ecostar®
COMBUSTION SYSTEMS

MONOBLOCK BURNER
CATALOGUE

2017

www.ecostarburners.com

ecostar®
COMBUSTION SYSTEMS

www.ecostarburners.com

1959 In 1959 The founder of our company, Sami Özyıldırım, started working for Sunguroğlu company as the prime contractor.

1967 Termo-Heat Isı San. ve Tic. A.Ş. was founded.

1980 Tube Resistor production and sales started.

1986 In 1986, production of industrial burners under license of OERTLI has started.

1988 Gazteknik Isi San. ve Tic. A.Ş. has founded.

1989 Production and sales of process burner started. (Lime Plant)
Production and sales of Industrial burner started. (Textıle Plant)
Production and sales of natural gas burner started.

1990 Liquid-fuel burner production started under the Turkey Distributorship of Dr. B. Thyssen Gmbh (1990-2000).

1992 Production and sales of the first Hot Air Generator started (Cement Plant)

1996 The first commitment project was done. (Sugar Factory)

1997 The plant was moved to Çorlu, Tekirdağ.

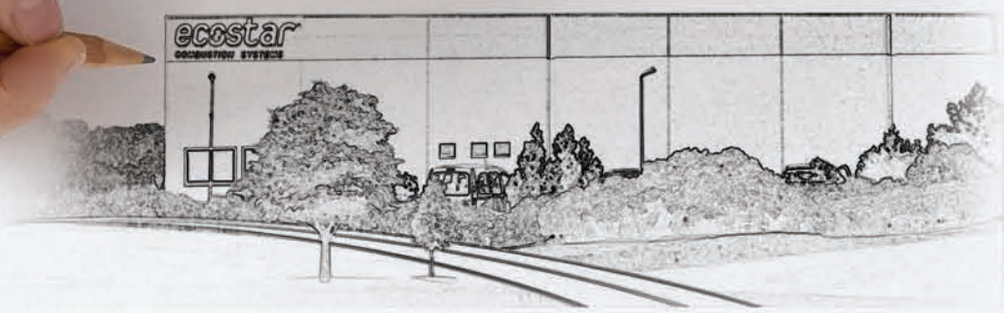
1999 Termo-Heat Isı San. and Gazteknik Isı San. companies were jointed and renamed as Termo Isı Sistemleri Tic. ve San. A.Ş.

2000 The production range expanded as Gas-Liquid Fu-el-Dual (40 kw-42 MW)

2006 Production and sales under Ecostar Brand started.

2015 The head office moved to Monumento Plaza, Kartal, Istanbul.
Production and sales of Ecodense Condensing Boilers.

1- ecostar – from past to the future



2- R&D investments :

* Environment friendly – low emission and high efficiency productions
* Service friendly and low maintenance costs
* With aim to produce burners which able to use different fuels, R-D department was established in 2010 and includes new investments every year.

*Among the worldwide producers, with its unique, modern labs, focuses on making improvements in boilers and burners

WHY

3- after sales services

4- quality certifications

TSE CE ISO TURQUM THE QUALITY OF TURKISH MACHINERY EAC

5- export rewards

- export champion on heating industry
- isib export award

ecostar®
COMBUSTION SYSTEMS

6- market leader

Pls. scan for electronic catalogue.

