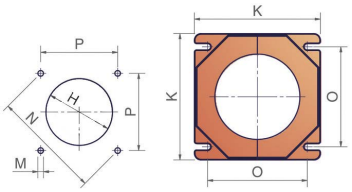
For the configuration of the gas train, see page 101.



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

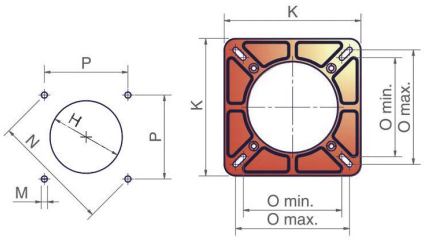
* Approximate values (regarding model with gas train DN65)

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 min.	O max.	P	Q	R	S	U	V	W	Y	Z
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 Code	P61 Price €	P65 Code	P65 Price €	P71 Code	P71 Price €
M-.AB.S.xx.A.0.32	1"¼	AB	004013942		-		-	
M-.AB.S.xx.A.0.40	1"½	AB	004014142		008011542		008014142	
M-.AB.S.xx.A.0.50	2"	AB	004014342		008010942		008014342	
M-.AB.S.xx.A.0.65	DN65	AB	004014542		008011142		008014542	
M-.AB.S.xx.A.0.80	DN80	AB	-		-		008014742	
M-.PR.S.xx.A.0.32	1"¼	PR (*)	004013943		-		-	
M-.PR.S.xx.A.0.40	1"½	PR (*)	004014143		008011543		008014143	
M-.PR.S.xx.A.0.50	2"	PR (*)	004014343		008010943		008014343	
M-.PR.S.xx.A.0.65	DN65	PR (*)	004014543		008011143		008014543	
M-.PR.S.xx.A.0.80	DN80	PR (*)	-		-		008014743	
M-.AB.S.xx.A.1.40	1"½	AB	-		-		008014152	
M-.AB.S.xx.A.1.50	2"	AB	-		-		008014352	
M-.AB.S.xx.A.1.65	DN65	AB	-		-		008014552	
M-.AB.S.xx.A.1.80	DN80	AB	-		-		008014752	
M-.PR.S.xx.A.1.40	1"½	PR (*)	-		-		008014153	
M-.PR.S.xx.A.1.50	2"	PR (*)	-		-		008014353	
M-.PR.S.xx.A.1.65	DN65	PR (*)	-		-		008014553	
M-.PR.S.xx.A.1.80	DN80	PR (*)	-		-		008014753	

S = Standard combustion head (BS)
L = For long combustion head version (BL) increase the price (see price list)
(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
In compliance with GAR DIRECTIVE 2016/426/EU

ELECTRONIC OPERATION

Model	Gas train	Operation	P61 Code	P61 Price €	P65 Code	P65 Price €	P71 Code	P71 Price €
M-.PR.S.xx.A.1.32.EA	1"¼	PR (*)	00401395A		-		-	
M-.PR.S.xx.A.1.40.EA	1"½	PR (*)	00401415A		00801155A		00801415A	
M-.PR.S.xx.A.1.50.EA	2"	PR (*)	00401435A		00801095A		00801435A	
M-.PR.S.xx.A.1.65.EA	DN65	PR (*)	00401455A		00801115A		00801455A	
M-.PR.S.xx.A.1.80.EA	DN80	PR (*)	-		-		00801475A	

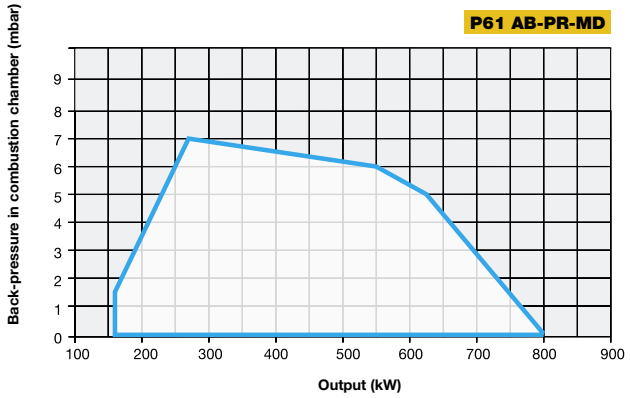
S = Standard combustion head (BS)
L = For long combustion head version (BL) increase the price (see price list)
(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

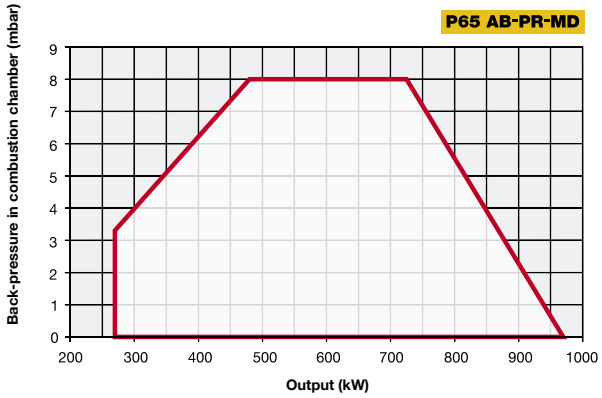
In compliance with GAR DIRECTIVE 2016/426/EU

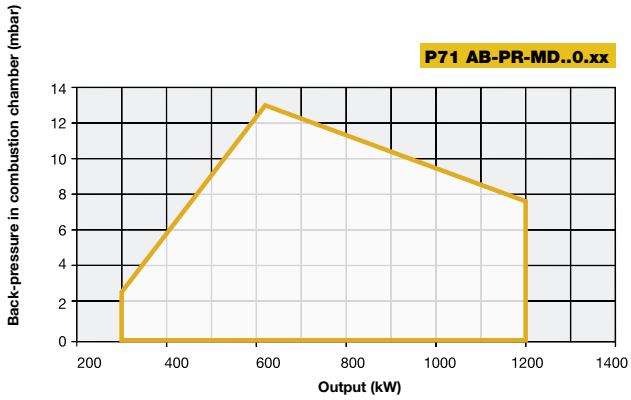
ELECTRONIC OPERATION

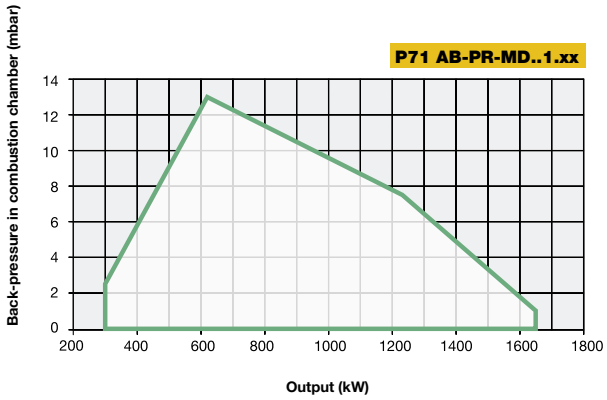
Model	Gas train	Operation	P61 Code	P61 Price €	P65 Code	P65 Price €	P71 Code	P71 Price €
M-.MD.S.xx.A.1.32.ES	1"¼	MD (**)	00401395S		-		-	
M-.MD.S.xx.A.1.40.ES	1"½	MD (**)	00401415S		00801155S		00801415S	
M-.MD.S.xx.A.1.50.ES	2"	MD (**)	00401435S		00801095S		00801435S	
M-.MD.S.xx.A.1.65.ES	DN65	MD (**)	00401455S		00801115S		00801455S	
M-.MD.S.xx.A.1.80.ES	DN80	MD (**)	-		-		00801475S	

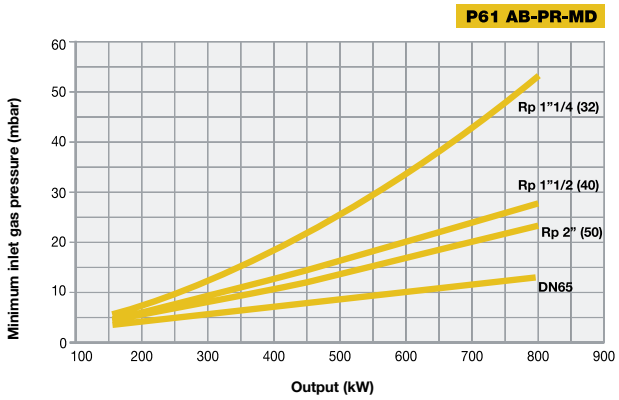
S = Standard combustion head (BS)
L = For long combustion head version (BL) increase the price (see price list)
(**) The burners are already MD version.
In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
In compliance with GAR DIRECTIVE 2016/426/EU

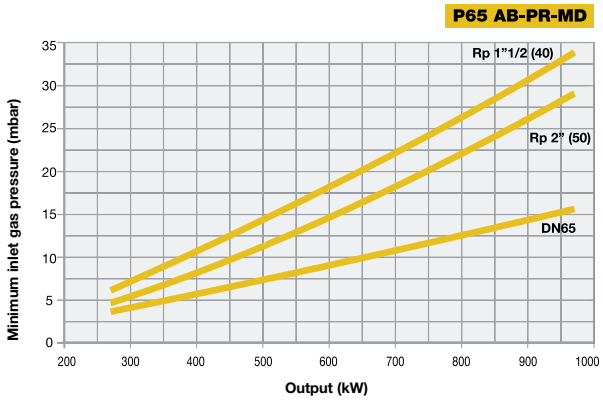


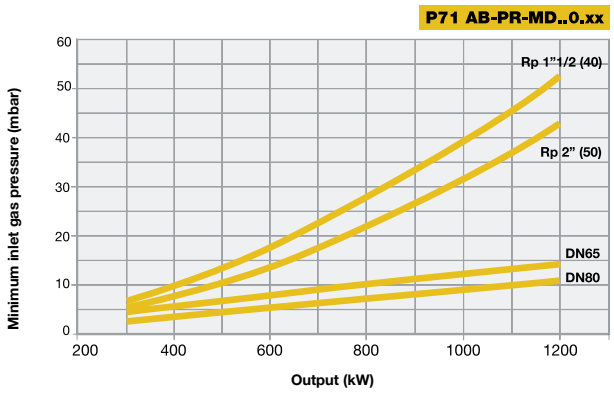


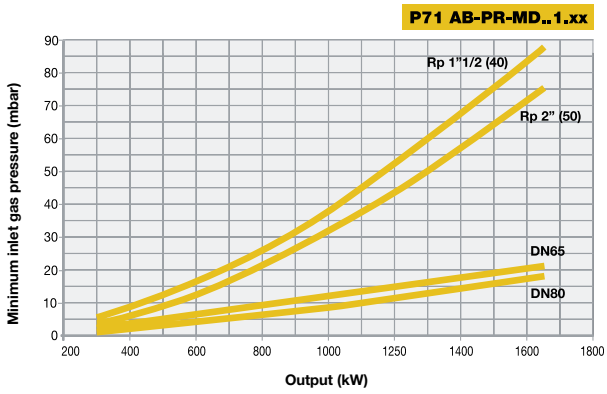












Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

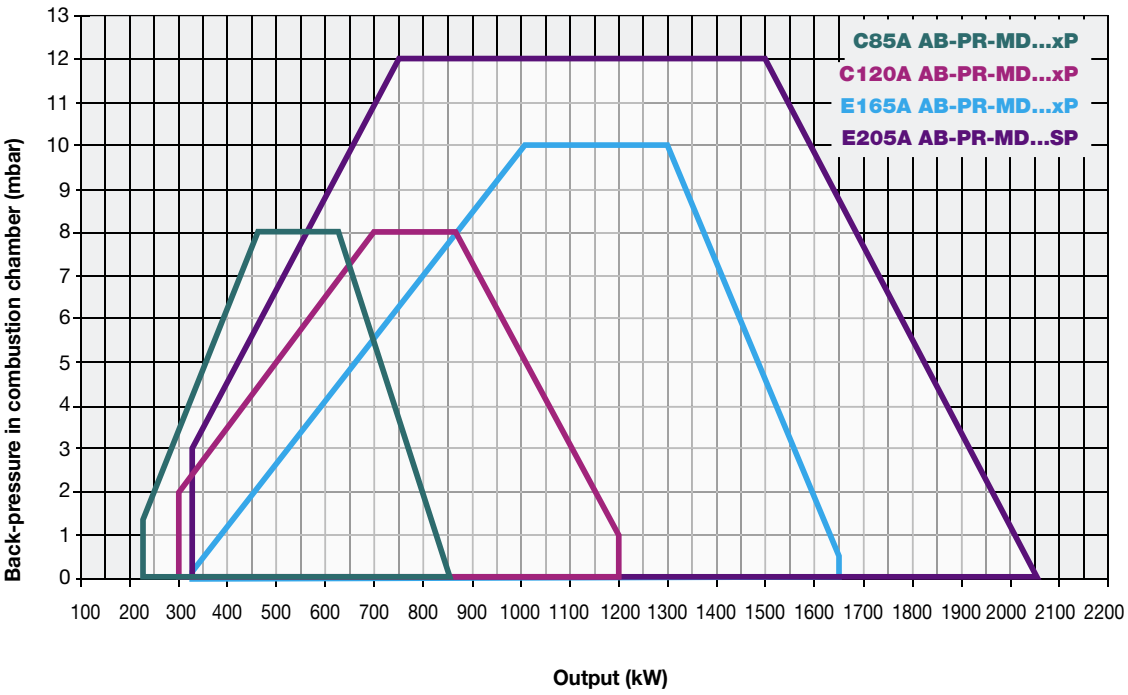
NEW

GAS

CIB UNIGAS >80 <120 mg/kWh CLASS 2 Low NOx

C85A C120A E165A E205A...xP tecnopress SERIES

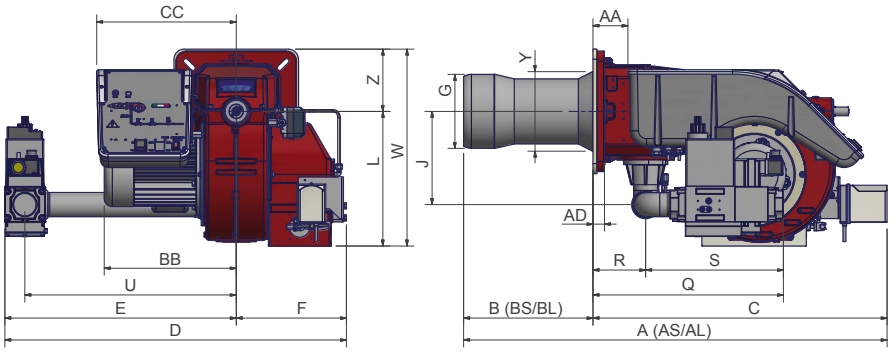
TECNOPRESS burners **Low NO_x Class 2 (< 120 mg/kWh)** cover a wide range of applications from 230 to 2.050 kW and are suitable either for heating generators with high back pressure or suction in combustion chamber. The bell-shaped combustion head is able to produce high performance flame.



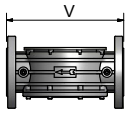
TECHNICAL DETAILS

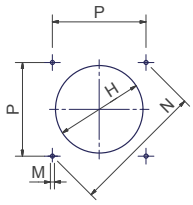
Type	Model	Power kW min.	Power kW max.	Electric power supply	Fan motor kW	Gas connections	Noise level dBA
C85A	M-.xx.xP.xx.A.0.xx	230	850	230/400 V 3N ac	1,1	1"¼ - 1"½ - 2" - DN65	< 80
C120A	M-.xx.xP.xx.A.0.xx	300	1.200	230/400 V 3N ac	1,5	1"½ - 2" - DN65 - DN80	< 80
E165A	M-.xx.xP.xx.A.1.xx	320	1.650	230/400 V 3N ac	2,2	1"½ - 2" - DN65 - DN80	< 80
E205A	M-.xx.SP.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 101.

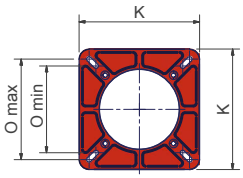


DN65 - DN80





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 DN80)

Type	Model	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
		Overall dimensions (mm)																													
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	1221	1331	354	390	500	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	1221	1331	354	390	500	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	1244	1354	354	390	500	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	1258	1368	354	390	500	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.SP.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.SP.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.SP.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.SP.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

C85A C120A E165A E205A...xP tecnopress SERIES

MECHANICAL OPERATION

Model	Gas train	Operation	C85A...xP Code	C85A...xP Price €	C120A...xP Code	C120A...xP Price €
M-.AB.SP.xx.A.0.32	1"¼	AB	033010142		-	
M-.AB.SP.xx.A.0.40	1"½	AB	033010342		033011742	
M-.AB.SP.xx.A.0.50	2"	AB	033010542		033011942	
M-.AB.SP.xx.A.0.65	DN65	AB	033010742		033012142	
M-.AB.SP.xx.A.0.80	DN80	AB	-		033012342	
M-.PR.SP.xx.A.0.32	1"¼	PR (*)	033010143		-	
M-.PR.SP.xx.A.0.40	1"½	PR (*)	033010343		033011743	
M-.PR.SP.xx.A.0.50	2"	PR (*)	033010543		033011943	
M-.PR.SP.xx.A.0.65	DN65	PR (*)	033010743		033012143	
M-.PR.SP.xx.A.0.80	DN80	PR (*)	-		033012343	

Model	Gas train	Operation	E165A...xP Code	E165A...xP Price €	E205A...SP *** Code	E205A...SP *** Price €
M-.AB.SP.xx.A.1.40	1"½	AB	030017352		030018152	
M-.AB.SP.xx.A.1.50	2"	AB	030017552		030018252	
M-.AB.SP.xx.A.1.65	DN65	AB	030017752		030018352	
M-.AB.SP.xx.A.1.80	DN80	AB	030017952		030018452	
M-.PR.SP.xx.A.1.40	1"½	PR (*)	030017353		030018153	
M-.PR.SP.xx.A.1.50	2"	PR (*)	030017553		030018253	
M-.PR.SP.xx.A.1.65	DN65	PR (*)	030017753		030018353	
M-.PR.SP.xx.A.1.80	DN80	PR (*)	030017953		030018453	

SP = Standard combustion head (BS)
LP = For long combustion head version (BL) increase the price (see price list)
(*) Progressive PR control, for modulating version MD add € (see price list).
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
(***) Model E205A...SP has only one type of combustion head length BS.

In compliance with GAR DIRECTIVE 2016/426/EU

ELECTRONIC OPERATION

Model	Gas train	Operation	C85A...xP Code	C85A...xP Price €	C120A...xP Code	C120A...xP Price €
M-.PR.SP.xx.A.1.32 EA	1"¼	PR (*)	03301015A		-	
M-.PR.SP.xx.A.1.40.EA	1"½	PR (*)	03301035A		03301175A	
M-.PR.SP.xx.A.1.50.EA	2"	PR (*)	03301055A		03301195A	
M-.PR.SP.xx.A.1.65.EA	DN65	PR (*)	03301075A		03301215A	
M-.PR.SP.xx.A.1.80 EA	DN80	PR (*)	-		03301235A	

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

SP = Standard combustion head (BS)
LP = For long combustion head version (BL) increase the price (see price list)
(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
(***) Model E205A...SP has only one type of combustion head length BS.
In compliance with GAR DIRECTIVE 2016/426/EU

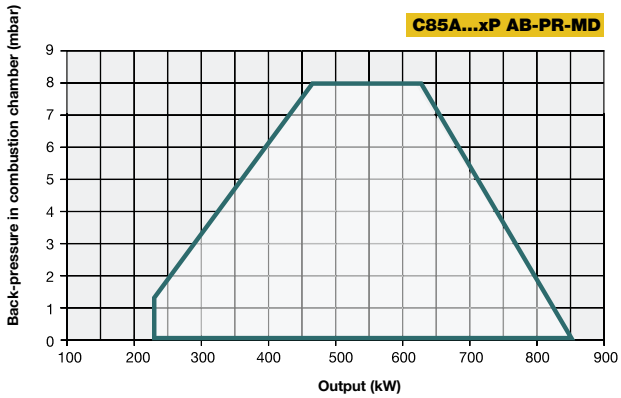
ELECTRONIC OPERATION

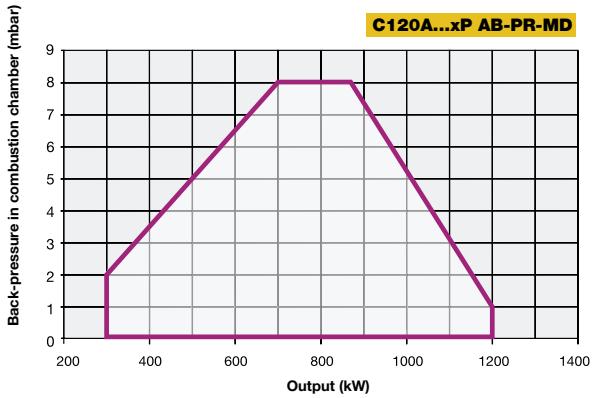
Model	Gas train	Operation	C85A...xP Code	C85A...xP Price €	C120A...xP Code	C120A...xP Price €
M-.MD.SP.xx.A.1.32 ES	1"¼	MD (**)	03301015S		-	
M-.MD.SP.xx.A.1.40.ES	1"½	MD (**)	03301035S		03301175S	
M-.MD.SP.xx.A.1.50.ES	2"	MD (**)	03301055S		03301195S	
M-.MD.SP.xx.A.1.65.ES	DN65	MD (**)	03301075S		03301215S	
M-.MD.SP.xx.A.1.80.ES	DN80	MD (**)	-		03301235S	

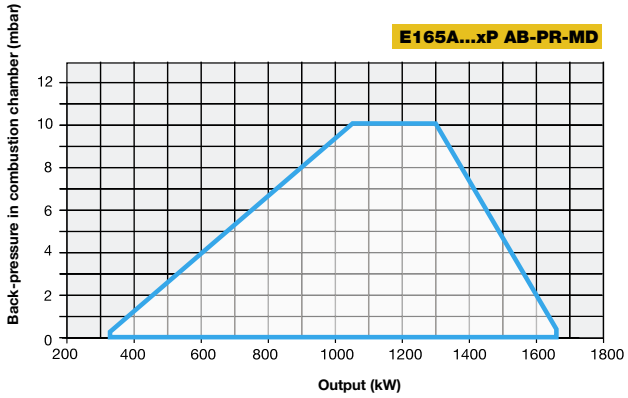
Model	Gas train	Operation	E165A...xP Code	E165A...xP Price €	E205A...SP *** Code	E205A...SP *** Price €
M-.MD.SP.xx.A.1.40.ES	1"½	MD (**)	03001735S		03001815S	
M-.MD.SP.xx.A.1.50.ES	2"	MD (**)	03001755S		03001825S	
M-.MD.SP.xx.A.1.65.ES	DN65	MD (**)	03001775S		03001835S	
M-.MD.SP.xx.A.1.80.ES	DN80	MD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

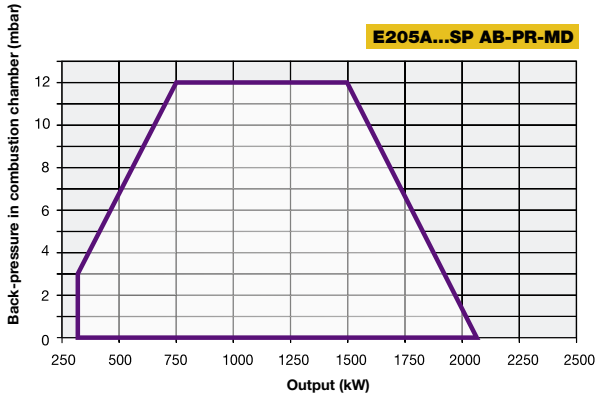
SP = Standard combustion head (BS)
LP = For long combustion head version (BL) increase the price (see price list)
(**) The burners are already MD version.
In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
(***) Model E205A...SP has only one type of combustion head length BS.
In compliance with GAR DIRECTIVE 2016/426/EU

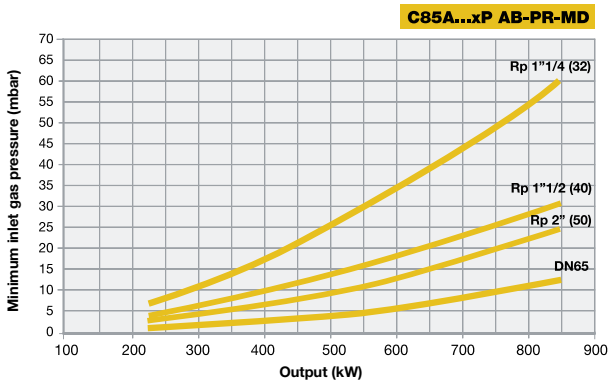
C85A C120A E165A E205A...xP tecnopress SERIES

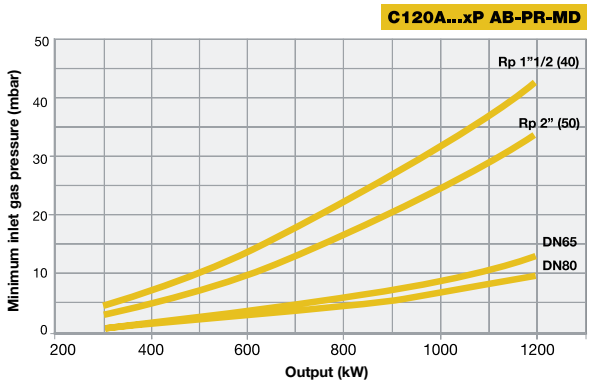


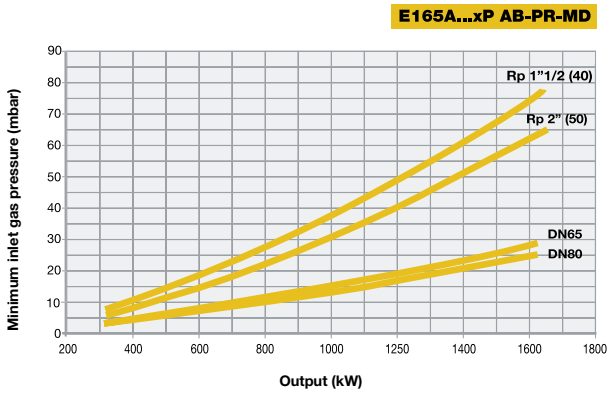


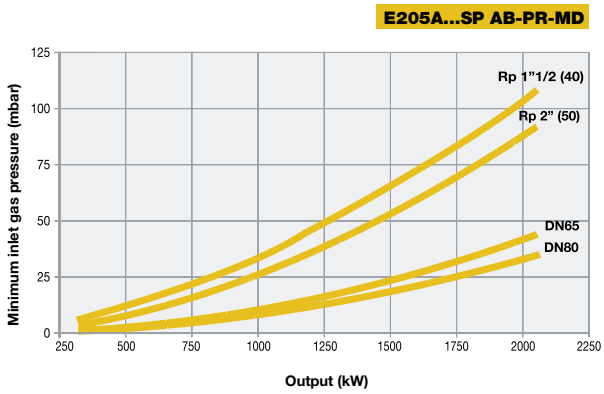












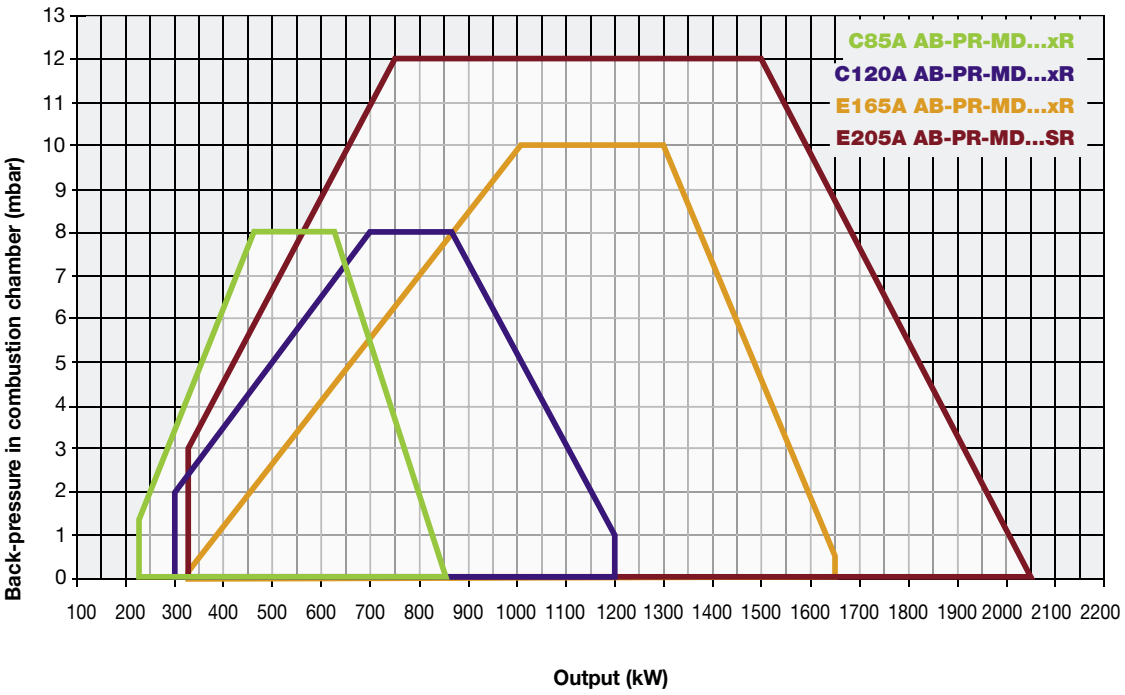
Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

tecnopress SERIES C85A C120A E165A E205A...xR

NEW

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.
These models are equipped with air inlet silencer to reduce the noise level.

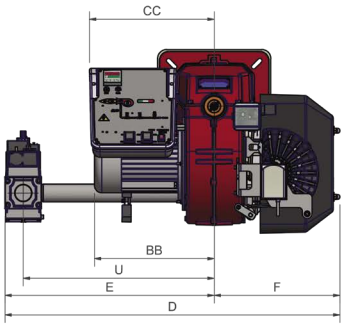


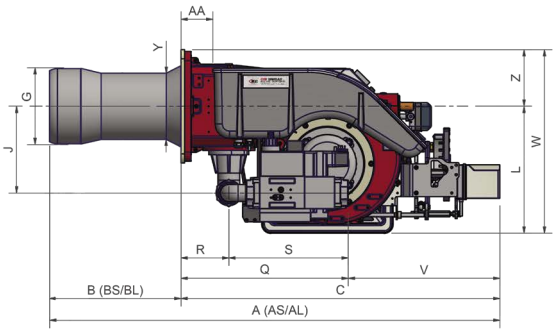
C85A C120A E165A E205A...xR tecnopress SERIES

TECHNICAL DETAILS

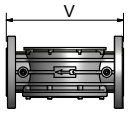
Type	Model	Power kW min.	Power kW max.	Electric power supply	Fan motor kW	Gas connections	Noise level dBA
C85A	M-.xx.xR.xx.A.0.xx	230	850	230/400 V 3N ac	1,1	1"¼ - 1"½ - 2" - DN65	< 75
C120A	M-.xx.xR.xx.A.0.xx	300	1.200	230/400 V 3N ac	1,5	1"½ - 2" - DN65 - DN80	< 75
E165A	M-.xx.xR.xx.A.1.xx	320	1.650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

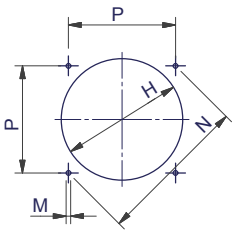
For the configuration of the gas train, see page 101.



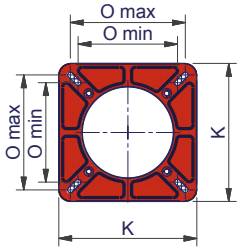


DN65 - DN80





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 DN80)

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
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	1318	1428	372	390	500	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	1318	1428	372	390	500	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	1318	1428	372	390	500	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	1318	1428	372	390	500	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.SR.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.SR.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.SR.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.SR.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 Code	C85A...xR Price €	C120A...xR Code	C120A...xR Price €
M-.AB.SR.xx.A.0.32	1"¼	AB	033010942		-	
M-.AB.SR.xx.A.0.40	1"½	AB	033011142		033012542	
M-.AB.SR.xx.A.0.50	2"	AB	033011342		033012742	
M-.AB.SR.xx.A.0.65	DN65	AB	033011542		033012942	
M-.AB.SR.xx.A.0.80	DN80	AB	-		033013142	
M-.PR.SR.xx.A.0.32	1"¼	PR (*)	033010943		-	
M-.PR.SR.xx.A.0.40	1"½	PR (*)	033011143		033012543	
M-.PR.SR.xx.A.0.50	2"	PR (*)	033011343		033012743	
M-.PR.SR.xx.A.0.65	DN65	PR (*)	033011543		033012943	
M-.PR.SR.xx.A.0.80	DN80	PR (*)	-		033013143	

Model	Gas train	Operation	E165A...xR Code	E165A...xR Price €	E205A...SR *** Code	E205A...SR *** Price €
M-.AB.SR.xx.A.1.40	1"½	AB	030013752		030016952	
M-.AB.SR.xx.A.1.50	2"	AB	030013952		030017052	
M-.AB.SR.xx.A.1.65	DN65	AB	030014152		030017152	
M-.AB.SR.xx.A.1.80	DN80	AB	030014352		030017252	
M-.PR.SR.xx.A.1.40	1"½	PR	030013753		030016953	
M-.PR.SR.xx.A.1.50	2"	PR	030013953		030017053	
M-.PR.SR.xx.A.1.65	DN65	PR	030014153		030017153	
M-.PR.SR.xx.A.1.80	DN80	PR	030014353		030017253	

SR = Standard combustion head (BS)
LR = For long combustion head version (BL) increase the price (see price list)
(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
(***) Model E205A...SR has only one type of combustion head length BS.
In compliance with GAR DIRECTIVE 2016/426/EU

C85A C120A E165A E205A...xR tecnopress SERIES

ELECTRONIC OPERATION

Model	Gas train	Operation	C85A...xR Code	C85A...xR Price €	C120A...xR Code	C120A...xR Price €
M-.PR.SR.xx.A.1.32 EA	1"¼	PR	03301095A		-	
M-.PR.SR.xx.A.1.40.EA	1"½	PR	03301115A		03301255A	
M-.PR.SR.xx.A.1.50.EA	2"	PR	03301135A		03301275A	
M-.PR.SR.xx.A.1.65.EA	DN65	PR	03301155A		03301295A	
M-.PR.SR.xx.A.1.80 EA	DN80	PR	-		03301315A	

Model	Gas train	Operation	E165A...xR Code	E165A...xR Price €	E205A...SR *** Code	E205A...SR *** Price €
M-.PR.SR.xx.A.1.40.EA	1"½	PR	03001375A		03001695A	
M-.PR.SR.xx.A.1.50.EA	2"	PR	03001395A		03001705A	
M-.PR.SR.xx.A.1.65.EA	DN65	PR	03001415A		03001715A	
M-.PR.SR.xx.A.1.80.EA	DN80	PR	03001435A		03001725A	

SR = Standard combustion head (BS)
LR = For long combustion head version (BL) increase the price (see price list)
(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
(***) Model E205A...SR has only one type of combustion head length BS.

In compliance with GAR DIRECTIVE 2016/426/EU

ELECTRONIC OPERATION

Model	Gas train	Operation	C85A...xR Code	C85A...xR Price €	C120A...xR Code	C120A...xR Price €
M-.MD.SR.xx.A.1.32 ES	1"¼	MD (**)	03301095S		-	
M-.MD.SR.xx.A.1.40.ES	1"½	MD (**)	03301115S		03301255S	
M-.MD.SR.xx.A.1.50.ES	2"	MD (**)	03301135S		03301275S	
M-.MD.SR.xx.A.1.65.ES	DN65	MD (**)	03301155S		03301295S	
M-.MD.SR.xx.A.1.80.ES	DN80	MD (**)	-		03301315S	

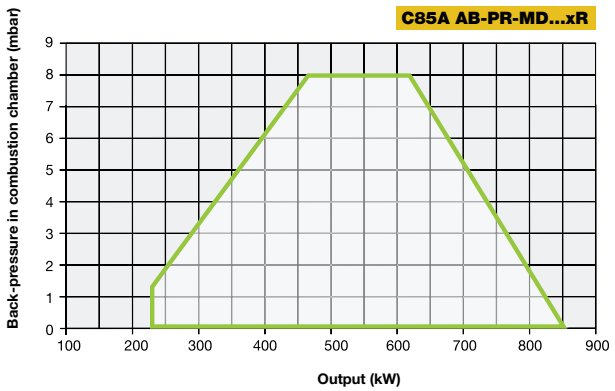
Model	Gas train	Operation	E165A...xR Code	E165A...xR Price €	E205A...SR *** Code	E205A...SR *** Price €
M-.MD.SR.xx.A.1.40.ES	1"½	MD (**)	03001375S		03001695S	
M-.MD.SR.xx.A.1.50.ES	2"	MD (**)	03001395S		03001705S	
M-.MD.SR.xx.A.1.65.ES	DN65	MD (**)	03001415S		03001715S	
M-.MD.SR.xx.A.1.80.ES	DN80	MD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

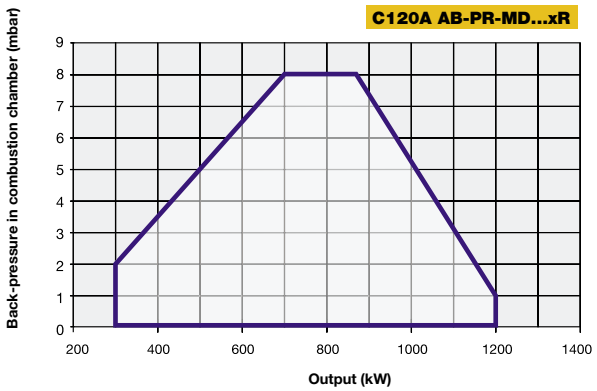
SR = Standard combustion head (BS)
LR = For long combustion head version (BL) increase the price (see price list)
(**) The burners are already MD version.
In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
(***) Model E205A...SR has only one type of combustion head length BS.

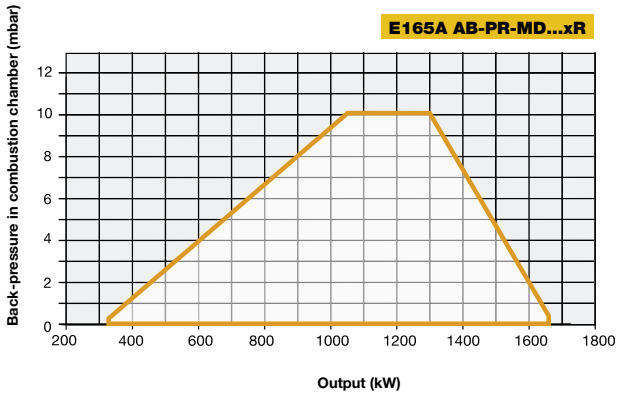
In compliance with GAR DIRECTIVE 2016/426/EU

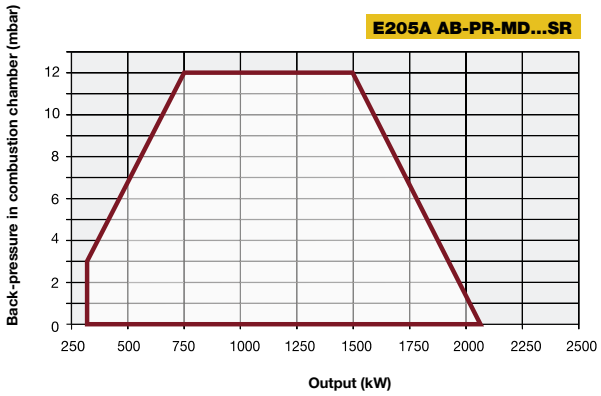
C85A C120A E165A E205A...xR

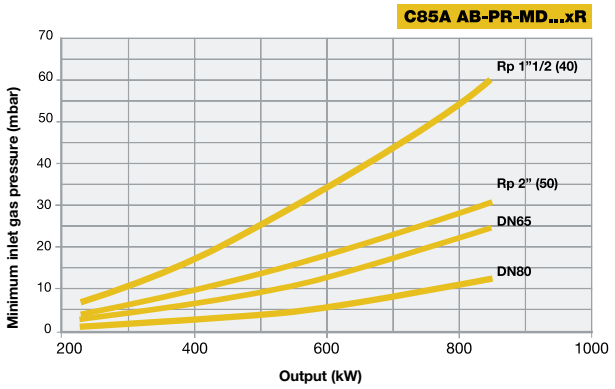
GAS

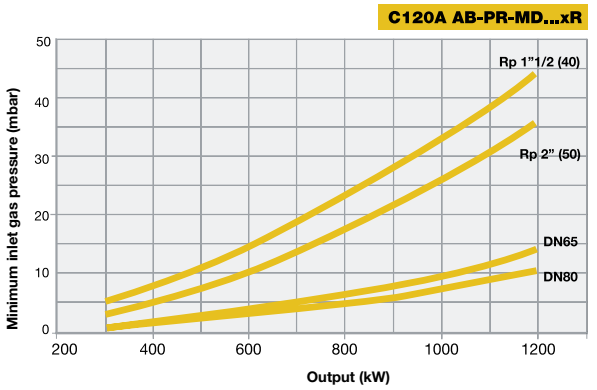


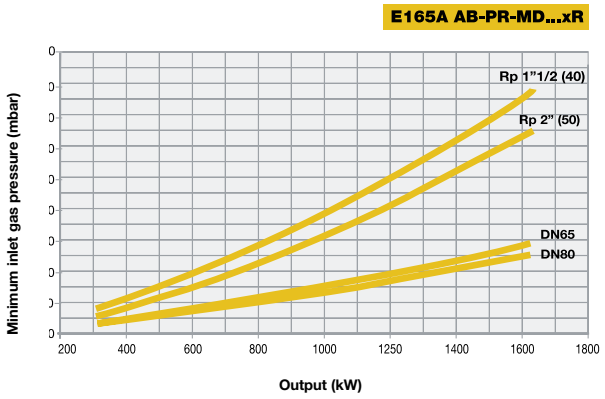


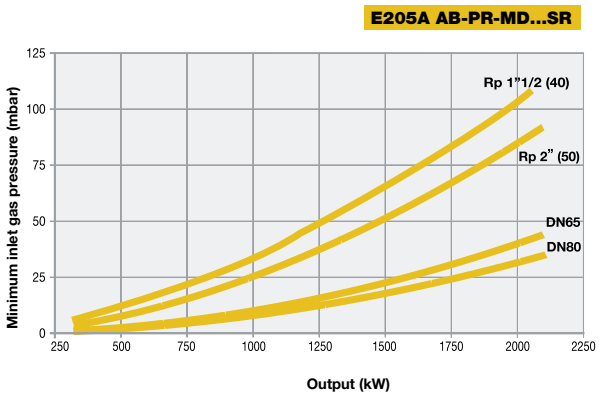












Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

GAS

tecnopan S5 S10 S18 chef S5 miniflam SERIES

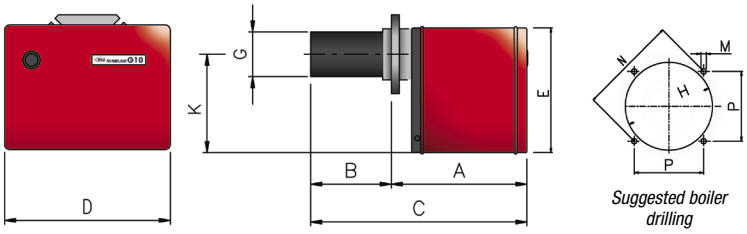
BURNERS FOR KITCHENS AND BAKERY OVENS

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

TECHNICAL DETAILS

Type	Model	Power kW min.	Power kW max.	Electric power supply	Fan motor kW	Gas connections
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 101.



