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.**

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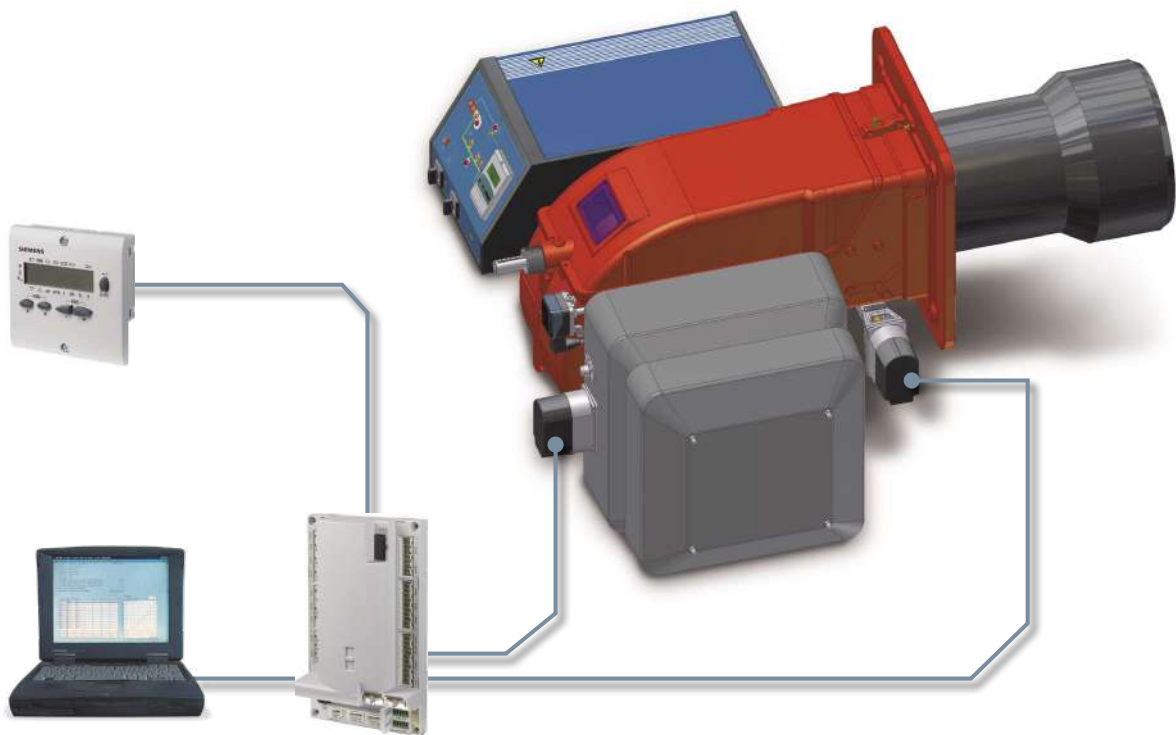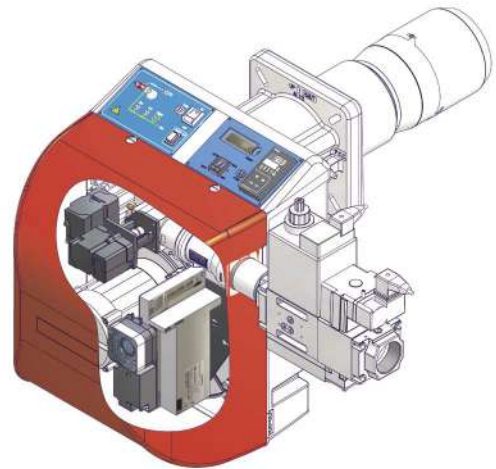
Modbus communication, system, only upon request, through the software (to be quoted separately), except the basic version.