Energy saving

Competitive prices

Optional solutions

444

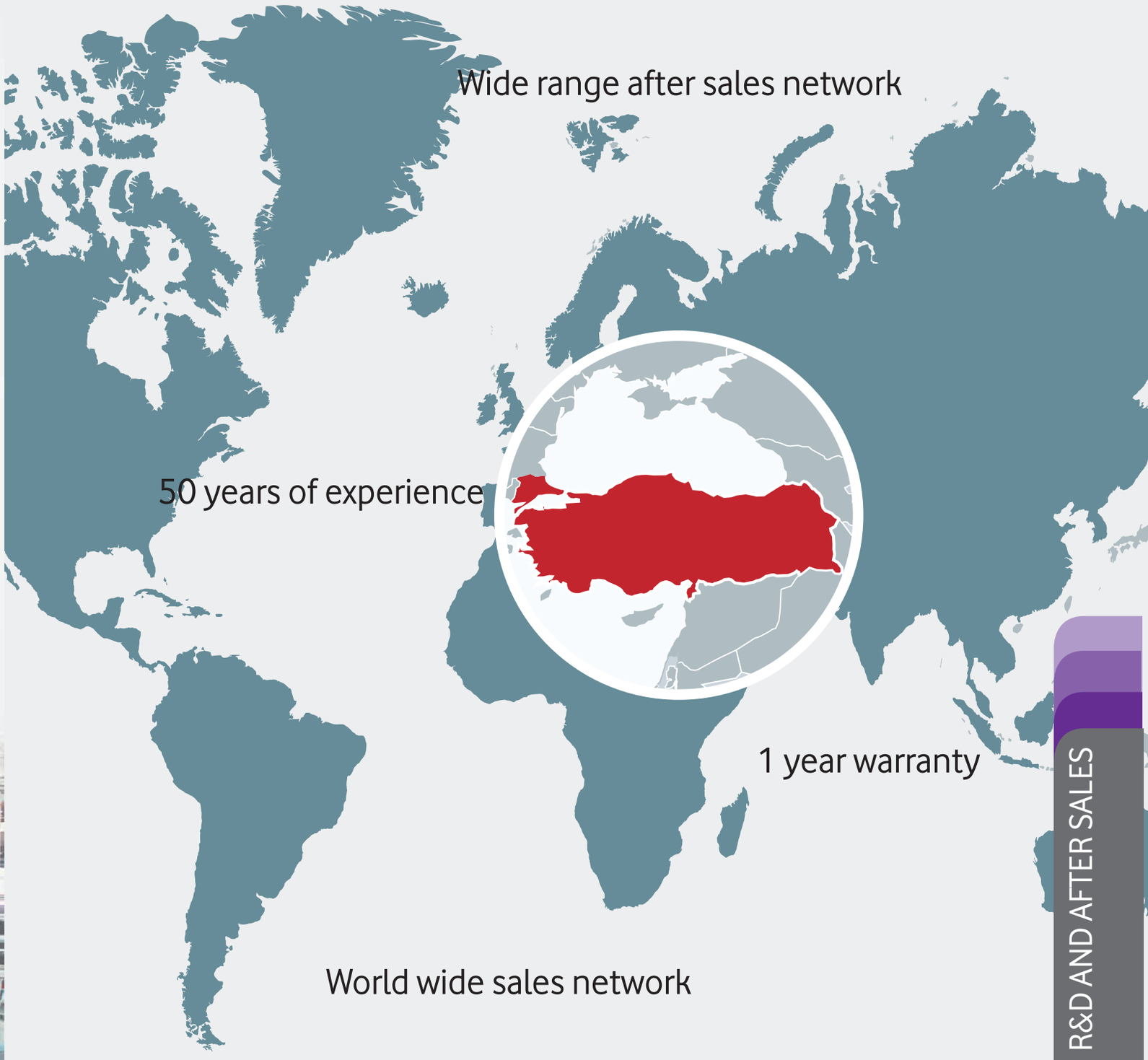
8

326

eco

7/24 after sales services

Wide range after sales network



50 years of experience

1 year warranty

World wide sales network

Pls. scan for electronic catalogue.