Suggested boiler drilling

Type	Model	Overall dimensions (mm) A	B	BL	C	CL	D	E	G	K	H	Foratura caldaia (mm) P min.	P max.	M	N	Packaging dimensions (mm) 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

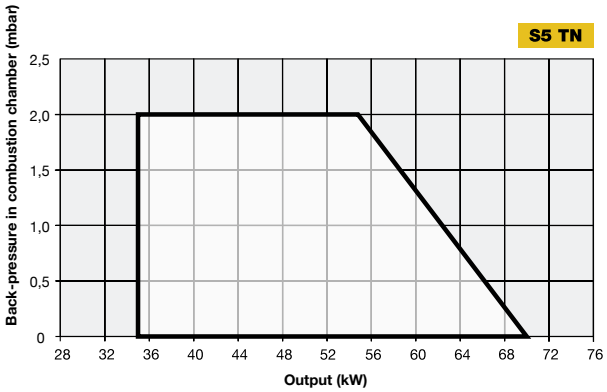
MECHANICAL OPERATION

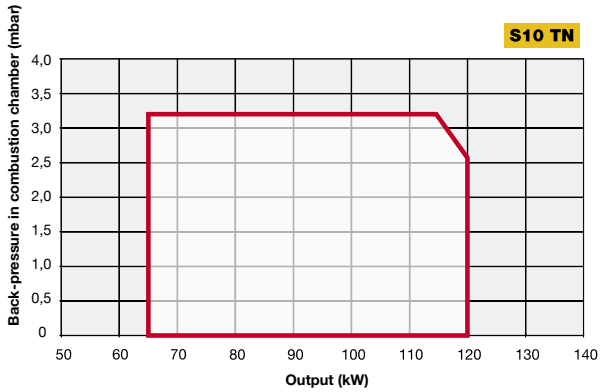
Model	Gas train	Operation	S5		S10		S18	
			Code	Price €	Code	Price €	Code	Price €
M-.TN.S.xx.B.0.15	½”	TN	001010341		-		-	
M-.TN.L.xx.B.0.15	½”	TN	001010441		-		-	
M-.TN.S.xx.B.0.20	¾”	TN	-		002010541		-	
M-.TN.L.xx.B.0.20	¾”	TN	-		002010641		-	
M-.TN.S.xx.B.0.25	1”	TN	-		-		002010741	
M-.TN.L.xx.B.0.25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

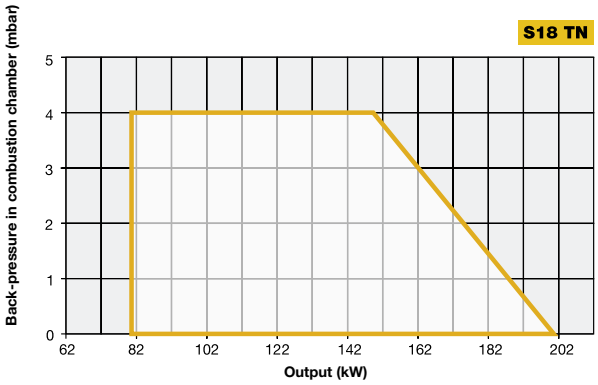
In compliance with GAR DIRECTIVE 2016/426/EU

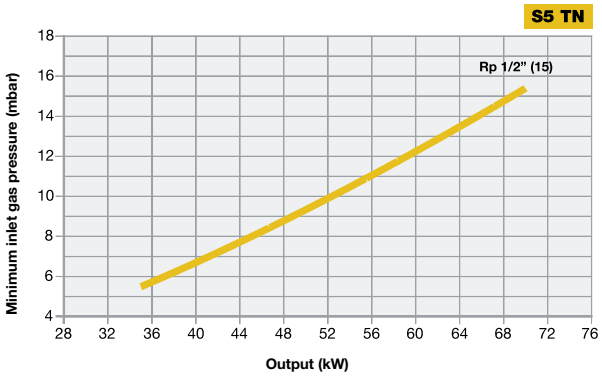
tecnopan S5 S10 S18 chef S5 miniflam SERIES

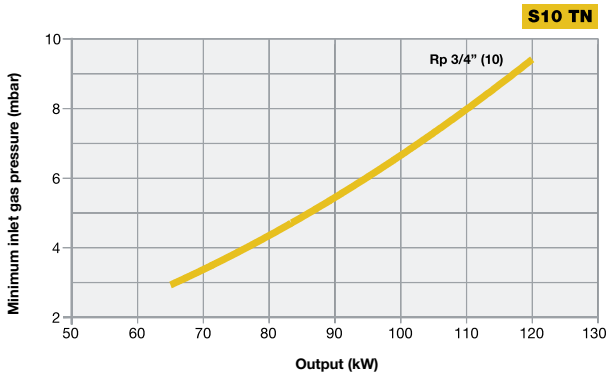
BURNERS FOR KITCHENS AND BAKERY OVENS

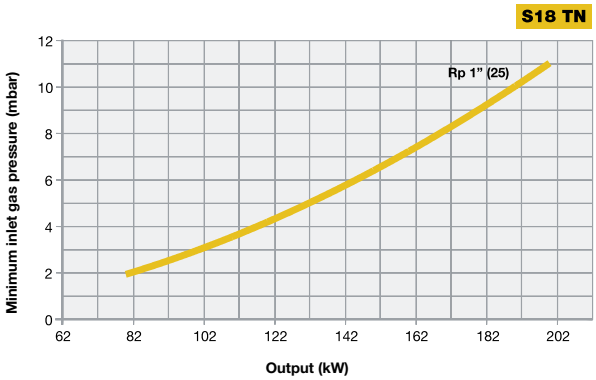












Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

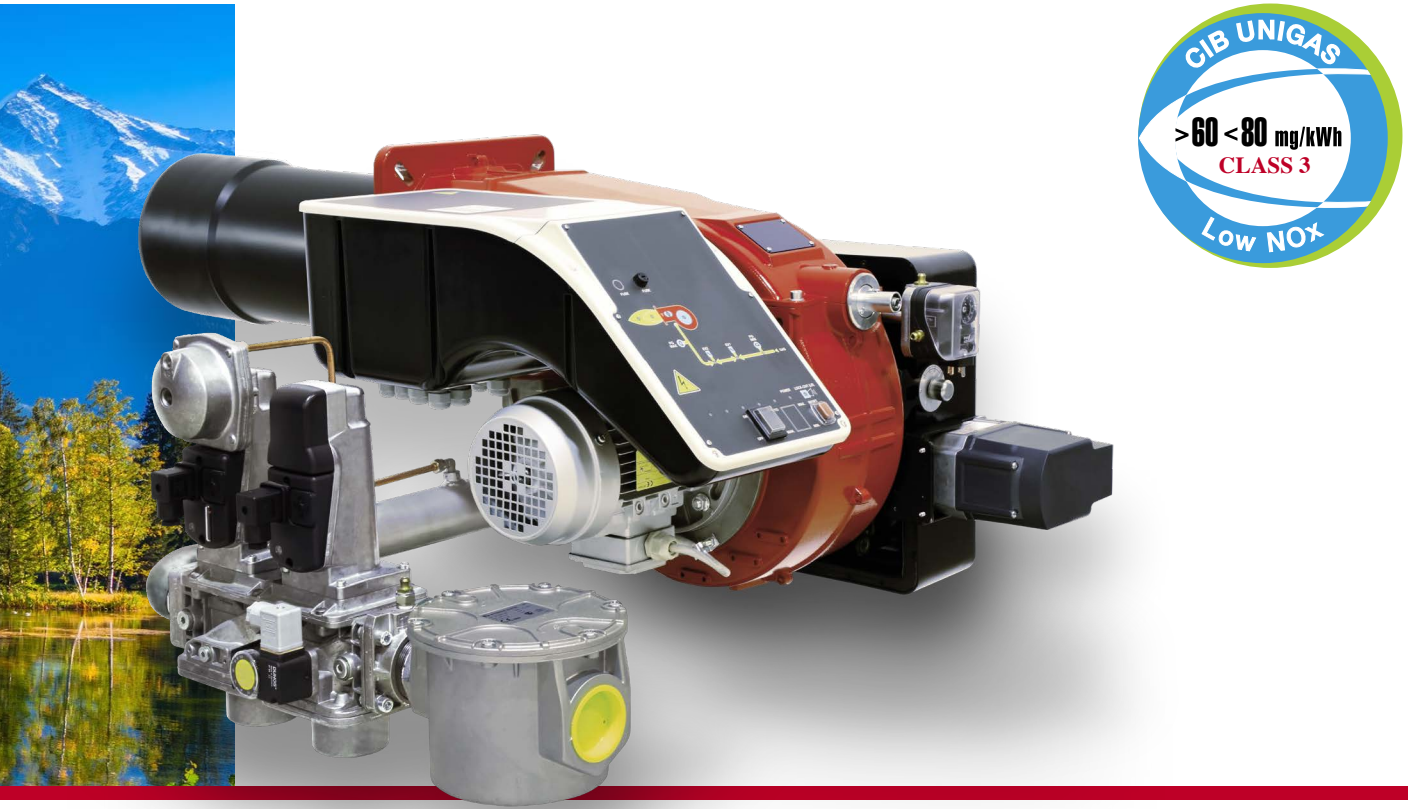
CIB UNIGAS
Let's light up tomorrow

CIB UNIGAS and its mission: Natural gas low NO_x 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 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 NO_x 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 (80 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 NO_x 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, the absolute precision in the repetition of the operation sequences is ensured. 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 NO_x 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: it is the home of our present and future.

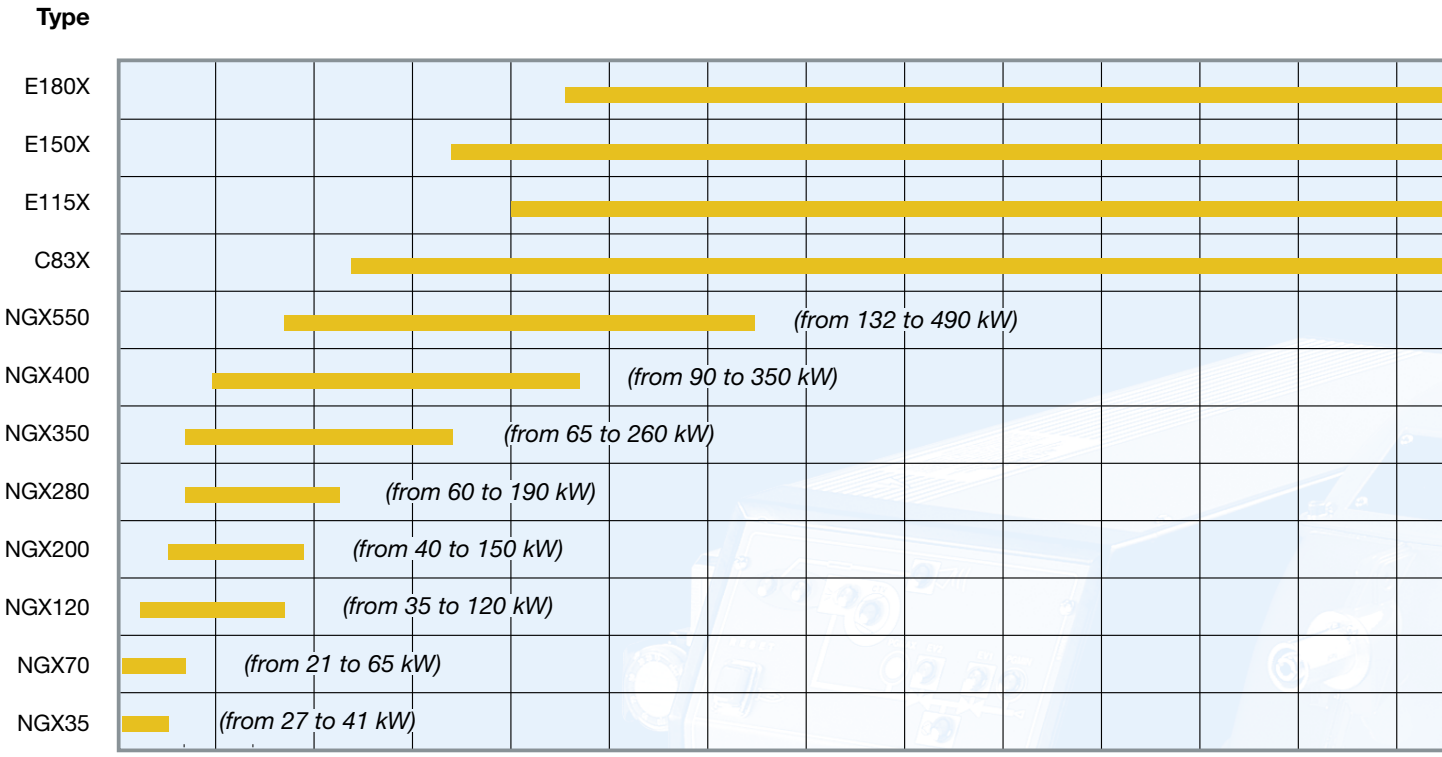
LOW NO_x NATURAL GAS BURNERS

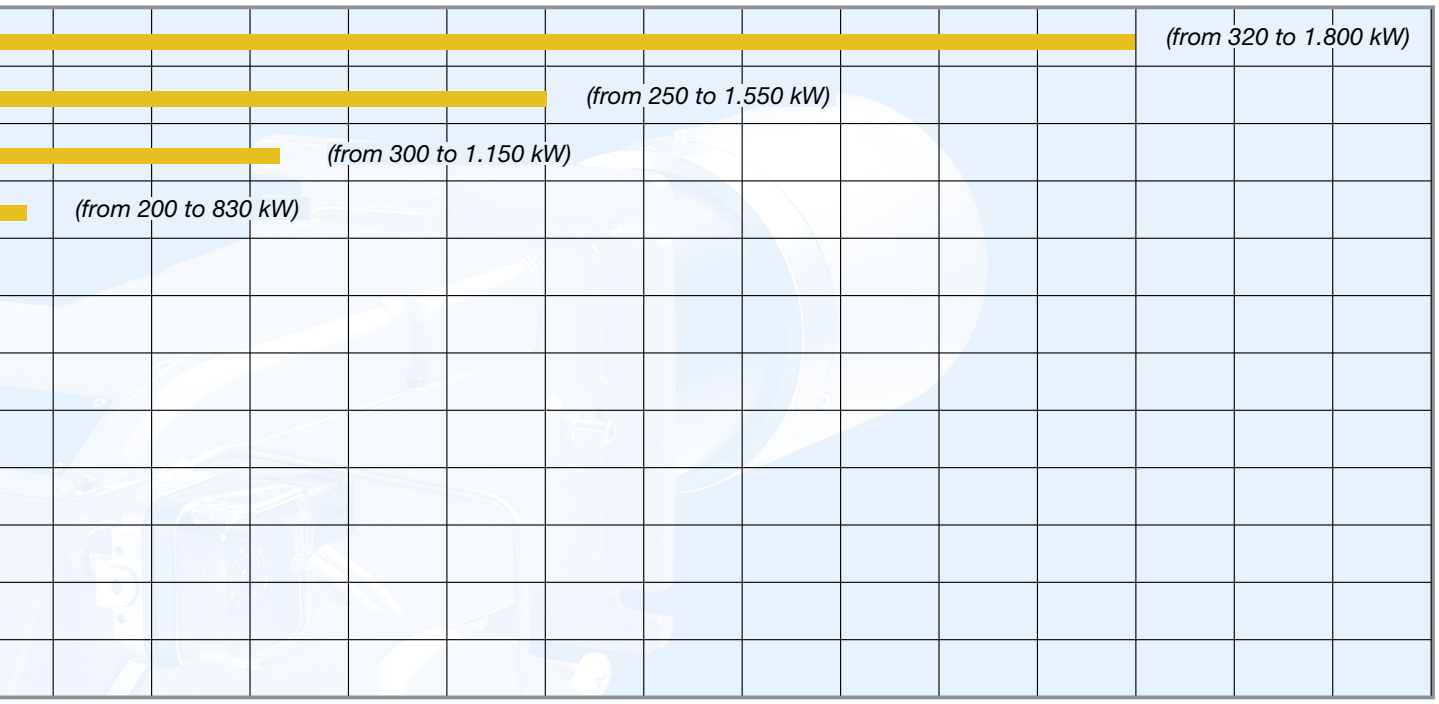
idea series

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
E150X - AB/PR/MD
E180X - AB/PR/MD

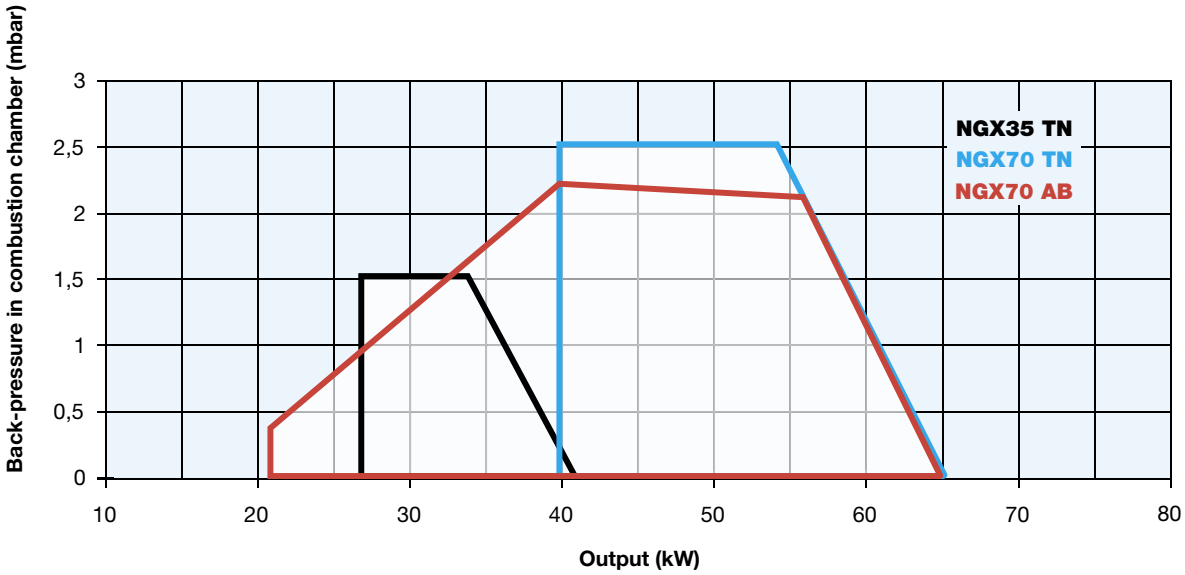



(from 320 to 1.800 kW)
(from 250 to 1.550 kW)
(from 300 to 1.150 kW)
(from 200 to 830 kW)

idea SERIES NGX35 NGX70

GAS

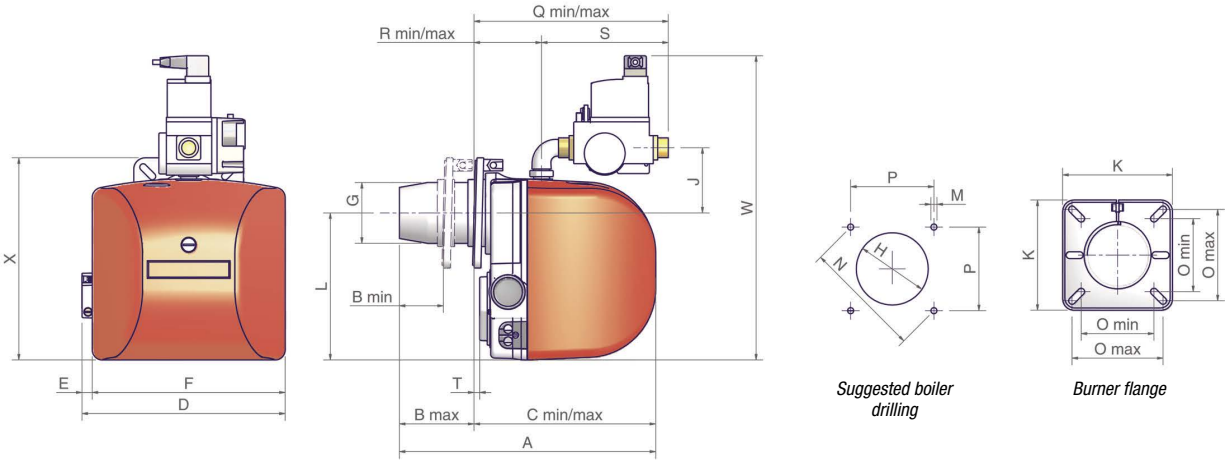
This new generation of IDEA burners **Low NO_x Class 3 (< 80 mg/kWh)**, has been developed and built to ensure the lowest environmental impact. This is achieved thanks to the new combustion head that allows a staged air flow in order to let the flame burn progressively along the length of the combustion 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 101.



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

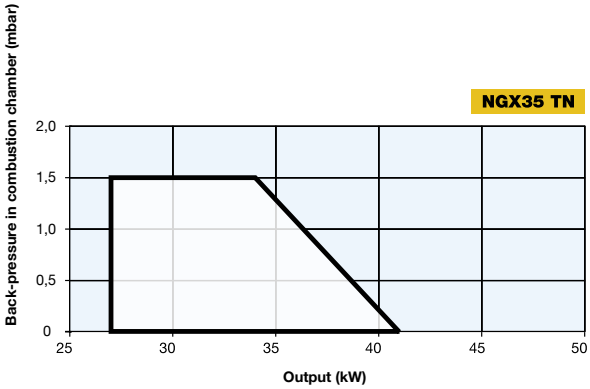
Type	Model	Overall dimensions (mm)																			Boiler drilling (mm)				Burner flange (mm)		
		A	B		C		D	E	F	G	J	L	Q		R		S	T	W	X	H	M	N	P	K	O	
			min.	max.	min.	max.							min.	max.	min.	max.										min.	max.
NGX35	M-.TN.S.xx.A.0.xx	338	58	98	240	280	269	14	255	80	86	194	257	297	89	129	180	7	400	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

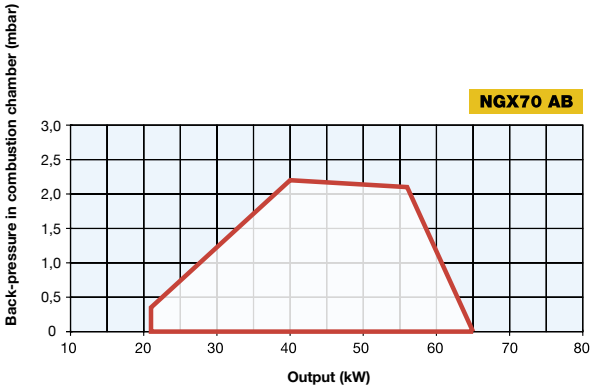
Approximate values

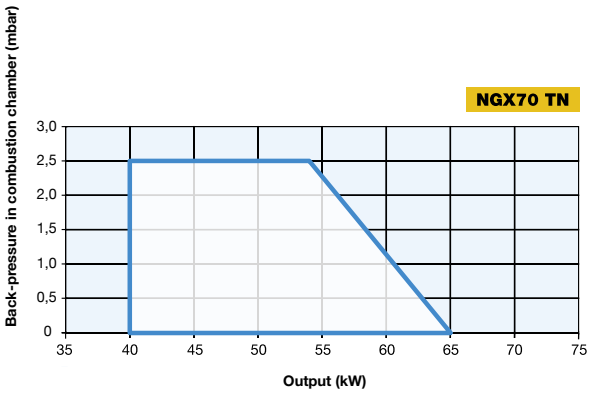
MECHANICAL OPERATION

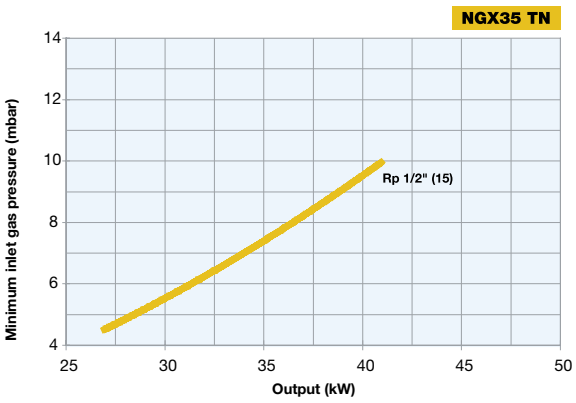
Model	Gas train	Operation	NGX35 Code	NGX35 Price €	NGX70 Code	NGX70 Price €
M-.TN.S.xx.A.0.15	½”	TN	024011441		025012141	
M-.TN.S.xx.Z.0.15 ◆	½”	TN	024011641		-	
M-.TN.S.xx.A.0.20	¾”	TN	-		025012341	
M-.AB.S.xx.A.0.15	½”	AB	-		025012142	
M-.AB.S.xx.A.0.20	¾”	AB	-		025012342	

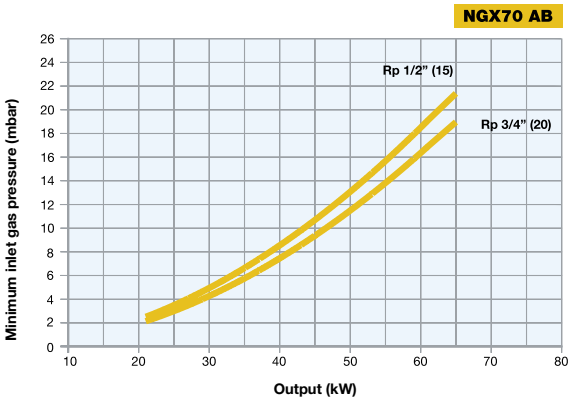
S = Standard combustion head (BS)
L = For long combustion head version (BL) increase the price (see price list)
◆ Burner equipped with external air inlet.
In compliance with GAR DIRECTIVE 2016/426/EU

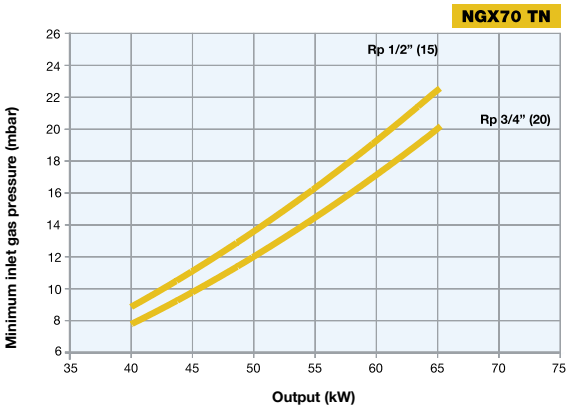








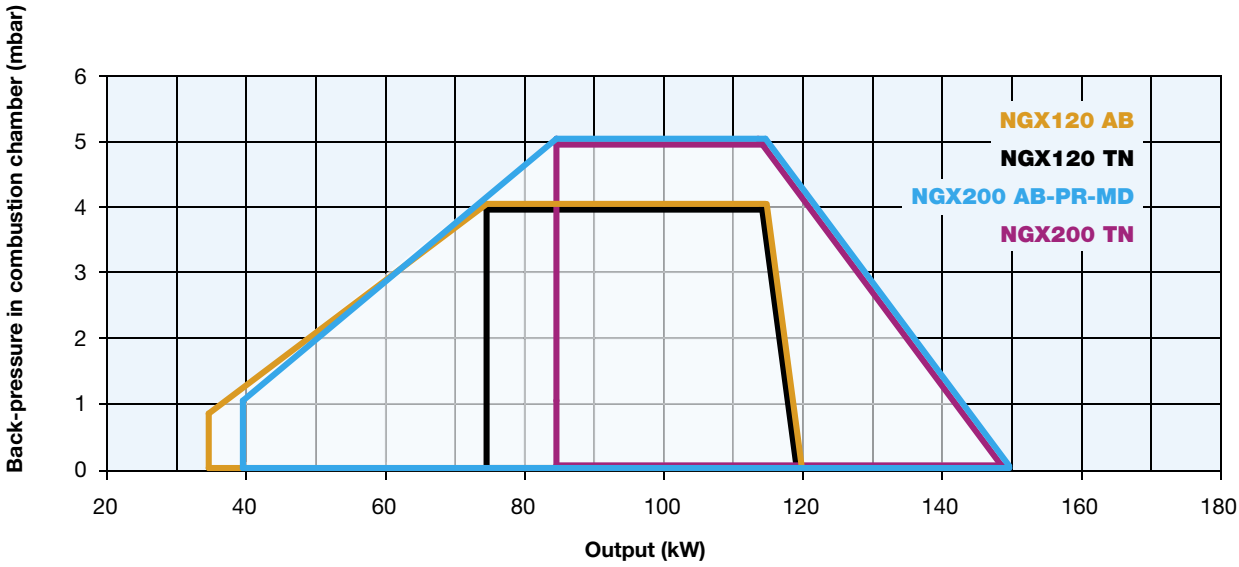




Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

NGX120 NGX200

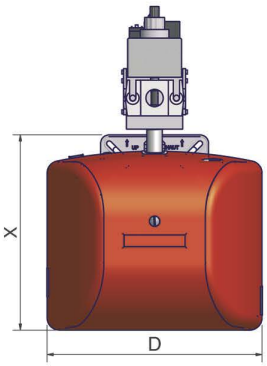
These burners **Low NO_x Class 3 (< 80 mg/kWh)** can be installed on all pressurized boilers up to 150 kW. Thanks to the new placement of the mechanical and electronic components and to the innovative combustion head, they are easy to use and to be mantained and they ensure optimized performance.
The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

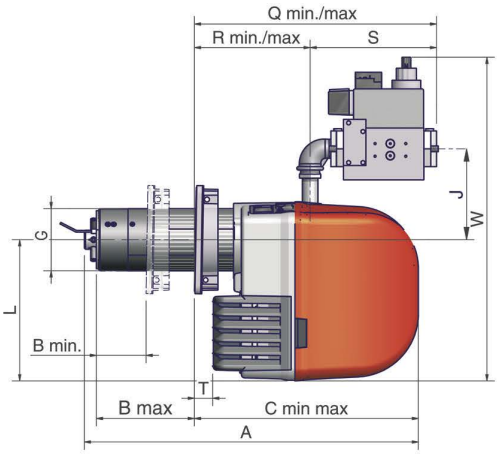


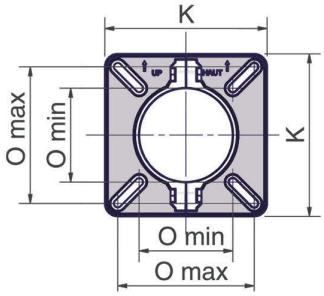
TECHNICAL DETAILS

Type	Model	Power kW		Electric power supply	Fan motor kW	Gas connections
		min.	max.			
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”

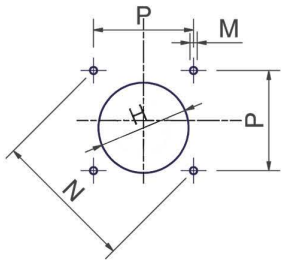
For the configuration of the gas train, see page 101.







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)																	Foratura caldaia (mm)				Flangia bruciatore (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

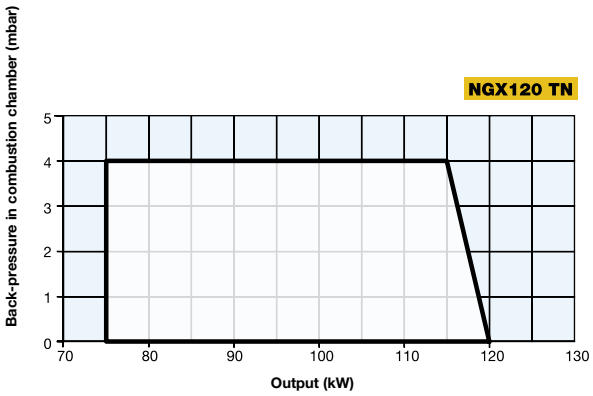
Approximate values

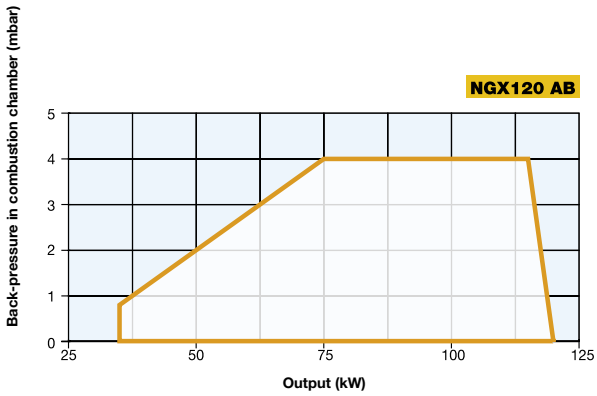
MECHANICAL OPERATION

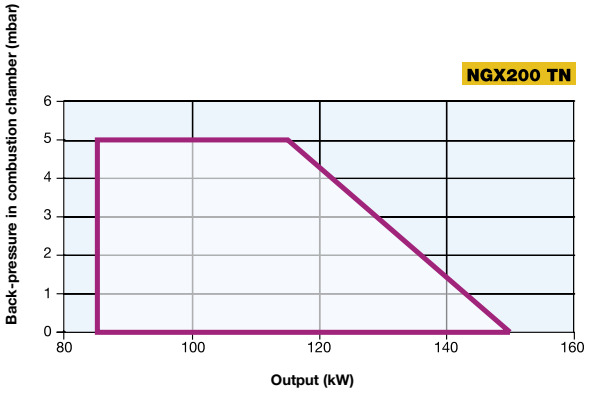
Model	Gas train	Operation	NGX120 Code	NGX120 Price €	NGX200 Code	NGX200 Price €
M-.TN.S.xx.A.0.20	¾”	TN	026011341		026011741	
M-.TN.S.xx.A.0.25	1”	TN	-		026011941	
M-.AB.S.xx.A.0.20	¾”	AB	026011342		026011742	
M-.AB.S.xx.A.0.25	1”	AB	-		026011942	
M-.PR.S.xx.A.0.25	1”	PR	-		026011943	

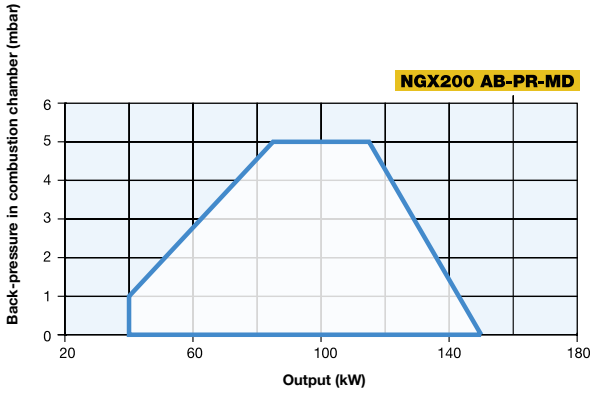
S = Standard combustion head (BS)
L = For long combustion head version (BL) increase the price (see price list)
(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
In compliance with GAR DIRECTIVE 2016/426/EU

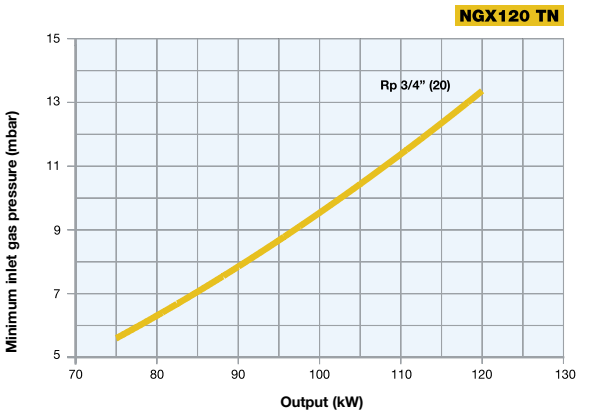
NGX120 NGX200 idea SERIES

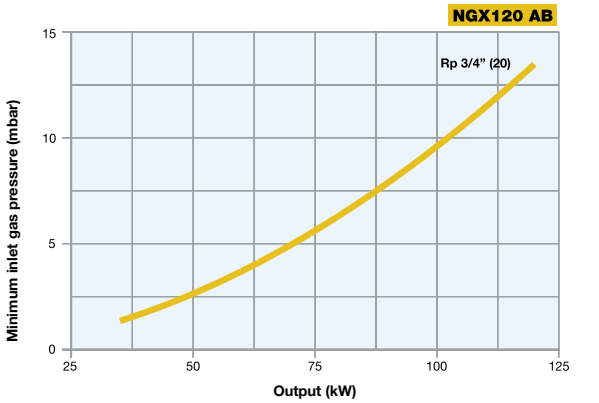


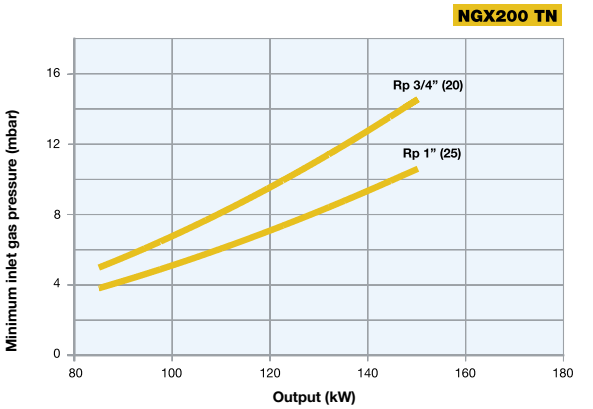


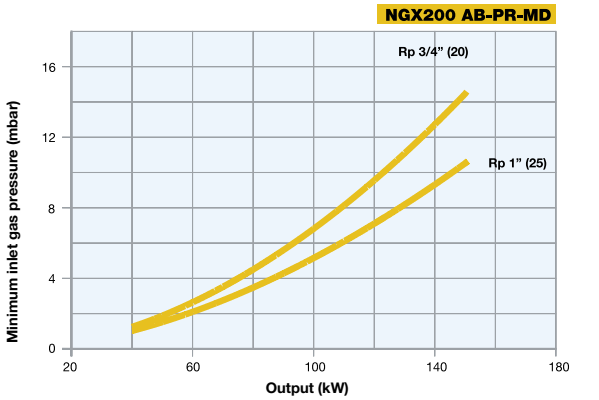








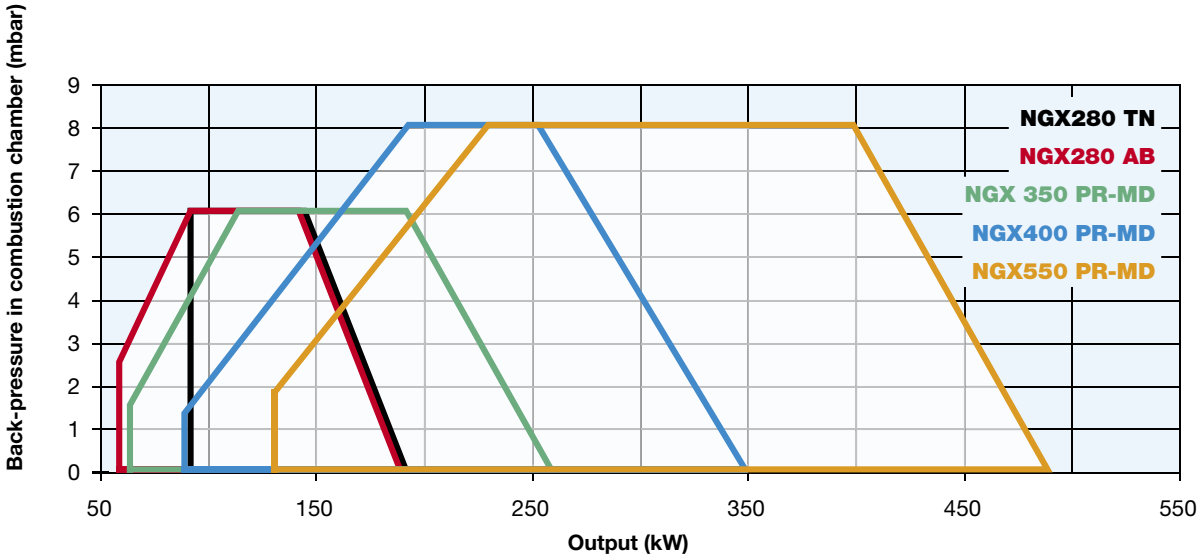




Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

idea SERIES NGX280 NGX350 NGX400 NGX550

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.

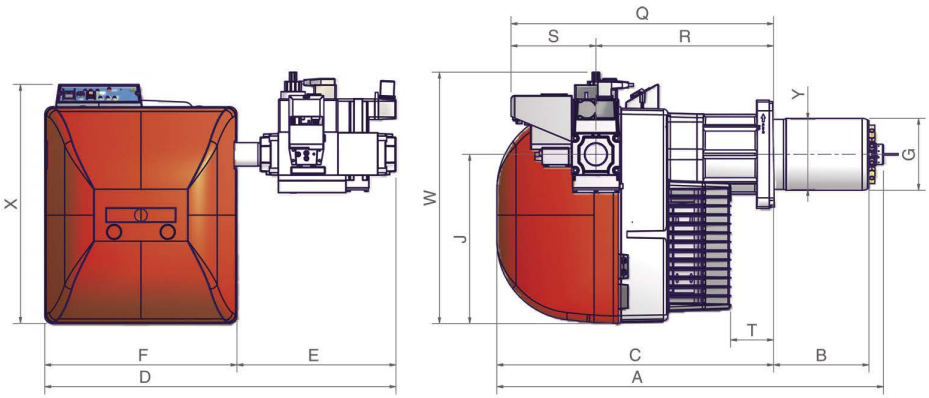


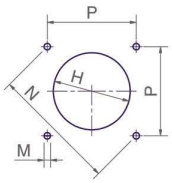
NGX280 NGX350 NGX400 NGX550 idea SERIES

TECHNICAL DETAILS

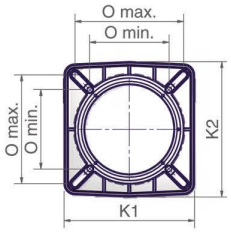
Type	Model	Power kW		Electric power supply	Fan motor kW	Gas connections
		min.	max.			
NGX280	M-.TN.x.xx.A.0.xx	93	190	230 V 1N ac	0,25	1”- 1”¼ - 1”½
NGX280	M-.xx.x.xx.A.0.xx	60	190	230 V 1N ac	0,25	1”- 1”¼ - 1”½
NGX350	M-.xx.x.xx.A.0.xx	65	260	230 V 1N ac	0,37	1” - 1”¼ - 1”½
NGX400	M-.xx.x.xx.A.0.xx	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 101.





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 1	K 2	M	N	O min.	O max.	P	Q	R	S	T	W	X	Y
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 Code	NGX280 Price €	NGX350 Code	NGX350 Price €
M-.TN.S.xx.A.0.25	1”	TN	027012341		-	
M-.TN.S.xx.A.0.32	1”¼	TN	027012541		-	
M-.TN.S.xx.A.0.40	1”½	TN	027012741		-	
M-.AB.S.xx.A.0.25	1”	AB	027012342		-	
M-.AB.S.xx.A.0.32	1”¼	AB	027012542		-	
M-.AB.S.xx.A.0.40	1”½	AB	027012742		-	
M-.PR.S.xx.A.0.25	1”	PR (*)	027012343		-	
M-.PR.S.xx.A.0.32	1”¼	PR (*)	027012543		-	
M-.PR.S.xx.A.0.40	1”½	PR (*)	027012743		-	
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	

Model	Gas train	Operation	NGX400 Code	NGX400 Price €	NGX550 Code	NGX550 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.S.xx.A.0.40	1”½	PR (*)	-		028011143	
M-.PR.S.xx.A.0.50	2”	PR (*)	-		028011343	

S = Standard combustion head (BS)
L = For long combustion head version (BL) increase the price (see price list)
M = Short and long reversible combustion head
(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
In compliance with GAR DIRECTIVE 2016/426/EU

ELECTRONIC OPERATION

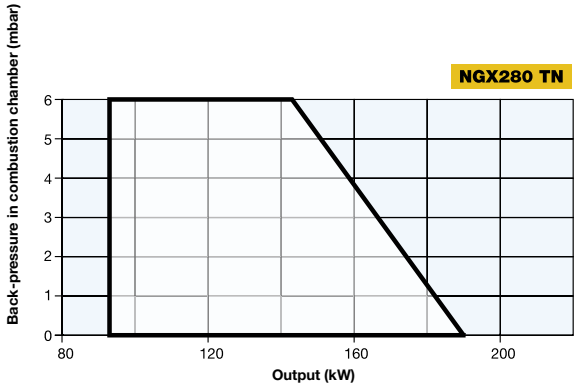
Model	Gas train	Operation	NGX280 Code	NGX280 Price €	NGX350 Code	NGX350 Price €
M-.PR.S.xx.A.1.25.EA	1”	PR (*)	02701235A		-	
M-.PR.S.xx.A.1.32.EA	1”¼	PR (*)	02701255A		-	
M-.PR.S.xx.A.1.40.EA	1”½	PR (*)	02701275A		-	
M-.PR.M.xx.A.1.25.EA	1”	PR (*)	-		02701085A	
M-.PR.M.xx.A.1.32.EA	1”¼	PR (*)	-		02701095A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

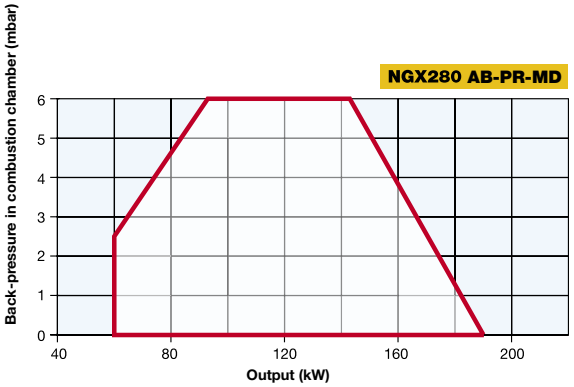
Model	Gas train	Operation	NGX400 Code	NGX400 Price €	NGX550 Code	NGX550 Price €
M-.PR.M.xx.A.1.25.EA	1”	PR (*)	02701115A		-	
M-.PR.M.xx.A.1.32.EA	1”¼	PR (*)	02701125A		-	
M-.PR.M.xx.A.1.40.EA	1”½	PR (*)	02701135A		-	
M-.PR.M.xx.A.1.50.EA	2”	PR (*)	02701155A		-	
M-.PR.S.xx.A.1.32.EA	1”¼	PR (*)	-		02801095A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

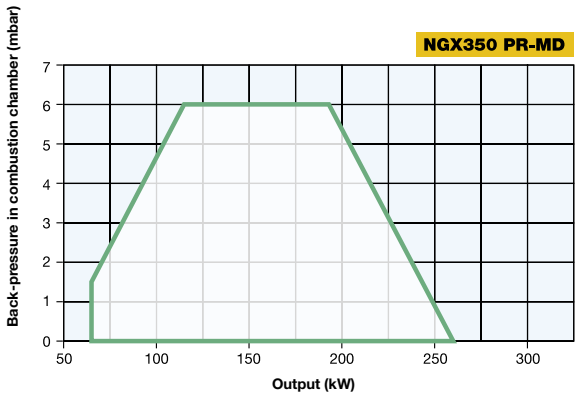
S = Standard combustion head (BS)
L = For long combustion head version (BL) increase the price (see price list)
M = Short and long reversible combustion head
(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
In compliance with GAR DIRECTIVE 2016/426/EU

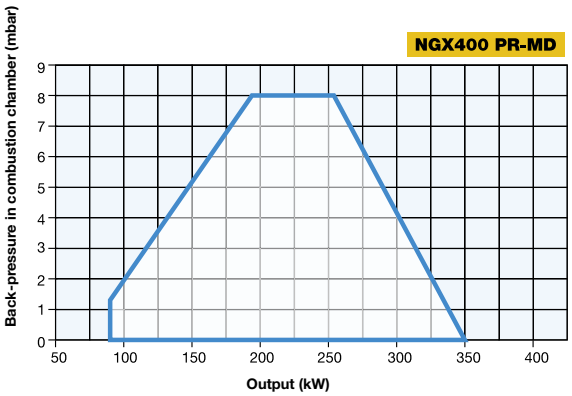
NGX280 NGX350 NGX400 NGX550

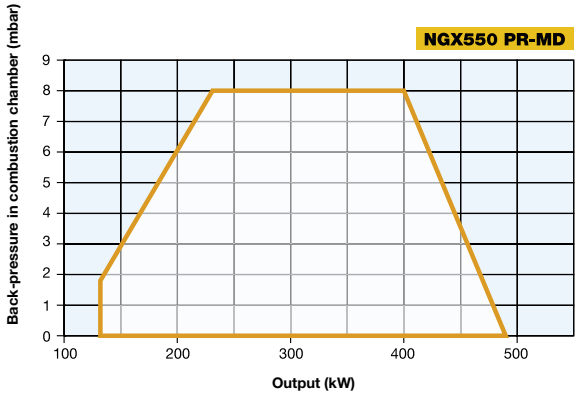
GAS





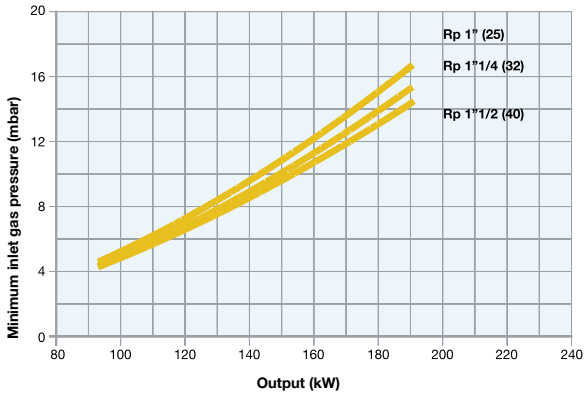




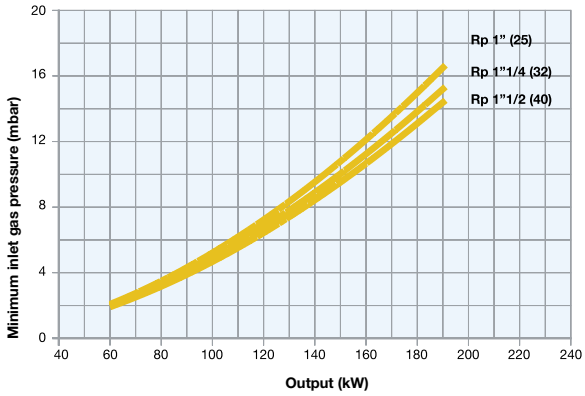


NGX280 NGX350 NGX400 NGX550 idea SERIES

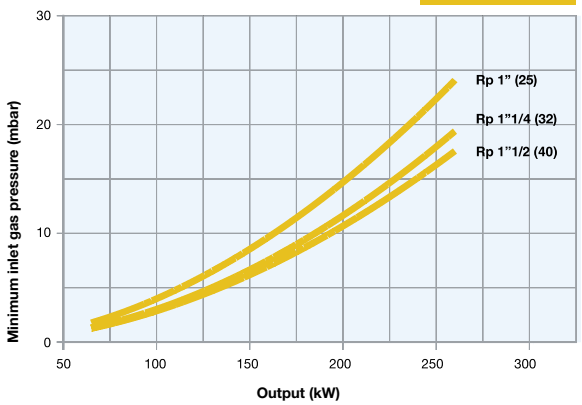
NGX280 TN



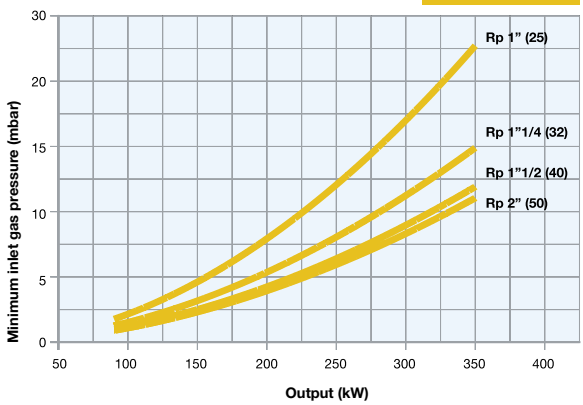
NGX280 AB-PR-MD



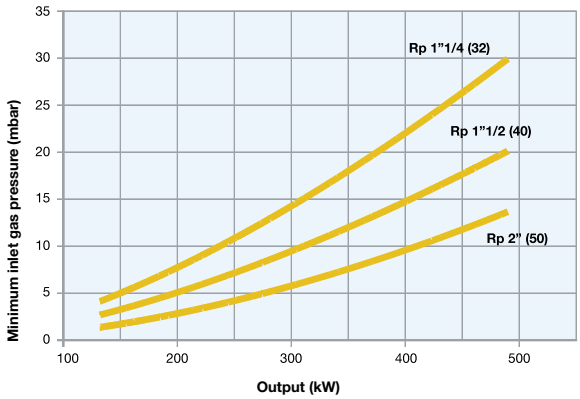
NGX350 PR-MD



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.