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

| 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	

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

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*

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.
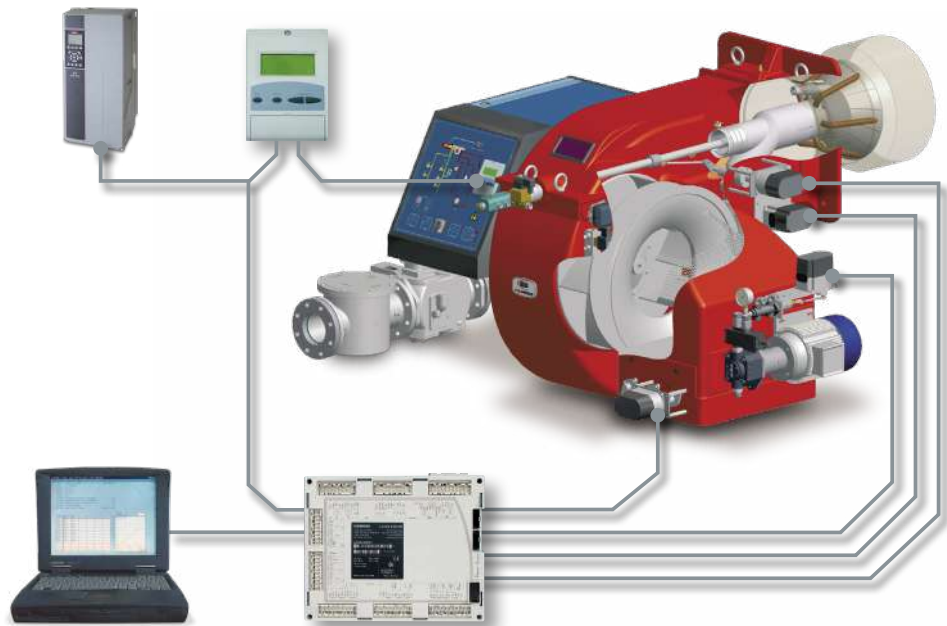
Flame control box integrated functions:
- Burner control;
- Electronic cam;
- Power regulator;
- Gas valve leakage control system;
- Oxygen control;
- Inverter control;
- Dialogue with BMS systems or PLC (MOD Bus);
- Burner commissioning and configuration via PC-tool;
- Simple programming with AZL and 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

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	

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	

LMV 52... AZL 5 SQM4... SQM4... O$_2$... PROBE

Electronically operated burners with O$_2$ trim without inverter.
With oxygen probe

Series	Burner Type	Extra charge €
GAS	P61 ...E0 P65 ...E0 P71 ...E0	
GAS	C85A... 1.32 /40/50/65 ...E0 C120A... 1.40/50/65/80 ...E0 E165A... 1.40/50/65/80 ...E0 E205A... 1.40/50/65/80 ...E0	
GAS	C83X... 1.32 /40/50/65 ...E0 E115X... 1.40/50/65/80 ...E0 E150X... 1.40/50/65/80 ...E0 E180X... 1.40/50/65/80 ...E0	

LMV 52... AZL 5 SQM4... SQM4... SQM4... O$_2$... 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

| 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	

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	

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		tecnopress series	NEW tecnopress series
NG35 - TN	**NG200** - TN/AB/PR/MD	**P61** - AB/PR/MD	**C85A** - AB/PR/MD
NG70 - TN/AB	**NG280** - TN/AB/PR/MD	**P65** - AB/PR/MD	**C120A** - AB/PR/MD
NG90 - TN/AB	**NG350** - TN/PR/MD	**P71** - AB/PR/MD	**E165A** - AB/PR/MD
NG120 - TN	**NG400** - TN/PR/MD		**E205A** - AB/PR/MD
NG140 - TN/AB/PR/MD	**NG550** - TN/PR/MD		

Type

P71	
P65	(from 270
P61	(from 160 to 800 kW)
NG550	(from 160 to 570 kW)
NG400	(from 115 to 420 kW)
NG350	(from 80 to 330 kW)
NG280	(from 65 to 300 kW)
NG200	(from 42 to 200 kW)
NG140	(from 35 to 170 kW)
NG120	(from 60 to 120 kW)
NG90	(from 22 to 85 kW)
NG70	(from 19 to 70 kW)
NG35	(from 20 to 41 kW)

E205A	
E165A	
C120A	
C85A	(from 230 to 850 kW)

(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)