INDEX

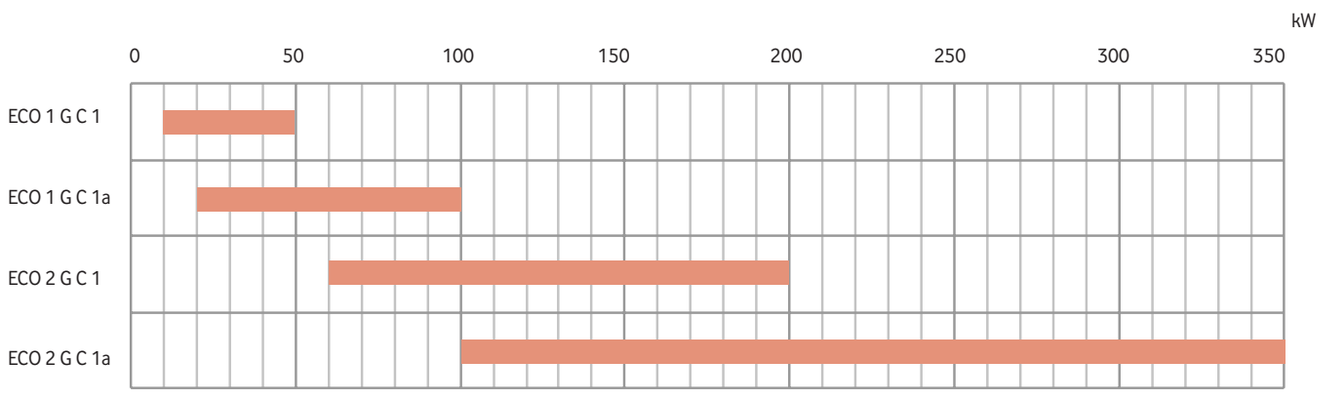
01 02 03 04 05 06

NEW GENERATION SERIES BURNERS

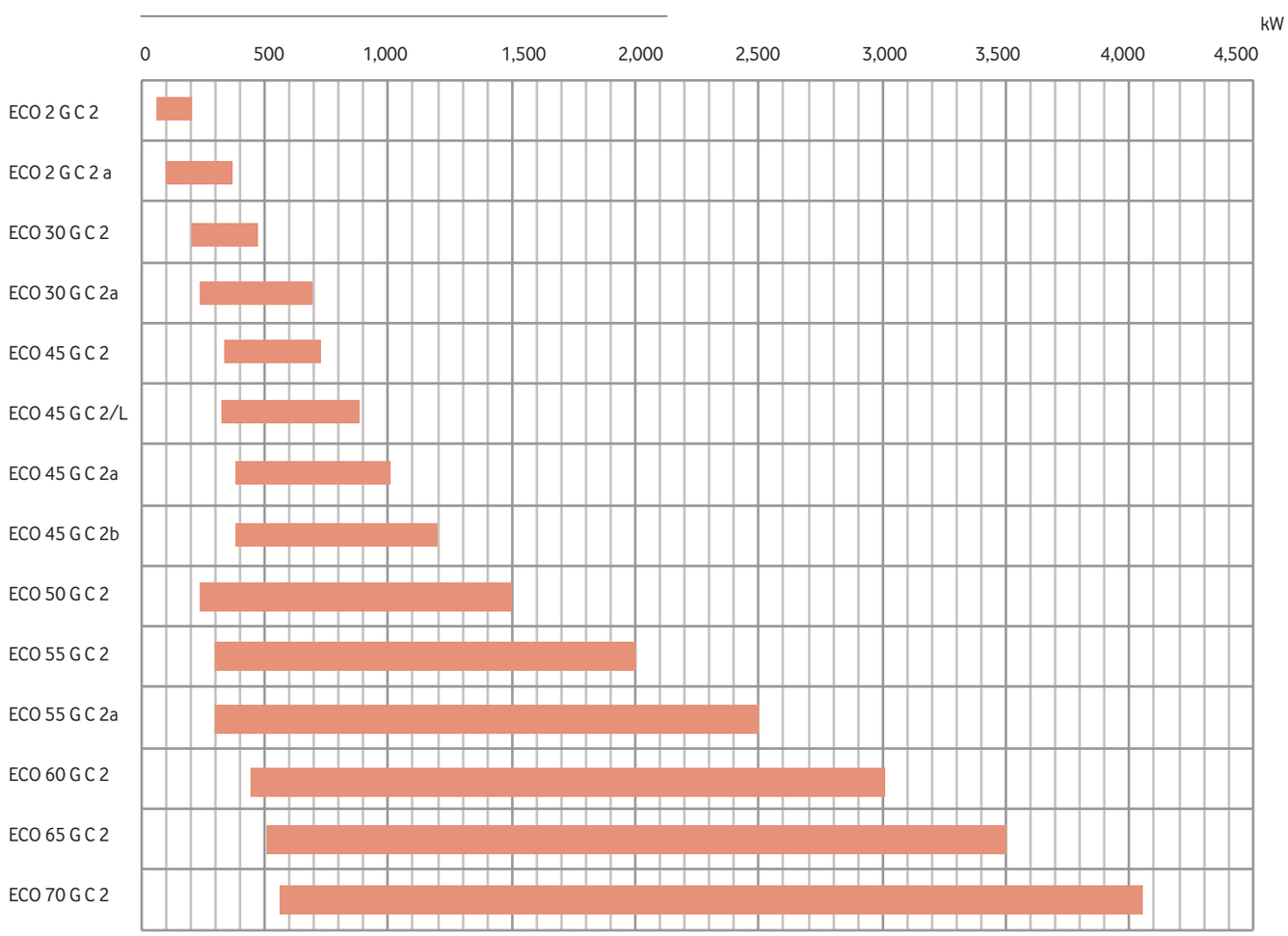
COMBUSTION SYSTEM EQUIPMENTS

GAS BURNERS

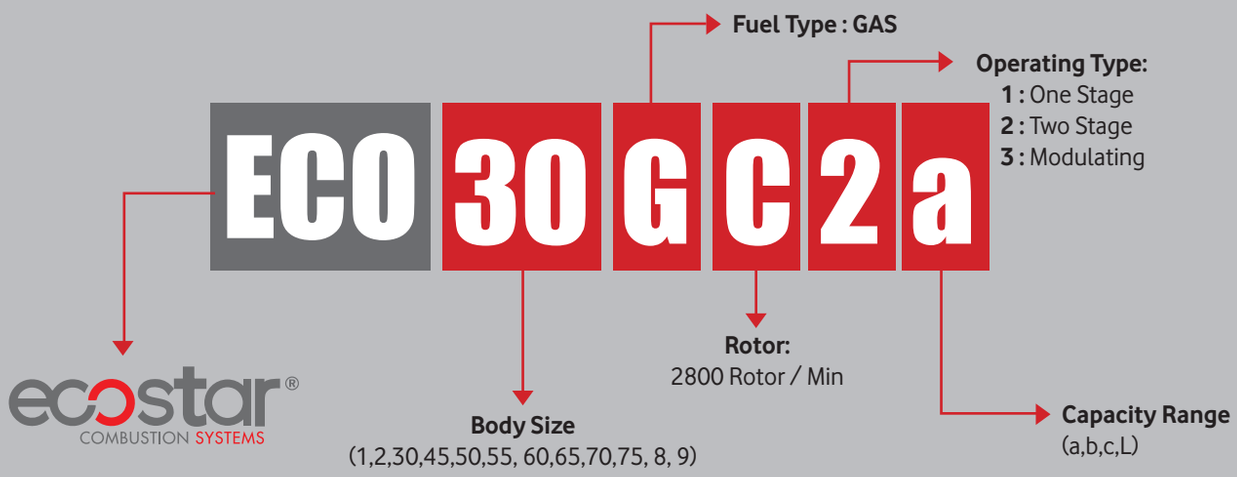
ONE STAGE GAS BURNERS



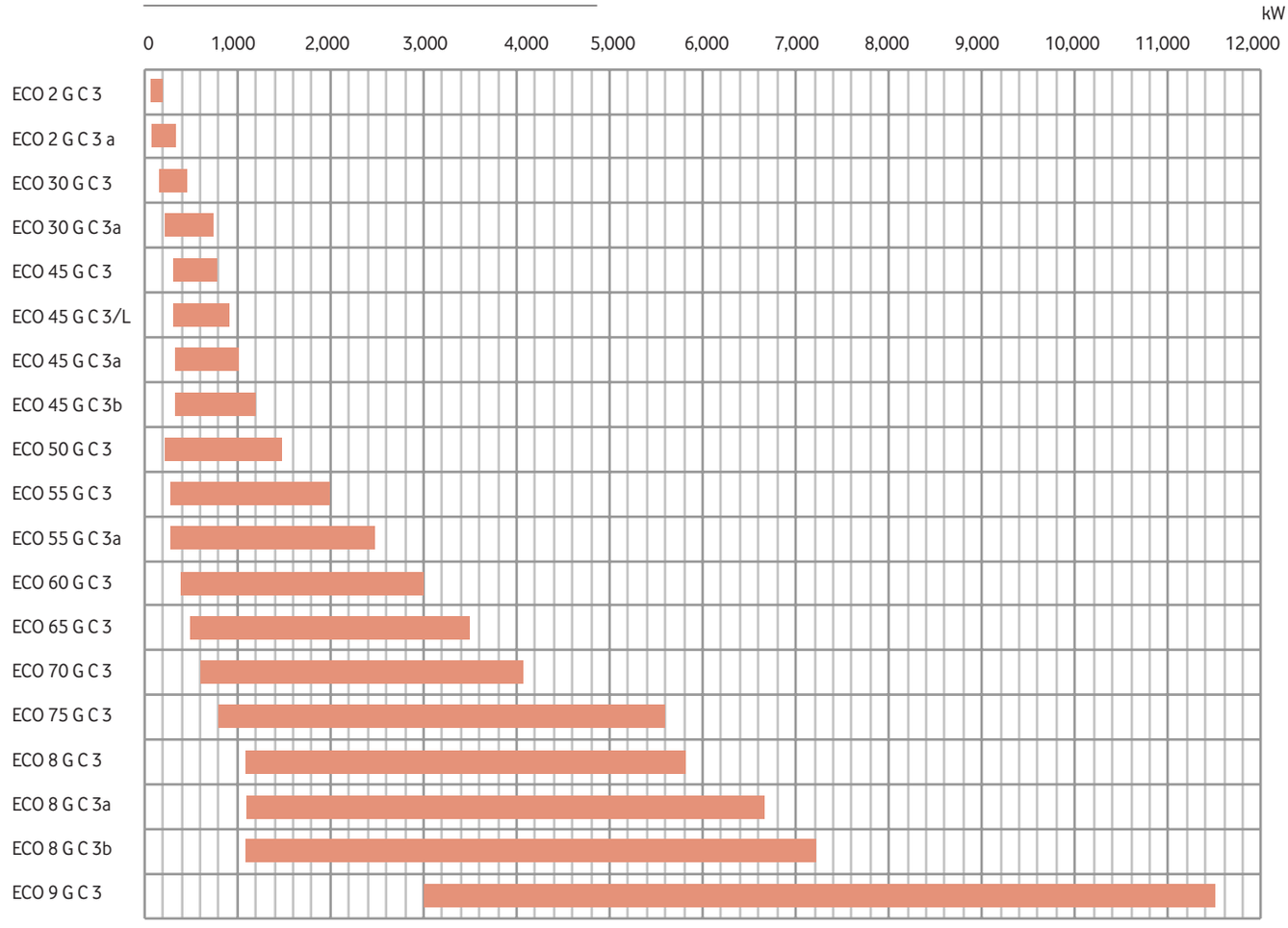
TWO STAGE GAS BURNERS



CODE KEY



MODULATING GAS BURNERS



Pls. scan for electronic catalogue.

GAS BURNERS

ONE STAGE GAS BURNERS

CAPACITY TABLES

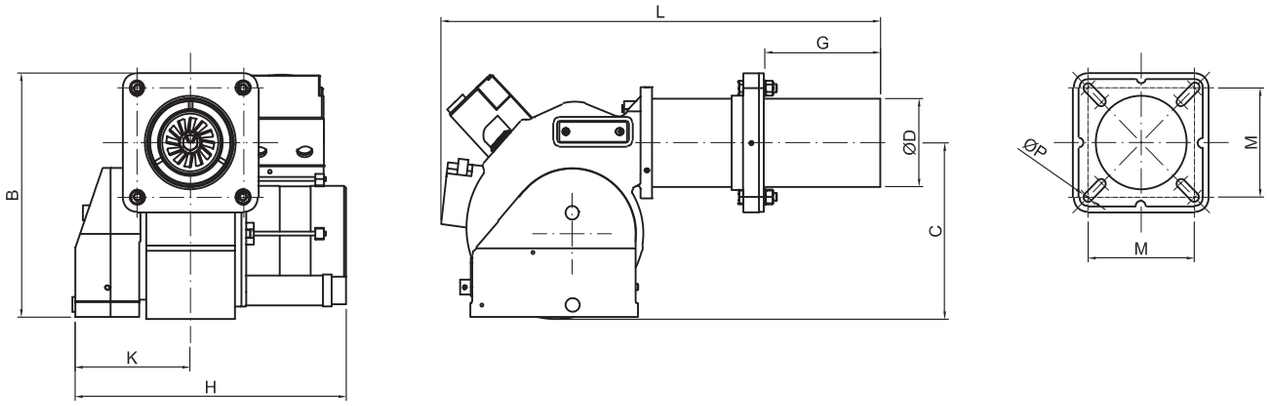
BURNER TYPE	CAPACITY		CAPACITY		NATURAL GAS CONSUMPTION		LPG GAS CONSUMPTION		FAN MOTOR POWER	VOLTAGE AT 50 Hz
	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. Nm³/h	Max. Nm³/h	Min. Nm³/h	Max. Nm³/h	kW	VAC
ECO 1 G C 1	8.600	43.000	10	50	1,0	5,2	0,4	1,9	0,11	1N 230
ECO 1 G C 1a	17.200	86.000	20	100	2,1	10,4	0,8	3,8	0,11	1N 230
ECO 2 G C 1	51.600	172.000	60	200	6,3	20,8	2,3	7,6	0,15	1N 230
ECO 2 G C 1a	86.000	299.280	100	348	10,4	36,3	3,8	13,3	0,15	1N 230

* Net calorific value H natural gas: 8250 kcal/Nm³ H LPG: 22250 kcal/Nm³

BURNER DIMENSIONS

* Gmax values are standart production values. For diferent sizes pls. contact with our sales team.