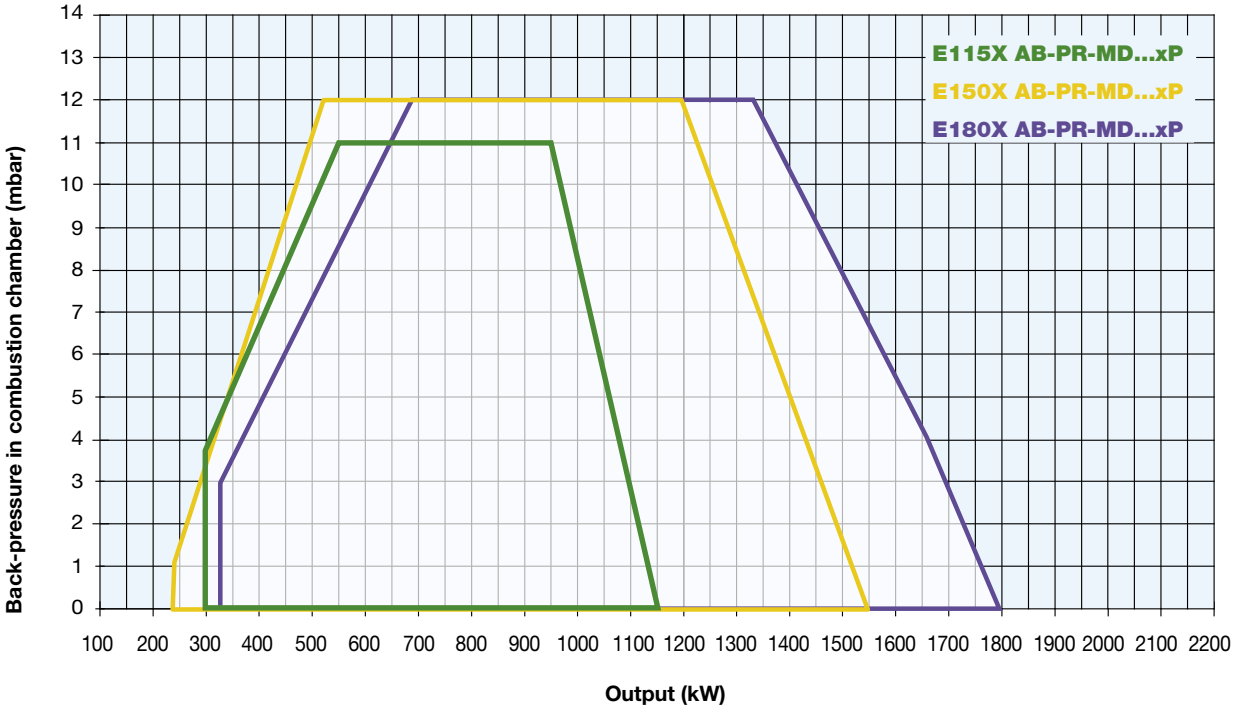
tecnopress SERIES E115X E150X E180X...xP

NEW

CIB UNIGAS >60 <80 mg/kWh CLASS 3 Low NOx

GAS

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 1.800 kW.
It is characterized by simple mechanical or electronic adjusting procedure and simple maintenance, thanks to the accessible placement of the components.

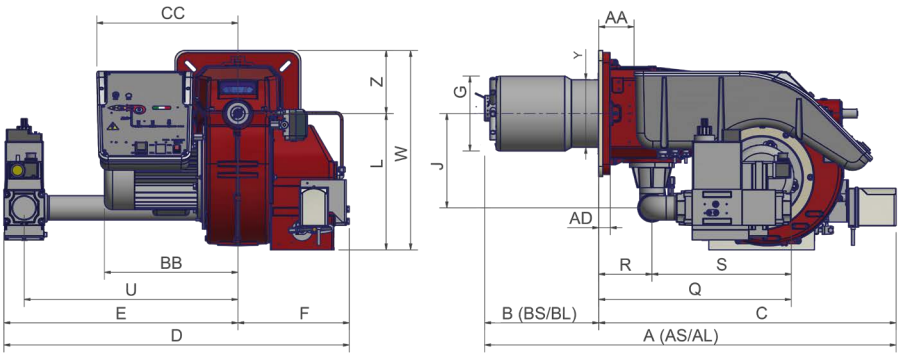


E115X E150X E180X...xP tecnopress SERIES

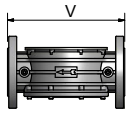
TECHNICAL DETAILS

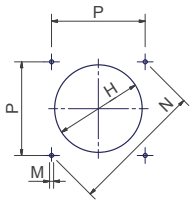
Type	Model	Power kW min.	Power kW max.	Electric power supply	Fan motor kW	Gas connections	Noise level dBA
E115X	M-.xx.xP.xx.A.0.xx	300	1.150	230/400 V 3N ac	2,2	1"½ - 2"- DN65 - DN80	< 80
E150X	M-.xx.xP.xx.A.1.xx	250	1.550	230/400 V 3N ac	2,2	1"½ - 2"- DN65 - DN80	< 80
E180X	M-.xx.xP.xx.A.1.xx	320	1.800	230/400 V 3N ac	3 ,0	1"½ - 2"- DN65 - DN80	< 80

For the configuration of the gas train, see page 101.

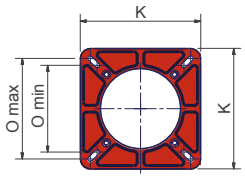


DN65 - DN80





Suggested boiler drilling



Burner flange

Type	Packaging dimensions (mm) l	p	h	kg
E115X	1465	815	800	115
E150X	1465	815	800	125
E180X*	1465	815	800	125

Approximate values
* Approximate values (regarding model with gas train DN80)

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
E150X	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
E150X	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
E150X	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
E150X	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
E180X	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
E180X	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
E180X	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
E180X	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 €	E150X..xP Code	E150X..xP Price €	E180X…xP Code	E180X…xP Price €
M-.AB.SP.xx.A.0.40	1"½	AB	030014542		-		-	
M-.AB.SP.xx.A.0.50	2"	AB	030014742		-		-	
M-.AB.SP.xx.A.0.65	DN65	AB	030014942		-		-	
M-.AB.SP.xx.A.0.80	DN80	AB	030015142		-		-	
M-.PR.SP.xx.A.0.40	1"½	PR (*)	030014543		-		-	
M-.PR.SP.xx.A.0.50	2"	PR (*)	030014743		-		-	
M-.PR.SP.xx.A.0.65	DN65	PR (*)	030014943		-		-	
M-.PR.SP.xx.A.0.80	DN80	PR (*)	030015143		-		-	
M-.AB.SP.xx.A.1.40	1"½	AB	-		03001A552		03001B352	
M-.AB.SP.xx.A.1.50	2"	AB	-		03001A752		03001B552	
M-.AB.SP.xx.A.1.65	DN65	AB	-		03001A952		03001B752	
M-.AB.SP.xx.A.1.80	DN80	AB	-		03001B152		03001B952	
M-.PR.SP.xx.A.1.40	1"½	PR (*)	-		03001A553		03001B353	
M-.PR.SP.xx.A.1.50	2"	PR (*)	-		03001A753		03001B553	
M-.PR.SP.xx.A.1.65	DN65	PR (*)	-		03001A953		03001B753	
M-.PR.SP.xx.A.1.80	DN80	PR (*)	-		03001B153		03001B953	

SP = Standard combustion head (BS)
LP = For long combustion head version (BL) increase the price (see price list)
(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
In compliance with GAR DIRECTIVE 2016/426/EU

ELECTRONIC OPERATION

Model	Gas train	Operation	E115X…xP Code	E115X…xP Price €	E150X..xP Code	E150X..xP Price €	E180X…xP Code	E180X…xP Price €
M-.PR.SP.xx.A.1.40.EA	1"½	PR (*)	03001455A		03001A55A		03001B35A	
M-.PR.SP.xx.A.1.50.EA	2"	PR (*)	03001475A		03001A75A		03001B55A	
M-.PR.SP.xx.A.1.65.EA	DN65	PR (*)	03001495A		03001A95A		03001B75A	
M-.PR.SP.xx.A.1.80.EA	DN80	PR (*)	03001515A		03001B15A		03001B95A	

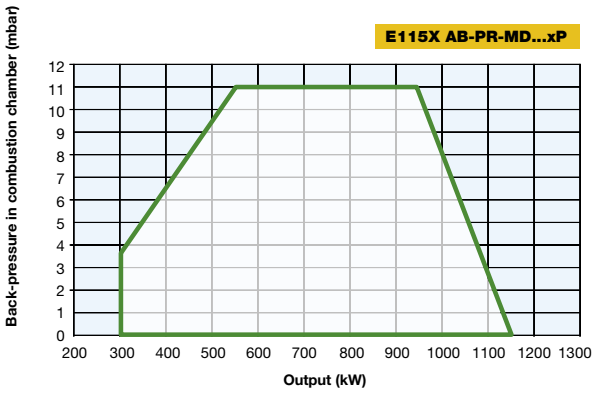
SP = Standard combustion head (BS)
LP = For long combustion head version (BL) increase the price (see price list)
(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
In compliance with GAR DIRECTIVE 2016/426/EU

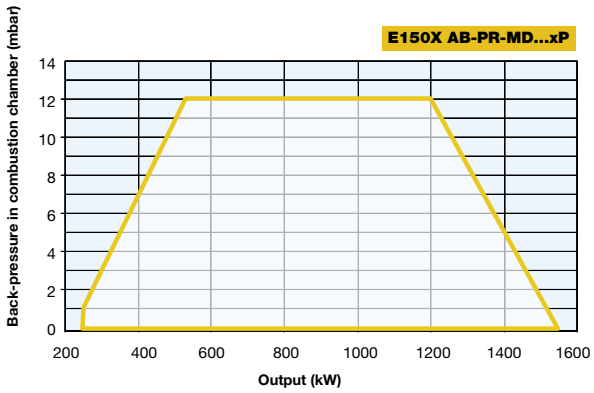
ELECTRONIC OPERATION

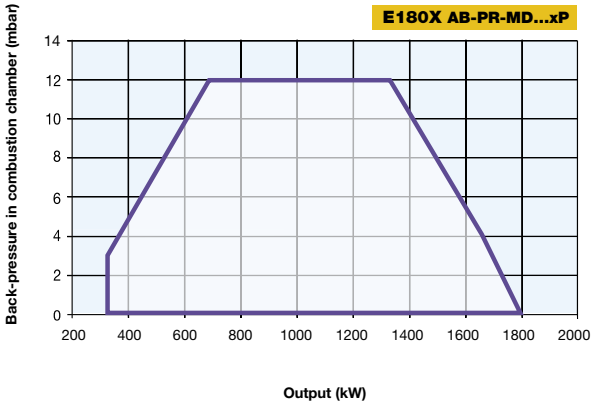
Model	Gas train	Operation	E115X…xP Code	E115X…xP Price €	E150X..xP Code	E150X..xP Price €	E180X…xP Code	E180X…xP Price €
M-.MD.SP.xx.A.1.40.ES	1"½	MD (**)	03001455S		03001A55S		03001B35S	
M-.MD.SP.xx.A.1.50.ES	2"	MD (**)	03001475S		03001A75S		03001B55S	
M-.MD.SP.xx.A.1.65.ES	DN65	MD (**)	03001495S		03001A95S		03001B75S	
M-.MD.SP.xx.A.1.80.ES	DN80	MD (**)	03001515S		03001B15S		03001B95S	

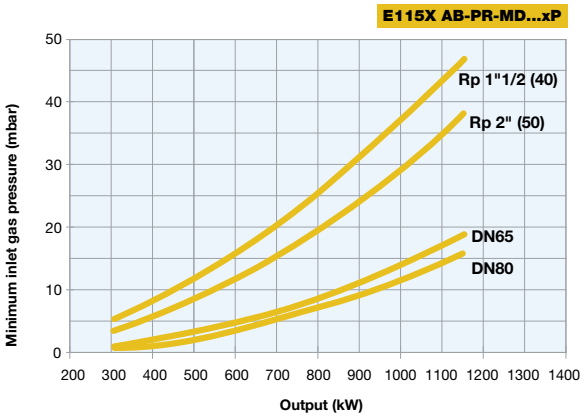
SP = Standard combustion head (BS)
LP = For long combustion head version (BL) increase the price (see price list)
(**) The burners are already MD version. In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
In compliance with GAR DIRECTIVE 2016/426/EU

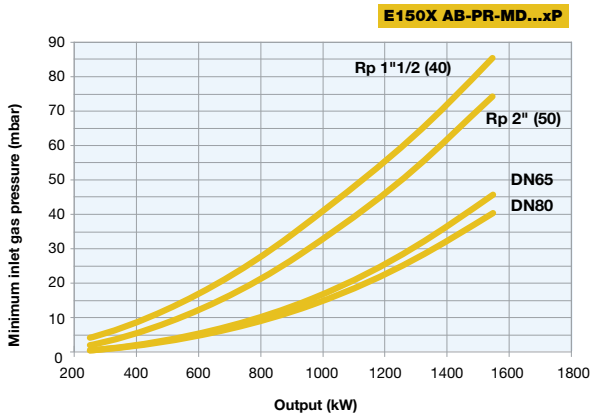
E115X E150X E180X...xP tecnopress SERIES

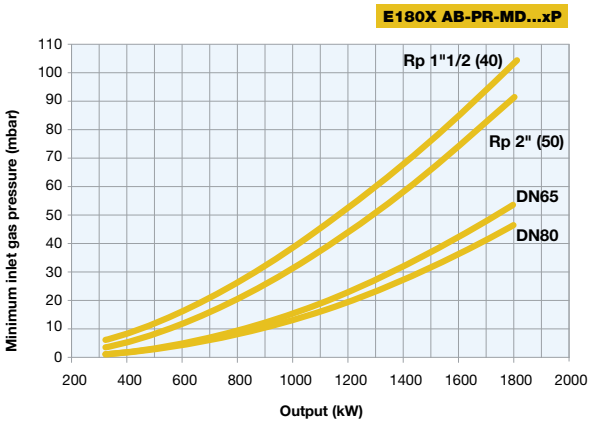












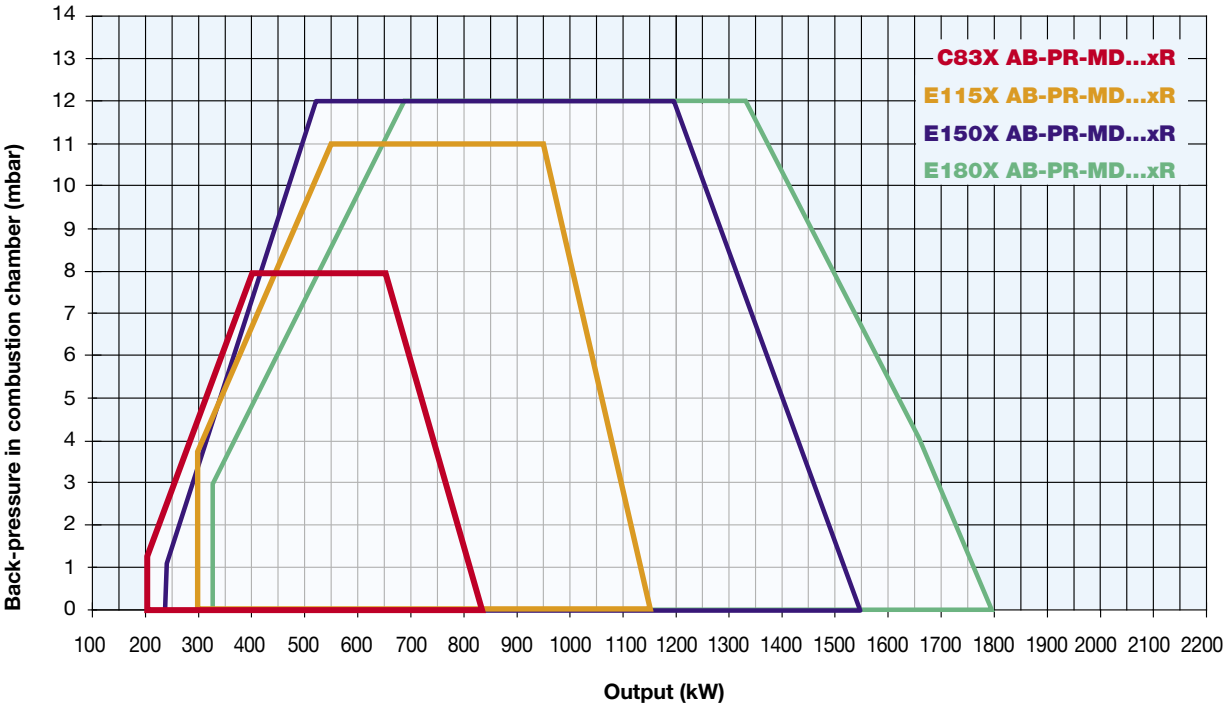
Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

tecnopress SERIES C83X E115X E150X E180X...xR

GAS

NEW

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 1.800 kW. It is charaterized by simple mechanical or electronic adjusting procedure and simple maintenance, thanks to the accessible placement of the components.
These models are equipped with air inlet silencer to reduce the noise level.

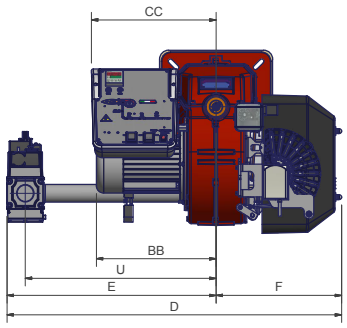


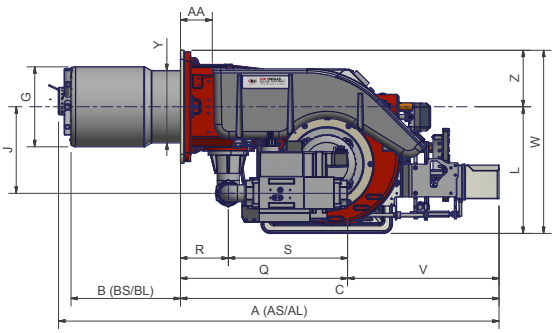
C83X E115X E150X E180X...xR tecnopress SERIES

TECHNICAL DETAILS

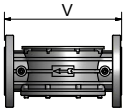
Type	Model	Power kW min.	Power kW max.	Electric power supply	Fan motor kW	Gas connections	Noise level dBA
C83X	M-.xx.xR.xx.A.0.xx	200	830	230/400 V 3N ac	1,1	1"¼ - 1"½ - 2"- DN65	< 75
E115X	M-.xx.xR.xx.A.0.xx	300	1.150	230/400 V 3N ac	2,2	1"½ - 2"- DN65 - DN80	< 75
E150X	M-.xx.xR.xx.A.1.xx	250	1.550	230/400 V 3N ac	2,2	1"½ - 2"- DN65 - DN80	< 75
E180X	M-.xx.xR.xx.A.1.xx	320	1.800	230/400 V 3N ac	3,0	1"½ - 2"- DN65 - DN80	< 75

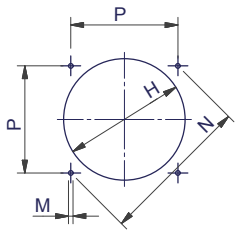
For the configuration of the gas train, see page 101.



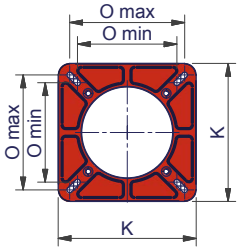


DN65 - DN80





Suggested boiler drilling



Burner flange

Type	Packaging dimensions (mm) l	p	h	kg
C83X	1345	835	750	60
E115X	1465	815	800	115
E150X	1465	815	800	125
E180X*	1465	815	800	125

Approximate values

* Approximate values (regarding model with gas train DN80)

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
E150X	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
E150X	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
E150X	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
E150X	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
E180X	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
E180X	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
E180X	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
E180X	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.SR.xx.A.0.40	1"½	AB	033014342		030012942	
M-.AB.SR.xx.A.0.50	2"	AB	033014542		030013142	
M-.AB.SR.xx.A.0.65	DN65	AB	033014742		030013342	
M-.AB.SR.xx.A.0.80	DN80	AB	-		030013542	
M-.PR.SR.xx.A.0.32	1"¼	PR (*)	033014143		-	
M-.PR.SR.xx.A.0.40	1"½	PR (*)	033014343		030012943	
M-.PR.SR.xx.A.0.50	2"	PR (*)	033014543		030013143	
M-.PR.SR.xx.A.0.65	DN65	PR (*)	033014743		030013343	
M-.PR.SR.xx.A.0.80	DN80	PR (*)	-		030013543	

Model	Gas train	Operation	E150X...xR Code	E150X...xR Price €	E180X...xR Code	E180X...xR Price €
M-.AB.SR.xx.A.1.40	1"½	AB	03001D152		03001D952	
M-.AB.SR.xx.A.1.50	2"	AB	03001D352		03001E152	
M-.AB.SR.xx.A.1.65	DN65	AB	03001D552		03001E352	
M-.AB.SR.xx.A.1.80	DN80	AB	03001D752		03001E552	
M-.PR.SR.xx.A.1.40	1"½	PR (*)	03001D153		03001D953	
M-.PR.SR.xx.A.1.50	2"	PR (*)	03001D353		03001E153	
M-.PR.SR.xx.A.1.65	DN65	PR (*)	03001D553		03001E353	
M-.PR.SR.xx.A.1.80	DN80	PR (*)	03001D753		03001E553	

SR = Standard combustion head (BS)
LR = For long combustion head version (BL) increase the price (see price list)
(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
In compliance with GAR DIRECTIVE 2016/426/EU

C83X E115X E150X E180X...xR tecnopress SERIES

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.SR.xx.A.1.40.EA	1"½	PR (*)	03301435A		03001295A	
M-.PR.SR.xx.A.1.50.EA	2"	PR (*)	03301455A		03001315A	
M-.PR.SR.xx.A.1.65.EA	DN65	PR (*)	03301475A		03001335A	
M-.PR.SR.xx.A.1.80.EA	DN80	PR (*)	-		03001355A	

Model	Gas train	Operation	E150X...xR Code	E150X...xR Price €	E180X...xR Code	E180X...xR Price €
M-.PR.SR.xx.A.1.40.EA	1"½	PR (*)	03001D15A		03001D95A	
M-.PR.SR.xx.A.1.50.EA	2"	PR (*)	03001D35A		03001E15A	
M-.PR.SR.xx.A.1.65.EA	DN65	PR (*)	03001D55A		03001E35A	
M-.PR.SR.xx.A.1.80.EA	DN80	PR (*)	03001D75A		03001E55A	

SR = Standard combustion head (BS)
LR = For long combustion head version (BL) increase the price (see price list)
(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
In compliance with GAR DIRECTIVE 2016/426/EU

ELECTRONIC OPERATION

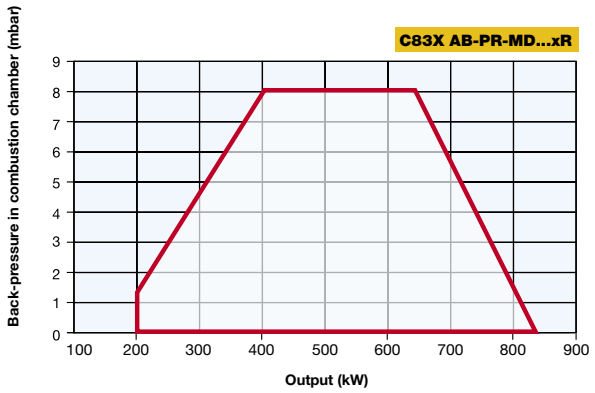
Model	Gas train	Operation	C83X...xR Code	C83X...xR Price €	E115X...xR Code	E115X...xR Price €
M-.MD.SR.xx.A.1.32.ES	1"¼	MD (**)	03301415S		-	
M-.MD.SR.xx.A.1.40.ES	1"½	MD (**)	03301435S		03001295S	
M-.MD.SR.xx.A.1.50.ES	2"	MD (**)	03301455S		03001315S	
M-.MD.SR.xx.A.1.65.ES	DN65	MD (**)	03301475S		03001335S	
M-.MD.SR.xx.A.1.80.ES	DN80	MD (**)	-		03001355S	

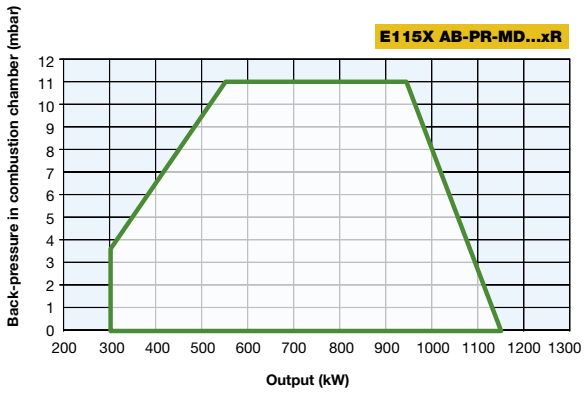
Model	Gas train	Operation	E150X...xR Code	E150X...xR Price €	E180X...xR Code	E180X...xR Price €
M-.MD.SR.xx.A.1.40.ES	1"½	MD (**)	03001D15S		03001D95S	
M-.MD.SR.xx.A.1.50.ES	2"	MD (**)	03001D35S		03001E15S	
M-.MD.SR.xx.A.1.65.ES	DN65	MD (**)	03001D55S		03001E35S	
M-.MD.SR.xx.A.1.80.ES	DN80	MD (**)	03001D75S		03001E55S	

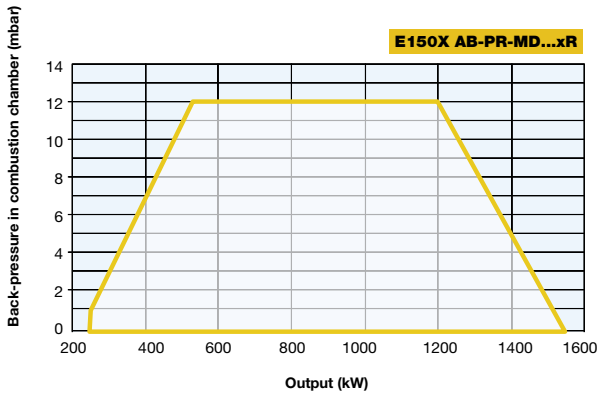
SR = Standard combustion head (BS)
LR = For long combustion head version (BL) increase the price (see price list)
(**) The burners are already MD version.
In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
In compliance with GAR DIRECTIVE 2016/426/EU

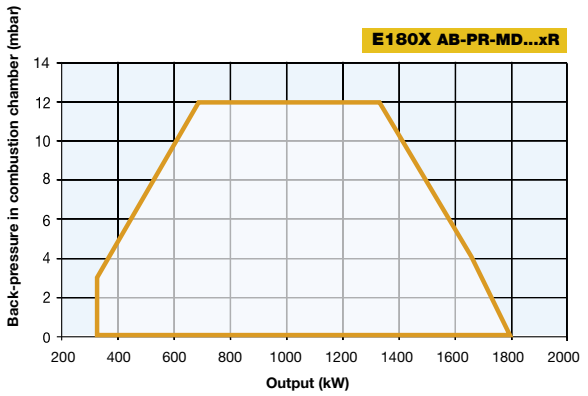
C83X E115X E150X E180X...xR

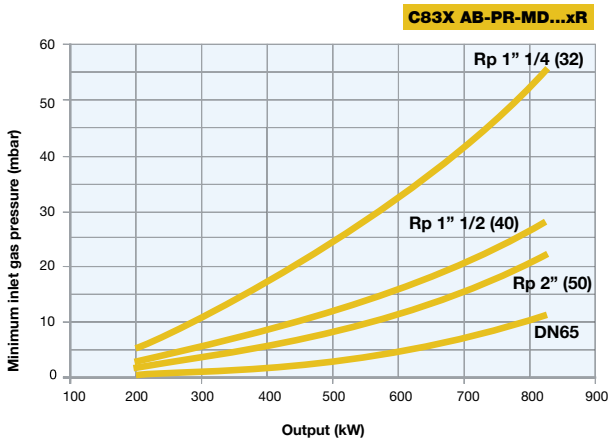
GAS

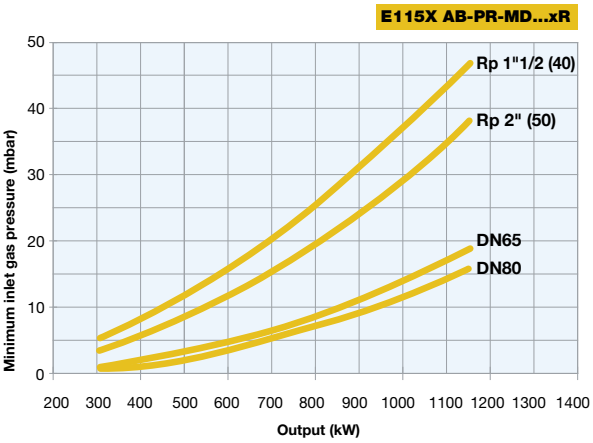


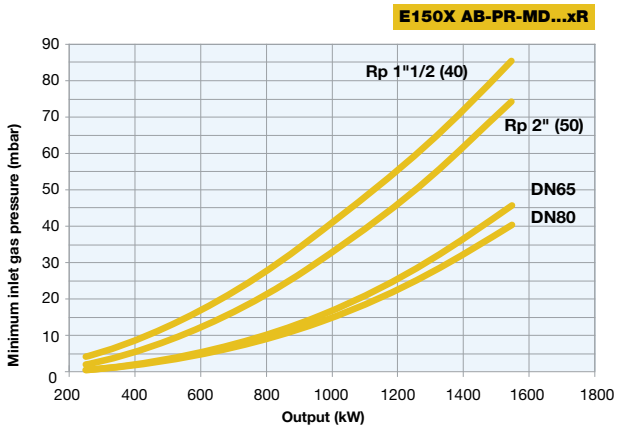


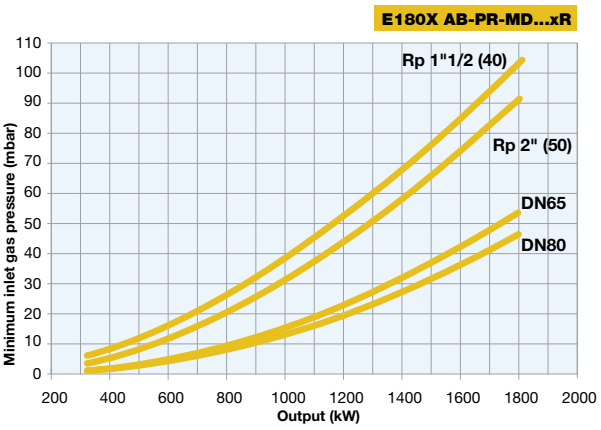








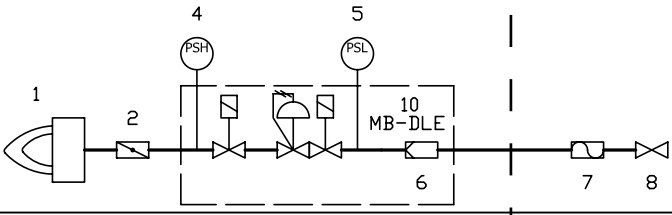




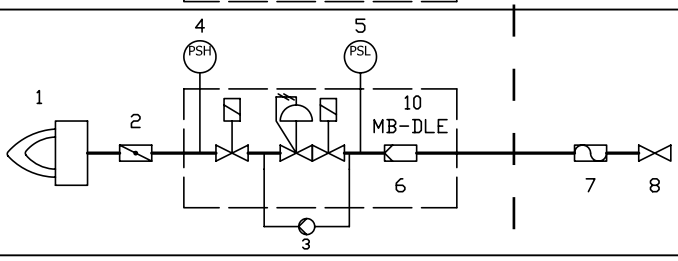
Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

MANUFACTURER | INSTALLER

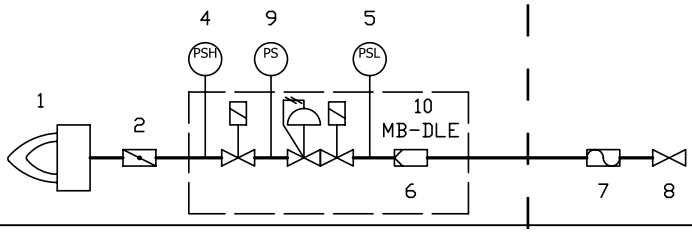
Gas train with valves group MB-DLE
(2 valves + gas filter + pressure governor).



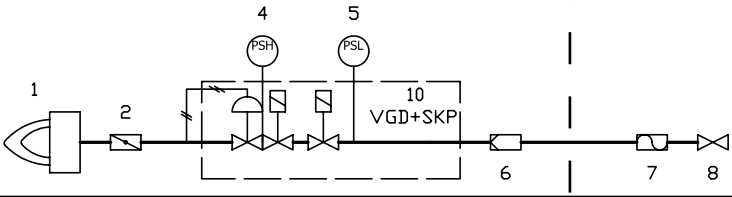
Gas train with valves group MB-DLE
(2 valves + gas filter + pressure
governor) + leakage control VPS504.



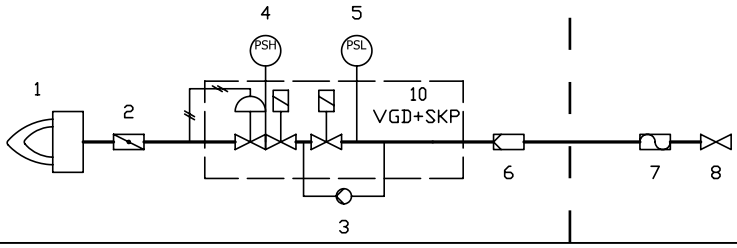
Gas train with valves group MB-DLE
(2 valves + gas filter + pressure governor)
+ leakage control pressure switch.



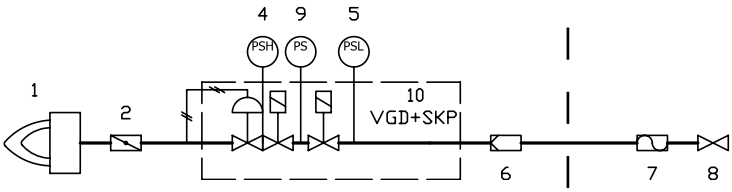
Gas train with valves group VGD
with built-in gas pressure governor.



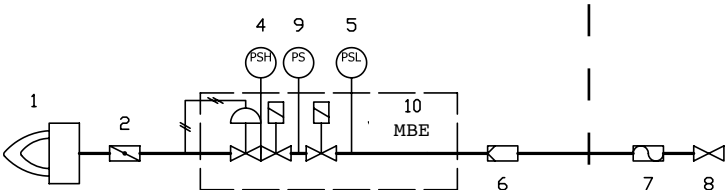
Gas train with valves group VGD
with built-in gas pressure governor +
leakage control VPS504.



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



Gas train with valve group MBE,
c/w built-in pressure governor+ leakage control
pressure switch+ max pressure switch.



KEY

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

LIGHT OIL BURNERS

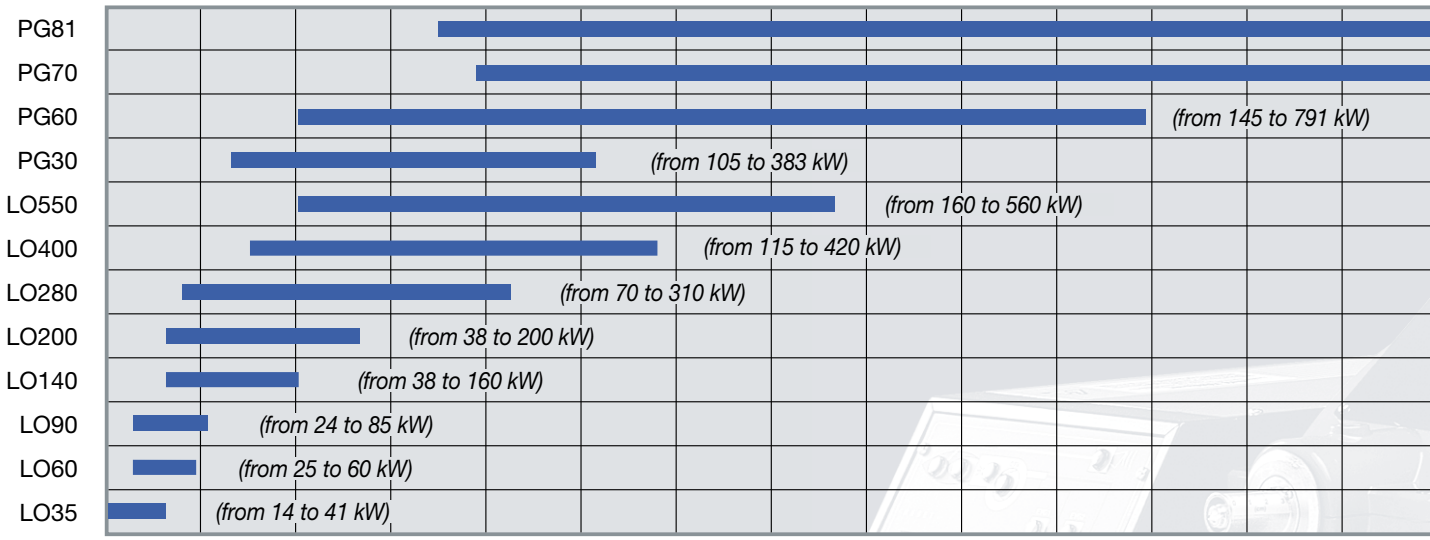
idea series

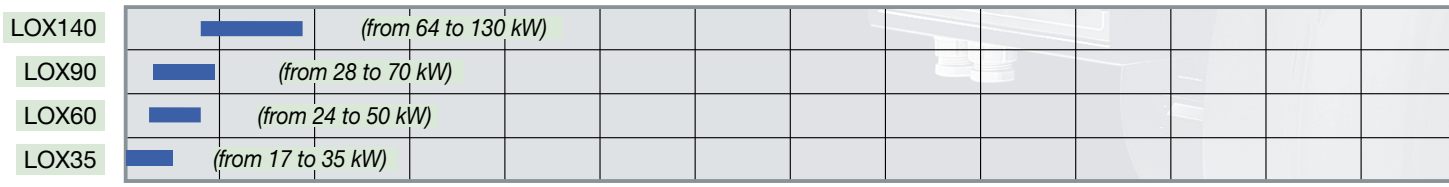
LO35 - TN	**LO200** - TN/AB	**LOX35** - TN
LO60 - TN/AB	**LO280** - TN/AB	**LOX60** - TN
LO90 - TN/AB	**LO400** - TN/AB	**LOX90** - TN
LO140 - TN/AB	**LO550** - TN/AB	**LOX140** - TN

tecnopress series

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

Type



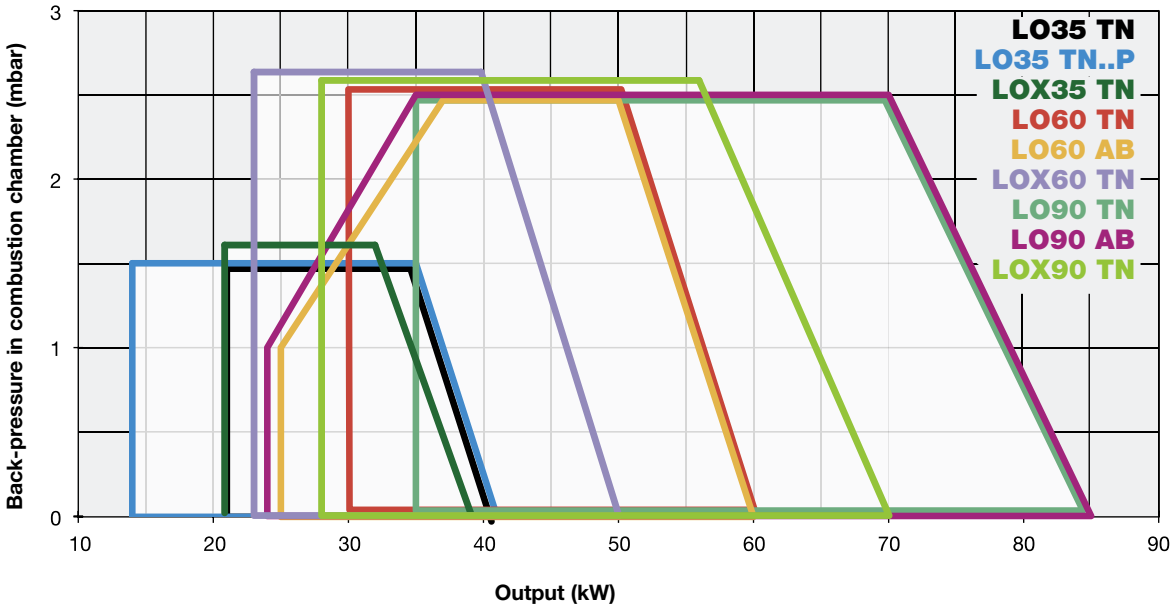


(from 264 to 1.900 kW)

(from 291 to 1.047 kW)

idea SERIES LO35 LOX35 LO60 LOX60 LO90 LOX90

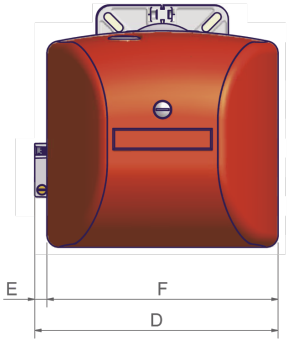
These light oil burners cover most of the civil installations and represent the best solution in terms of design and reliability. IDEA burners satisfy the specific requirements of the market, ensuring the maximum efficiency of the performance and easy maintenance. In particular, the removable baking 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.