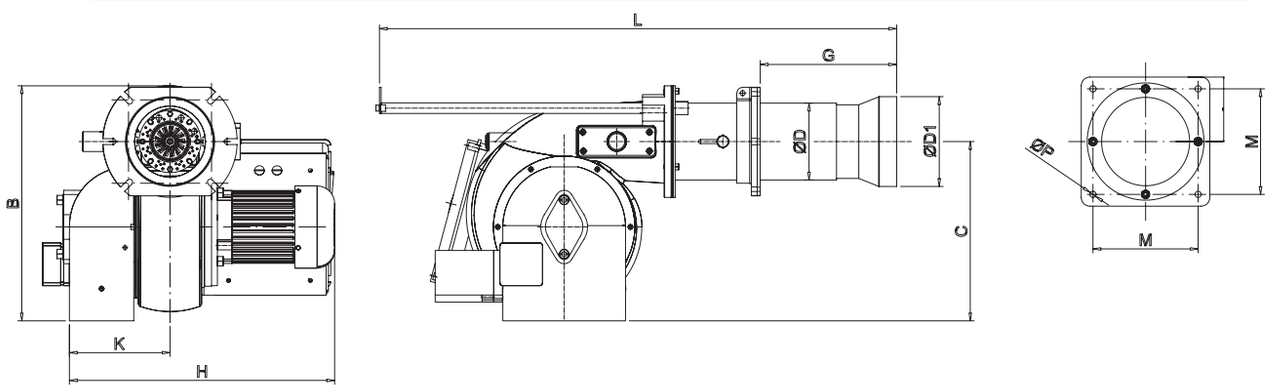
ECO 1



TECHNICAL SPECIFICATIONS

- Optimum fuel / air mixture with special gas nozzle
- High pressure, light build fan design
- Low noise level due to light and aerodynamic body design made of high quality aluminum
- Sliding flange for connection to different boiler types,
- Automatic control equipment of the burner according to European standard EN-298
- Easy access to all equipments without dismounting the burner from the boiler,
- High efficiency operation by air flow rate adjustment from both the suction and the gun barrel for (ECO 2 G C 1 / 1A) model.
- Adequate gas supply control with minimum gas pressure switches.
- Combustion air control with air pressure switches.
- Easy installation and operation

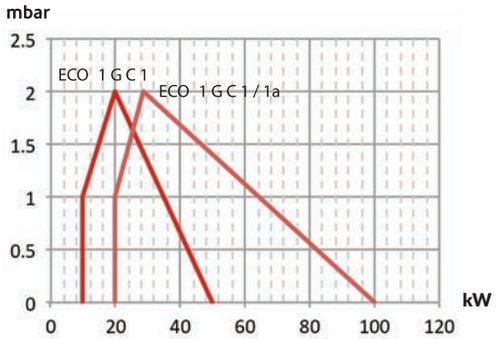
ECO 2



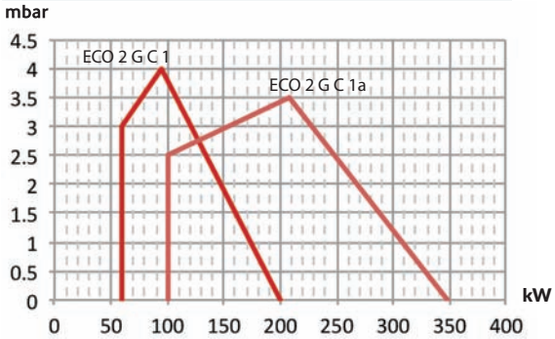
	L	Gmin	Gmax	H	K	B	C	ØP	M	ØD	ØD1
ECO 1 G	565	50	310	320	160	290	175	10	110	89	-
ECO 2 G	960	106	320	325	150	320	230	10	142	120	139

BACK PRESSURE DIAGRAMS

ECO 1 G C 1 / 1a



ECO 2 G C 1 / 1 a



GAS BURNERS

TWO STAGE BURNERS

CAPACITY TABLES

BURNER TYPE	CAPACITY		CAPACITY		NATURAL GAS CONSUMPTION		LPG GAS CONSUMPTION		FAN MOTOR POWER	VOLTAGE AT 50 Hz
	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. Nm³/h	Max. Nm³/h	Min. Nm³/h	Max. Nm³/h	kW	VAC
ECO 2 G C 2	51.600	172.000	60	200	6,3	20,8	2,3	7,6	0,15	1N 230
ECO 2 G C 2 a	86.000	299.280	100	348	10,4	36,3	3,8	13,3	0,15	1N 230
ECO 30 G C 2	163.400	387.000	190	450	19,8	46,9	7,3	17,2	0,37	1N 230
ECO 30 G C 2a	223.600	602.000	260	700	27,1	73,0	9,9	26,8	0,75	3N 380
ECO 45 G C 2	288.100	645.000	335	750	34,9	78,2	12,8	28,7	0,75	3N 380
ECO 45 G C 2/L	288.100	749.920	335	872	34,9	90,9	12,8	33,3	0,75	3N 380
ECO 45 G C 2a	331.100	928.800	385	1.080	40,1	112,6	14,7	41,3	1,10	3N 380
ECO 45 G C 2b	331.100	1.075.000	385	1.250	40,1	130,3	14,7	47,8	1,50	3N 380
ECO 50 G C 2	215.000	1.290.000	250	1.500	26,1	156,4	9,6	57,3	2,20	3N 380
ECO 55 G C 2	258.000	1.720.000	300	2.000	31,3	208,5	11,5	76,4	3,00	3N 380
ECO 55 G C 2a	258.000	2.150.000	300	2.500	31,3	260,6	11,5	95,6	3,00	3N 380
ECO 60 G C 2	369.800	2.580.000	430	3.000	44,8	312,7	16,4	114,7	4	3N 380
ECO 65 G C 2	430.000	3.010.000	500	3.500	52,1	364,8	19,1	133,8	5,5	3N 380
ECO 70 G C 2	498.800	3.500.200	580	4.070	60,5	424,3	22,2	155,6	7,5	3N 380

*Net calorific value H natural gas : 8250 kcal/Nm³ H LPG: 22250 kcal/Nm³

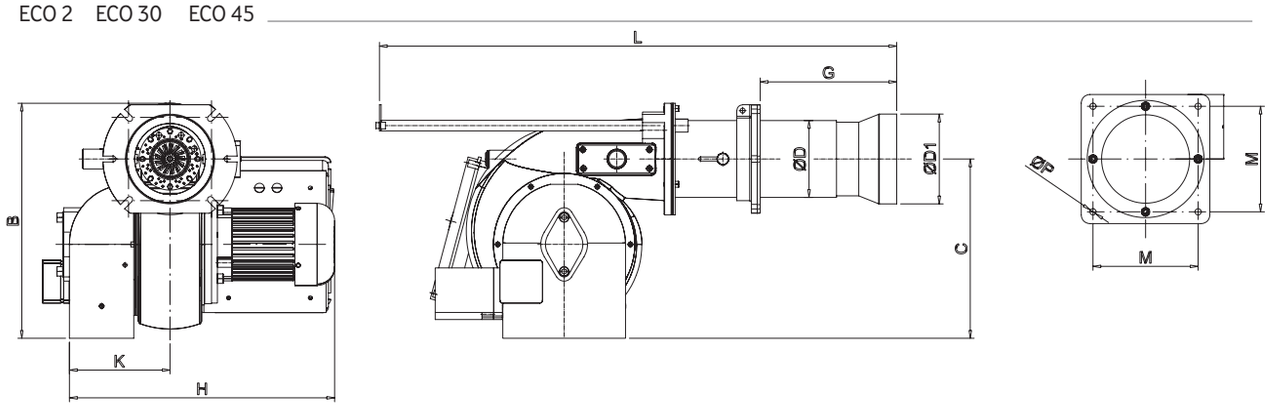
TECHNICAL SPECIFICATIONS

- Optimum fuel / air mixture with special gas nozzle
- High pressure, light build fan design
- Low noise level due to light and aerodynamic body design made of high quality aluminum
- Sliding flange for connection to different boiler types,
- Automatic control equipment of the burner according to European standard EN-298
- Easy access to all equipments without dismounting the burner from the boiler,
- High efficiency operation thanks to by air flow rate adjustment from both the suction and the gun barrel.
- Adequate gas supply control with minimum gas pressure switches.
- Combustion air control with air pressure switches.
- Easy installation and operation
- Direct ignition and pilot ignition options. (Pilot ignition is optional for some models.)

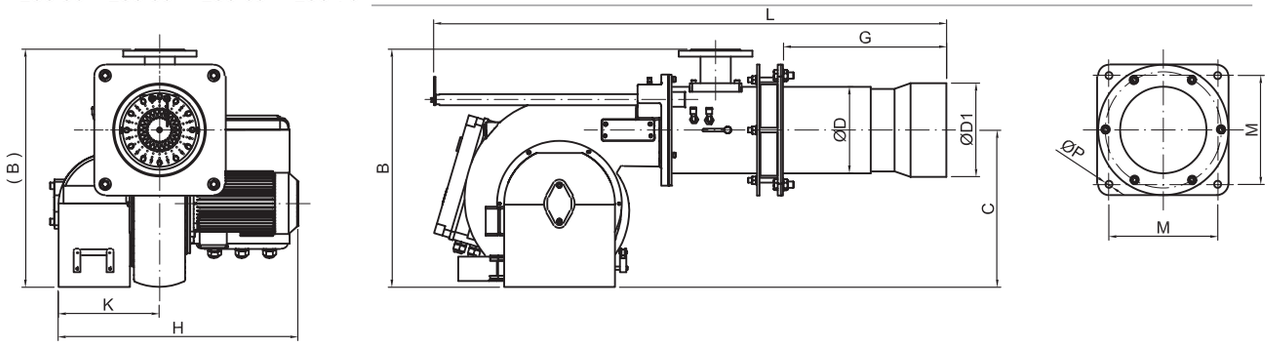
BURNER DIMENSIONS

* Gmax values are standart production values. For diferent sizes pls. contact with our sales team.