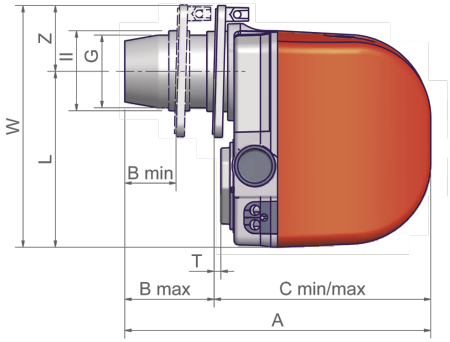


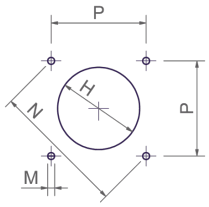
LO35 LOX35 LO60 LOX60 LO90 LOX90 idea SERIES

TECHNICAL DETAILS

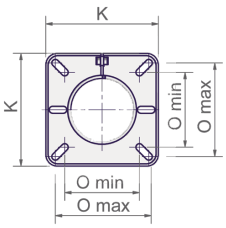
Type	Model	Power kW		Electric power supply	Fan motor
		min.	max.		kW
LO35	G-.TN.x.xx.A	21	41	230 V 1N ac	0,075
LO35	G-.TN.x.xx.A.P	14	41	230 V 1N ac	0,075
LOX35	G-.TN.x.xx.A	17	35	230 V 1N ac	0,075
LO60	G-.TN.x.xx.A	30	60	230 V 1N ac	0,10
LO60	G-.AB.x.xx.A	25	60	230 V 1N ac	0,10
LOX60	G-.TN.x.xx.A	24	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.S.xx.Z ◆	TN	024050501		-		-	
G-.TN.S.xx.A.P ❖	TN	024050301		-		-	
G-.TN.S.xx.Z.P ◆❖	TN	024050701		-		-	
G-.AB.S.xx.A	AB	-		025050902		025050102	

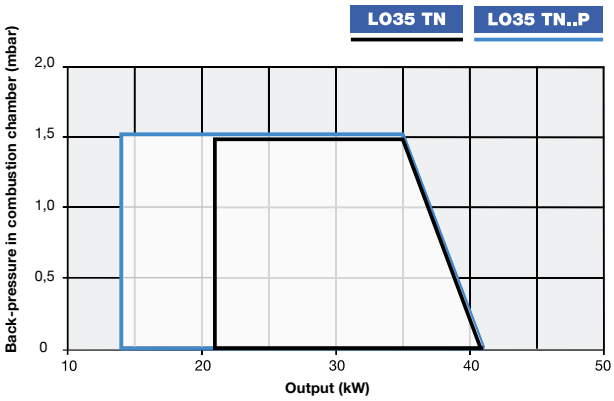
S = Standard combustion head (BS)
L = For long combustion head version (BL) increase the price (see price list)
◆ Burner equipped with external air inlet
❖ Burner provided with pre-heating system on the atomization group
In compliance with:
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

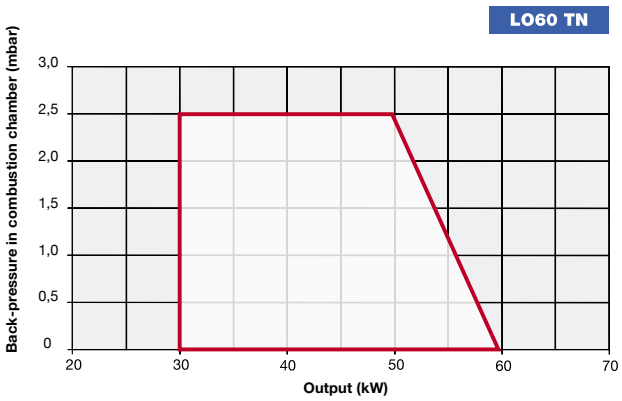
MECHANICAL OPERATION

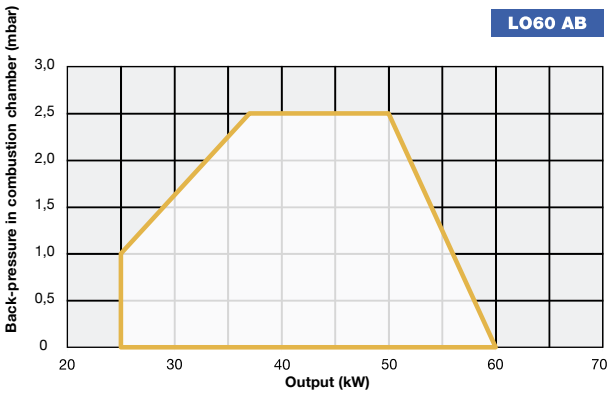
Model	Operation	LOX35 Code	LOX35 Price €	LOX60 Code	LOX60 Price €	LOX90 Code	LOX90 Price €
G-.TN.S.xx.A	TN	024051101		025051901		025052101	

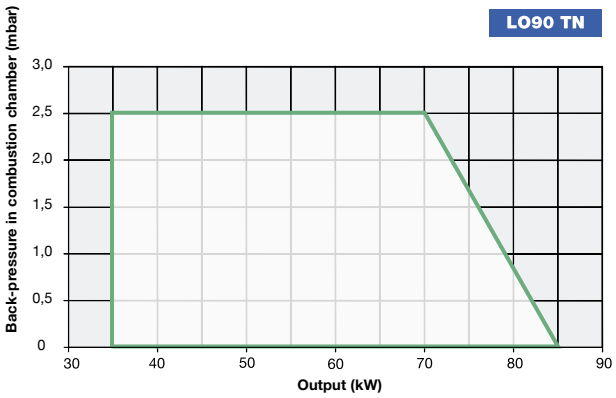
S = Standard combustion head (BS)
L = For long combustion head version (BL) increase the price (see price list)
◆ Burner equipped with external air inlet
❖ Burner provided with pre-heating system on the atomization group
In compliance with:
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

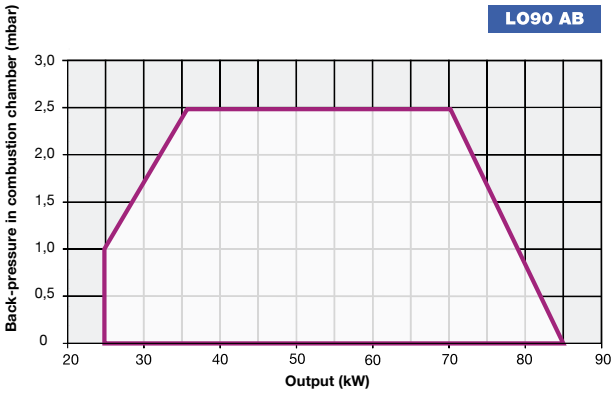
LO35 LOX35 LO60 LOX60 LO90 LOX90 idea SERIES

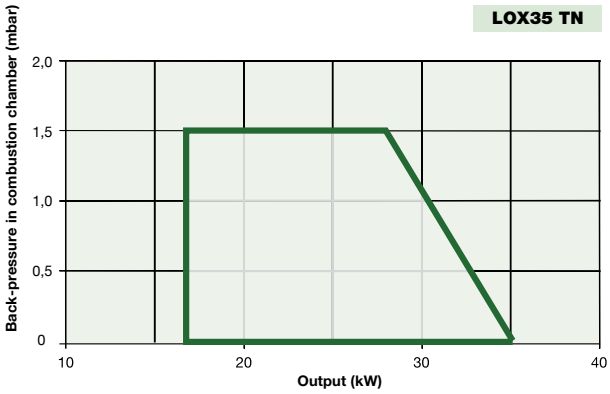


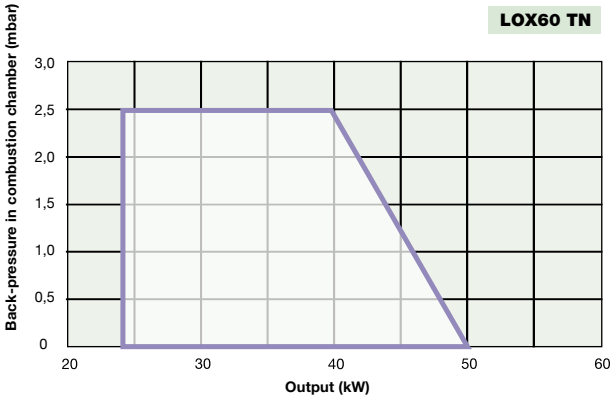


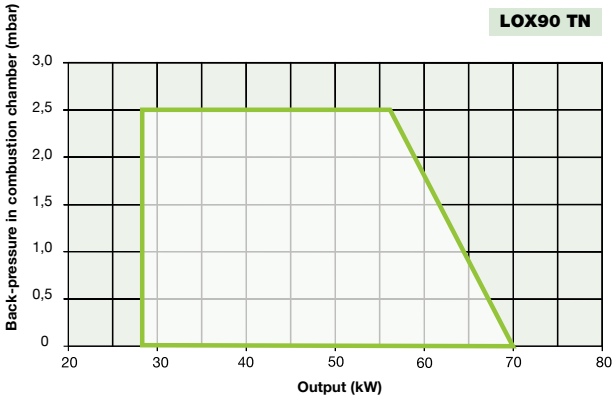






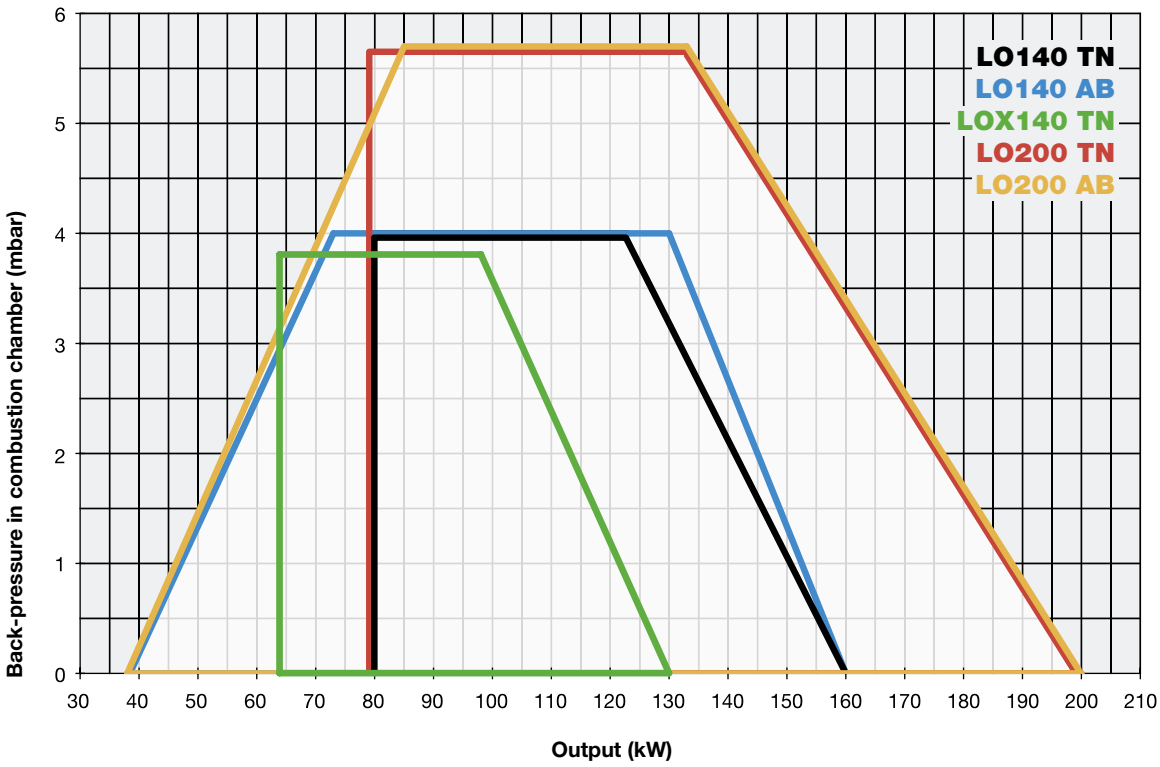






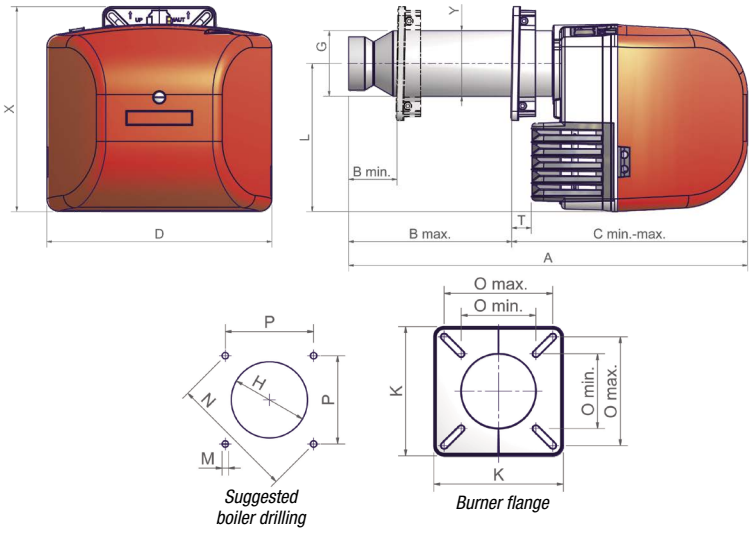
idea SERIES LO140 LOX140 LO200

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 supply	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



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)											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

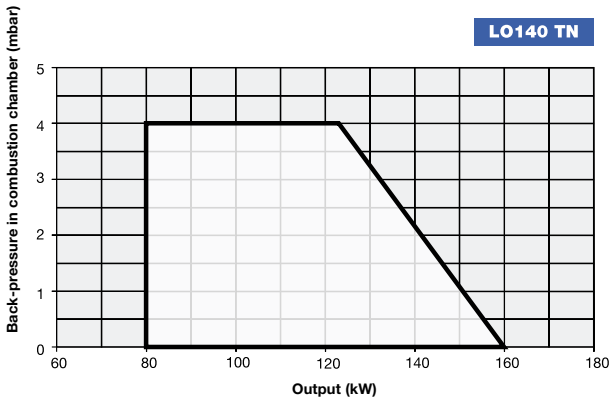
MECHANICAL OPERATION

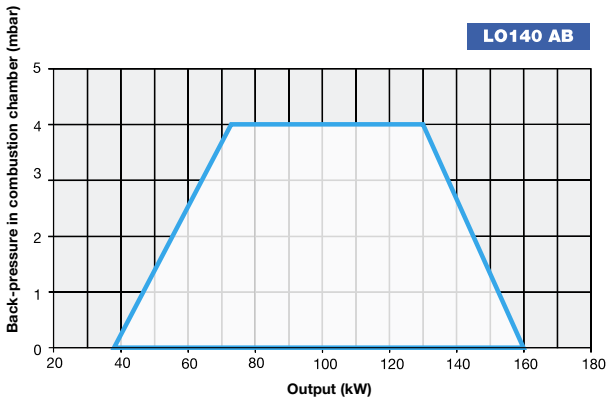
Model	Operation	L0140		L0200	
		Code	Price €	Code	Price €
G-.TN.S.xx.A	TN	026050101		026050301	
G-.AB.S.xx.A	AB	026050102		026050302	

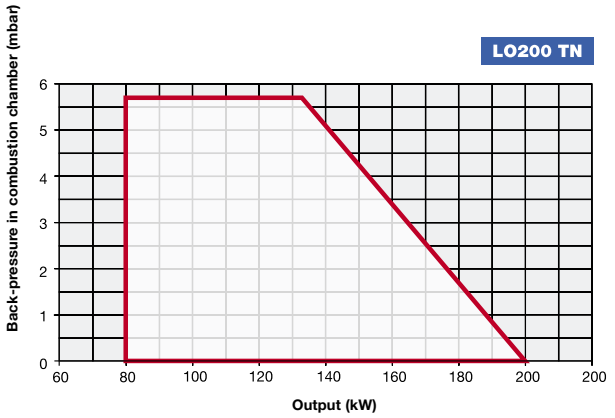
Model	Operation	LOX140	
		Code	Price €
G-.TN.S.xx.A	TN	026050901	

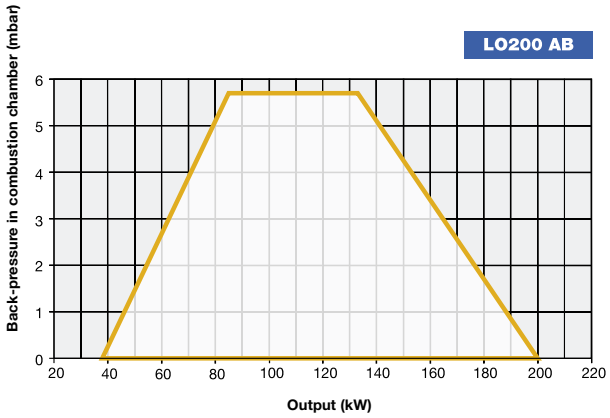
S = Standard combustion head (BS)
L = For long combustion head version (BL) increase the price (see price list)
In compliance with:
- Low Tension Directive 2014/35/UE - Electromagnetic Compatibility Directive 2014/30/UE - Machinery Directive 2006/42/CE

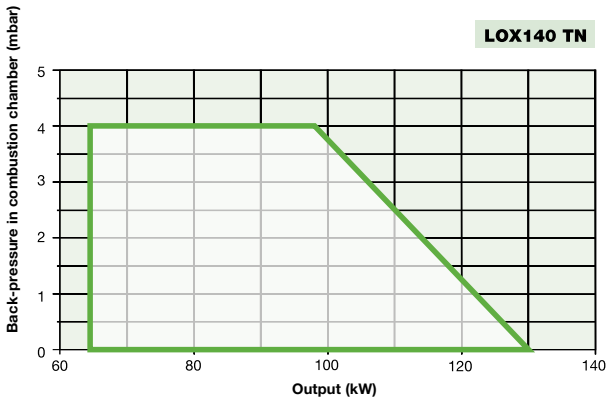
LO140 LOX140 LO200





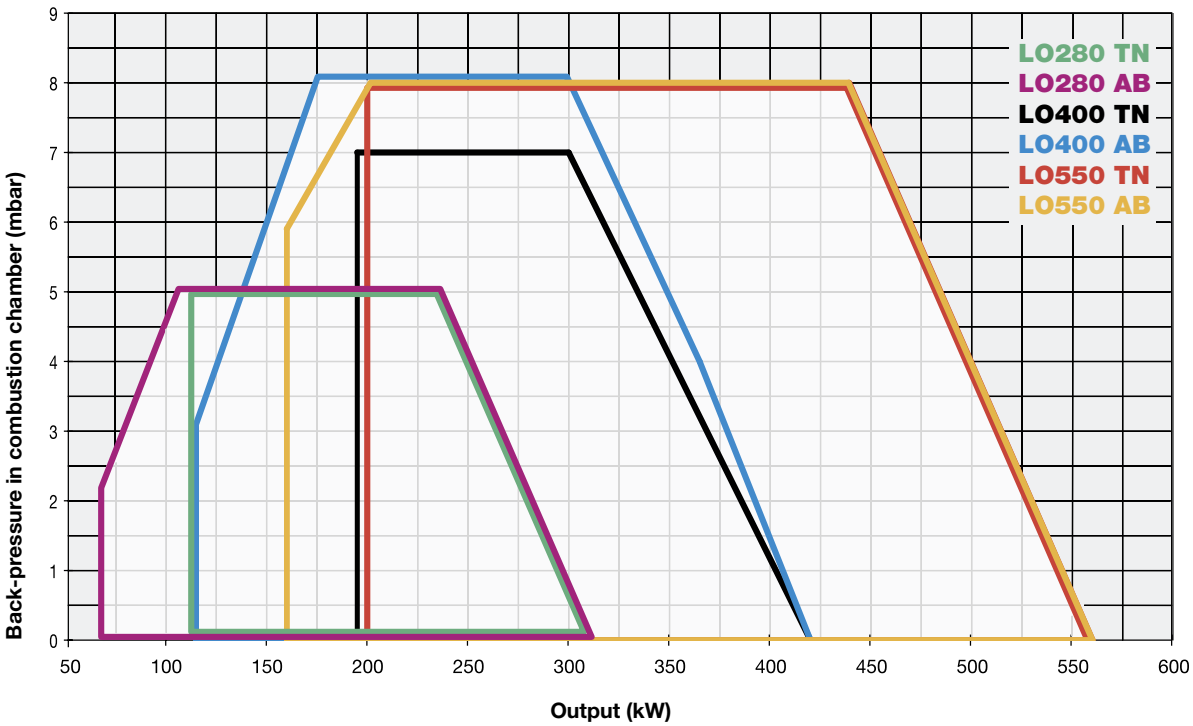






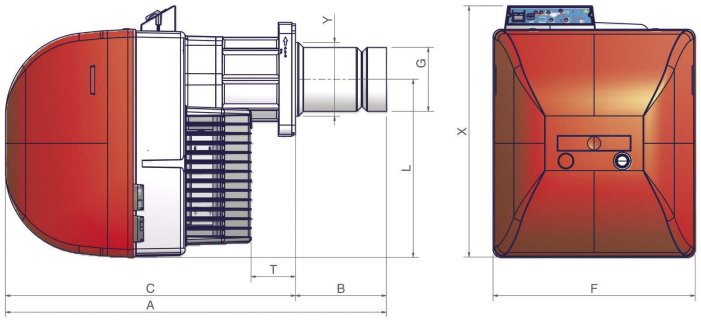
LO280 LO400 LO550 idea SERIES

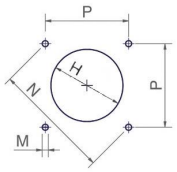
Thanks to the new line IDEA, CIB UNIGAS presents a brand new range of small and medium size burners designed to be aesthetic and functional giving at the same time prominence to innovative technologies.
Compactness, versatility and the optimum configuration of all the electronic and mechanical components inside the burner, ensure minimum overall dimensions and higher efficiency. These light oil burners are equipped with a stainless steel combustion head 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.



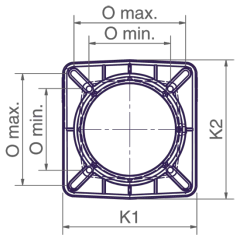
TECHNICAL DETAILS

Type	Model	Power kW		Electric power supply	Fan motor
		min.	max.		kW
L0280	G-.TN.x.xx.A	115	310	230 V 1N ac	0,25
L0280	G-.AB.x.xx.A	70	310	230 V 1N ac	0,25
L0400	G-.TN.M.xx.A	195	420	230 V 1N ac	0,37
L0400	G-.AB.M.xx.A	115	420	230 V 1N ac	0,37
L0550	G-.TN.x.xx.A	200	560	230 V 1N ac	0,62
L0550	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
L0280/350/400	1120	440	580	42
L0550	1200	460	630	55

Approximate values

Type	Model	Overall dimensions (mm)											Boiler drilling (mm)				Burner flange (mm)			
		A	AL	B	BL	C	F	G	Y	L	T	X	H	M	N	P	O		K1	K2
																	min.	max.		
L0280	G-.TN.x.xx.A	733	878	163	308	570	396	108	108	348	128	460	128	M10	219	155	131	179	215	223
L0280	G-.AB.x.xx.A	733	878	163	308	570	396	108	108	348	128	492	128	M10	219	155	131	179	215	223
L0400	G-.xx.x.xx.A	748	878	178	308	570	396	125	144	348	89	491	164	M10	219	155	131	179	215	223
L0550	G-.xx.x.xx.A	843	943	253	353	590	426	155	155	384	69	533	175	M10	247	174	157	192	241	241

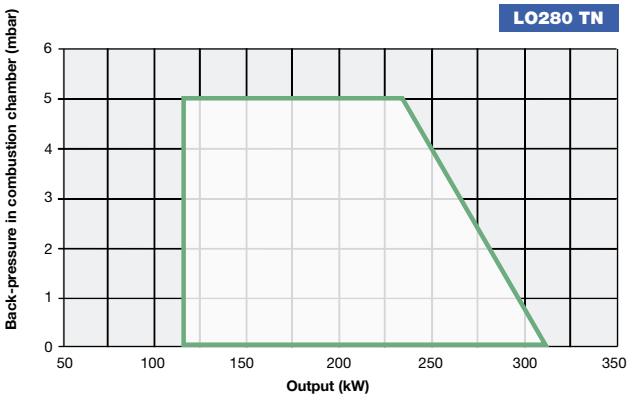
Approximate values

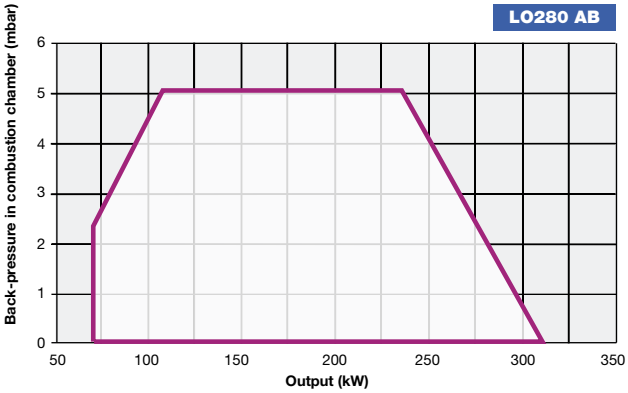
MECHANICAL OPERATION

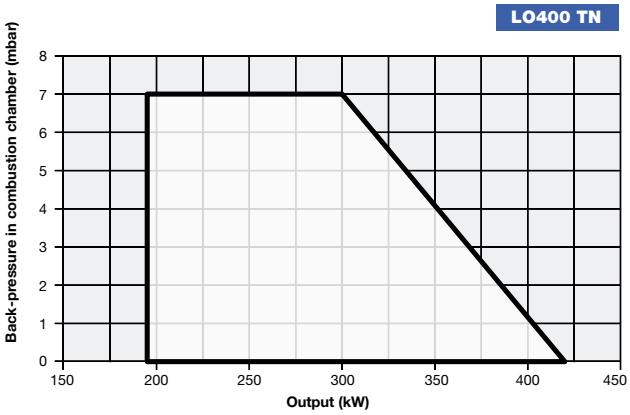
Model	Operation	L0280		L0400		L0550	
		Code	Price €	Code	Price €	Code	Price €
G-.TN.S.xx.A	TN	027050701		-		028050101	
G-.TN.M.xx.A	TN	-		027050301		-	
G-.AB.S.xx.A	AB	027050702		-		028050102	
G-.AB.M.xx.A	AB	-		027050302			
G-.AB.S.xx.A.M ▲	AB	-		-		028050502	
G-.AB.M.xx.A.M ▲	AB	-		027050402		-	

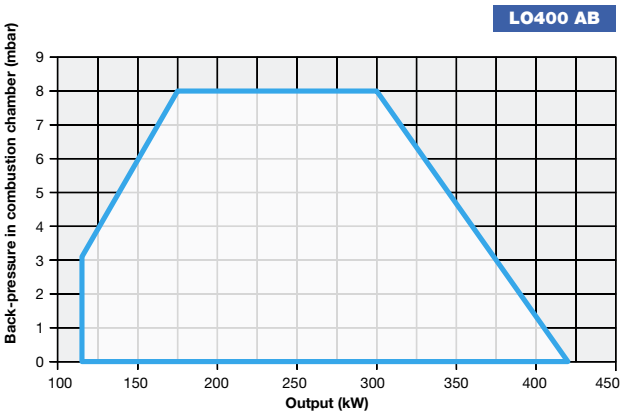
S = Standard combustion head (BS)
L = For long combustion head version (BL) increase the price (see price list)
▲ Version with hydraulic ram

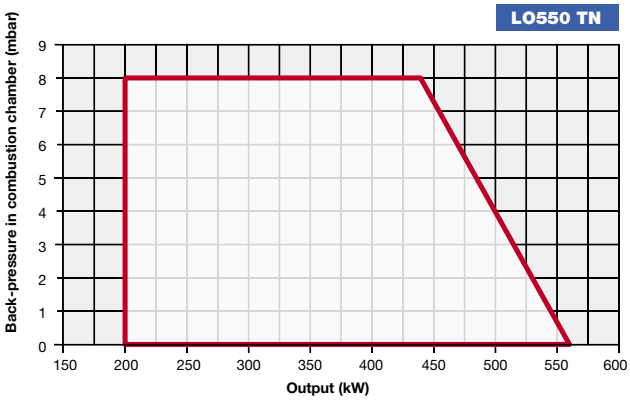
In compliance with:
- Low Tension Directive 2014/35/UE - Electromagnetic Compatibility Directive 2014/30/UE - Machinery Directive 2006/42/CE

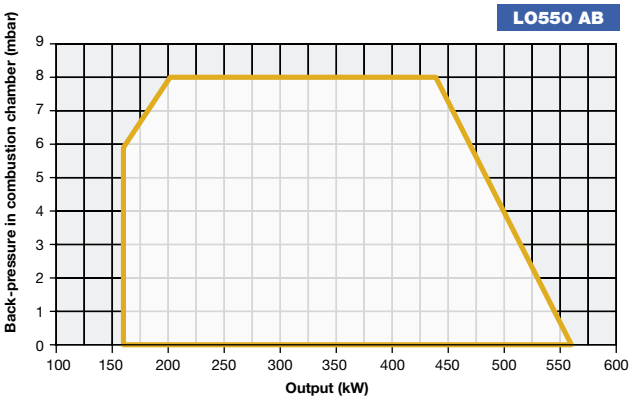

LO280 TN
Back-pressure in combustion chamber (mbar)
0
1
2
3
4
5
6
50
100
150
200
250
300
350
Output (kW)


LO280 AB
Back-pressure in combustion chamber (mbar)
0
1
2
3
4
5
6
50
100
150
200
250
300
350
Output (kW)

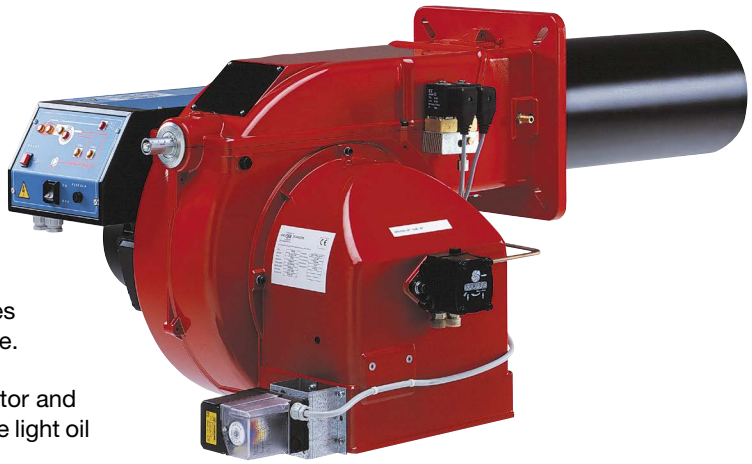

LO400 TN
Back-pressure in combustion chamber (mbar)
0
1
2
3
4
5
6
7
8
150
200
250
300
350
400
450
Output (kW)


LO400 AB
Back-pressure in combustion chamber (mbar)
0
1
2
3
4
5
6
7
8
9
100
150
200
250
300
350
400
450
Output (kW)

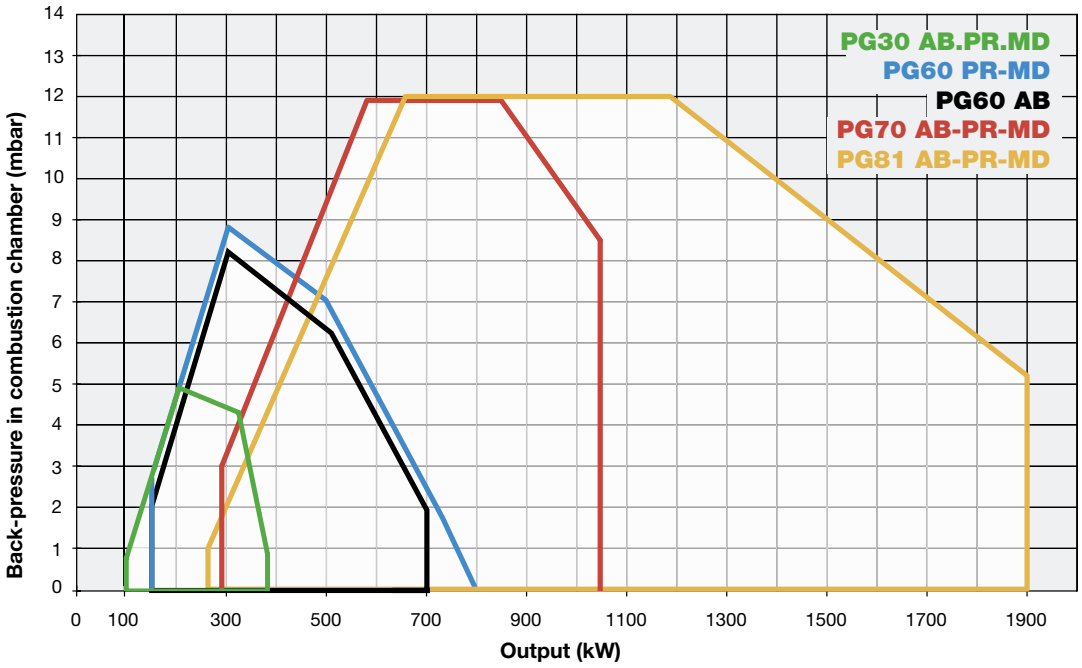

LO550 TN
Back-pressure in combustion chamber (mbar)
0
1
2
3
4
5
6
7
8
9
150
200
250
300
350
400
450
500
550
600
Output (kW)


LO550 AB
Back-pressure in combustion chamber (mbar)
0
1
2
3
4
5
6
7
8
9
100
150
200
250
300
350
400
450
500
550
600
Output (kW)

tecnopress SERIES PG30 PG60 PG70 PG81

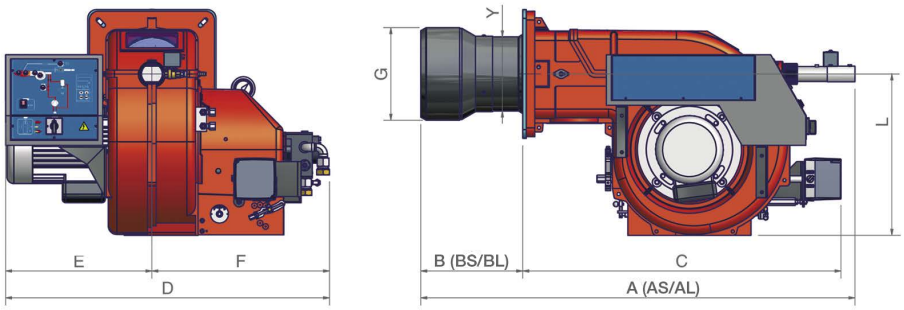


These burners are rated from 105 to 1900 kW and they have a field of application that ranges from pressurized boilers; hot water, steam or overheated water to medium capacity ovens for heat treatments. The simple operation and the safety ensured by the constant tests performed in our laboratory and by 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.

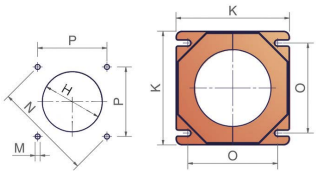


TECHNICAL DETAILS

Type	Model	Power kW		Electric power supply	Fan motor
		min.	max.		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

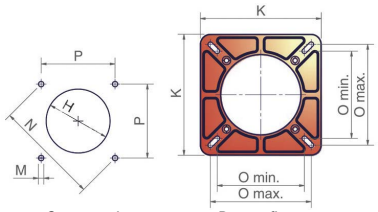


PG30 - PG60



Suggested boiler drilling *Burner flange*

PG70 - PG81



Suggested boiler drilling *Burner flange*

Type	Model	Overall dimensions (mm)											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-.PR.S.xx.A	PR (*)	003050103		004050103	

Model	Operation	PG70 Code	PG70 Price €	PG81 Code	PG81 Price €
G-.AB.S.xx.A	AB	008050102		008051302	
G-.PR.S.xx.A	PR (*)	008050103		008051303	

S = Standard combustion head (BS)
L = For long combustion head version (BL) increase the price (see price list)
(*) Progressive PR control, for modulating version MD add (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

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

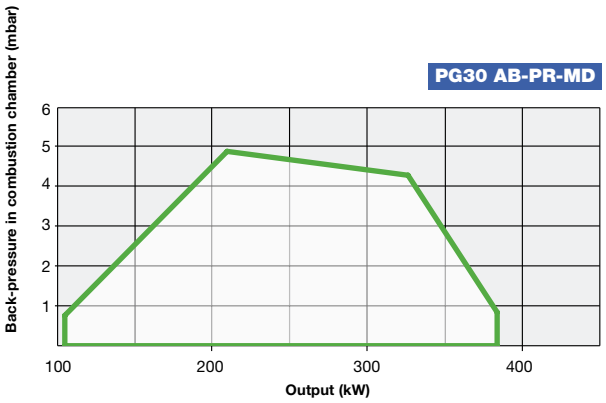
ELECTRONIC OPERATION

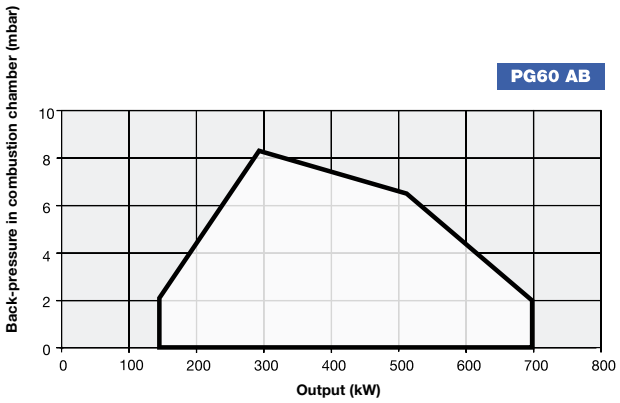
Model	Operation	PG30 Code	PG30 Price €	PG60 Code	PG60 Price €
G-.PR.S.xx.A.EA	PR (*)	00305010A		00405010A	

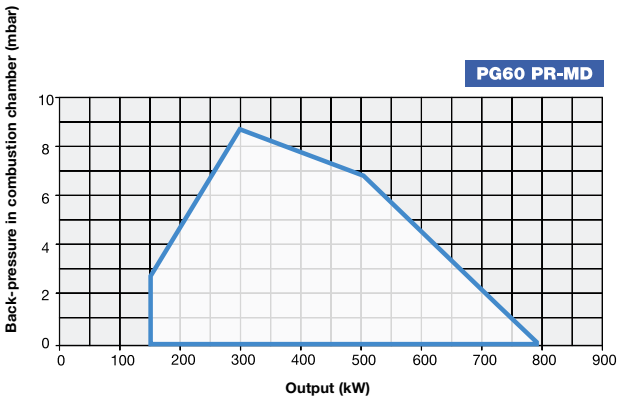
Model	Operation	PG70 Code	PG70 Price €	PG81 Code	PG81 Price €
G-.PR.S.xx.A.EA	PR (*)	00805010A		00805130A	

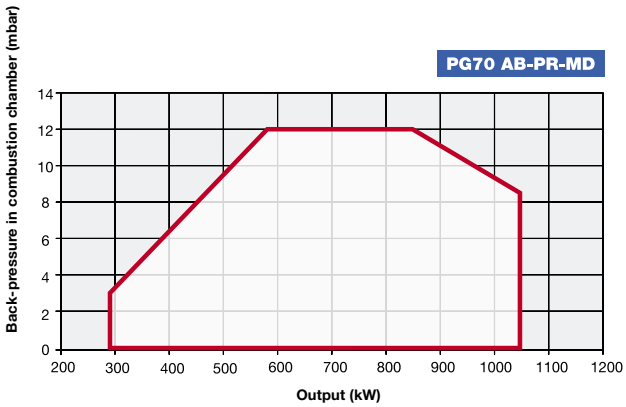
S = Standard combustion head (BS)
L = For long combustion head version (BL) increase the price (see price list)
(*) Progressive PR control, for modulating version MD add (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

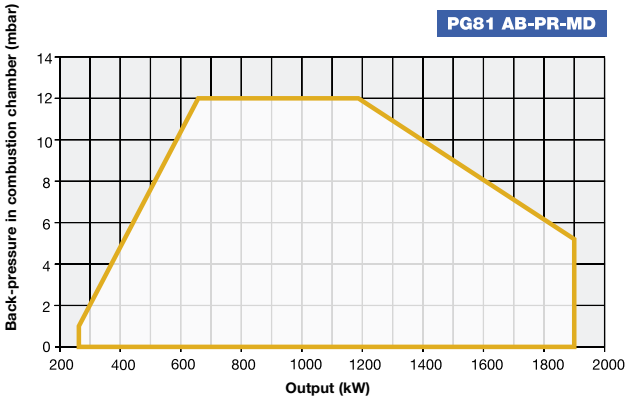
In compliance with:
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE


PG30 AB-PR-MD
Back-pressure in combustion chamber (mbar)
6
5
4
3
2
1
100
200
300
400
Output (kW)


PG60 AB
Back-pressure in combustion chamber (mbar)
10
8
6
4
2
0
0
100
200
300
400
500
600
700
800
Output (kW)


PG60 PR-MD
Back-pressure in combustion chamber (mbar)
10
8
6
4
2
0
0
100
200
300
400
500
600
700
800
900
Output (kW)


PG70 AB-PR-MD
Back-pressure in combustion chamber (mbar)
14
12
10
8
6
4
2
0
200
300
400
500
600
700
800
900
1000
1100
1200
Output (kW)


PG81 AB-PR-MD
Back-pressure in combustion chamber (mbar)
14
12
10
8
6
4
2
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Output (kW)

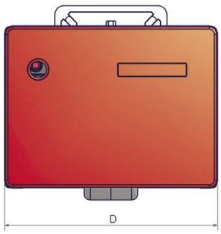
miniflam SERIES tecnopan G6 G10 G18 - chef G5 G6

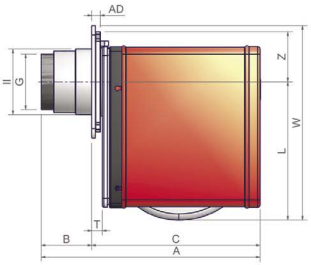
BURNERS FOR BAKERY OVENS AND KITCHENS

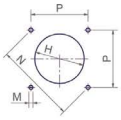
This burners series has been produced to work on bakery and rotary ovens. The customers of this series are generally commercial kitchens, big hotels and restaurants.
These burners are equipped with a double protection shield and a combustion head in thermalsteel for high temperature operation.

TECHNICAL DETAILS

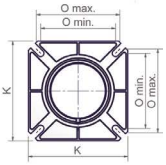
Type	Model	Power kW min.	Power kW max.	Electric power supply	Fan motor kW
Tecnopan G6	G-.TN.x.xx.B	29	70	230 V 1N ac	0,10
Tecnopan G10	G-.TN.x.xx.B	58	116	230 V 1N ac	0,15
Tecnopan G18	G-.TN.x.xx.B	105	209	230 V 1N ac	0,18
Chef G5	G-.TN.S.xx.D	29	35	230 V 1N ac	0,10
Chef G6	G-.TN.S.xx.D	29	70	230 V 1N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

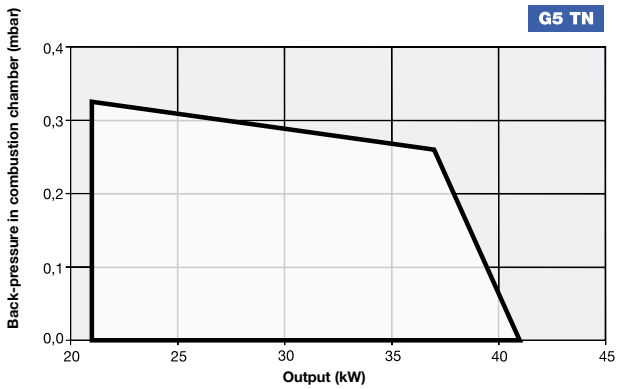
Type	Model	Overall dimensions (mm) AS	AL	AD	BS	BL	CS	CL	D	G	II	L	T	Z	W	Burner flange (mm) K	O min.	O max.	Boiler drilling (mm) H	M	N	P
					min. ÷ max.								min.									
G6	G-.TN.x.xx.B	345	455	12	53÷67	53÷177	278÷292	278÷402	310	80	-	187	-	80	265	162	86	138	101	M8	156	112
G10	G-.TN.x.xx.B	351	471	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

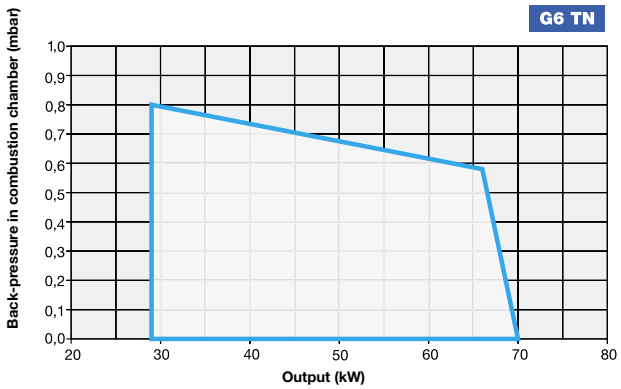
Approximate values

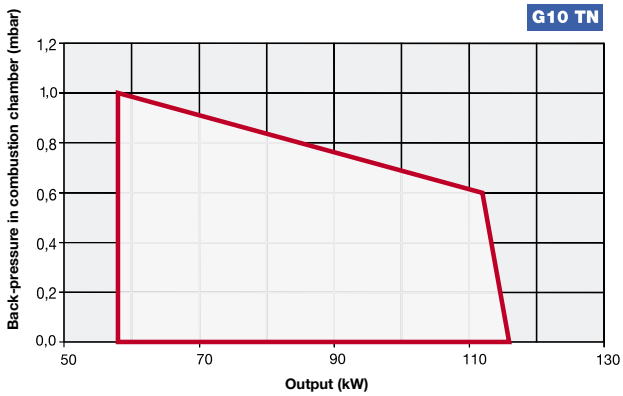
MECHANICAL OPERATION

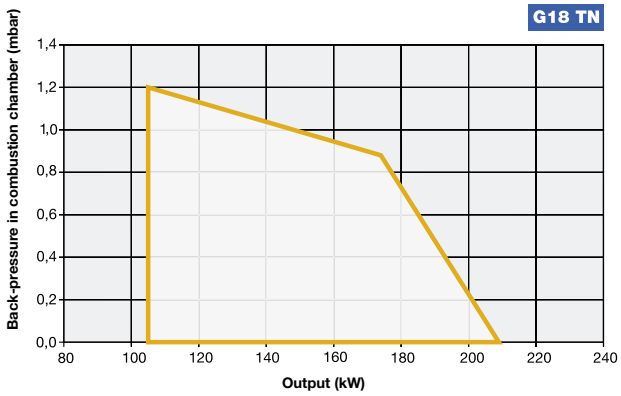
Model	Operation	G5 Code	G5 Price €	G6 Code	G6 Price €	G10 Code	G10 Price €	G18 Code	G18 Price €
G-.TN.S.xx.D	TN	001050701		001050801		-		-	
G-.TN.S.xx.B	TN	-		001050501		002050901		002051101	
G-.TN.L.xx.B	TN	-		001050601		002051001		002051201	

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







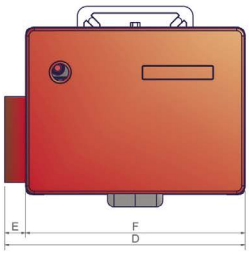


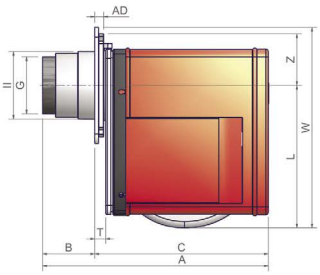
G6 G10 G18 (24 Volt DC)

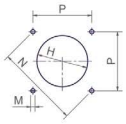
The originality of this new burner series is the electrical supply at 24V DC. They cover applications such as the cleaning of rubbish skips or streets. These burners are derived from the series made for bakery ovens and from it they take the sturdy construction: an essential element for this kind of 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 a highly specific market.