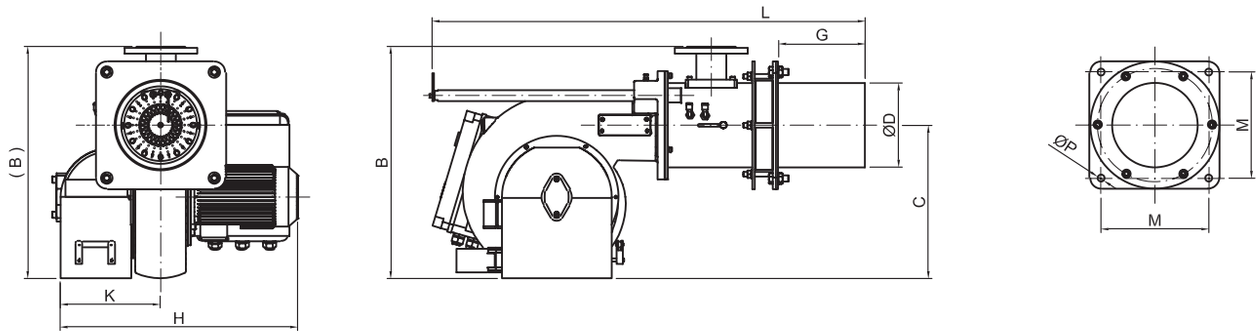
ECO 2 ECO 30 ECO 45



ECO 50 ECO 55 ECO 65 ECO 70



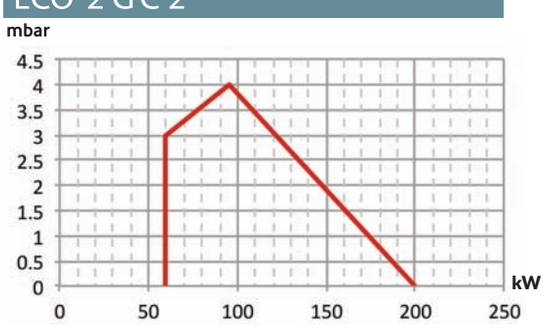
ECO 60 ECO 75



	L	Gmin	Gmax	H	K	B	C	ØP	M	ØD	ØD1
ECO 2 G	960	106	320	325	150	320	230	10	142	120	139
ECO 30 G	960	130	320	440	170	400	305	10	142	131	153
ECO 45 G	1030	150	390	515	210	460	350	11	180	148	172
ECO 50 G	1300	280	440	650	255	625	422	18	275	218	236
ECO 55 G	1300	280	440	650	255	625	422	18	275	218	236
ECO 60 G	1450	200	355	850	330	730	510	18	275	240	-
ECO 65 G	1500	200	440	815	330	735	510	18	275	250	280
ECO 70 G	1500	200	440	820	330	735	510	18	275	250	280