TECHNICAL DETAILS

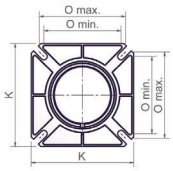
Type	Model	Power kW		Electric power supply	Fan motor
		min.	max.		kW
G6	G-.TN.x.xx.Y	29	70	24 V DC	0,11
G10	G-.TN.x.xx.Y	58	116	24 V DC	0,18
G18	G-.TN.x.xx.Y	105	209	24 V DC	0,18







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)			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	

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

HEAVY OIL BURNERS

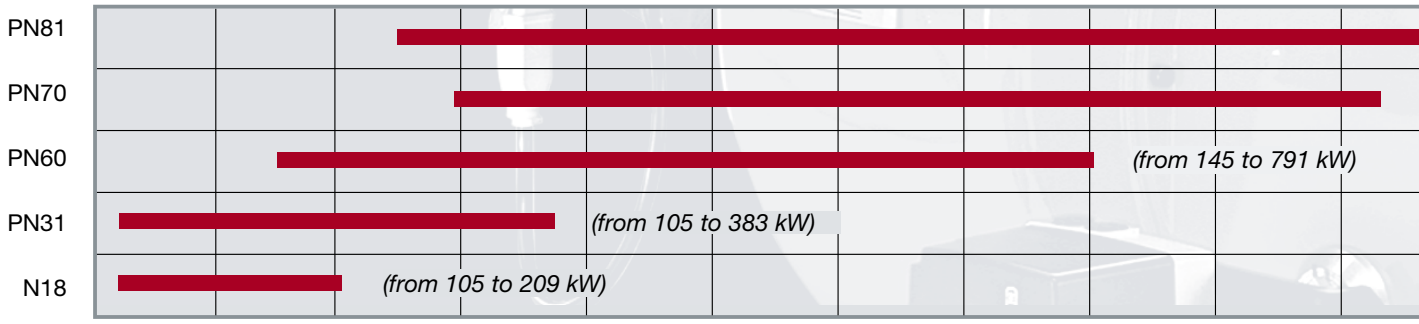
mechanical atomization
miniflam series

N18 - TN

mechanical atomization
tecnopress series

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

Type **mechanical atomization**

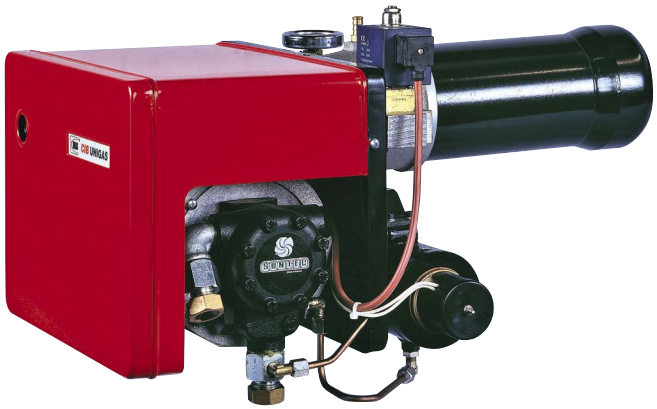


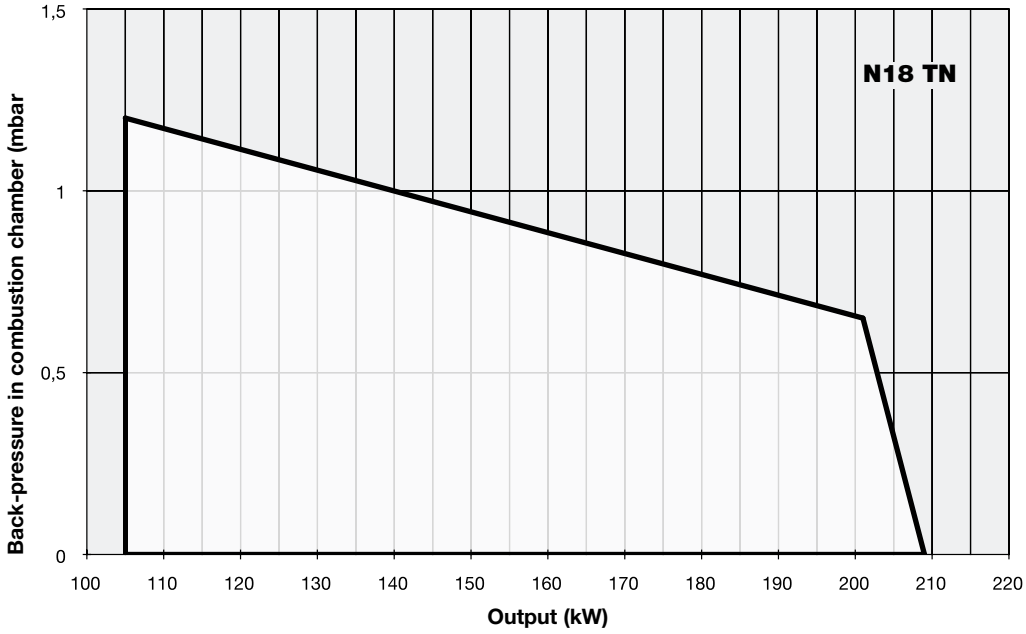
									(from 264 to 1.900 kW)		
	(from 291 to 1.047 kW)										

miniflam SERIES N18

MECHANICAL ATOMIZATION
with viscosity up to 50 cSt at 50°C (7°E at 50°C)

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).
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.



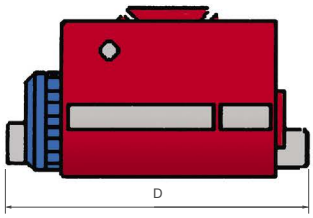


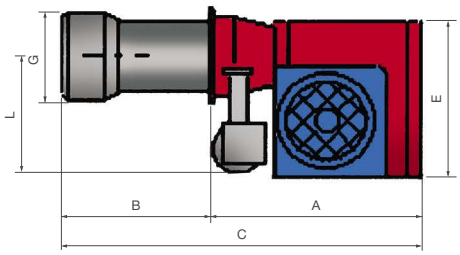
N18 miniflam SERIES

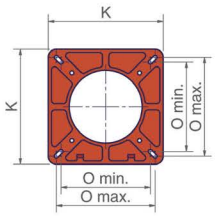
MECHANICAL ATOMIZATION
with viscosity up to 50 cSt at 50°C (7°E at 50°C)

TECHNICAL DETAILS

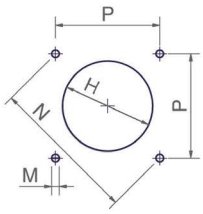
Type	Model	Power kW		Electric power supply	Fan motor	Resistor
		min.	max.		kW	kW
N18	N-.TN.S.xx.A	105	209	230/400 V 3N ac	0,55	1,5







Burner flange



Suggested boiler drilling

Type	Model	Overall dimensions (mm)							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

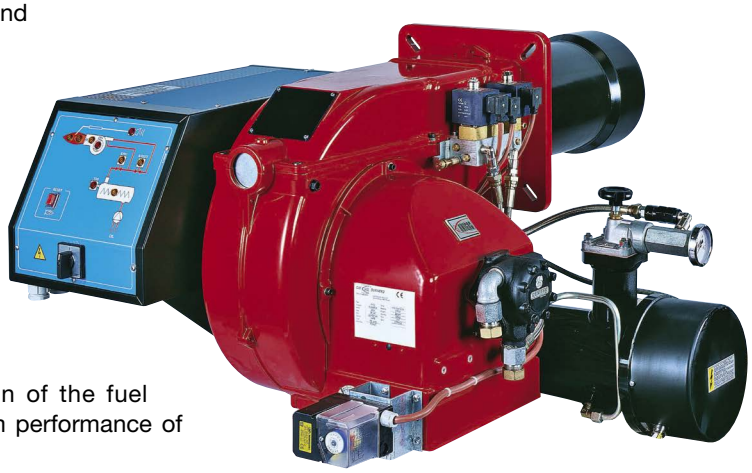
MECHANICAL OPERATION

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

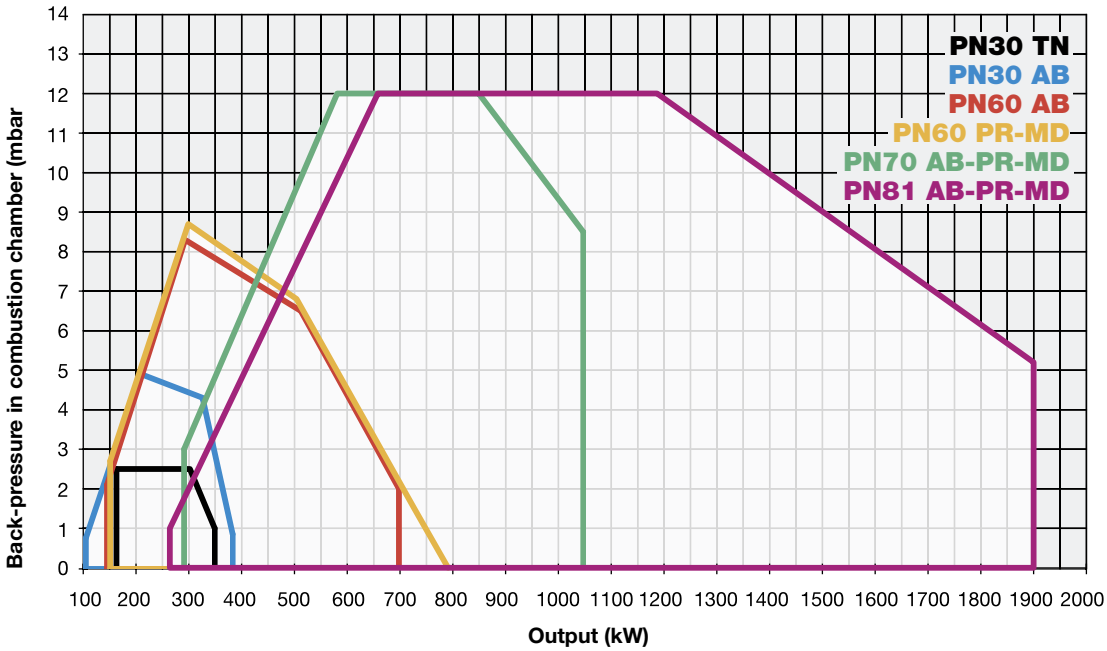
In compliance with:
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

tecnopress SERIES PN30 PN60 PN70 PN81

MECHANICAL ATOMIZATION
with viscosity up to 400 cSt at 50°C (50°E at 50°C)



Our thirty years experience in the design and production of oil burners, has allowed us to develop and to produce a highly technical series of products renowned worldwide for their reliability.
These burners are available for oil with standard viscosity up to 50 cSt at 50°C (7°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.

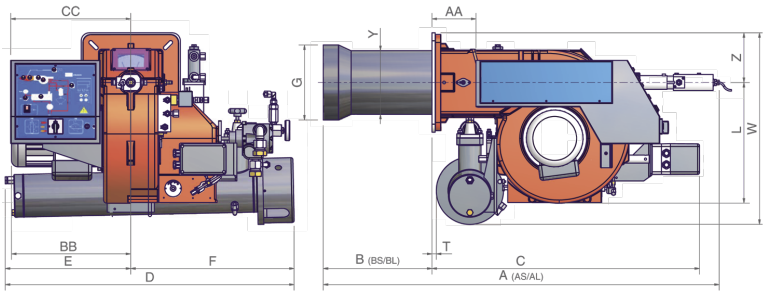


PN30 PN60 PN70 PN81 tecnopress SERIES

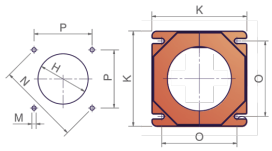
MECHANICAL ATOMIZATION
with viscosity up to 400 cSt at 50°C (50°E at 50°C)

TECHNICAL DETAILS

Type	Model	Power kW		Electric power supply	Fan motor	Resistor
		min.	max.		kW	kW
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

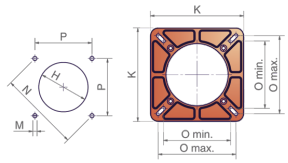


PN30 - PN60



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 combustion head inside the boiler.

tecnopress SERIES PN30 PN60 PN70 PN81

MECHANICAL ATOMIZATION
with viscosity up to 400 cSt at 50°C (50°E at 50°C)

MECHANICAL OPERATION

Model	Operation	PN30 Code	PN30 Price €	PN60 Code	PN60 Price €	PN70 Code	PN70 Price €	PN81 Code	PN81 Price €
HEAVY OIL 50 cSt a 50°C (7°E to 50°C)									
N-.TN.S.xx.A	TN	003060101		-		-		-	
N-.AB.S.xx.A	AB	003060102		004060102		008060102		008060502	
N-.PR.S.xx.A	PR (*)	-		004060103		008060103		008060503	
HEAVY OIL 400 cSt at 50°C (50°E at 50°C)									
D-.TN.S.xx.A	TN	003180101		-		-		-	
D-.AB.S.xx.A	AB	003180102		004180102		008180102		008180502	
D-.PR.S.xx.A	PR (*)	-		004180103		008180103		008180503	

S = Standard combustion head (BS)
L = For long combustion head version (BL) increase the price (see price list)
(*) Progressive PR control, for modulating version MD add (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

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

ELECTRONIC OPERATION

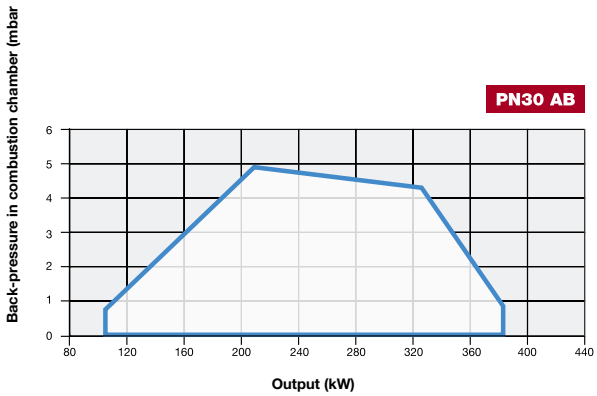
Model	Operation	PN60 Code	PN60 Price €	PN70 Code	PN70 Price €	PN81 Code	PN81 Price €
HEAVY OIL 50 cSt a 50°C (7°E to 50°C)							
N-.MD.S.xx.A.ES	MD (**)	00406010S		00806010S		00806050S	
HEAVY OIL 400 cSt at 50°C (50°E at 50°C)							
D-.MD.S.xx.A.ES	MD (**)	00418010S		00818010S		00818050S	

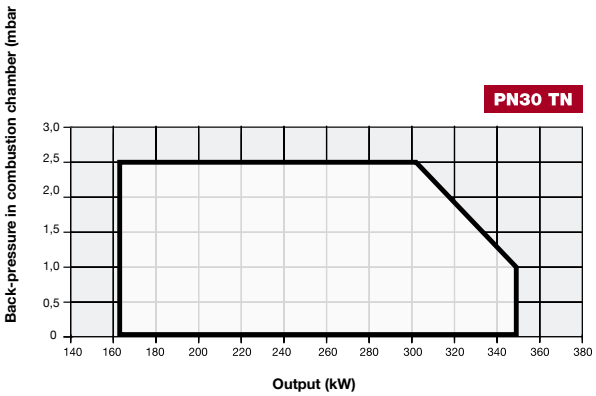
S = Standard combustion head (BS)
L = For long combustion head version (BL) increase the price (see price list)
(**) The burners are already MD version.
In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

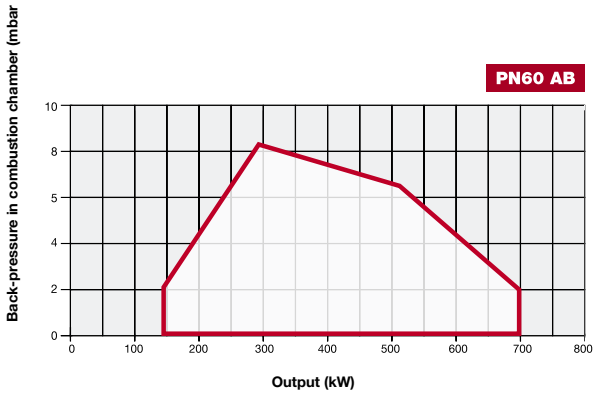
In compliance with:
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

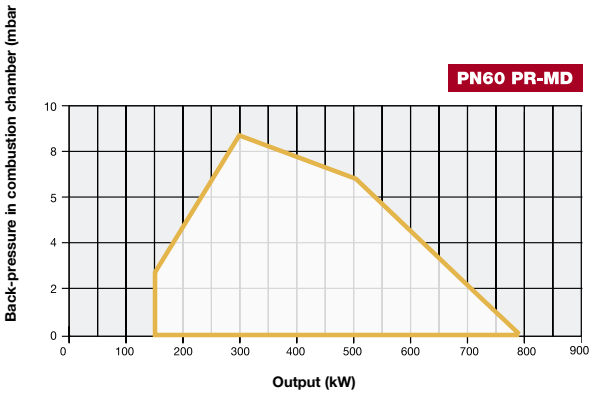
PN30 PN60 PN70 PN81 tecnopress SERIES

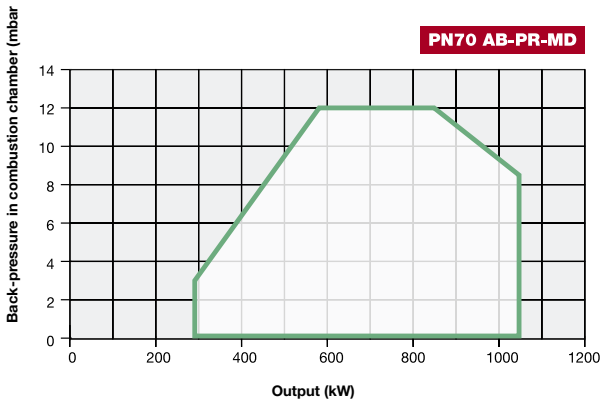
MECHANICAL ATOMIZATION
with viscosity up to 400 cSt at 50°C (50°E at 50°C)

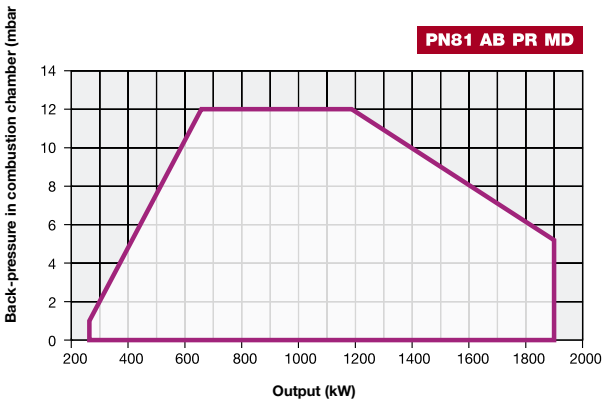












DUAL FUEL BURNERS NATURAL GAS/LIGHT OIL

miniflam series

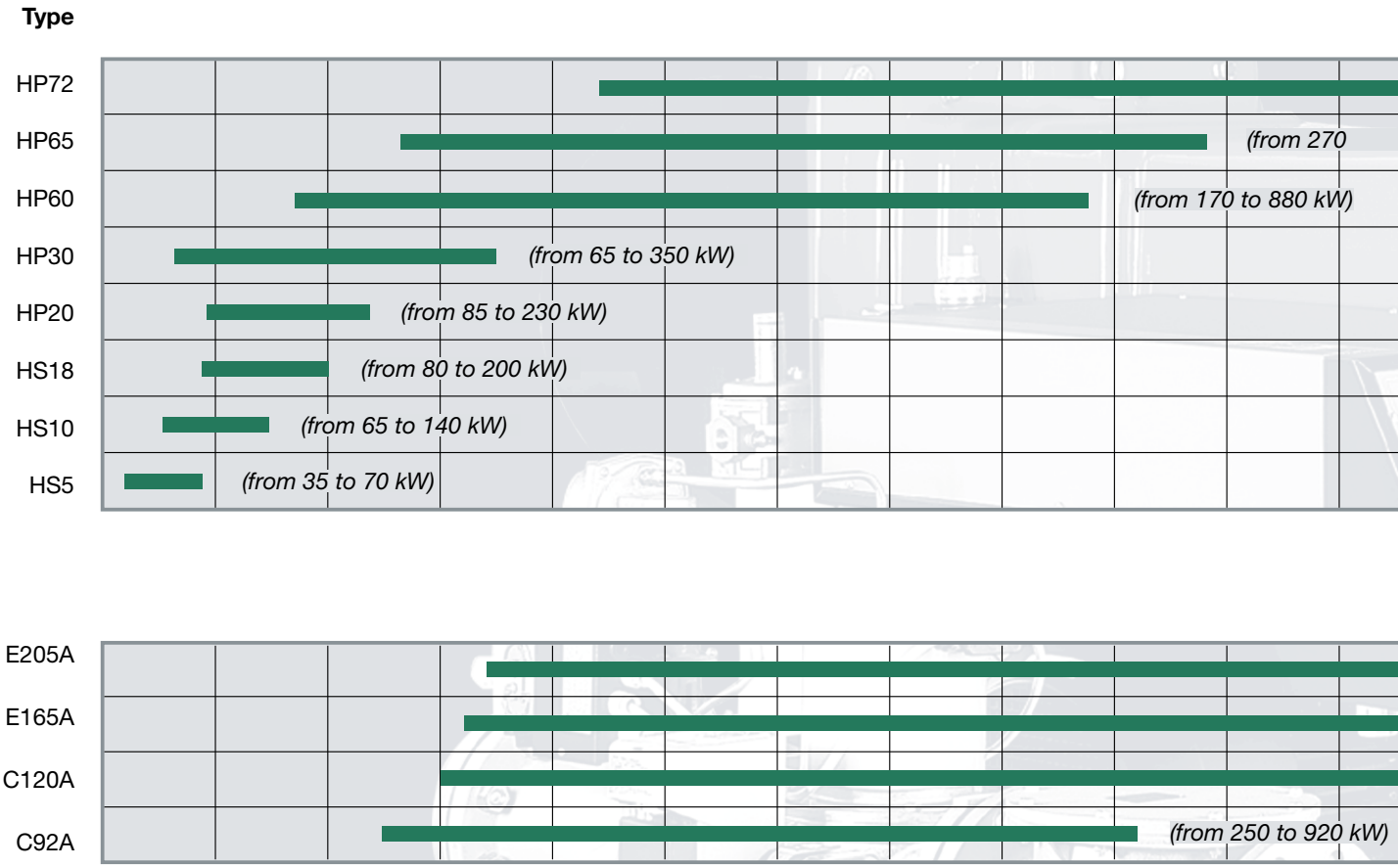
HS5 - TN
HS10 - TN
HS18 - TN

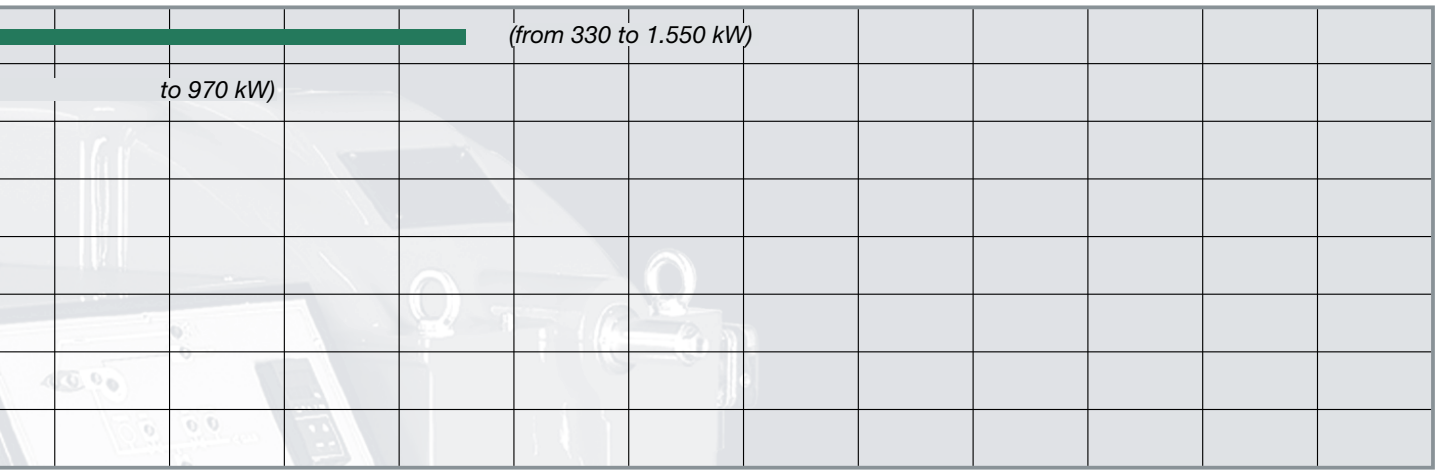
tecnopress series

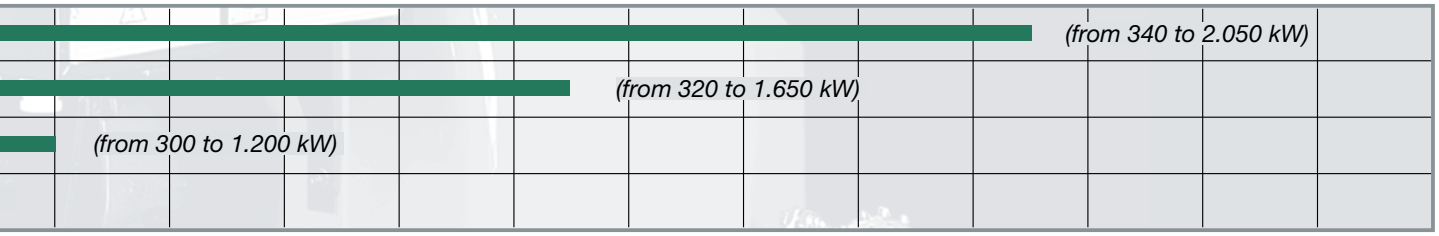
HP20 - AB/PR/MD
HP30 - AB/PR/MD
HP60 - AB/PR/MD
HP65 - AB/PR/MD
HP72 - AB/PR/MD

NEW tecnopress series

C92A - AB/PR/MD...SP
C120A - AB/PR/MD...SP
E165A - PR/MD...SR
E205A - PR/MD...SR



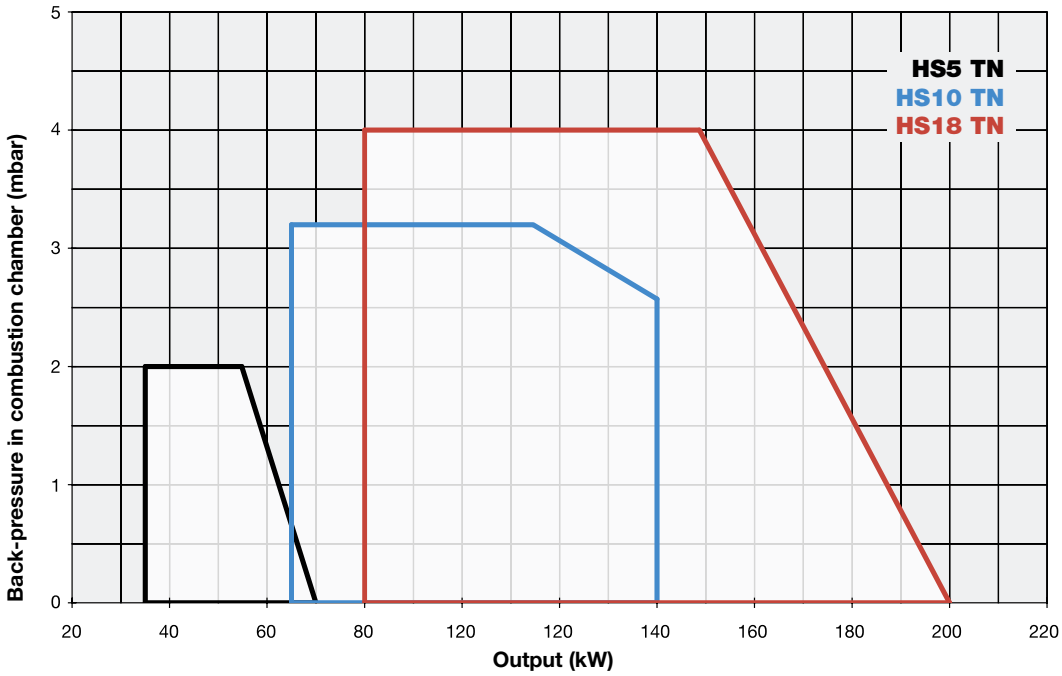

(from 330 to 1.550 kW)
to 970 kW)


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

miniflam SERIES HS5 HS10 HS18

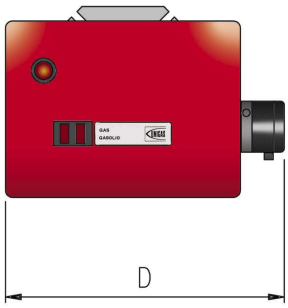
GAS/LIGHT OIL

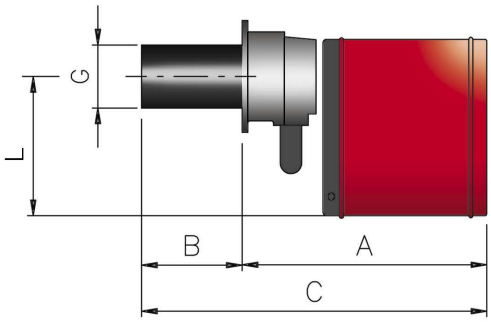
This small output series can work both with gas and light oil according to the fuel availability on the plant.
Clearly all mechanisms have been carefully studied to give the maximum efficiency and are perfectly compatible to work with gas and liquid fuels; in fact fuel change over is simply achieved 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.

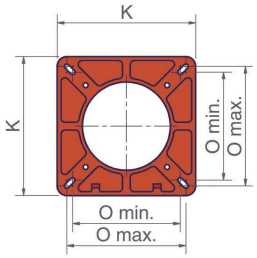


TECHNICAL DETAILS

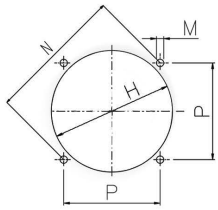
Type	Model	Power kW		Electric power supply	Fan motor kW	Pump motor kW	Gas connections
		min.	max.				
HS5	MG.TN.x.xx.A.0.15	35	70	230 V 1N ac	0,10	0,1	½”
HS10	MG.TN.x.xx.A.0.20	65	140	230 V 1N ac	0,15	0,1	¾”
HS18	MG.TN.x.xx.A.0.25	80	200	230 V 1N ac	0,15	0,1	1”







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

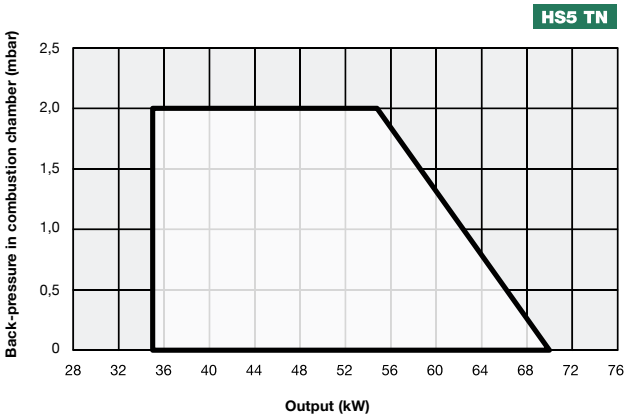
Type	Model	Overall dimensions (mm)								Boiler drilling (mm)					Burner flange (mm)		
		A	B	BL	C	CL	D	G	L	H	M	N	P		K	O	
													min.	max.		min.	max.
HS5	MG.TN.x.xx.A.0.15	320	0÷61	0÷160	380	480	400	80	190	90	M8	130÷189	92	134	162	86	138
HS10	MG.TN.x.xx.A.0.20	351	159	254	510	605	430	108	210	115	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

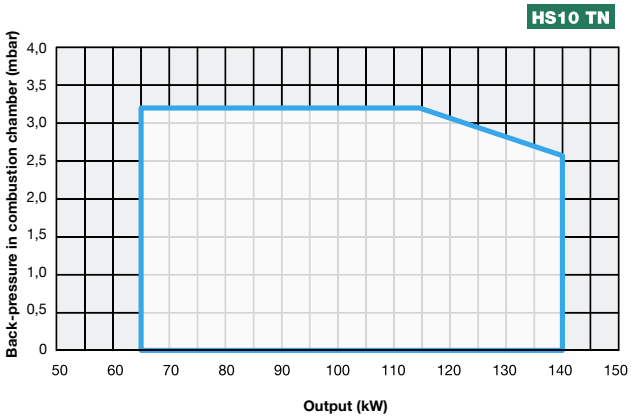
Approximate values

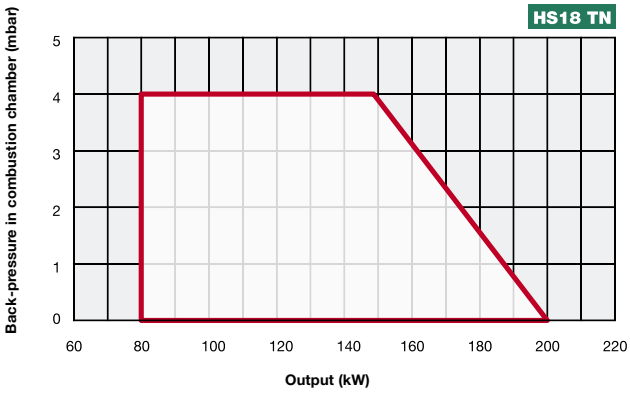
Model	Gas train	Operation	HS5 Code	HS5 Price €	HS10 Code	HS10 Price €
MG.TN.S.xx.A.0.15	½”	TN	001070141		-	
MG.TN.L.xx.A.0.15	½”	TN	001070241		-	
MG.TN.S.xx.A.0.20	¾”	TN	-		002070141	
MG.TN.L.xx.A.0.20	¾”	TN	-		002070241	

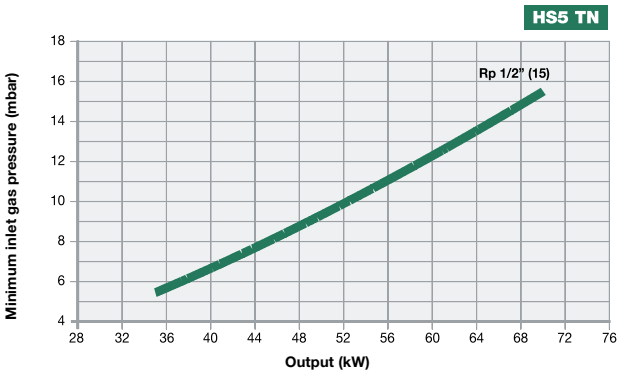
Model	Gas train	Operation	HS18 Code	HS18 Price €
MG.TN.S.xx.A.0.25	1”	TN	002070341	
MG.TN.L.xx.A.0.25	1”	TN	002070441	

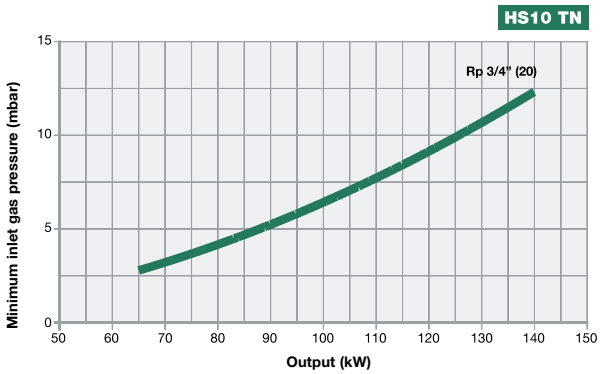
In compliance with:
- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

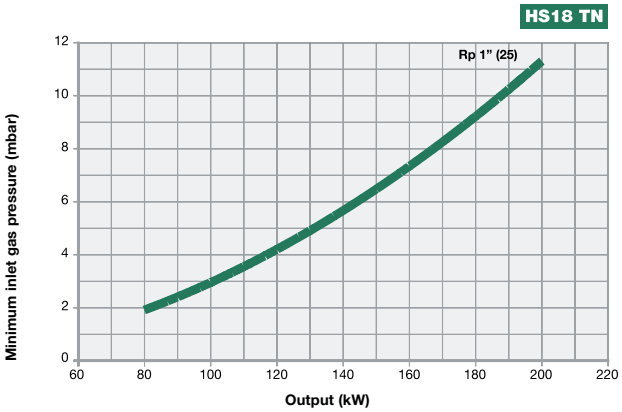










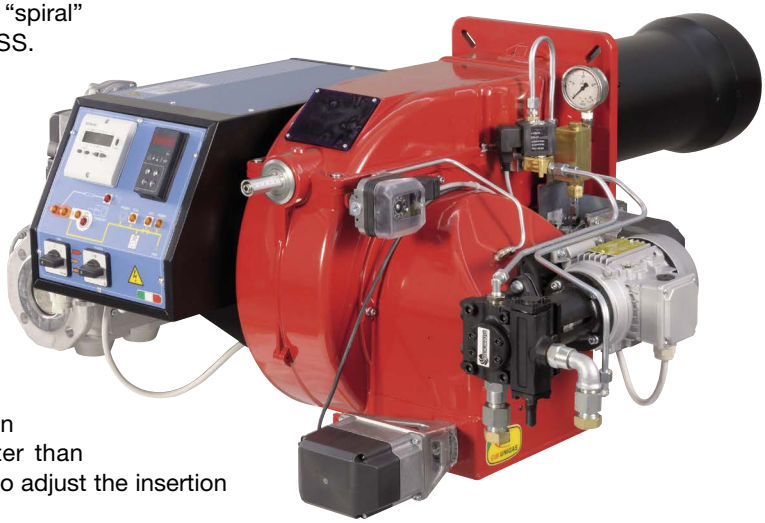


Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

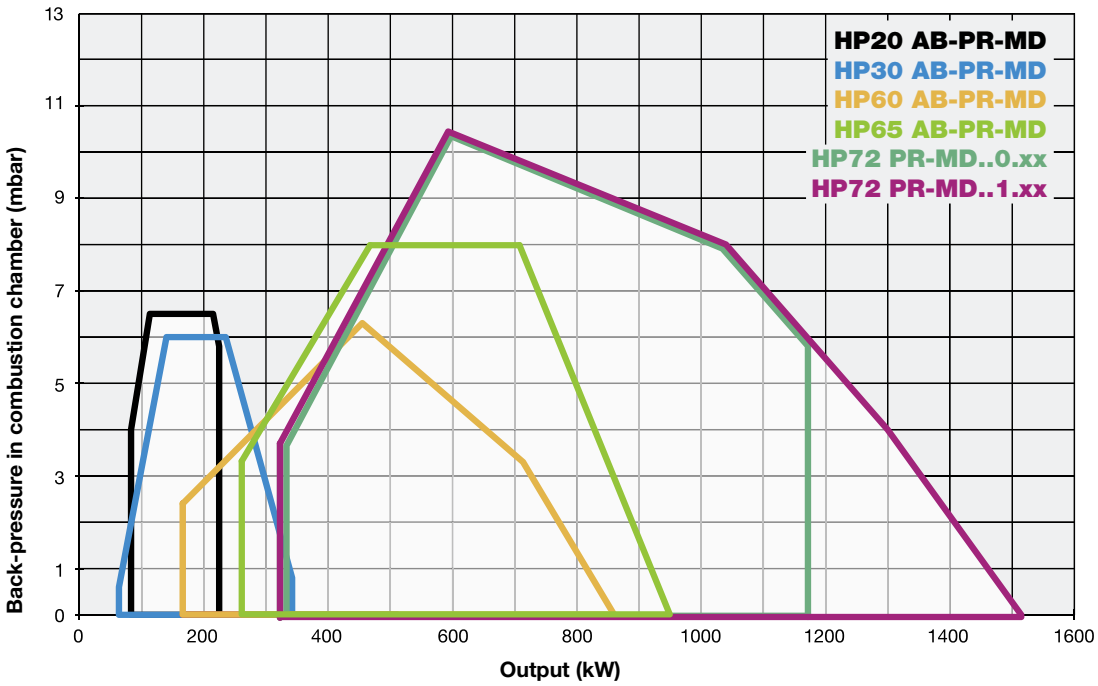
tecnopress SERIES HP20 HP30 HP60 HP65 HP72

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 combustion head. If the combustion head 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)

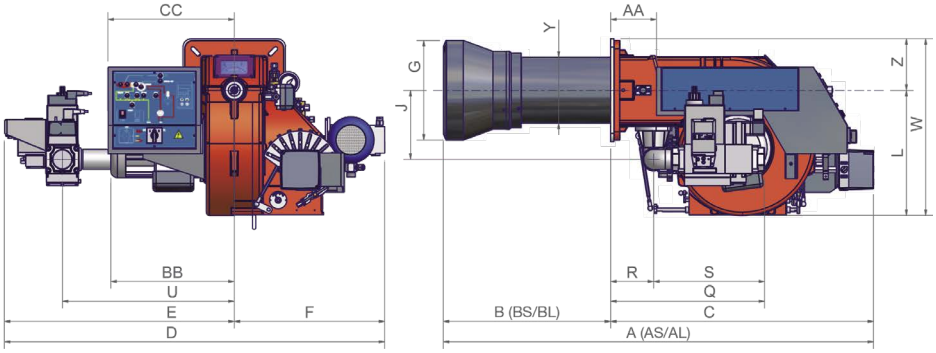


HP20 HP30 HP60 HP65 HP72 tecnopress SERIES

TECHNICAL DETAILS

Type	Model	Power kW min.	Power kW max.	Electric power supply	Fan motor kW	Pump motor kW	Gas connections
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

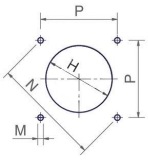
For the configuration of the gas train, see page 101.



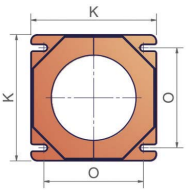
Type	Packaging dimensions (mm) l	p	h	kg
HP20/HP30	980	800	620	75
HP60	1360	930	820	120
HP65	1370	1130	820	130
HP72	1370	1130	820	160

Approximate values

HP20 - HP30 - HP60

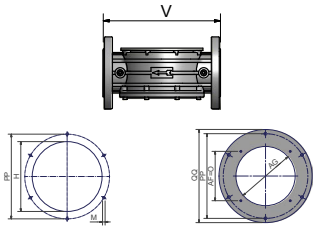


Suggested boiler drilling



Burner flange

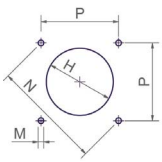
DN65 - DN80



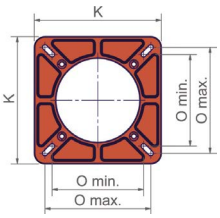
Suggested boiler drilling

Counterflange

HP65 - HP72



Suggested boiler drilling



Burner flange

Type	Model	AA	AG	AL	AS	BB	BL	BS	C	CC	D	E	F	G	H	J	K	L	M	N	O min.	O max.	P	PP	Q	QQ	R	S	U	V	W	Y	Z
		Overall dimensions (mm)																															
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	400	465	440	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	400	457	440	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	400	533	440	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	400	574	440	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	400	465	440	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	400	457	440	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	400	533	440	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	400	574	440	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 combustion head 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.PR.S.xx.A.0.25	1”	PR	003070143		-	
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	

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	

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	

▪ Burner equipped with gas leakage control

(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

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.S.xx.A.1.32.EC	1”¼	PR (*)	-		00307035C	

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	

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	

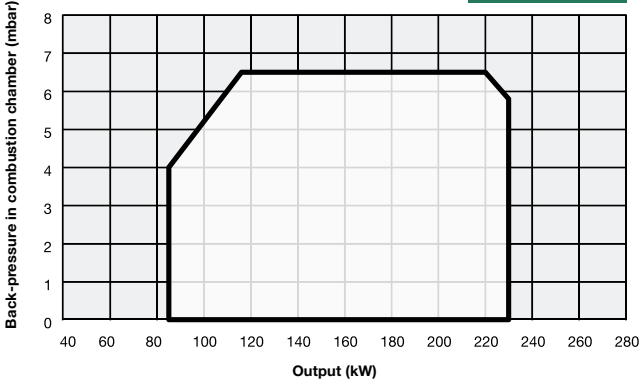
(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

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

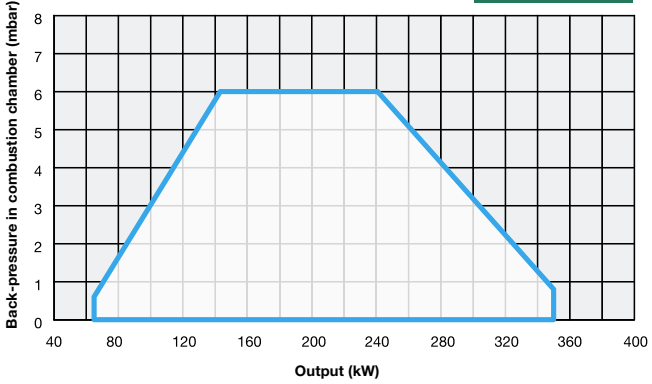
tecnopress SERIES HP20 HP30 HP60 HP65 HP72

GAS/LIGHT OIL

HP20 AB-PR-MD



HP30 AB-PR-MD



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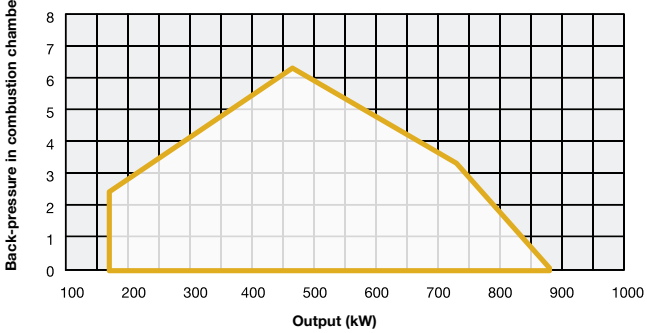

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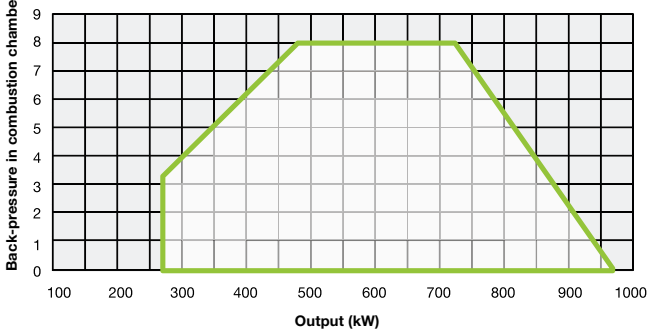

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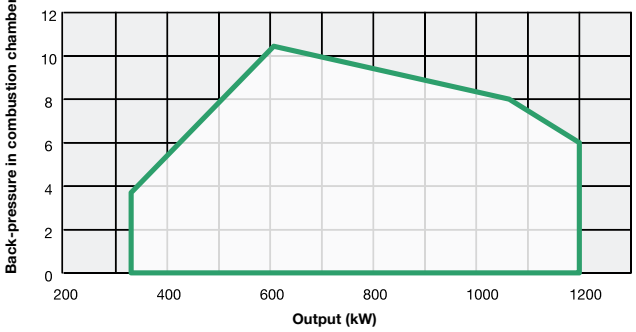

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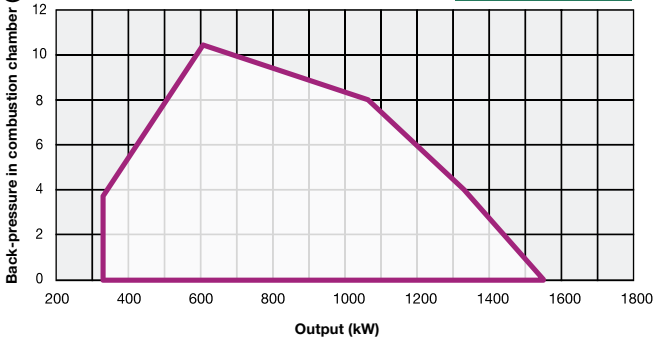
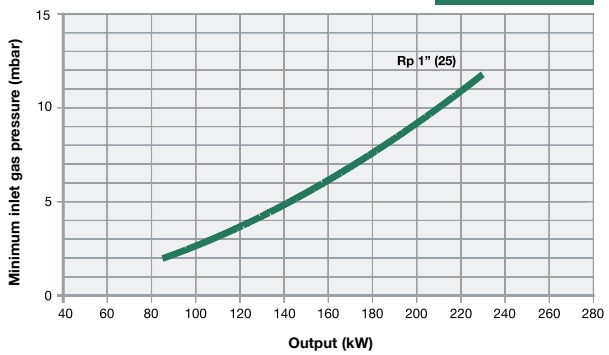
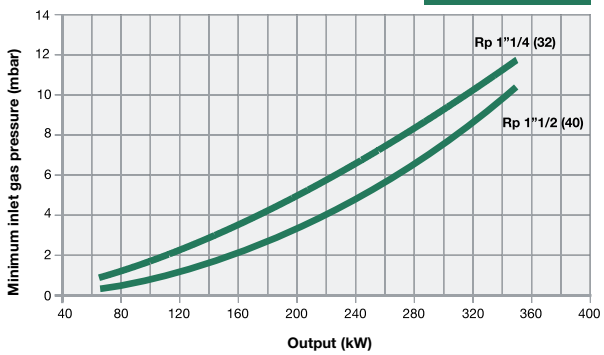


HP20 HP30 HP60 HP65 HP72 tecnopress SERIES

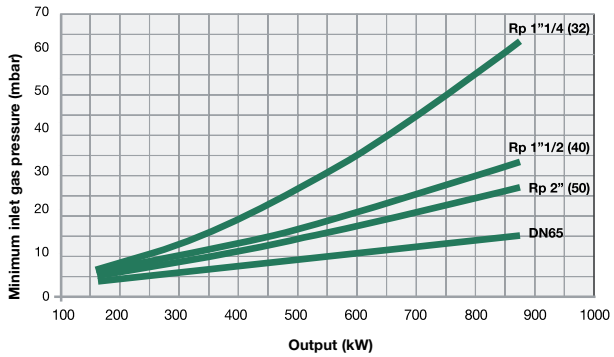
HP20 AB-PR-MD



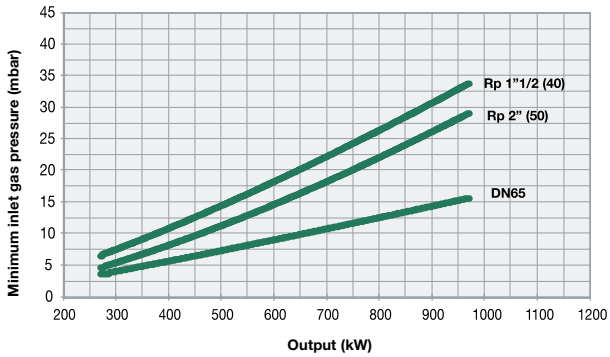
HP30 AB-PR-MD



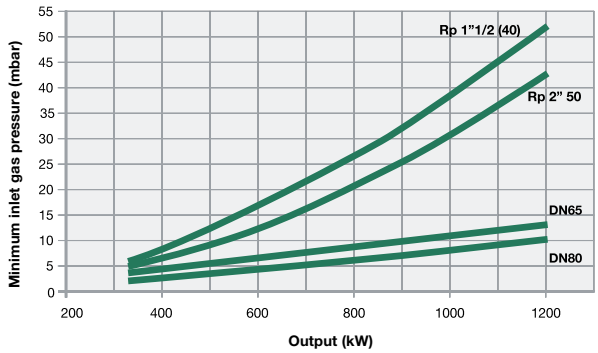
HP60 AB-PR-MD



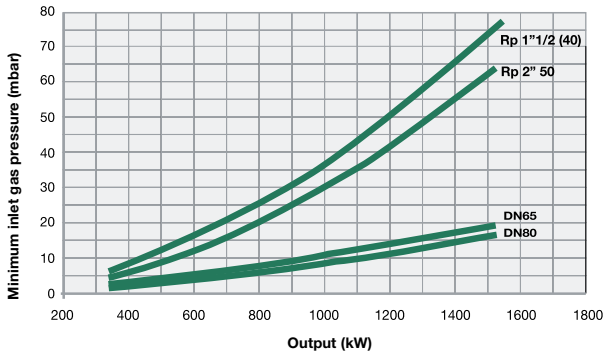
HP65 AB-PR-MD



HP72 AB-PR-MD



HP72 PR-MD..1.xx



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.

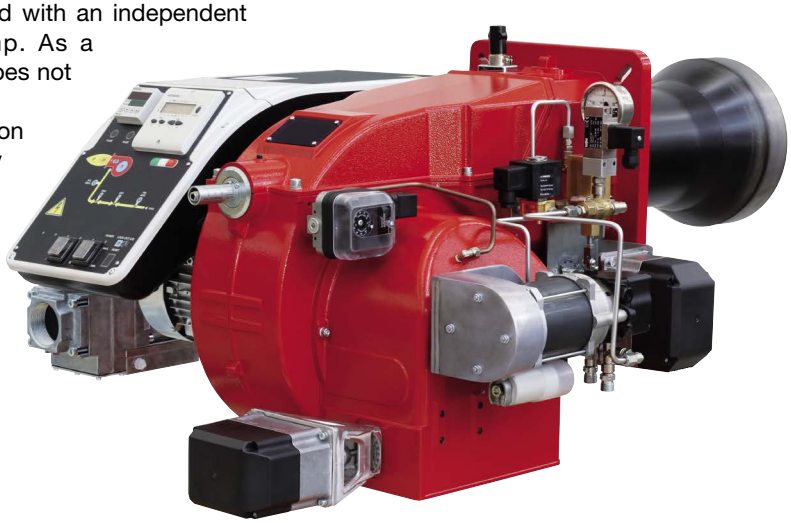
tecnopress SERIES C92A C120A...SP

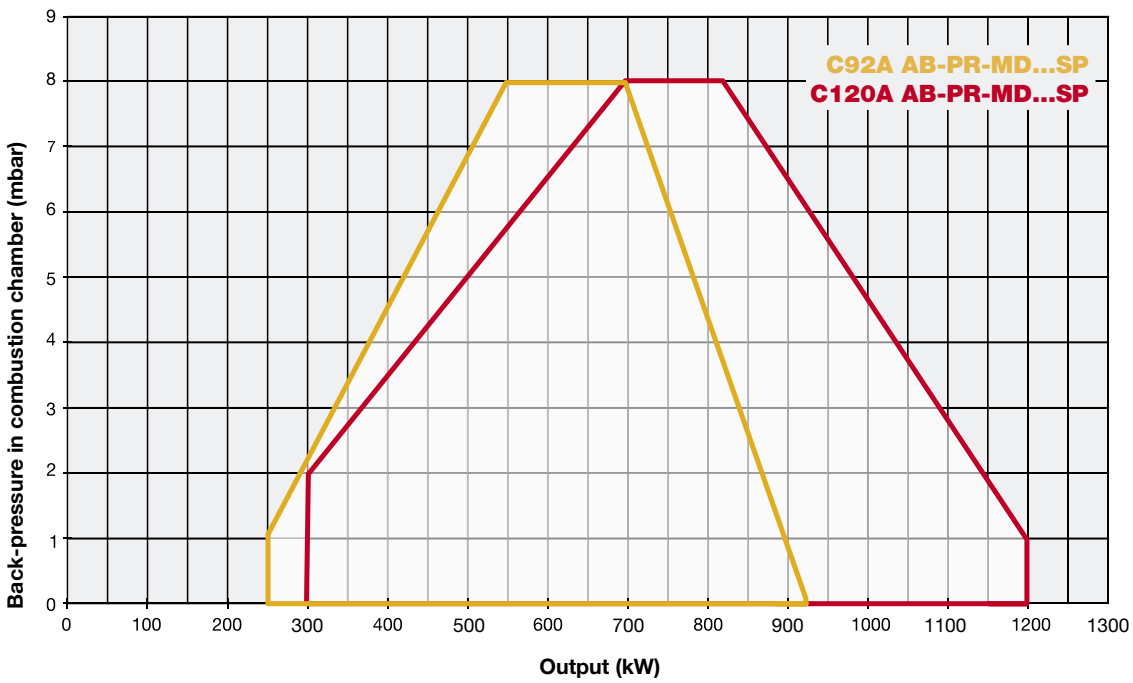
CIB UNIGAS >80 <120 mg/kWh CLASS 2 Low NOx

NEW

GAS/LIGHT OIL

Like all the other dual fuels models, this series perfectly combines 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.



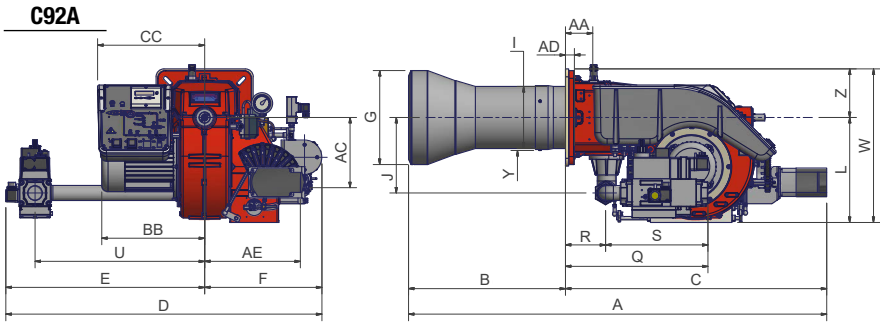


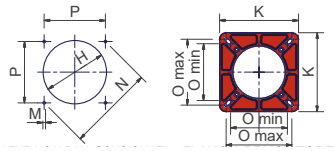
TECHNICAL DETAILS

Type	Model	Power kW min.	Power kW max.	Electric power supply	Fan motor kW	Pump motor kW	Gas connections	Noise level dBA
C92A	MG.xx.SP.xx.0.xx	250	920	230/400 V 3N ac	1,1	0,55	1"½ - 1"¼ - 2" - DN65	< 80
C120A	MG.xx.SP.xx.0.xx	300	1.200	230/400 V 3N ac	1,5	0,55	1"½ - 2" - DN65 - DN80	< 80

For the configuration of the gas train, see page 101.

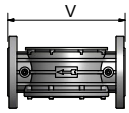
C92A



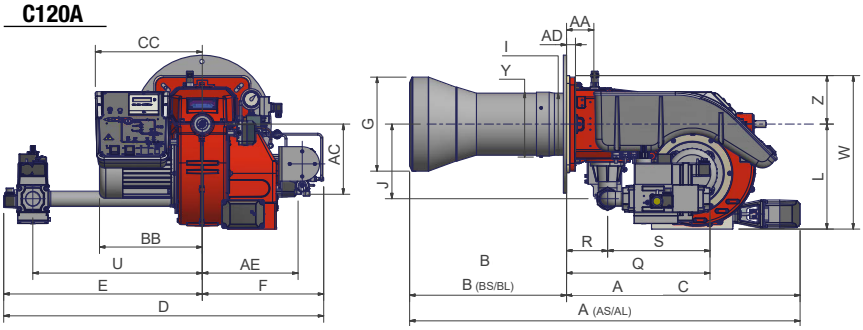


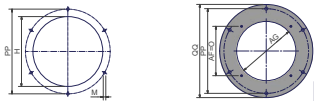
Suggested boiler drilling *Burner flange*

DN65 - DN80



C120A





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	QQ	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	1334	328	500	834	342	993	619	374	300	330	211	238	300	335	M12	330	216	250	233	400	458	440	131	327	541	-	490	198	155
C120A	MG.xx.SP.xx.A.1.50	87	224	28	306	280	1334	328	500	834	342	993	619	374	300	330	211	238	300	335	M12	330	216	250	233	400	469	440	131	338	541	-	490	198	155
C120A	MG.xx.SP.xx.A.1.65	87	224	28	306	280	1334	328	500	834	342	1064	690	374	300	330	211	284	300	335	M12	330	216	250	233	400	539	440	131	408	565	292	490	198	155
C120A	MG.xx.SP.xx.A.1.80	87	224	28	306	280	1334	328	500	834	342	1064	690	374	300	330	211	284	300	335	M12	330	216	250	233	400	559	440	131	428	565	310	490	198	155

Approximate values

MECHANICAL OPERATION

Model	Gas train	Operation	C92A...SP Code	C92A...SP Price €	C120A ...SP Code	C120A ...SP Price €
MG.AB.SP.xx.A.0.32	1”¼	AB	033070142		-	
MG.AB.SP.xx.A.0.40	1”½	AB	033070242		033070542	
MG.AB.SP.xx.A.0.50	2”	AB	033070342		033070642	
MG.AB.SP.xx.A.0.65	DN65	AB	033070442		033070742	
MG.AB.SP.xx.A.0.80	DN80	AB	-		033070842	
MG.PR.SP.xx.A.0.32	1”¼	PR (*)	033070143		-	
MG.PR.SP.xx.A.0.40	1”½	PR (*)	033070243		033070543	
MG.PR.SP.xx.A.0.50	2”	PR (*)	033070343		033070643	
MG.PR.SP.xx.A.0.65	DN65	PR (*)	033070443		033070743	
MG.PR.SP.xx.A.0.80	DN80	PR (*)	-		033070843	

(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

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 €	C120A ...SP Code	C120A ...SP 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		03307055C	
MG.PR.SP.xx.A.1.50.EC	2”	PR (*)	03307035C		03307065C	
MG.PR.SP.xx.A.1.65.EC	DN65	PR (*)	03307045C		03307075C	
MG.PR.SP.xx.A.1.80.EC	DN80	PR (*)	-		03307085C	

(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

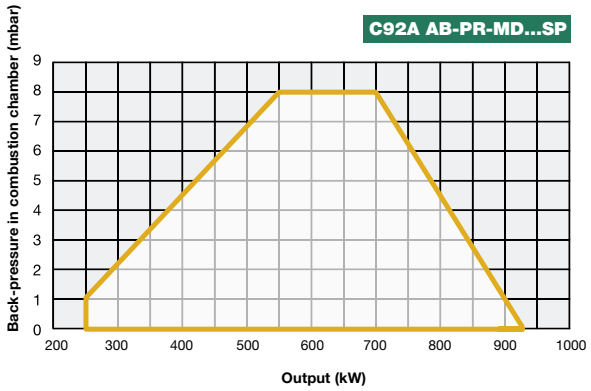
In compliance with:
- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

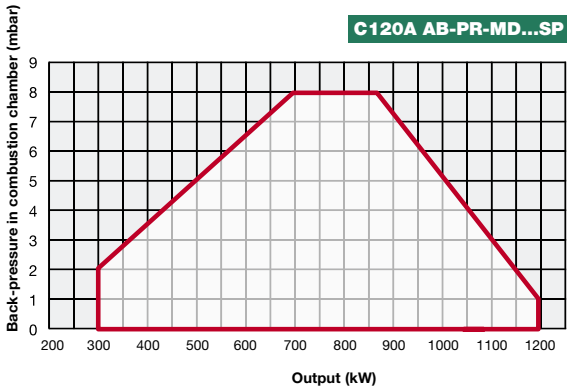
ELECTRONIC OPERATION

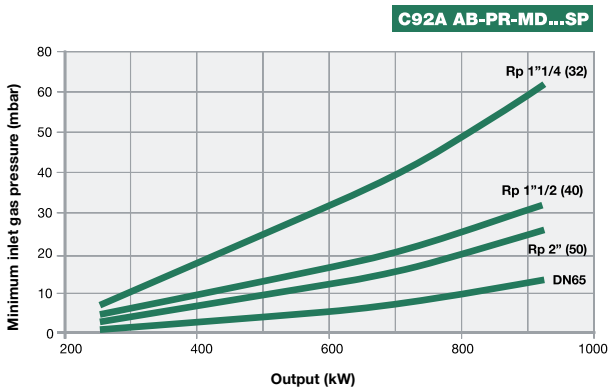
Model	Gas train	Operation	C92A Code	C92A Price €	C120A ...SP Code	C120A ...SP Price €
MG.MD.SP.xx.A.1.32.ES	1”¼	MD (**)	03307015S		-	
MG.MD.SP.xx.A.1.40.ES	1”½	MD (**)	03307025S		03307055S	
MG.MD.SP.xx.A.1.50.ES	2”	MD (**)	03307035S		03307065S	
MG.MD.SP.xx.A.1.65.ES	DN65	MD (**)	03307045S		03307075S	
MG.MD.SP.xx.A.1.80.ES	DN80	MD (**)	-		03307085S	

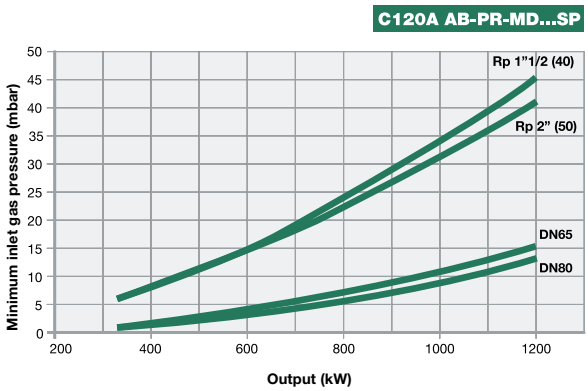
(**) The burners are already MD version.
In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

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.

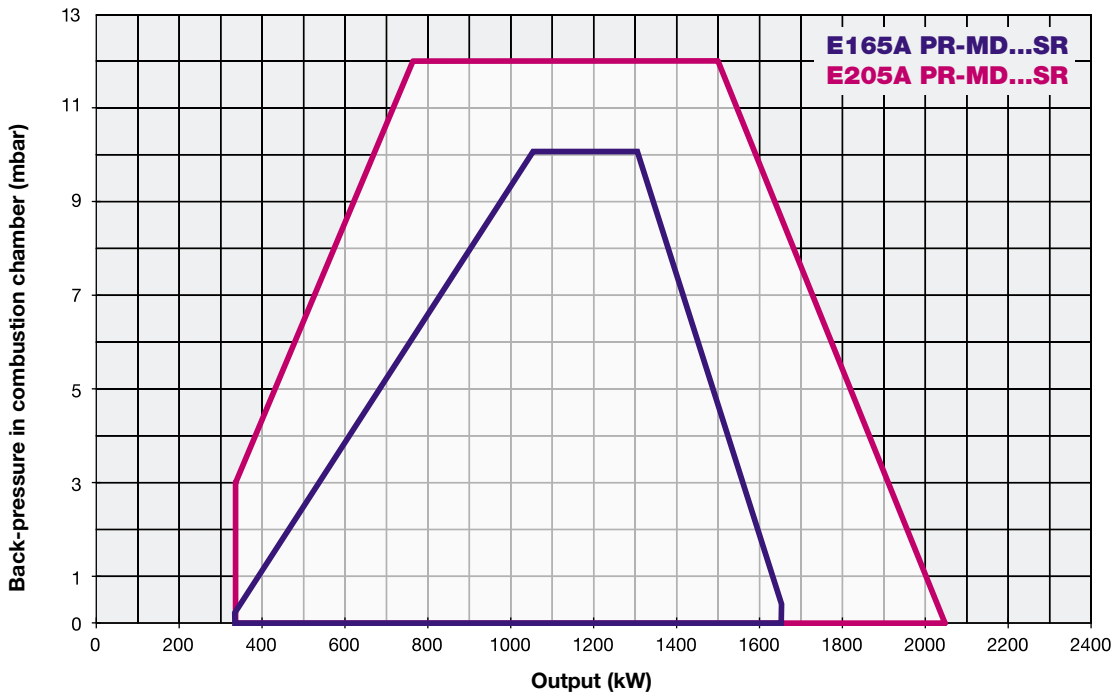
NEW

GAS/LIGHT OIL

CIB UNIGAS >80 <120 mg/kWh CLASS 2 Low NOx

E165A E205A...SR tecnopress SERIES

Like all the other dual fuels models, this series perfectly combines 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.



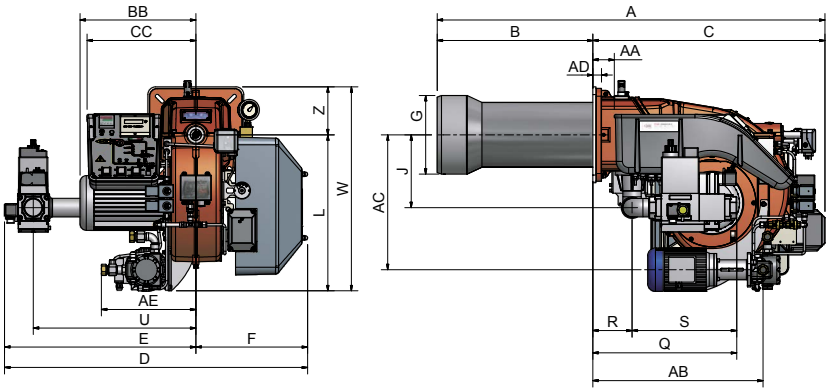
E165A E205A...SR

GAS/LIGHT OIL

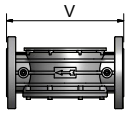
TECHNICAL DETAILS

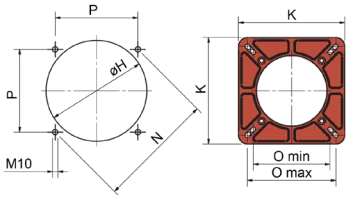
Type	Model	Power kW min.	Power kW max.	Electric power supply	Fan motor kW	Pump motor kW	Gas connections	Noise level dBA
E165A	MG.xx.SR.xx.A.1.xx	320	1.650	230/400 V 3N ac	2,2	0,55	1"½ - 2" - DN65 - DN80	< 75
E205A	MG.xx.SR.xx.A.1.xx	340	2.050	230/400 V 3N ac	3,0	0,55	1"½ - 2" - DN65 - DN80	< 75

For the configuration of the gas train, see page 101.



DN65 - DN80





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	1331	69	550	500	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	1331	69	550	500	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	1331	69	550	500	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	1331	69	550	500	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	

(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

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	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	

(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

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

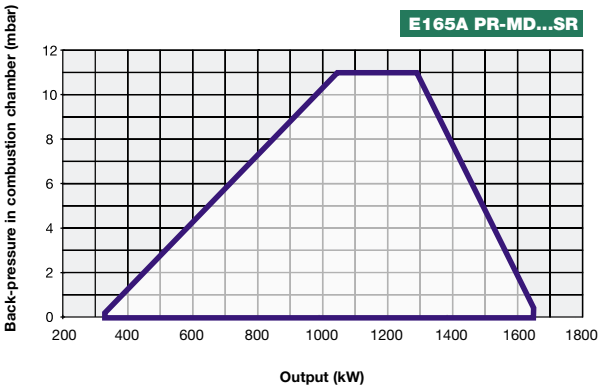
Model	Gas train	Operation	E165A...SR Code	E165A...SR Price €	E205A...SR Code	E205A...SR Price €
MG.MD.SR.xx.A.1.40.ES	1"½	MD (**)	03007175S		03007215S	
MG.MD.SR.xx.A.1.50.ES	2"	MD (**)	03007185S		03007225S	
MG.MD.SR.xx.A.1.65.ES	DN65	MD (**)	03007195S		03007235S	
MG.MD.SR.xx.A.1.80.ES	DN80	MD (**)	03007205S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

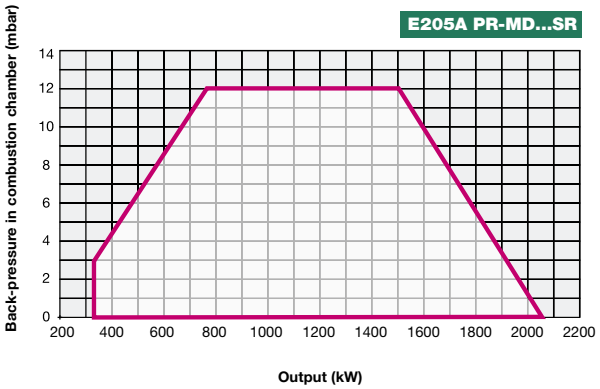
(**) The burners are already MD version.
In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

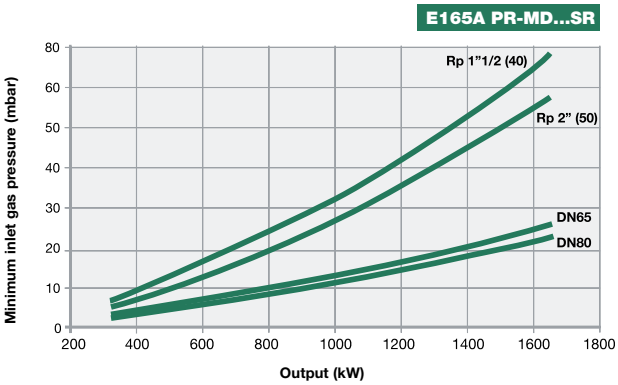
In compliance with:
- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

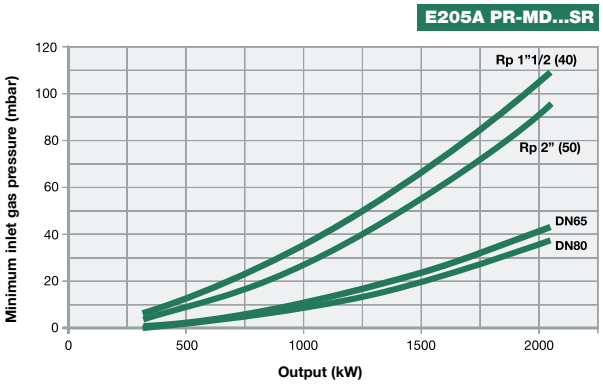
E165A E205A...SR

GAS/LIGHT OIL









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.

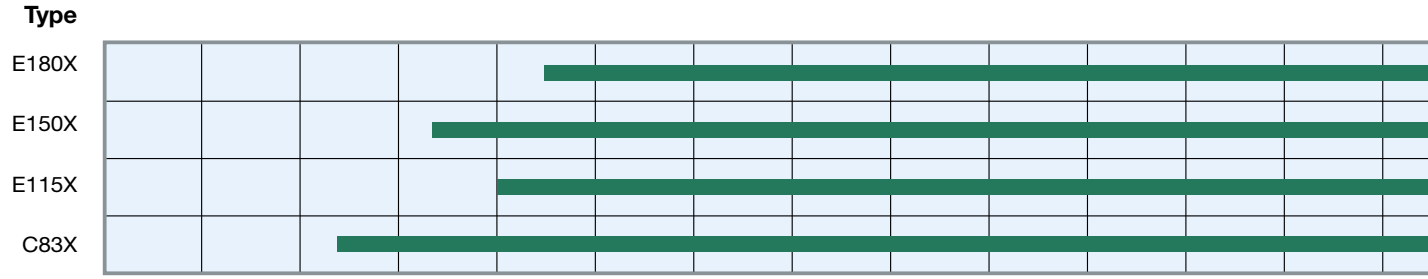
LOW NO_x DUAL FUEL BURNERS NATURAL GAS/LIGHT OIL

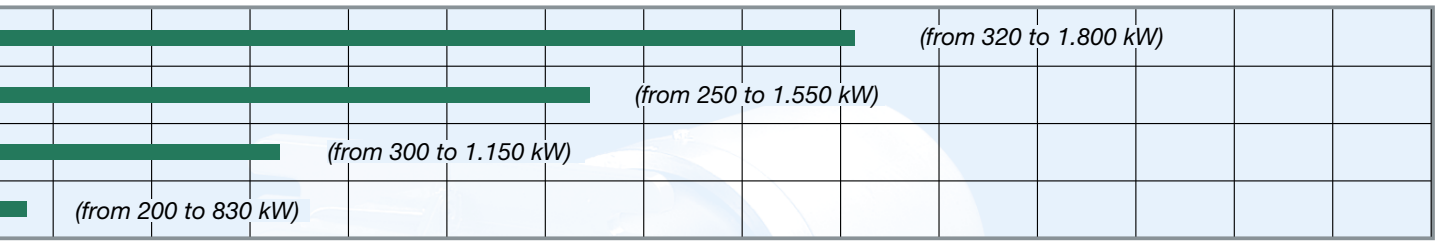
NEW **tecnopress series**

C83X...xP - PR/MD

NEW **tecnopress series**

E115X...xR - PR/MD
E150X...xR - PR/MD
E180X...xR - PR/MD



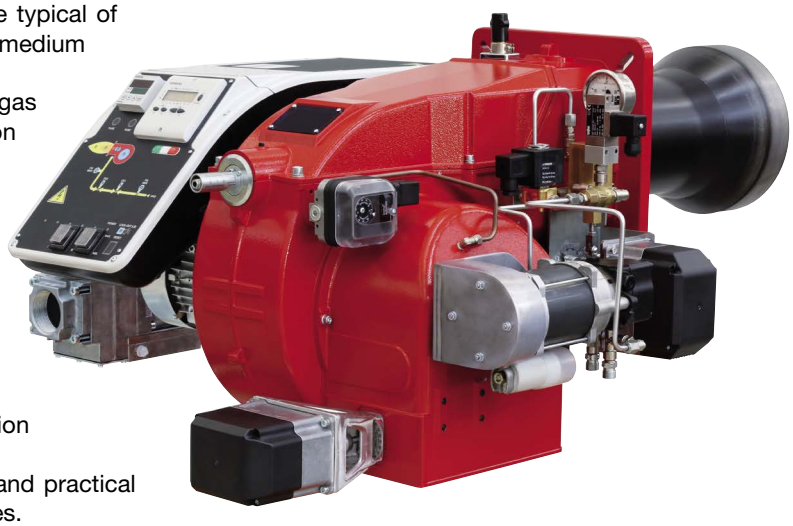

(from 320 to 1.800 kW)
(from 250 to 1.550 kW)
(from 300 to 1.150 kW)
(from 200 to 830 kW)

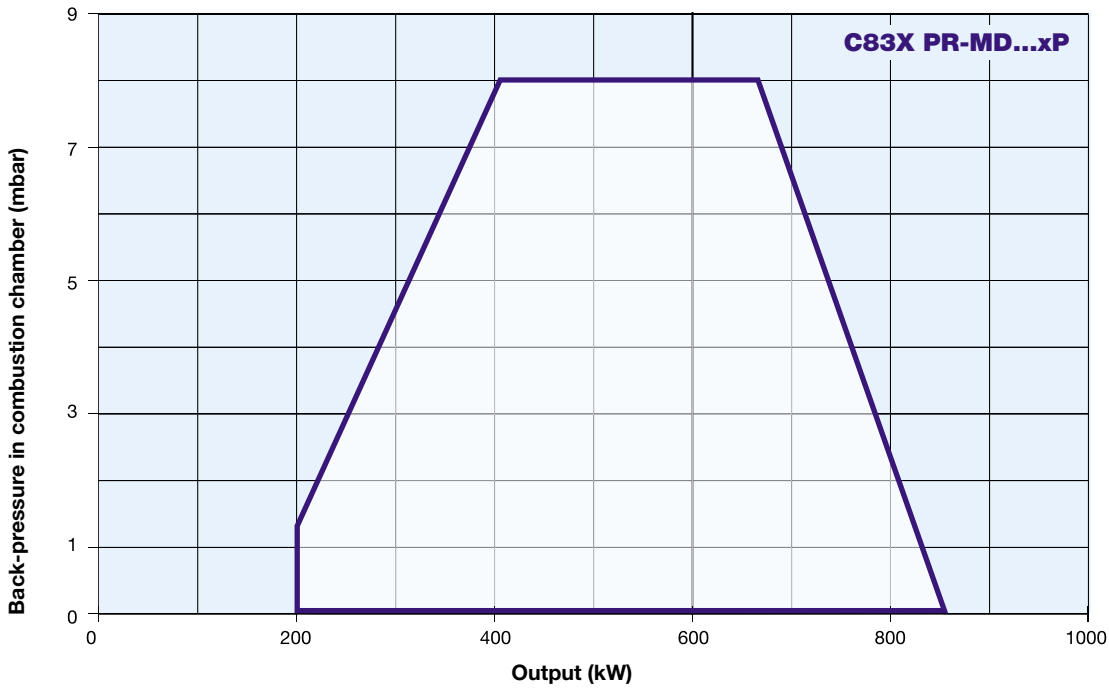
tecnopress SERIES C83X...xP

GAS/LIGHT OIL

NEW

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 the other models, it can work with standard and long combustion head. If the combustion head 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).

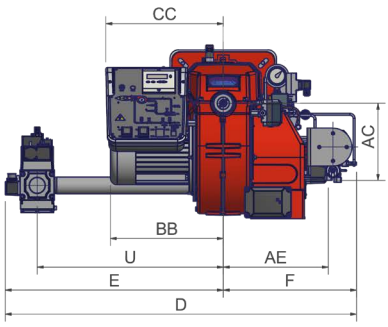


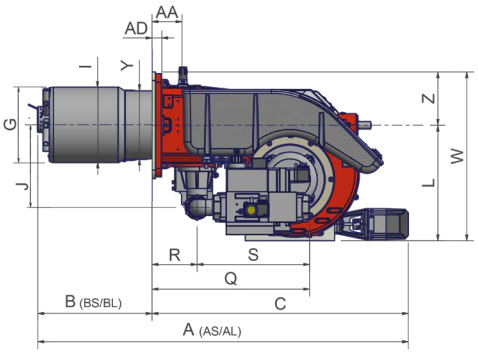


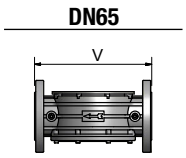
TECHNICAL DETAILS

Type	Model	Power kW min.	Power kW max.	Electric power supply	Fan motor kW	Pump motor kW	Gas connections	Noise level dBA
C83X	MG.xx.xP.xx.0.xx	200	830	230/400 V 3N ac	1,1	0,55	1"¼ - 1"½ - 2" - DN65	< 80

For the configuration of the gas train, see page 101.







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 min.	O max.	P	Q	R	S	U	V	W	Y	Z
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	Price €
MG.PR.SP.xx.A.0.32	1"¼	PR	033070943	
MG.PR.SP.xx.A.0.40	1"½	PR	033071143	
MG.PR.SP.xx.A.0.50	2"	PR	033071343	
MG.PR.SP.xx.A.0.65	DN65	PR	033071543	

SP = Standard combustion head (BS)
LP = For long combustion head version (BL) increase the price (see price list)
(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

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	Price €
MG.PR.SP.xx.A.1.32.EC	1"¼	PR	03307095C	
MG.PR.SP.xx.A.1.40.EC	1"½	PR	03307115C	
MG.PR.SP.xx.A.1.50.EC	2"	PR	03307135C	
MG.PR.SP.xx.A.1.65.EC	DN65	PR	03307155C	

SP = Standard combustion head (BS)
LP = For long combustion head version (BL) increase the price (see price list)
(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

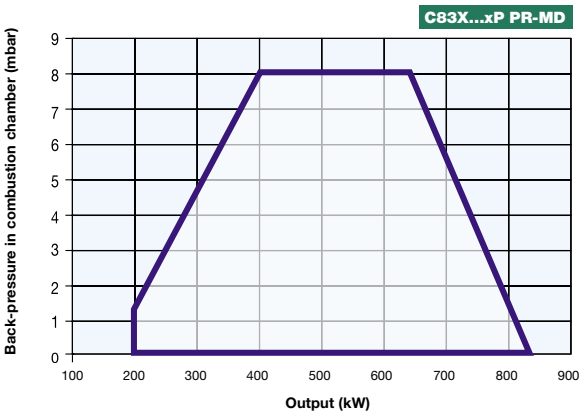
In compliance with:
- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

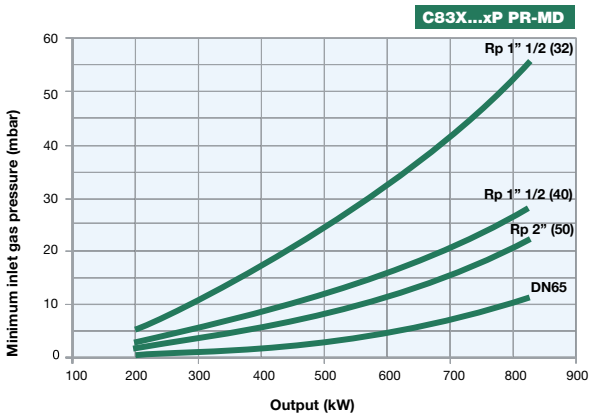
ELECTRONIC OPERATION

Model	Gas train	Operation	C83X...xP Code	Price €
MG.MD.SP.xx.A.1.32.ES	1"¼	MD(*)	03307095S	
MG.MD.SP.xx.A.1.40.ES	1"½	MD(*)	03307115S	
MG.MD.SP.xx.A.1.50.ES	2"	MD(*)	03307135S	
MG.MD.SP.xx.A.1.65.ES	DN65	MD(*)	03307155S	

SP = Standard combustion head (BS)
LP = For long combustion head version (BL) increase the price (see price list)
(**) The burners are already MD version.
In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

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



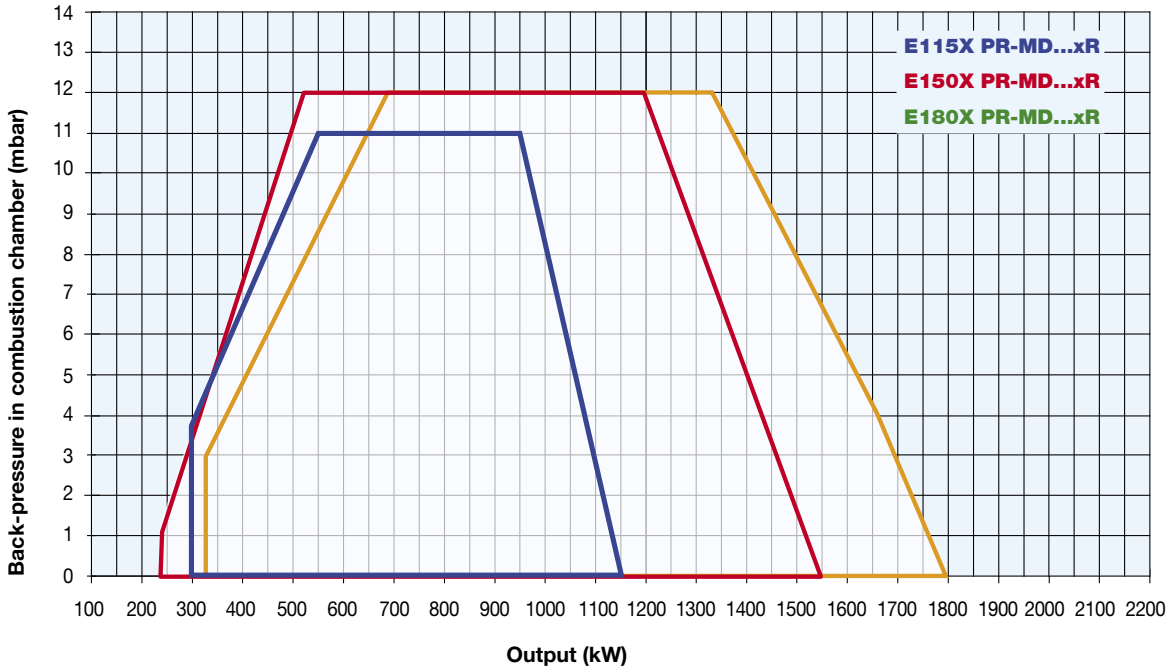


Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

tecnopress SERIES E115X E150X E180X...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 the other models, they can work with standard and long combustion head. If the combustion head 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 which guarantees low pollutant emissions (gas side < 80mg/kWh class 3 EN 676).

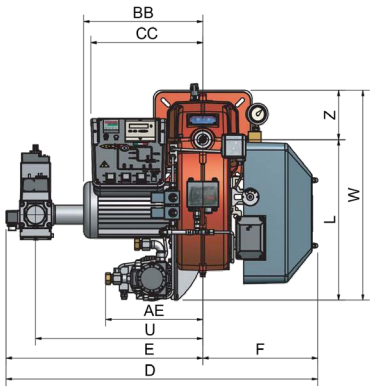


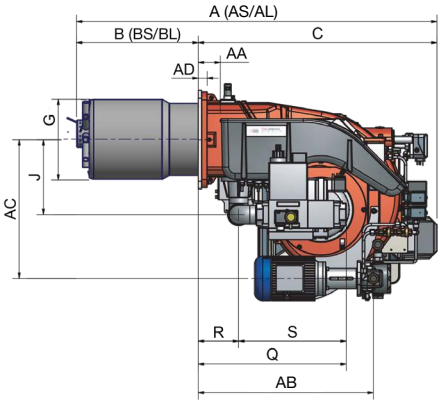
E115X E150X E180X...xR tecnopress SERIES

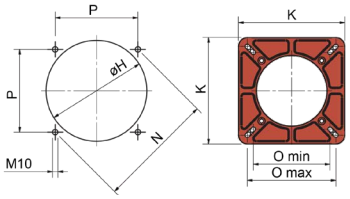
TECHNICAL DETAILS

Type	Model	Power kW min.	Power kW max.	Electric power supply	Fan motor kW	Pump motor kW	Gas connections	Noise level dBA
E115X	MG.xx.xR.xx.0.xx	300	1.150	230/400 V 3N ac	2,2	0,55	1"½ - 2" - DN65 - DN80	< 75
E150X	MG.xx.xR.xx.1.xx	250	1.550	230/400 V 3N ac	2,2	0,55	1"½ - 2" - DN65 - DN80	< 75
E180X	MG.xx.xR.xx.1.xx	320	1.800	230/400 V 3N ac	3,0	0,55	1"½ - 2" - DN65 - DN80	< 75

For the configuration of the gas train, see page 101.







Suggested boiler drilling — *Burner flange*

Type	Packaging dimensions (mm) l	p	h	kg
E115X	1730	1280	1020	160
E150X	1730	1280	1020	160
E180X*	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 min.	O max.	P	Q	R	S	U	V	W	Z
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
E150X	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
E150X	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
E150X	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
E150X	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
E180X	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
E180X	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
E180X	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
E180X	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 €	E150X...xR Code	E150X...xR Price €	E180X...xR Code	E180X...xR Price €
MG.PR.SR.xx.A.0.40	1"½	PR (*)	030072543		-		-	
MG.PR.SR.xx.A.0.50	2"	PR (*)	030072743		-		-	
MG.PR.SR.xx.A.0.65	DN65	PR (*)	030072943		-		-	
MG.PR.SR.xx.A.0.80	DN80	PR (*)	030073143		-		-	
MG.PR.SR.xx.A.1.40	1"½	PR (*)	-		030074953		030075753	
MG.PR.SR.xx.A.1.50	2"	PR (*)	-		030075153		030075953	
MG.PR.SR.xx.A.1.65	DN65	PR (*)	-		030075353		030076153	
MG.PR.SR.xx.A.1.80	DN80	PR (*)	-		030075553		030076353	

SR = Standard combustion head (BS)
LR = For long combustion head version (BL) increase the price (see price list)
(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
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 €	E150X...xR Code	E150X...xR Price €	E180X...xR Code	E180X...xR Price €
MG.PR.SR.xx.A.1.40.EC	1"½	PR (*)	03007255C		03007495C		03007575C	
MG.PR.SR.xx.A.1.50.EC	2"	PR (*)	03007275C		03007515C		03007595C	
MG.PR.SR.xx.A.1.65.EC	DN65	PR (*)	03007295C		03007535C		03007615C	
MG.PR.SR.xx.A.1.80 EC	DN80	PR (*)	03007315C		03007555C		03007635C	

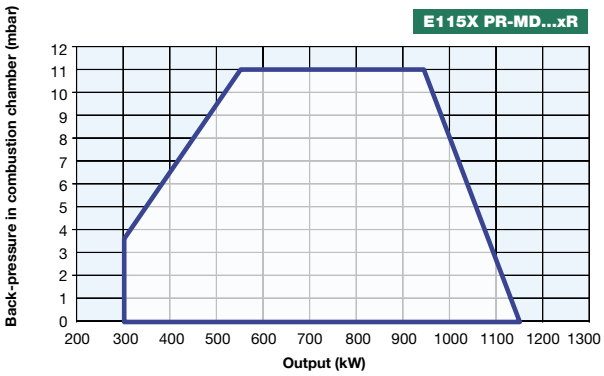
SR = Standard combustion head (BS)
LR = For long combustion head version (BL) increase the price (see price list)
(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
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

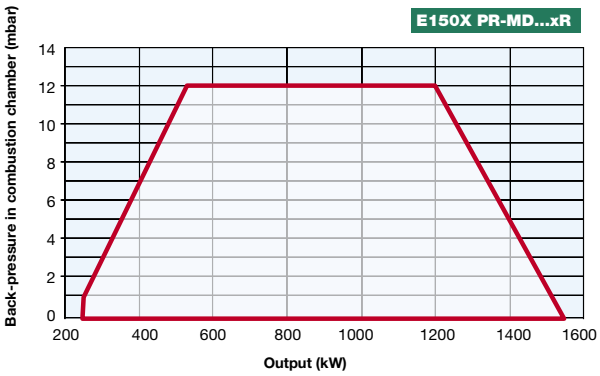
ELECTRONIC OPERATION

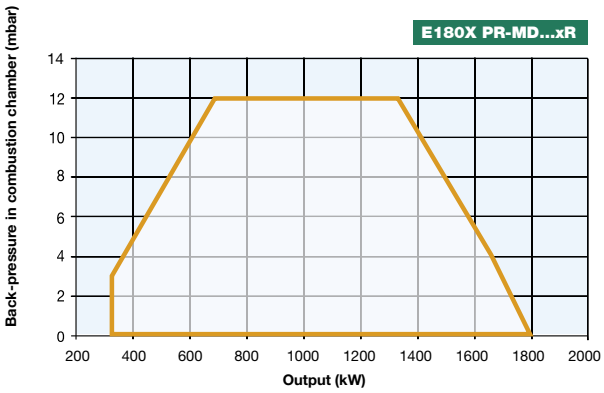
Model	Gas train	Operation	E115X...xR Code	E115X...xR Price €	E150X...xR Code	E150X...xR Price €	E180X...xR Code	E180X...xR Price €
MG.MD.SR.xx.A.1.40.ES	1"½	MD (**)	03007255S		03007495S		03007575S	
MG.MD.SR.xx.A.1.50.ES	2"	MD (**)	03007275S		03007515S		03007595S	
MG.MD.SR.xx.A.1.65.ES	DN65	MD (**)	03007295S		03007535S		03007615S	
MG.MD.SR.xx.A.1.80.ES	DN80	MD (**)	03007315S		03007555S		03007635S	

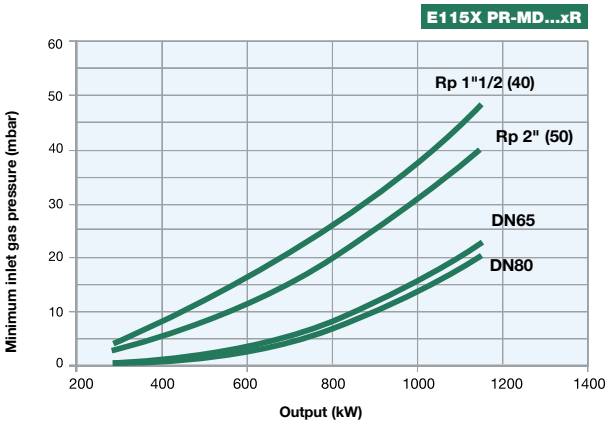
SR = Standard combustion head (BS)
LR = For long combustion head version (BL) increase the price (see price list)
(**) The burners are already MD version.
In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).
In compliance with:
- GAR Directive 2016/426/EU - Low Tension Directive 2014/35/UE - Electromagnetic Compatibility Directive 2014/30/UE - Machinery Directive 2006/42/CE

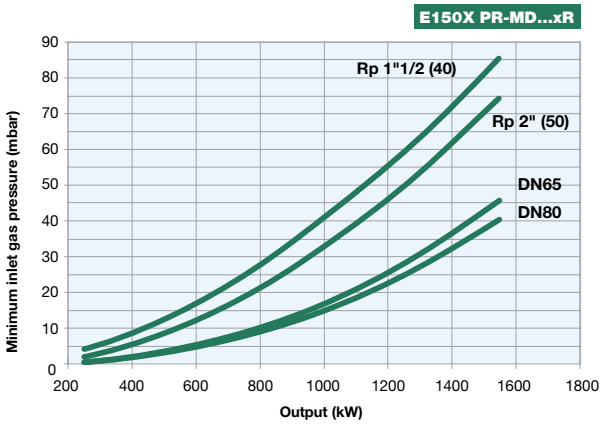
E115X E150X E180X...xR tecnopress SERIES

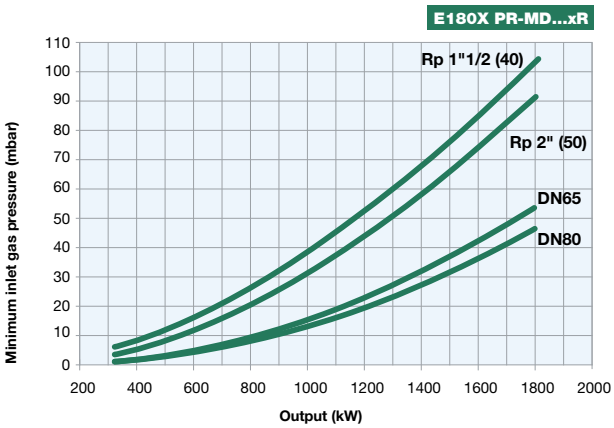












Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

DUAL FUEL BURNERS GAS/HEAVY OIL

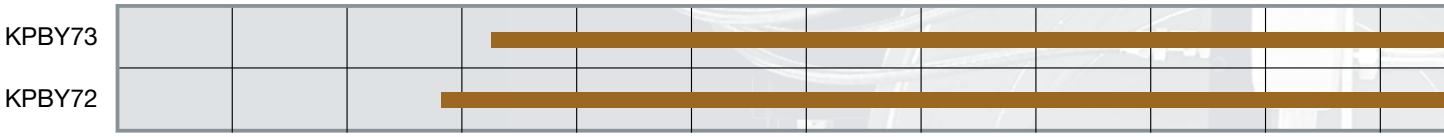
mechanical atomization
tecnopress series

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

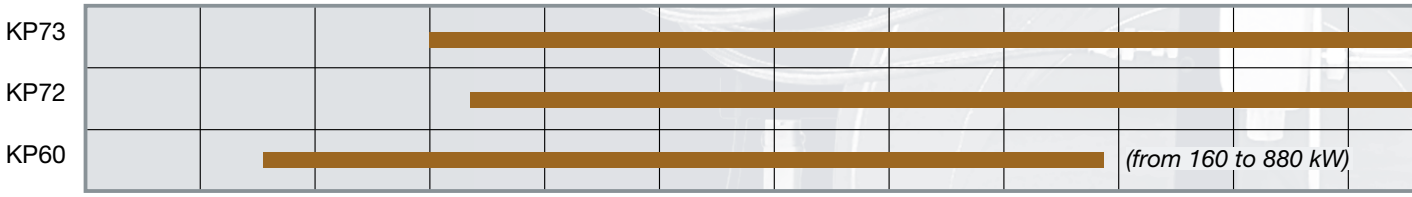
mechanical atomization
tecnopress series

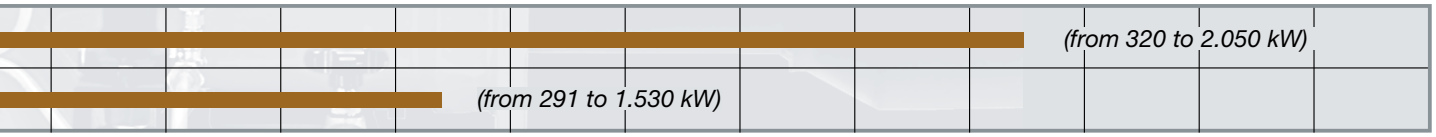
KPBY72 - PR/MD
KPBY73 - PR/MD

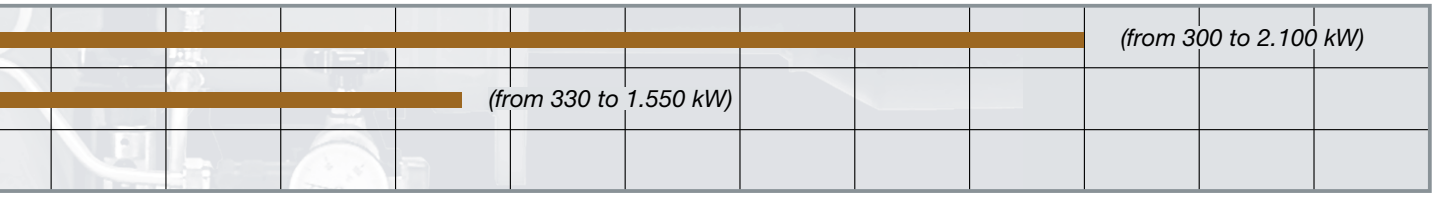
Type pneumatic atomization



Type mechanical atomization




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

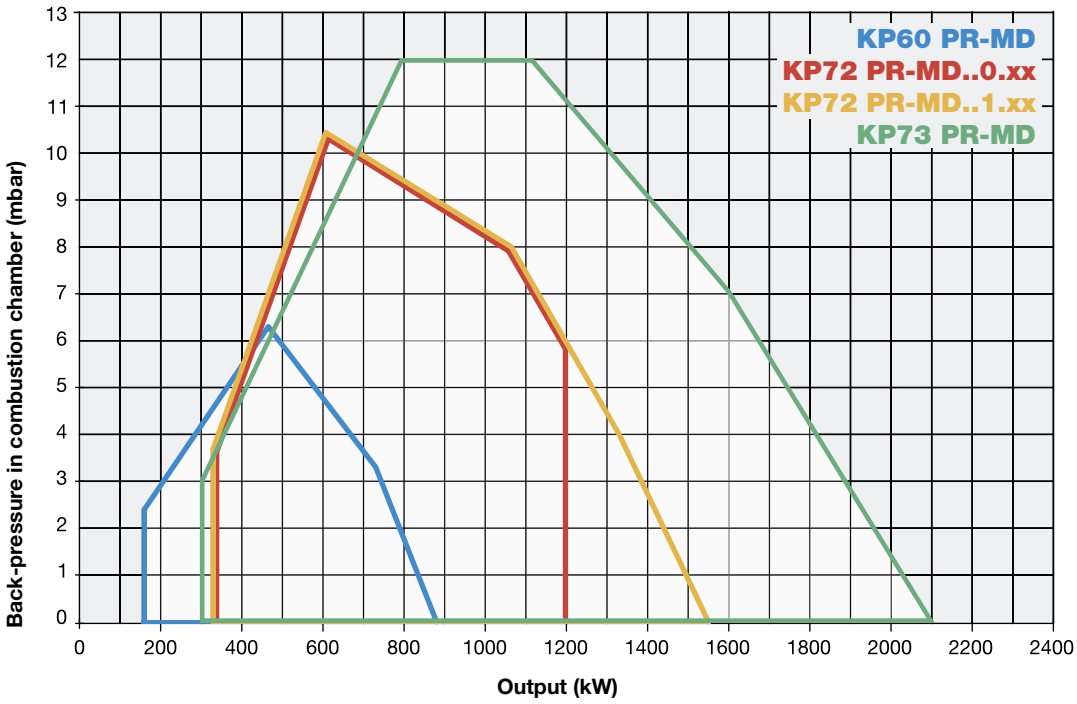

(from 300 to 2.100 kW)
(from 330 to 1.550 kW)

SERIE tecnopress KP60 KP72 KP73

MECHANICAL ATOMIZATION
with viscosity up to 400 cSt at 50°C (50°E at 50°C)

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 160 to 2.100 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)



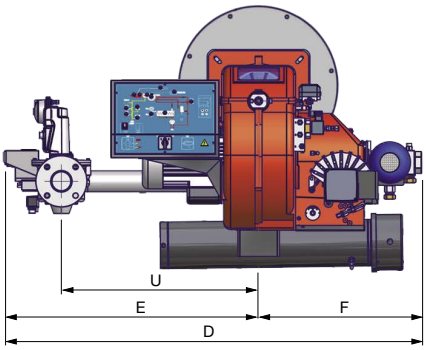
KP60 KP72 KP73 SERIE tecnopress

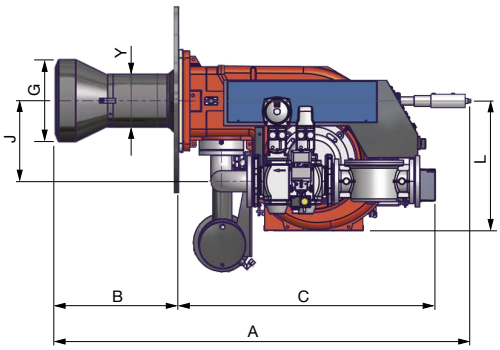
MECHANICAL ATOMIZATION
with viscosity up to 400 cSt at 50°C (50°E at 50°C)

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"¼ - 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	1"½ - 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	300	2.100	230/400 V 3N ac	3,0	1,10	12,0	2" - DN65 - 80

For the configuration of the gas train, see page 101.

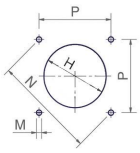




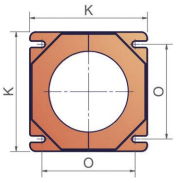
Type	Packaging dimensions (mm)			
	l	p	h	kg
KP60	1730	1280	1020	176
KP72	1730	1280	1020	280
KP73	1730	1280	1020	280

Approximate values

KP60

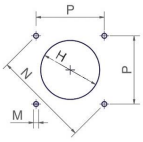


Suggested boiler drilling

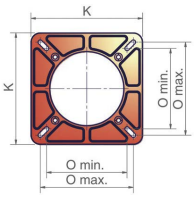


Burner flange

KP72 - KP73

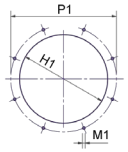


Suggested boiler drilling

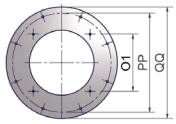


Burner flange

KP60 - KP72 - KP73
Installation with counterflange



Suggested boiler drilling



Counterflange

Type	Model	Overall dimensions (mm)											Boiler drilling (mm)							Burner flange (mm)			Counterflange (mm)		
		A	B*	C	D	E	F	G	J	L	U	Y	H•	H1	M	M1	N	P	P1	K	O		O1	PP	QQ
																					min.	max.			
KP60	MN.xx.S.xx.A.0.xx	1116	376	740	1205	685	520	250	250	520	540	190	280	280	M10	M12	269	190	480	240	190	190	190	440	480
KP72	MN.xx.S.xx.A.0.xx	1325	505	820	1365	825	540	300	265	580	560	212	340	340	M10	M12	330	233	480	300	216	250	233	440	480
KP73	MN.xx.S.xx.A.0.xx	1289	469	820	1365	825	540	320	265	580	560	212	340	340	M10	M12	330	233	480	300	216	250	233	440	480

Approximate values
* The dimension B is reduced by 20 mm with counterflange and gasket.
• 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 combustion head inside the boiler.

SERIE tecnopress KP60 KP72 KP73

MECHANICAL ATOMIZATION
with viscosity up to 400 cSt at 50°C (50°E at 50°C)

MECHANICAL OPERATION

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.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		008080553	
MN.PR.S.xx.A.1.65	DN65	PR (*)	-		008080253		008080653	
MN.PR.S.xx.A.1.80	DN80	PR (*)	-		008080353		008080753	
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		008190553	
MD.PR.S.xx.A.1.65	DN65	PR (*)	-		008190253		008190653	
MD.PR.S.xx.A.1.80	DN80	PR (*)	-		008190353		008190753	

(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

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 KP72 KP73 SERIE tecnopress

MECHANICAL ATOMIZATION
with viscosity up to 400 cSt at 50°C (50°E at 50°C)

ELECTRONIC OPERATION

			KP60		KP72		KP73	
Model	Gas train	Operation	Code	Price €	Code	Price €	Code	Price €
HEAVY OIL 50 cSt at 50°C (7°E at 50°C)								
MN.PR.S.xx.A.1.32.EC	1"¼	PR (*)	00408055C		-		-	
MN.PR.S.xx.A.1.40.EC	1"½	PR (*)	00408015C		00808045C		-	
MN.PR.S.xx.A.1.50.EC	2"	PR (*)	00408025C		00808015C		00808055C	
MN.PR.S.xx.A.1.65.EC	DN65	PR (*)	00408035C		00808025C		00808065C	
MN.PR.S.xx.A.1.80.EC	DN80	PR (*)	-		00808035C		00808075C	
HEAVY OIL 400 cSt at 50° (50°E at 50°C)								
MD.PR.S.xx.A.1.32.EC	1"¼	PR (*)	00419055C		-		-	
MD.PR.S.xx.A.1.40.EC	1"½	PR (*)	00419015C		00819045C		-	
MD.PR.S.xx.A.1.50.EC	2"	PR (*)	00419025C		00819015C		00819055C	
MD.PR.S.xx.A.1.65.EC	DN60	PR (*)	00419035C		00819025C		00819065C	
MD.PR.S.xx.A.1.80.EC	DN80	PR (*)	-		00819035C		00819075C	

(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

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

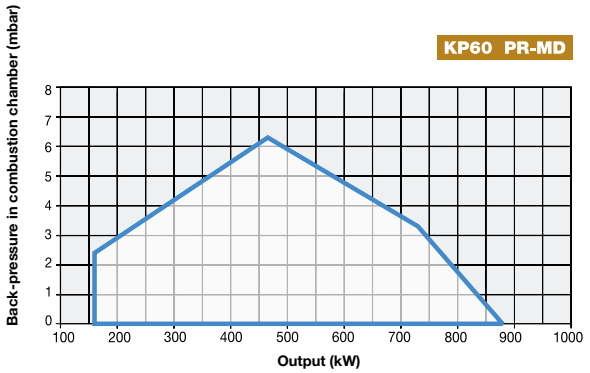
			KP60		KP72		KP73	
Model	Gas train	Operation	Code	Price €	Code	Price €	Code	Price €
HEAVY OIL 50 cSt at 50°C (7°E at 50°C)								
MN.MD.S.xx.A.1.32.ES	1"¼	MD (**)	00408055S		-		-	
MN.MD.S.xx.A.1.40.ES	1"½	MD (**)	00408015S		00808045S		-	
MN.MD.S.xx.A.1.50.ES	2"	MD (**)	00408025S		00808015S		00808055S	
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"¼	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	

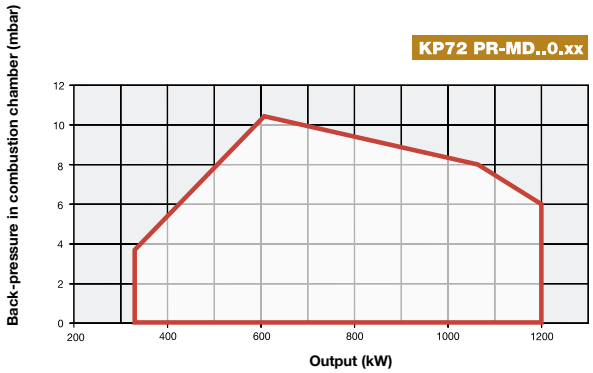
(**) The burners are already MD version.
In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

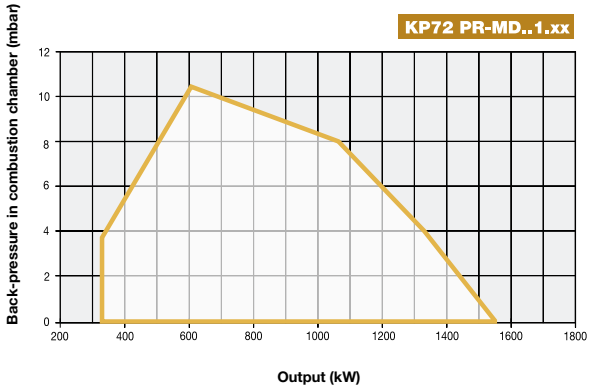
In compliance with:
- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

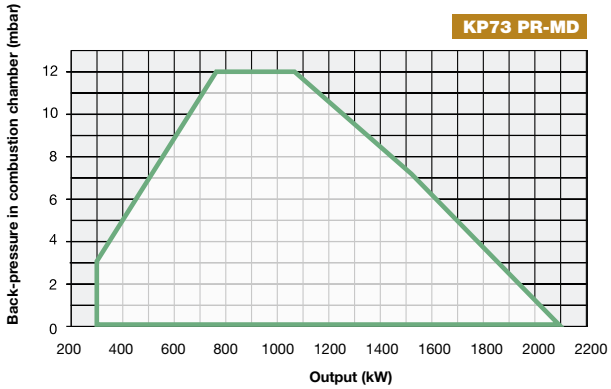
SERIE tecnopress KP60 KP72 KP73

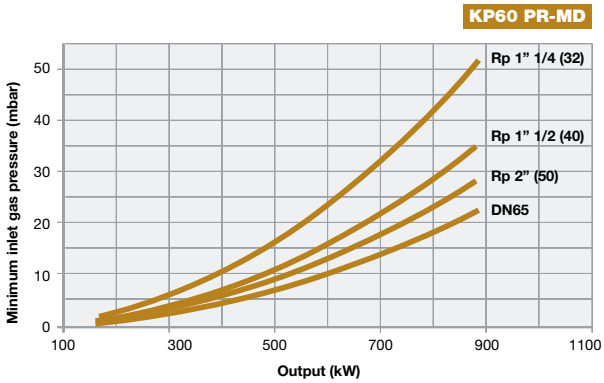
MECHANICAL ATOMIZATION
with viscosity up to 400 cSt at 50°C (50°E at 50°C)

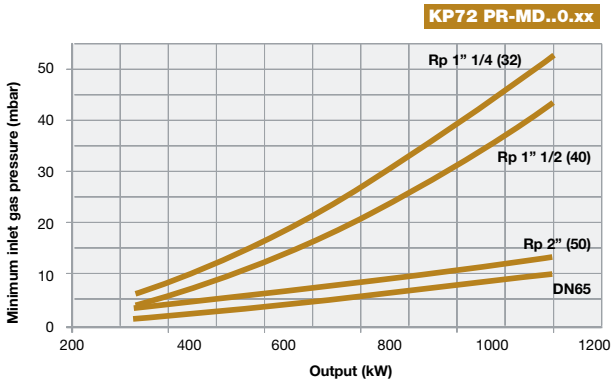


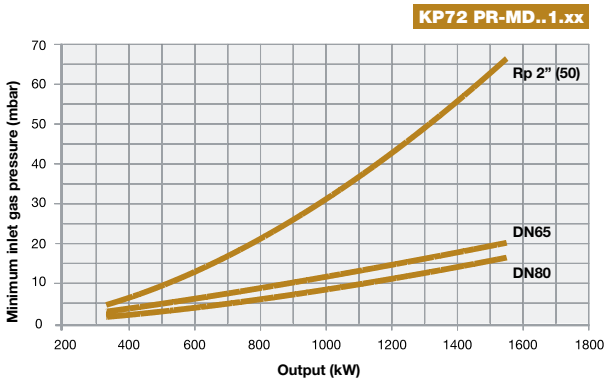


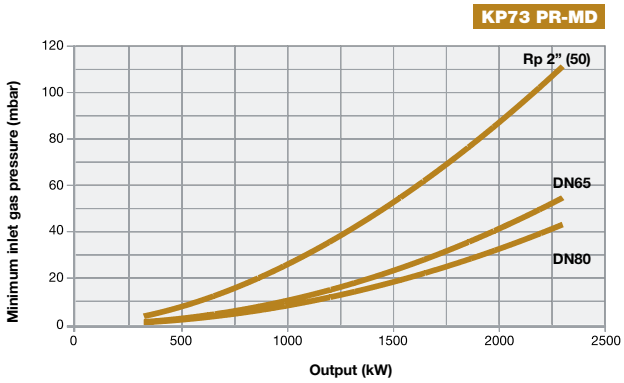












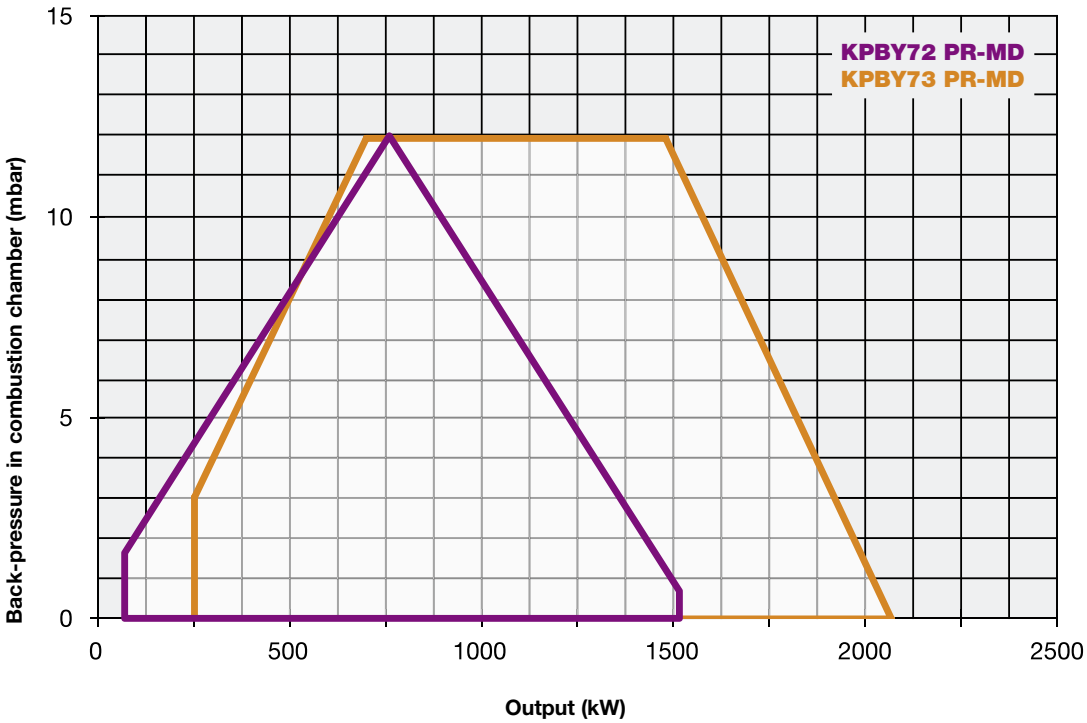
Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

KPBY72 KPBY73 SERIE tecnopress

PNEUMATIC ATOMIZATION WITH ELECTRONIC OPERATION with viscosity up to 4000 cSt at 50°C (530°E at 50°C)

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. The nozzle performs an automatic cleaning process at the end of each cycle.
The plant must be provided with compressed air or steam at 6-10 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.



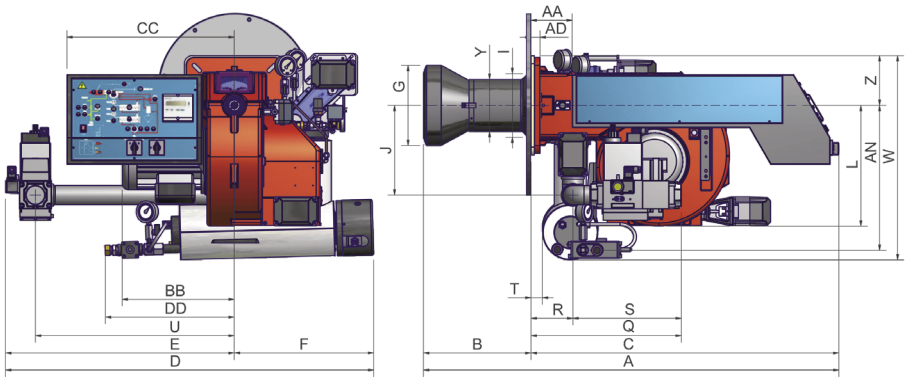
SERIE tecnopress KPBY72 KPBY73

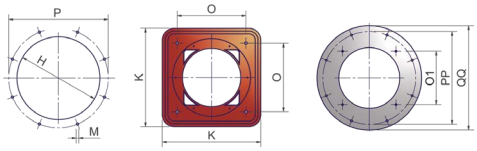
PNEUMATIC ATOMIZATION WITH ELECTRONIC OPERATION
with viscosity up to 4000 cSt at 50°C (530°E at 50°C)

TECHNICAL DETAILS

Type	Model	Potenza kW		Alimentazione	Motore ventilatore	Motore pompa	Resistenza olio comb.	Attacchi gas
		min.	max.	elettrica	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 101.

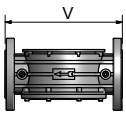




Suggested boiler drilling *Burner flange* *Counterflange*

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		O1	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	233	480	150	338	720	-	667	150	43	210	440	480
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	233	480	150	483	678	292	667	150	43	210	440	480
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	233	480	150	535	710	322	667	150	43	210	440	480
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	233	480	150	338	720	-	667	150	43	210	440	480
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	233	480	150	483	678	292	667	150	43	210	440	480
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	233	480	150	535	710	322	667	150	43	210	440	480

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

KPBY72 KPBY73 SERIE tecnopress

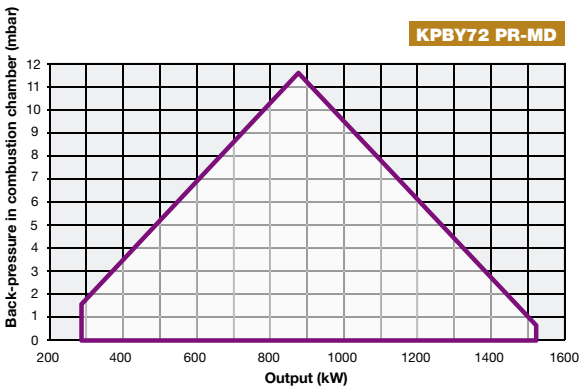
PNEUMATIC ATOMIZATION WITH ELECTRONIC OPERATION
with viscosity up to 4000 cSt at 50°C (530°E at 50°C)

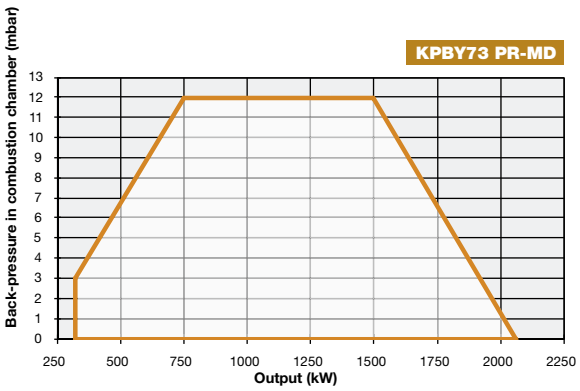
ELECTRONIC OPERATION

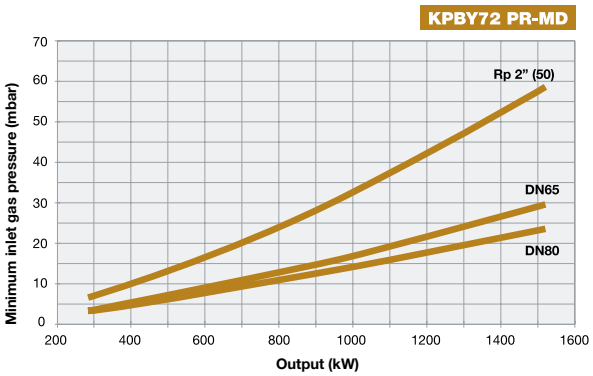
Model	Gas train	Operation	KPBY72 Code	KPBY72 Price €	KPBY73 Code	KPBY73 Price €
HEAVY OIL 4000 cSt at 50°C (530°E at 50°C)						
MH.PR.S.xx.A.1.50.EC	2”	PR	-		-	
MH.PR.S.xx.A.1.65.EC	DN65	PR	-		-	
MH.PR.S.xx.A.1.80.EC	DN80	PR	-		-	

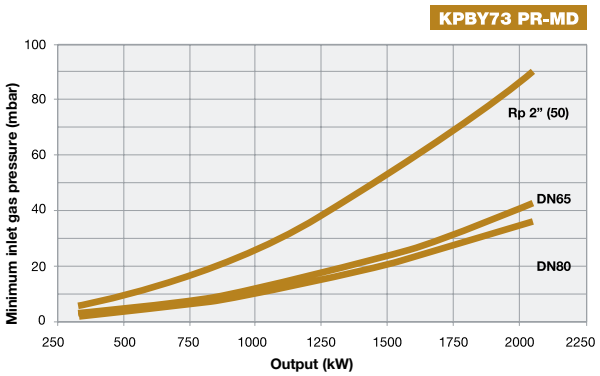
(*) Progressive PR control, for modulating version MD add € (see price list)
In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 174).

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

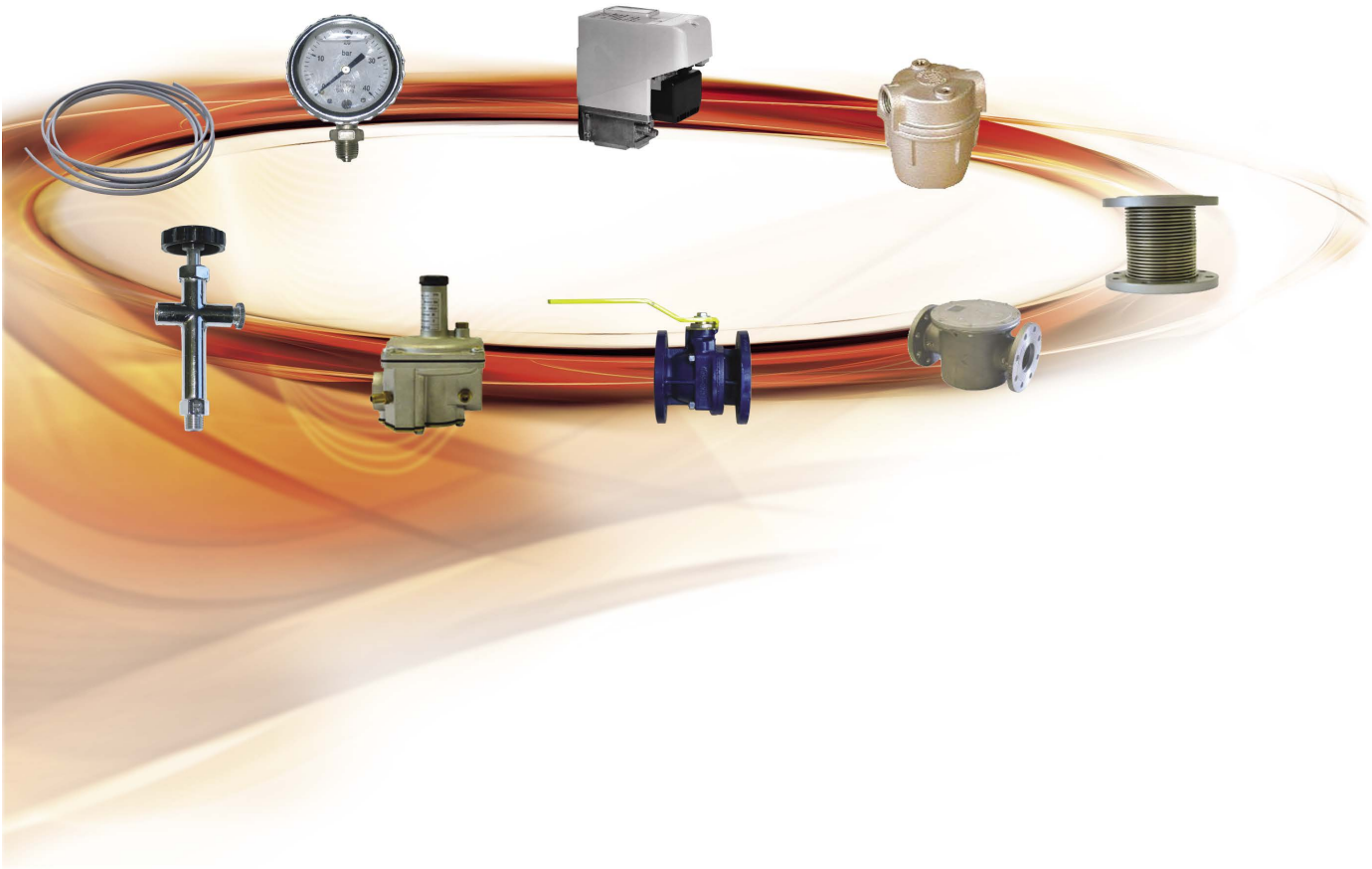








Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.



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

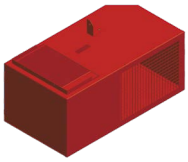
Special components

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-150X-180X	3.07.03.20	
100	P-R-PG-PN-HP 65-71-72-70-81 C - E 85A-120A-165A-205A- 83X-115X-150X-180X	3.07.03.21	
150	P-R-PG-PN-HP 65-71-72-70-81 C - E 85A-120A-165A-205A- 83X-115X-150X-180X	3.07.03.23	
220	P-R-PG-PN-HP 65-71-72-70-81 C - E 85A-120A-165A-205A- 83X-115X-150X-180X	3.07.03.25	
250	P-R-PG-PN-HP 65-71-72-70-81 C - E 85A-120A-165A-205A- 83X-115X-150X-180X	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/150X		
3,0	73/75/81/205A/180X		

* 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

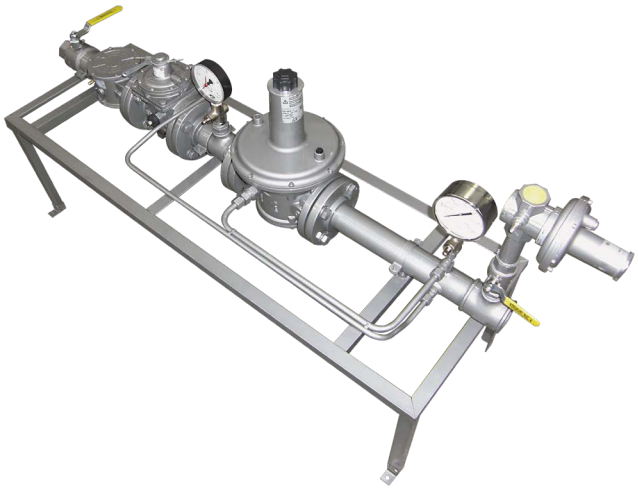
Model	Code	Price €
Glycerine gauge 0 ÷ 60 mbar	2520001	
Glycerine gauge 0 ÷ 400 mbar	2520028	
Glycerine gauge 0 ÷ 1 bar	2520030	

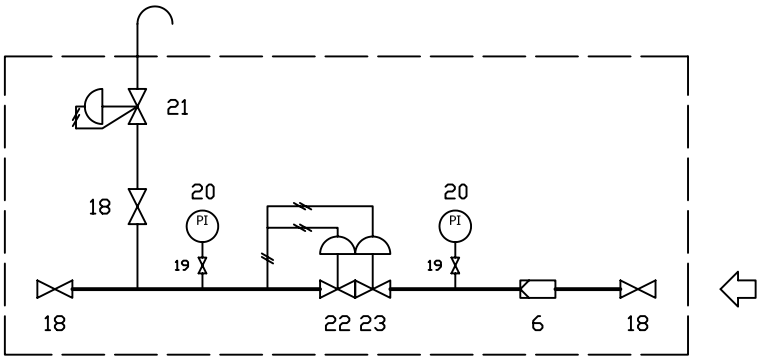
GAS PRESSURE REDUCING STATIONS

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 figure
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	

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.

OPTIONS LIGHT 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	

The output is referred to the burners which can be supplied by the low pressure ring.
The flow rate is referred to the light 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).

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	

OPTIONS HEAVY OIL BURNERS

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	-	

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	

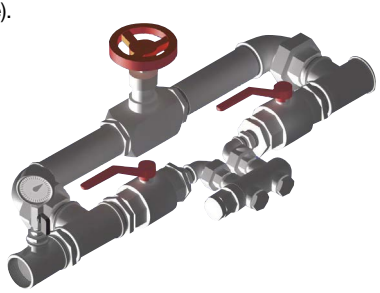
Vertical cylidrical tanks, provided with electrical resistance and spiral heat exchanger (optional).
Upon order please specify electrical resistances only or hot water coil.
Packaging included.
The oil flow rate is indicative: it can vary according to the type of fuel and to the thermal step required.

OPTIONS HEAVY OIL BURNERS

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.



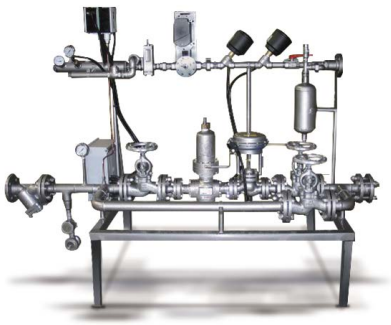
LOW PRESSURE OIL HANDLING UNIT (RING) - HEAVY/RAW OIL - 2 PUMPS IN PARALLEL (ONE AS BACK-UP)

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	

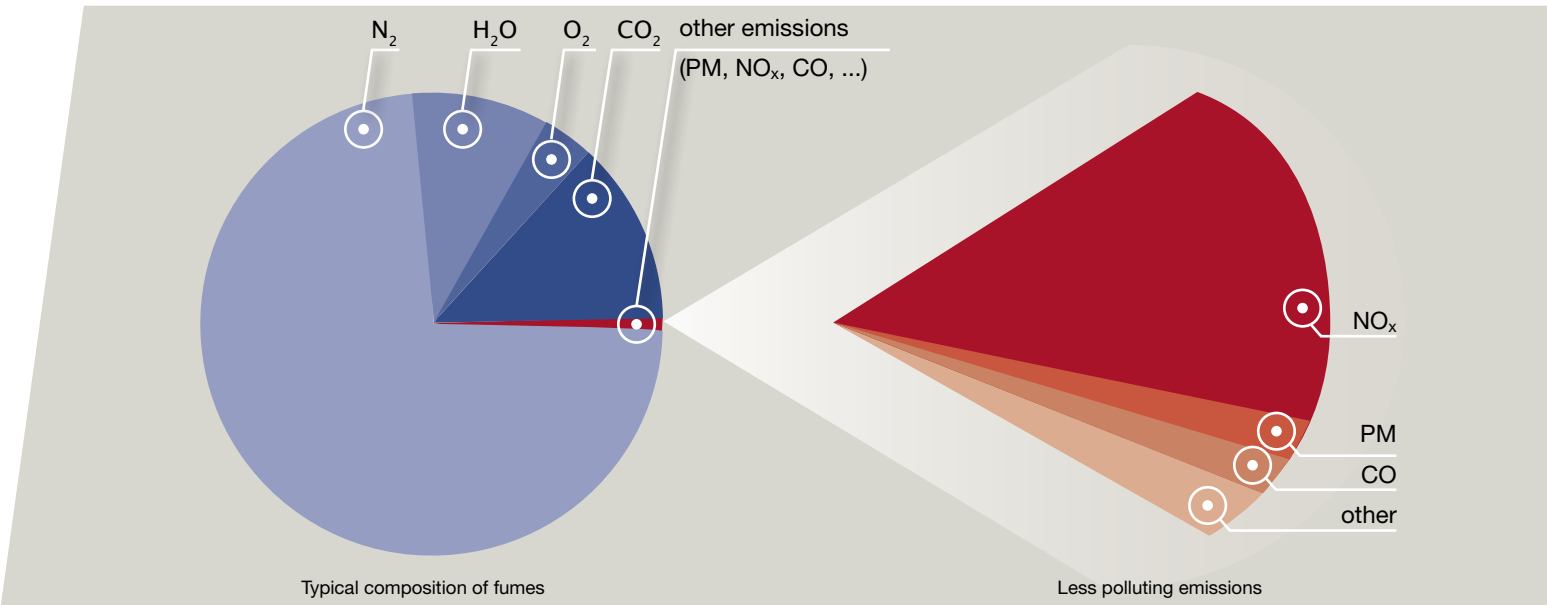
The output is referred to the burners which can be supplied by the low pressure ring.
The flow rate is referred to the heavy oil flow rate pumped into the ring.
Dimensions are indicative.
Dimensions do not include the electrical panel, the panel can be installed on the the oil ring, or wall-hung (dimensions 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, on 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	>80 <120	UNI EN 676
natural gas	Class 3	mg/kWh	100	>60 <80	UNI EN 676
natural gas	Class 4	mg/kWh	100	<60	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
LPG gas	Class 4	mg/kWh	100	110	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.

SULFUR OXIDES EMISSIONS

The polluting emissions of sulfur oxides (SO_x) mainly include sulfur dioxide (SO_2) and trioxide (SO_3). These chemicals are particularly aggressive and dangerous, both for the environment and human health.
However, sulfur oxides represent a separate case from CO and NO_x since their production during hydrocarbons combustion does not depend on the burner, nor on the boiler, but only on the quantity of sulfur already present in the fuel upstream of the process.
On the one hand, higher quality, gaseous fuels (methane, LPG) include insignificant amounts of sulfur, and the use of these fuels minimizes hazardous emissions. On the other, the problem is evident in liquid fuels (especially crude oil and heavy fuel oil), whose composition always includes a certain amount of sulfur - it will inevitably be oxidized in the combustion chamber and emitted as SO_x pollutant.

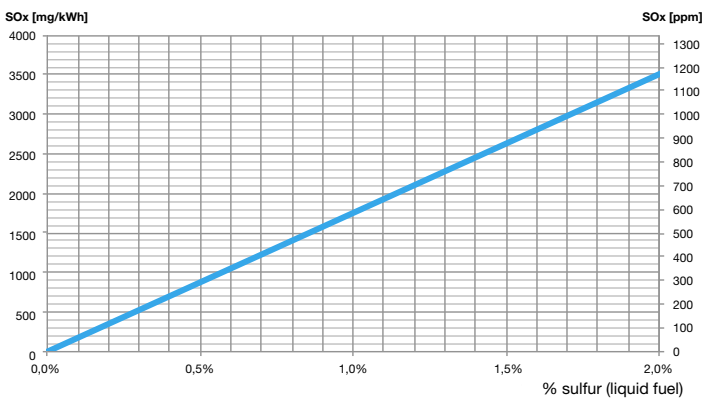
It is possible to estimate the quantity of SO_x produced with the diagram on this page, or with the following procedure.
Given the quantity of sulfur present in the fuel (expressed as a percentage by mass), just multiply this value by a numerical factor, 1.750.
The resulting number represents the emissions of SO_x at the chimney, expressed in mg/kWh.

Example
Given a fuel that contains 0,5 % sulfur, SO_x emissions will be equal to
0,5 x 1.750 = 875 mg/kWh

Conversely, once the SO_x emission limit is known for a given thermal plant, it is possible to calculate the maximum admissible sulfur concentration in the fuel, dividing by the same coefficient above.

Example
Let 300 mg/kWh be the SO_x emission limit required by project specifications.
The maximum percentage of sulfur in the fuel can be 300 : 1.750 = 0,17
The numerical result represents directly the percentage in mass: 0,17 %.

If the fuel oil contains a higher fraction of sulfur, the required limit will be exceeded, regardless of burner or boiler selection!



Reference conditions
Heavy fuel oil with net heating value Hi = 9.800 kcal/kg
Residual oxygen at the chimney O_2 = 3 % (λ = 1,15)

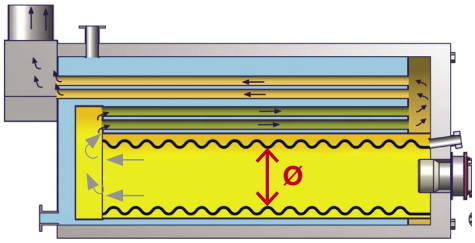
WHY DIFFERENT THERMAL GROUPS RELEASE DIFFERENT LEVELS OF NITROGEN OXIDES AT THE SAME OUTPUT?

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

↓

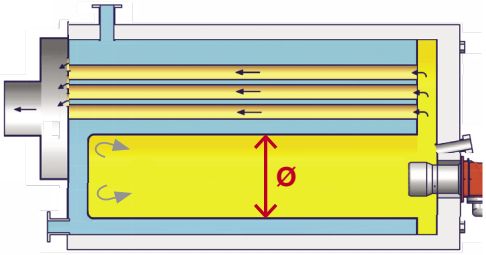
- type of generator (reverse flame, or 3 smoke-pass)
- dwell time of the flame within the combustion chamber
- heat exchange surface
- temperature and type of heat transfer fluid



DIMENSIONS OF THE COMBUSTION CHAMBER

↓

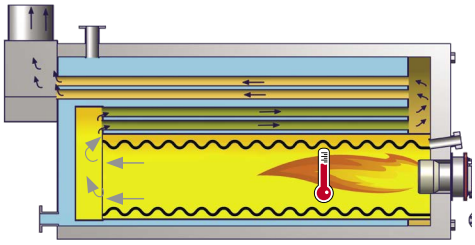
- combustion chamber internal gas circulation
- dwell time of the flame within the combustion chamber
- thermal load of the chamber



THERMAL LOAD OF THE COMBUSTION CHAMBER

↓

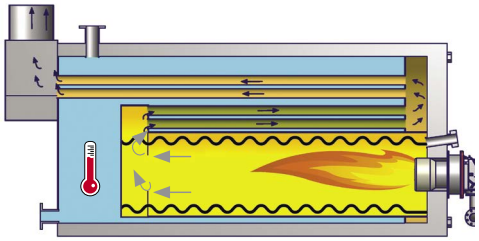
- flame temperature
- speed at which the NO_x is formed



BOILER TEMPERATURE

↓

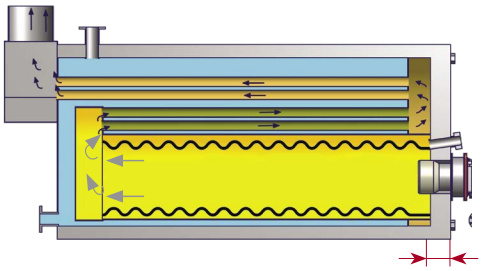
- flame temperature
- speed at which the NO_x is formed



THICKNESS OF THE REFRACTORY OR BOILER DOOR

↓

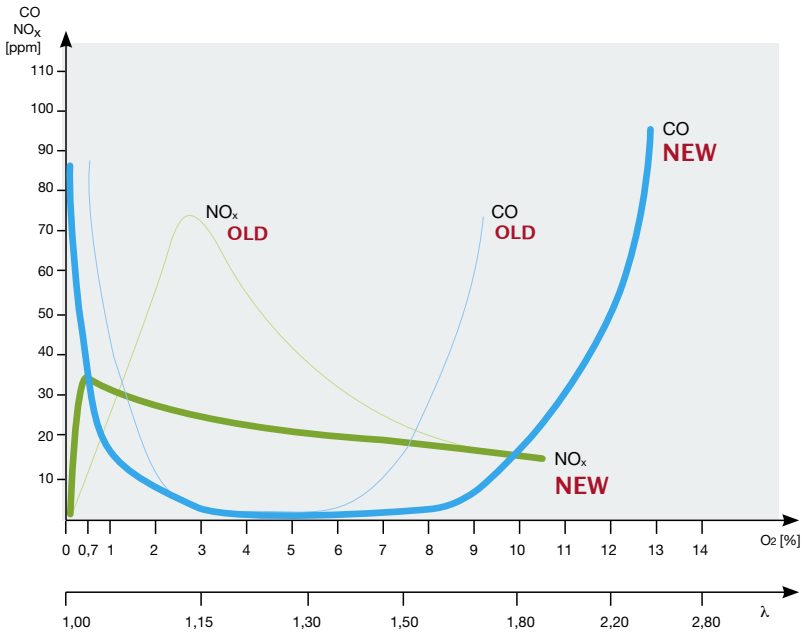
- length of the combustion head
- internal combustion gas circulation



Reverse flame boilers: contact our Technical Department.

Relation between NO_x emissions and CO

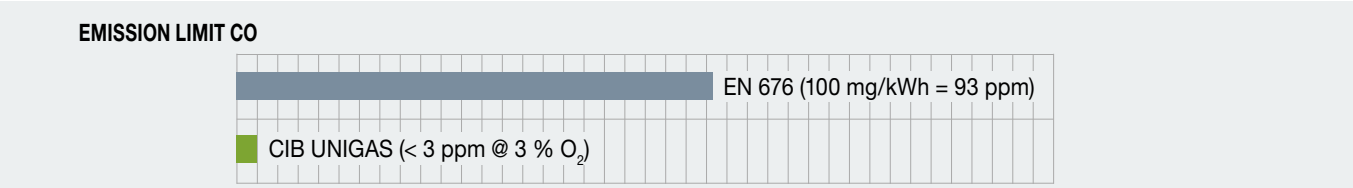
Emissions of nitrogen oxides and carbon monoxide are strongly correlated as both depend on the stoichiometry of the combustion. Excess of air affects both emissions and the efficiency of the generator. In a logic of compromise, reducing fuel consumption requires a reduction of excess air.
The limit is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

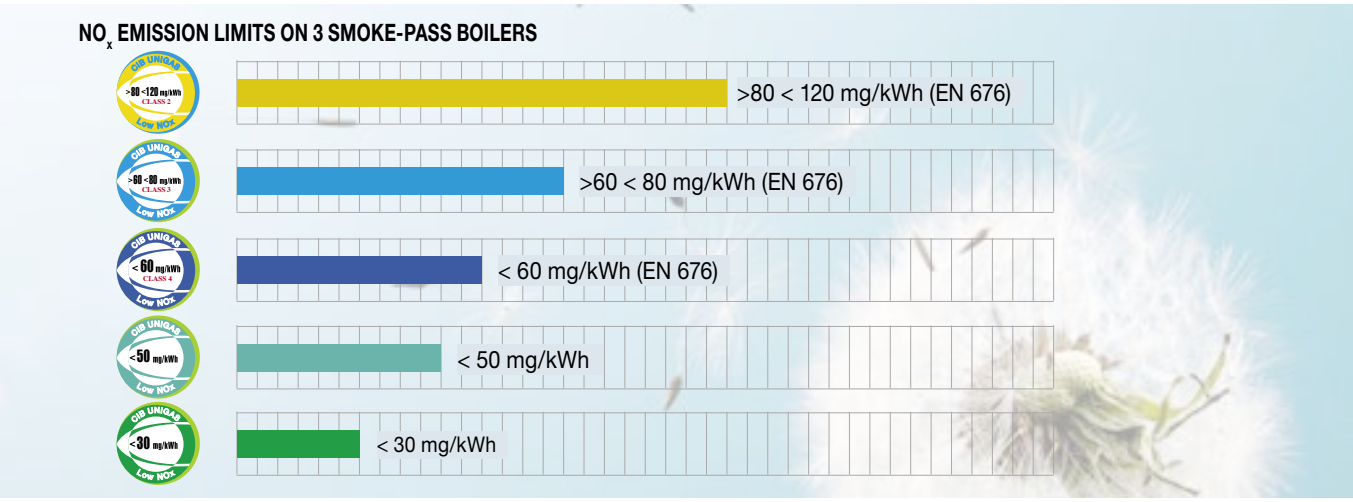


THE "ECOLOGIC" BURNER SERIES HAS REACHED A GREAT GOAL: WIDE RANGE OF COMBUSTION FLEXIBILITY

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 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.
It is 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.

Introduction
To choose the proper burner, the following data are necessarily required:
- Boiler type
- Burner input
- Backpressure in the combustion chamber
- Dimensions of the combustion chamber included the reverse smoke chamber
- NO_x emissions requested, 80, 50, 30 mg/kWh.

The counting procedure is divided into three steps:
- choosing the burner;
- choosing the depowenty burner output to obtain the correct emissions;
- choosing the combustion head length.

CHOOSING THE BURNER
To clearly explain the procedure about choosing a suitable burner, please follow the example:

Boiler type	3 pass
Furnace input	950 kW
Backpressure in the combustion chamber	6 mbar
Dimensions of the combustion chamber	Length L = 1.750 mm (1,75 m)
Smoke reverse chamber	Length L = 250 mm (0,25 m)
Total length of the calculation	Length TL = 2.000 mm (2,0 m)
Diameter	Diameter D = 680 mm (0,68 m)
Calculation combustion chamber volume	D x D x 0,78 x TL
	0,68 m x 0,68 m x 0,78 x 2,0m = 0,72 m^3
Calculation thermal load	950 kW /0,72 m^3 / 1.000 = 1,31 MW/m^3
Gas type	Natural gas

Procedure
First, identify the burners whose requested output is included within their performance curves.

BURNER SELECTION FOR NO_x < 80 mg/kWh

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

PERFORMANCE CURVE OF THE BURNER

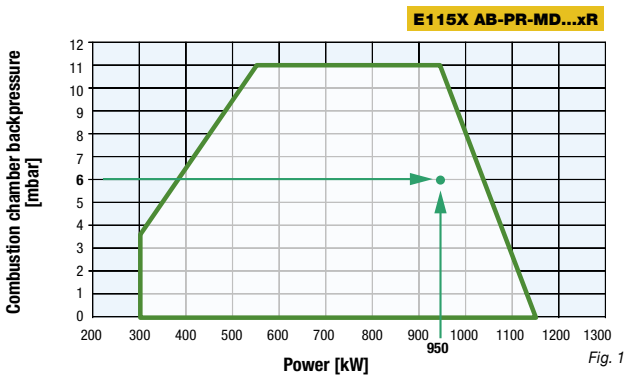


Fig. 1

The required operating point is inside of Low NO_x burner model E115X (Fig.1).

NO_x DIAGRAM IN REFERENCE TO THE THERMAL LOAD

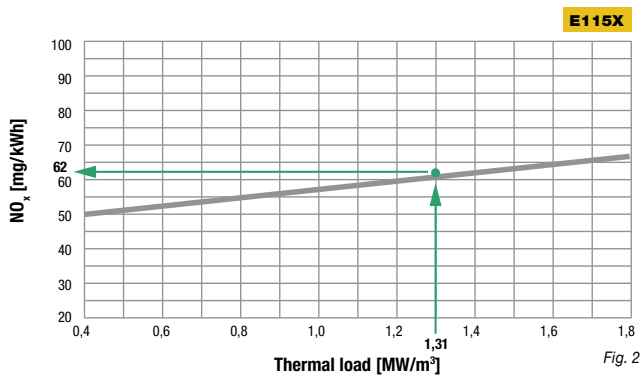


Fig. 2

In the thermal load - NO_x diagram (Fig. 2) of the selected burner, find the calculated thermal load, draw a vertical line to meet the the NO_x curve and read the value on the ordinate.

In the example, it is possible to estimate an emission of approximately 62 mg/kWh at 3% O_2 of NO_x.
Diagrams of the various models are given on the following pages.

COMBUSTION HEAD LENGTH SELECTION

The final step is to check combustion head 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 combustion head.
2) The low NO_x combustion head must penetrate 150÷200 mm into the combustion chamber.

In the cited example, the boiler chamber diameter was 680 mm, so the optimal combustion head diameter lies in the range between 215 mm and 270 mm.
The dimensional table on page 95 or 100 shows that E115X combustion head diameter is equal to 219 mm, thus the first condition is met.
Regarding the combustion head length, suppose the boiler door is 219 mm thick, refractory included. The combustion head must penetrate at least 150 mm as said above, thus the long combustion head variant is selected (390 mm). The short combustion head (305 mm) is insufficient as it only penetrates by 85 mm into the combustion chamber.
In this case we have 170 mm.
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 NO_x 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 combustion head dimensions must be checked to complete the matching procedure.

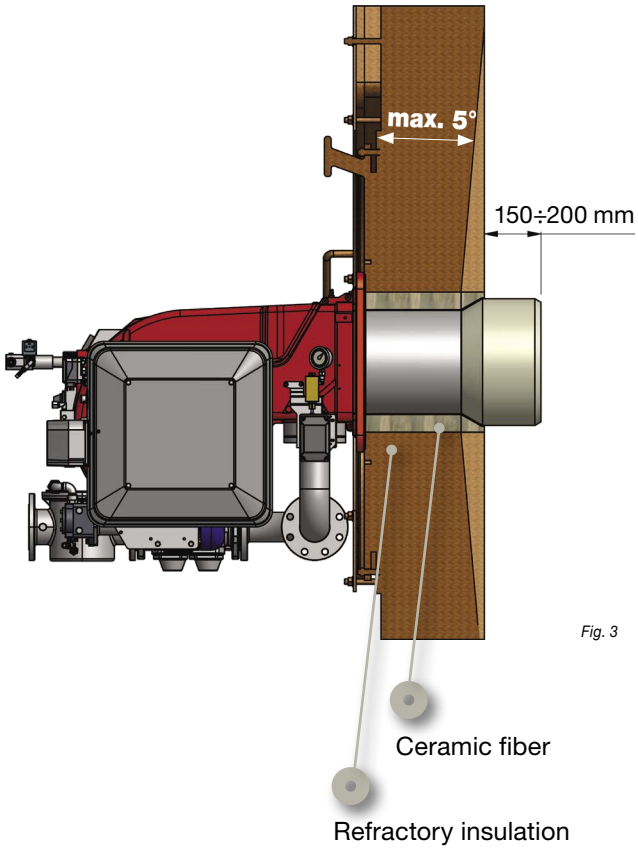


Fig. 3

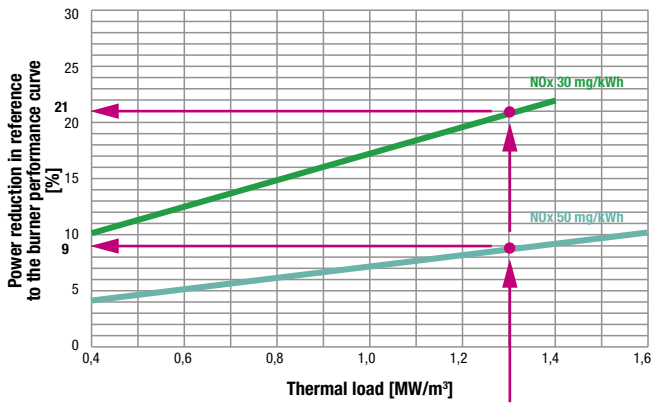
Reverse flame boilers: contact our Technical Department.

BURNER SELECTION FOR NO_x < 50 mg/kWh and < 30 mg/kWh

With NO_x < 50 mg/kWh and < 30 mg/kWh we need to have a smoke recirculation (FGR).
The smoke recirculation decreases a percentage of the performance curves and increases the backpressure in the combustion chamber. This percentage depend also of the thermal load of the combustion chamber.
In order to select the correct burner we can calculate the depowering percentage needed.

SELECTION 1: E115X

OUTPUT REDUCTION IN REFERENCE TO THE BURNER PERFORMANCE CURVE



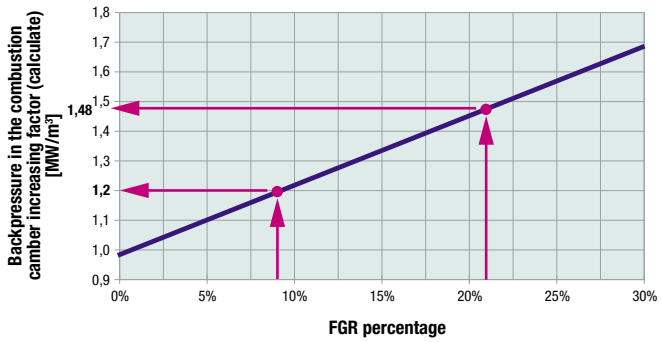
< 50 mg/kWh

In the selection 1 with the thermal load 1,31 MW/m³, the percentage of the depowering of the burner is 9 %.

< 30 mg/kWh

In the selection 1 with the thermal load 1,31 MW/m³, the percentage of the depowering of the burner is 21 %.

BACKPRESSURE IN THE COMBUSTION CHAMBER INCREASING FACTOR CHART (CALCULATE)



< 50 mg/kWh

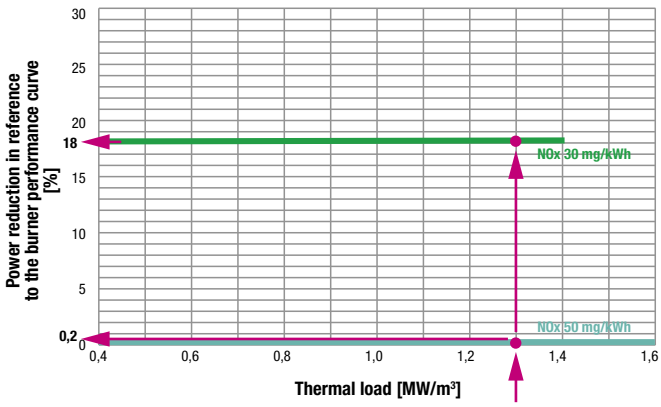
In the selection 1 with the thermal load 1,31 MW/m³ the percentage of the depowering of the burner is 9 %, and the backpressure in the combustion chamber increases
6 mbar x 1,2 = 7,2 mbar.

< 30 mg/kWh

In the selection 1 with the thermal load 1,31 MW/m³, the percentage of the depowering of the burner is 21 %, and the backpressure in the combustion chamber increases
6 mbar x 1,48 = 8,9 mbar.

SELECTION 2: E150X

OUTPUT REDUCTION IN REFERENCE TO THE BURNER PERFORMANCE CURVE



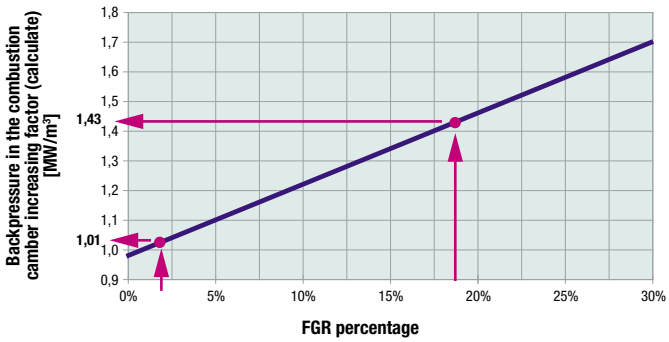
< 50 mg/kWh

In the selection 2 with the thermal load 1,31 MW/m³, the percentage of the depowering of the burner is 0,2 %.

< 30 mg/kWh

In the selection 2 with the thermal load 1,31 MW/m³, the percentage of the depowering of the burner is 18 %.

BACKPRESSURE IN THE COMBUSTION CHAMBER INCREASING FACTOR CHART (CALCULATE)



< 50 mg/kWh

In the selection 2 with the thermal load 1,31 MW/m³ the percentage of the depowering of the burner is 0,2 %, and the backpressure in the combustion chamber increases
6 mbar x 1,01 = 6,06 mbar.

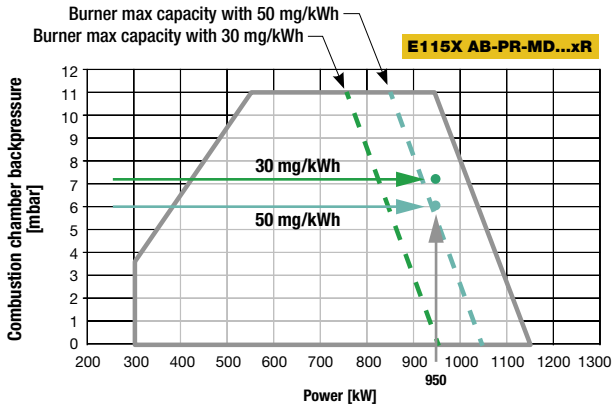
< 30 mg/kWh

In the selection 2 with the thermal load 1,31 MW/m³, the percentage of the depowering of the burner is 18 %, and the backpressure in the combustion chamber increases
6 mbar x 1,43 = 8,58 mbar.

MATCHING LOW NO_x BURNER AND HEAT GENERATOR

SELECTION 1: E115X...FGR

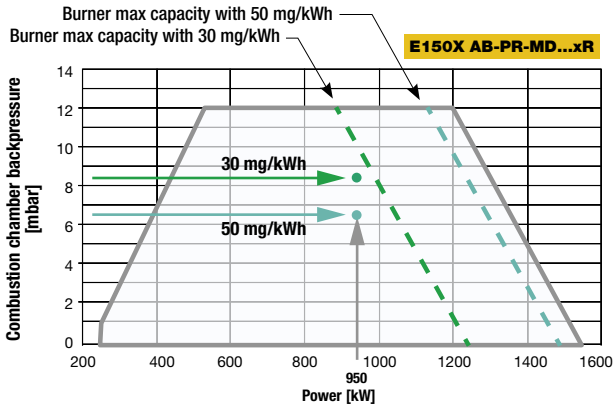
OUTPUT REDUCTION IN REFERENCE TO THE BURNER PERFORMANCE CURVE



The burner E115X in the selection 1 is outside of the performance curve, for this reason we can not choose this burner.

SELECTION 2: E150X...FGR

OUTPUT REDUCTION IN REFERENCE TO THE BURNER PERFORMANCE CURVE



The burner E150X in the selection 2 is correct because is inside of the performance curve with emissions 50 and 30 mg/kWh.

COMBUSTION HEAD LENGTH SELECTION

In the cited example, the boiler chamber diameter was 680 mm, so the optimal combustion head diameter lies in the range between 215 mm and 270 mm.
The dimensional table on page 95 or 100 shows that E150X combustion head diameter is equal to 259 mm, thus the first condition is met.
Regarding the combustion head length, suppose the boiler door is 220 mm thick, refractory included. The combustion head must penetrate at least 150 mm as said above, thus the short combustion head variant is selected (400 mm).
The long combustion head (500 mm) penetrate too much (280 mm) into in the combustion chamber.
In this case with short combustion head we have 180 mm.
To properly install the burner, please refer to Fig. 4 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 NO_x 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 combustion head dimensions must be checked to complete the matching procedure.

Reverse flame boilers: contact our Technical Department.

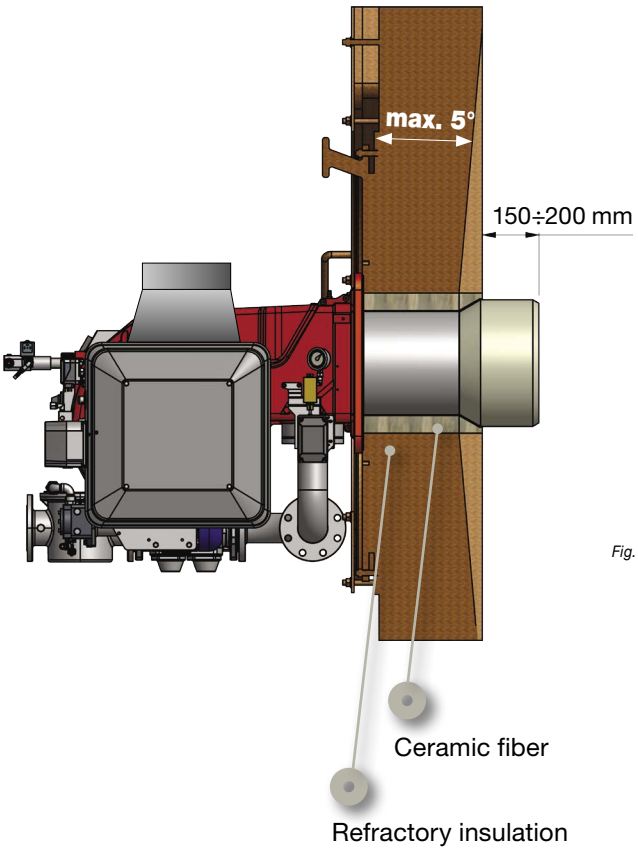
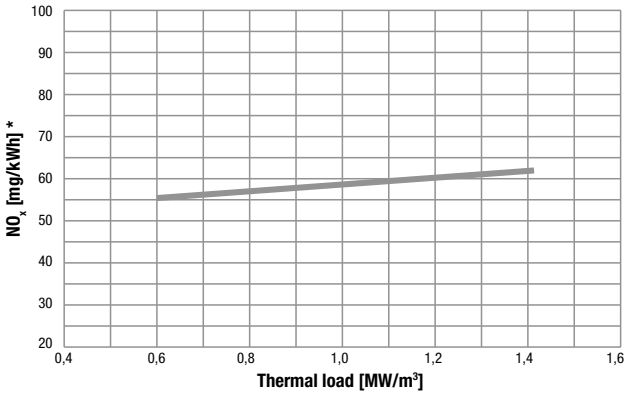


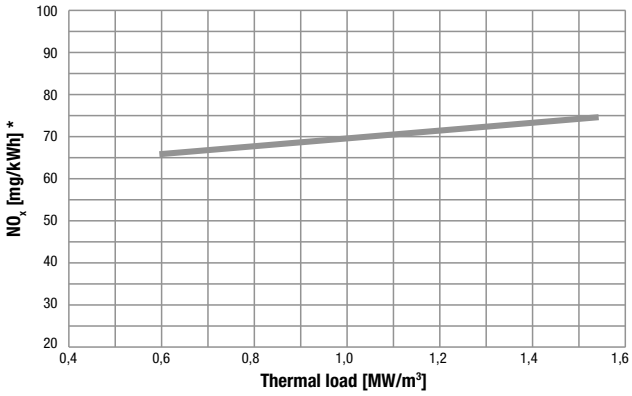
Fig. 4

NO_x DIAGRAM IN REFERENCE TO THE THERMAL LOAD

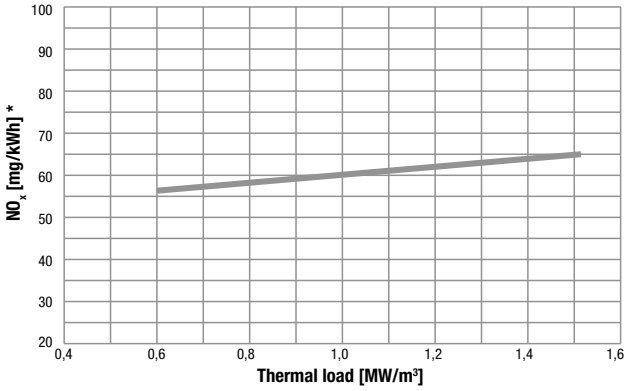
NGX70



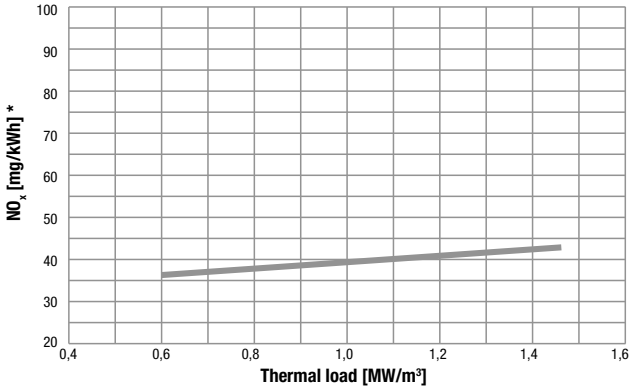
NGX120



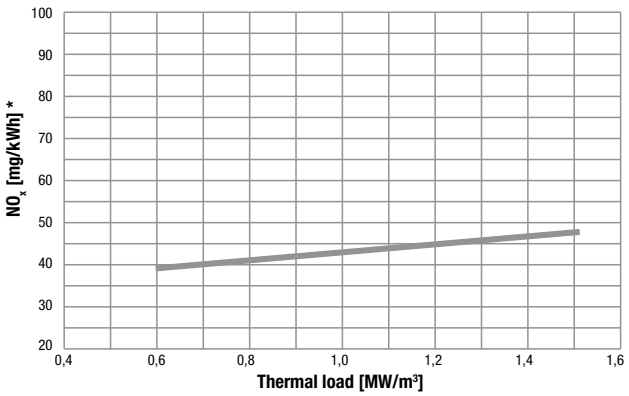
NGX200



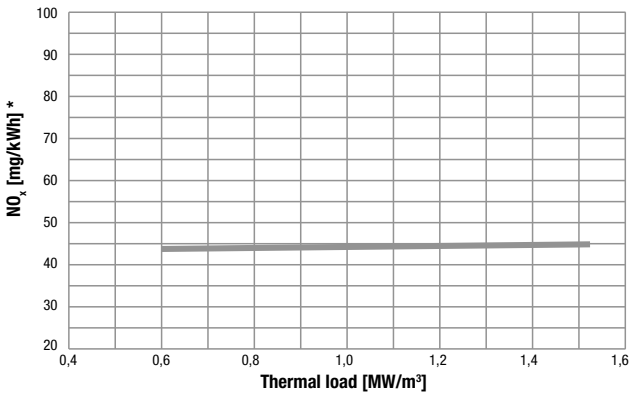
NGX280



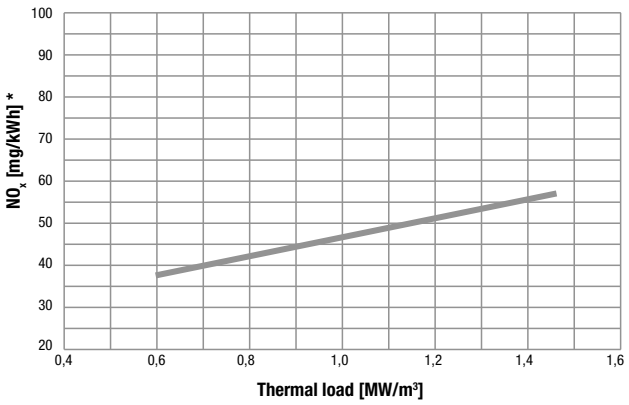
NGX350



NGX400



NGX550

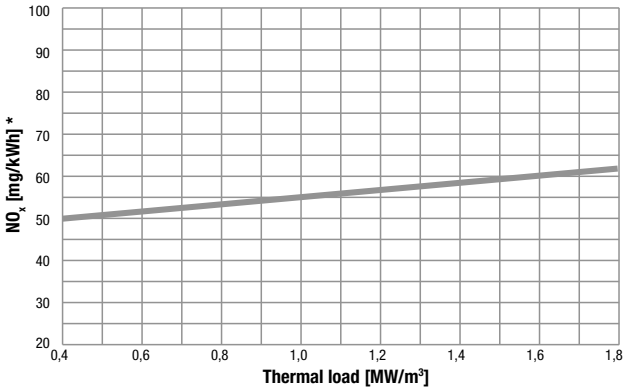


* According to UNI EN 676 correction method; p amb 1013 mbar; t amb 20°C; h 10 g/kg.

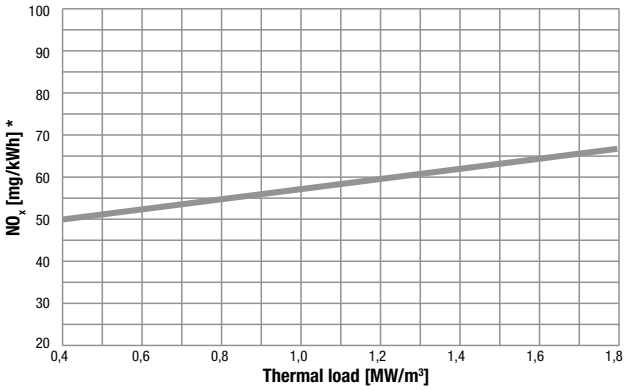
MATCHING LOW NO_x BURNER AND HEAT GENERATOR

NO_x DIAGRAM IN REFERENCE TO THE THERMAL LOAD

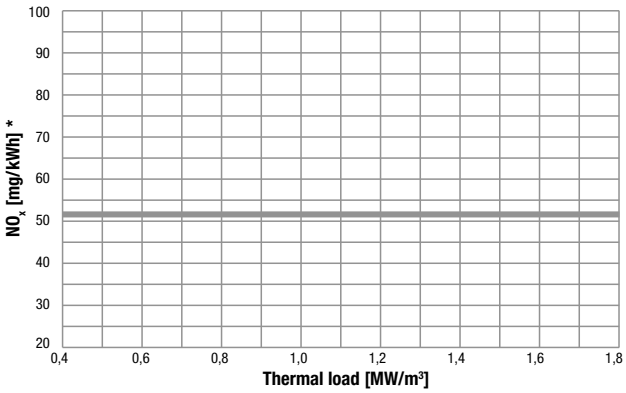
C83X **C83X...MG**



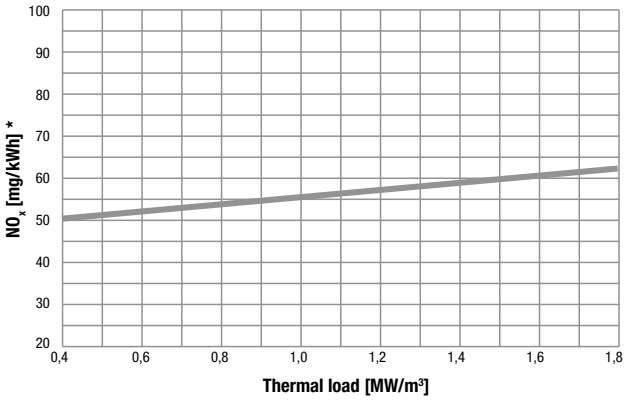
E115X **E115X...MG**



E150X **E150X...MG**

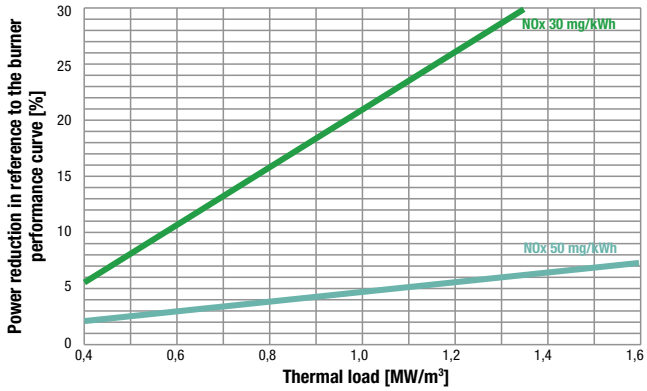


E180X **E180X...MG**

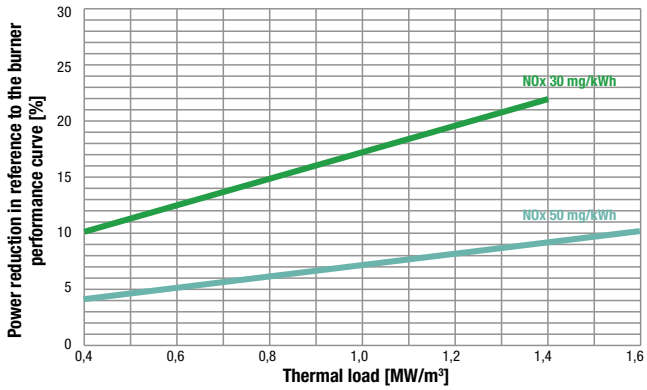


OUTPUT REDUCTION IN REFERENCE TO THE BURNER PERFORMANCE CURVE

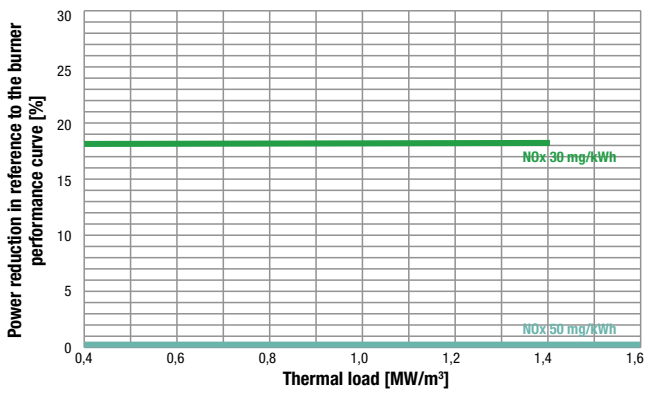
C83X...FGR **C83X...MG...FGR**



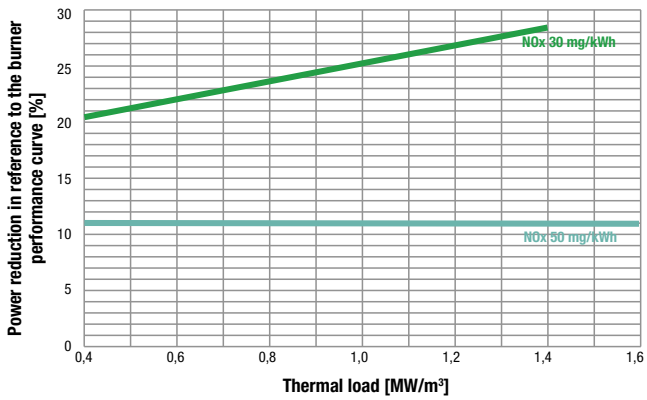
E115X...FGR **E115X...MG...FGR**



E150X...FGR **E150X...MG...FGR**

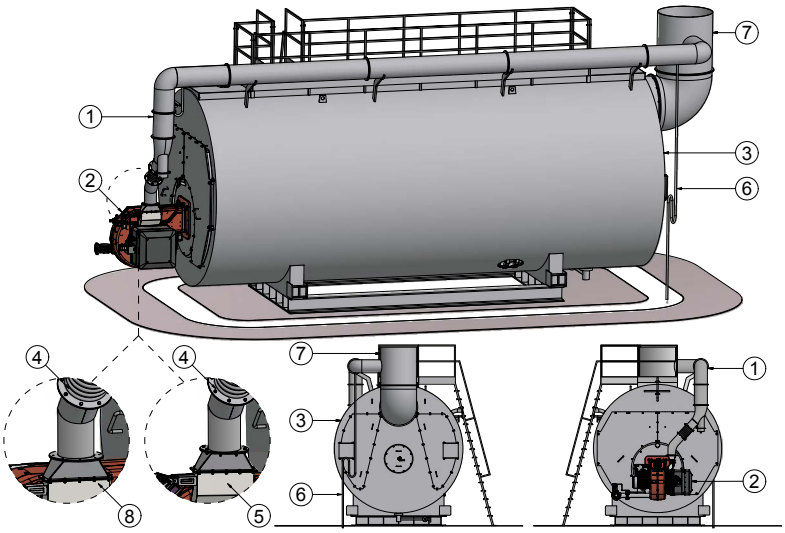


E180X...FGR **E180X...MG...FGR**



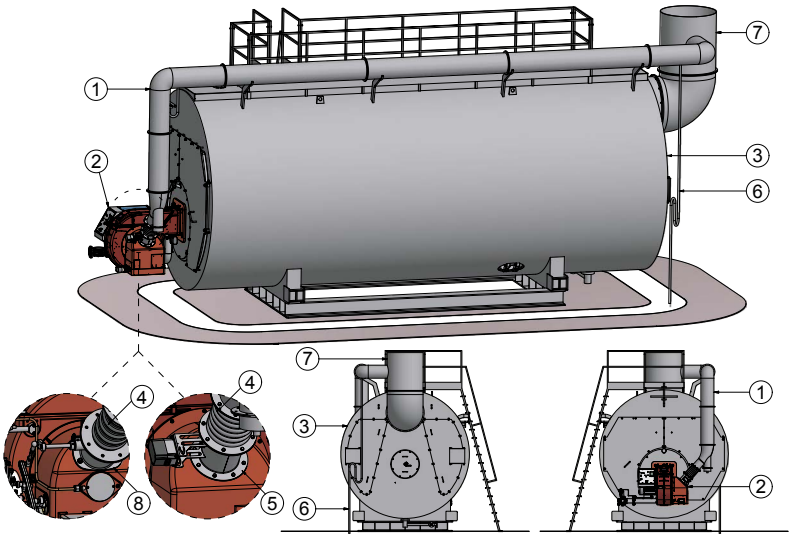
* According to UNI EN 676 correction method; p amb 1013 mbar; t amb 20°C; h 10 g/kg.

BURNER WITH AIR INLET SILENCER



Legend
1 - FGR pipe
2 - Burner with air inlet silencer
3 - Boiler
4 - Antivibrating joint
5 - FGR system 30 mg/kWh
6 - Condensate drain
7 - Chimney
8 - FGR system 50 mg/kWh

BURNER WITHOUT AIR INLET SILENCER

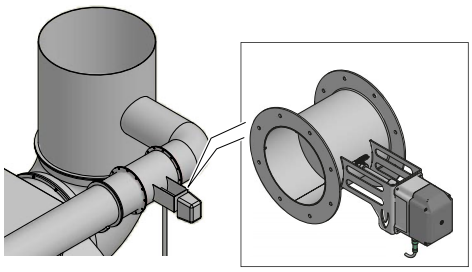


Legend
1 - FGR pipe
2 - Burner without air inlet silencer
3 - Boiler
4 - Antivibrating joint
5 - FGR system 30 mg/kWh
6 - Condensate drain
7 - Chimney
8 - FGR system 50 mg/kWh

BURNER LIGHT-OIL: ADDITIONAL DAMPER FOR EXCLUSION FGR

For burner Natural gas / light oil operation it is recommended to use an additional damper to close the flow of recirculation gas FGR.

Option 1: Damper with actuator
Connect the actuator to the electrical predisposition inside the electrical panel
Option 2: Damper manual
Damper manual with Opening / Closing signaling microswitches to be connected to the electrical predisposition inside the burner electrical panel.



Additional damper with actuator on chimney (option 1)

For the use of the FGR during light oil operation, please consult our sales offices.

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 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.

INPUT DATA FOR QUOTATION

CIB UNIGAS S.p.A.

Via L. Galvani, 9 (Zona Industriale)
35011 CAMPODARSEGO (PD) - Italy
Tel. +39 049 9200944
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:

Certificate
EC TYPE EXAMINATION CERTIFICATE
kiwa
Partner for progress
Number KIP-091058/G
Issued 18-12-2015
Report 150901898
PIN 0476CQ1898
Replaces ---
Scope Directive 2009/142
Page 1 of 2
Kiwa Cermet Italia hereby declares that the products
Forced draught burners
Trade mark: CIB Unigas
Models: as specified in the Annex 1
Manufactured by CIB Unigas S.p.A. Campodarsego (PD), Italy
meet the essential requirements as described in the Directive on appliances burning gaseous fuels 2009/142/EC
Mentioned products have been approved for
Appliance type: B_{23}
Gas groups:
Models "...M-..."
Models "...L-..."
Have been tested according to:
EN 676:2008
Chief Operating Officer
Giampiero Balcredi
Approved
EC directive
Type examination
2009/142/EC
GASTEC
ANNEX 1
Models:
CERTIFICATO
Nr. 50 100 3422 - Rev.007
Si attesta che / This is to certify that
IL SISTEMA QUALITÀ DI
THE QUALITY SYSTEM OF
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
Andrea Coccia
2018-07-23
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ZERTIFIKAT ◆ CERTIFICATE ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

2022/1-2023 - M029113CA Rel. 4

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CATALOGUE - Burners from 19 kW to 2050 kW

Let's light up tomorrow

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