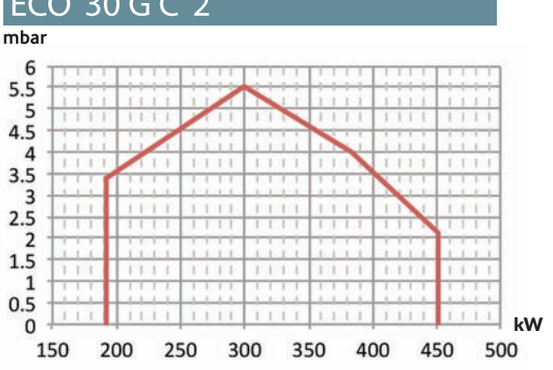
BACK PRESSURE DIAGRAMS

ECO 2 G C 2

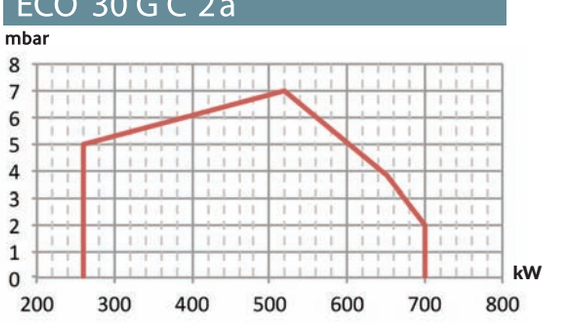


ECO 2 G C 2a

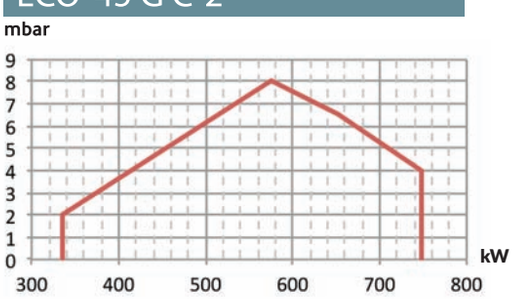
ECO 30 G C 2



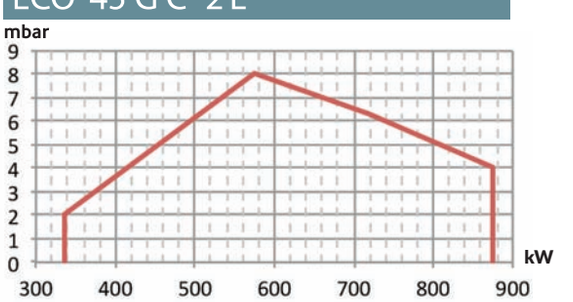
ECO 30 G C 2a



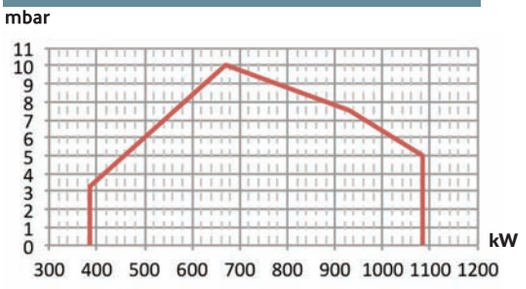
ECO 45 G C 2



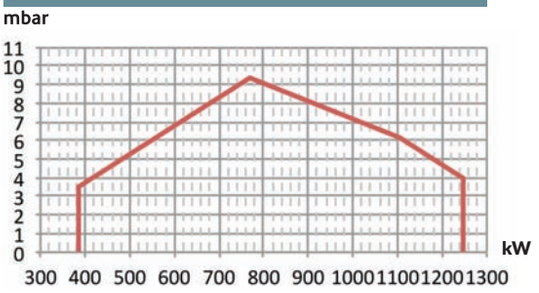
ECO 45 G C 2L



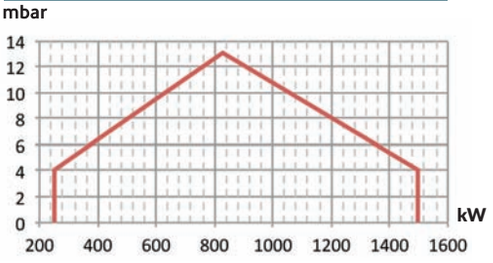
ECO 45 G C 2a



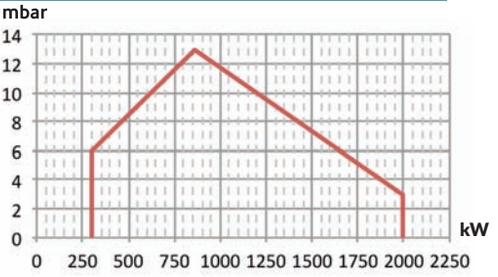
ECO 45 G C 2b



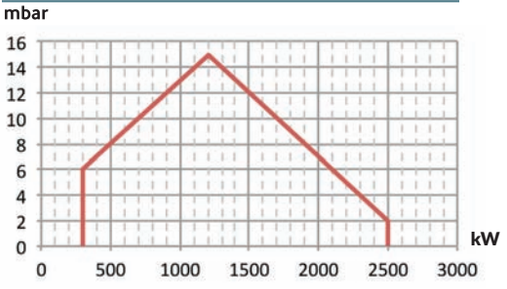
ECO 50 G C 2



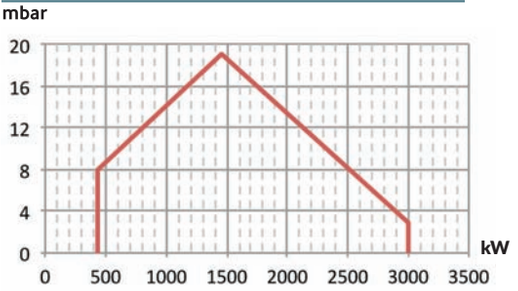
ECO 55 G C 2



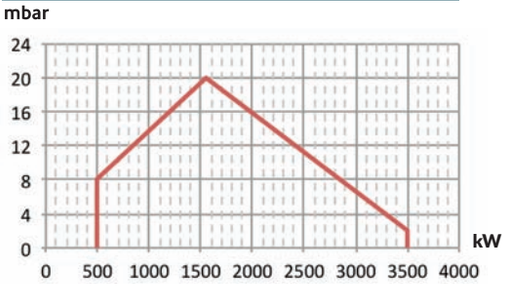
ECO 55 G C 2 a



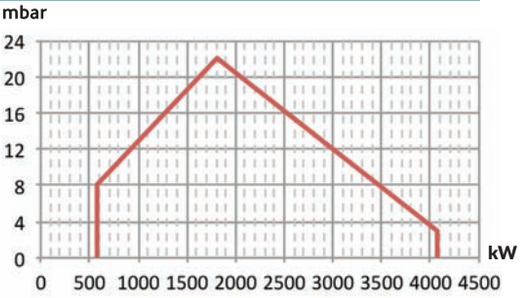
ECO 60 G C 2



ECO 65 G C 2



ECO 70 G C 2



Pls. scan for electronic catalogue.

GAS BURNERS

MODULATING GAS BURNERS

CAPACITY TABLES

BURNER TYPE	CAPACITY		CAPACITY		NATURAL GAS CONSUMPTION		LPG GAS CONSUMPTION		FAN MOTOR POWER	VOLTAGE AT 50 Hz
	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. Nm³/h	Max. Nm³/h	Min. Nm³/h	Max. Nm³/h	kW	VAC
ECO 2 G C 3	51.600	172.000	60	200	6,3	20,8	2,3	7,6	0,15	1N 230
ECO 2 G C 3 a	86.000	299.280	100	348	10,4	36,3	3,8	13,3	0,15	1N 230
ECO 30 G C 3	163.400	387.000	190	450	19,8	46,9	7,3	17,2	0,37	1N 230
ECO 30 G C 3a	223.600	602.000	260	700	27,1	73,0	9,9	26,8	0,75	3N 380
ECO 45 G C 3	288.100	645.000	335	750	34,9	78,2	12,8	28,7	0,75	3N 380
ECO 45 G C 3/L	288.100	749.920	335	872	34,9	90,9	12,8	33,3	0,75	3N 380
ECO 45 G C 3a	331.100	928.800	385	1.080	40,1	112,6	14,7	41,3	1,10	3N 380
ECO 45 G C 3b	331.100	1.075.000	385	1.250	40,1	130,3	14,7	47,8	1,50	3N 380
ECO 50 G C 3	215.000	1.290.000	250	1.500	26,1	156,4	9,6	57,3	2,20	3N 380
ECO 55 G C 3	258.000	1.720.000	300	2.000	31,3	208,5	11,5	76,4	3,00	3N 380
ECO 55 G C 3a	258.000	2.150.000	300	2.500	31,3	260,6	11,5	95,6	3,00	3N 380
ECO 60 G C 3	369.800	2.580.000	430	3.000	44,8	312,7	16,4	114,7	4,00	3N 380
ECO 65 G C 3	430.000	3.010.000	500	3.500	52,1	364,8	19,1	133,8	5,5	3N 380
ECO 70 G C 3	498.800	3.500.200	580	4.070	60,5	424,3	22,2	155,6	7,5	3N 380
ECO 75 G C 3	686.280	4.800.000	798	5.581	83,2	581,8	30,5	213,3	11,00	3N 380
ECO 8 G C 3	989.000	4.988.000	1.150	5.800	119,9	604,6	44,0	221,7	11,00	3N 380
ECO 8 G C 3a	989.000	5.762.000	1.150	6.700	119,9	698,4	44,0	256,1	15,00	3N 380
ECO 8 G C 3b	989.000	6.192.000	1.150	7.200	119,9	750,5	44,0	275,2	15,00	3N 380
ECO 9 G C 3	2.580.000	9.890.000	3.000	11.500	312,7	1.198,8	114,7	439,6	22,00	3N 380

*Net calorific value H natural gas : 8250 kcal/Nm³ H LPG: 22250 kcal/Nm³

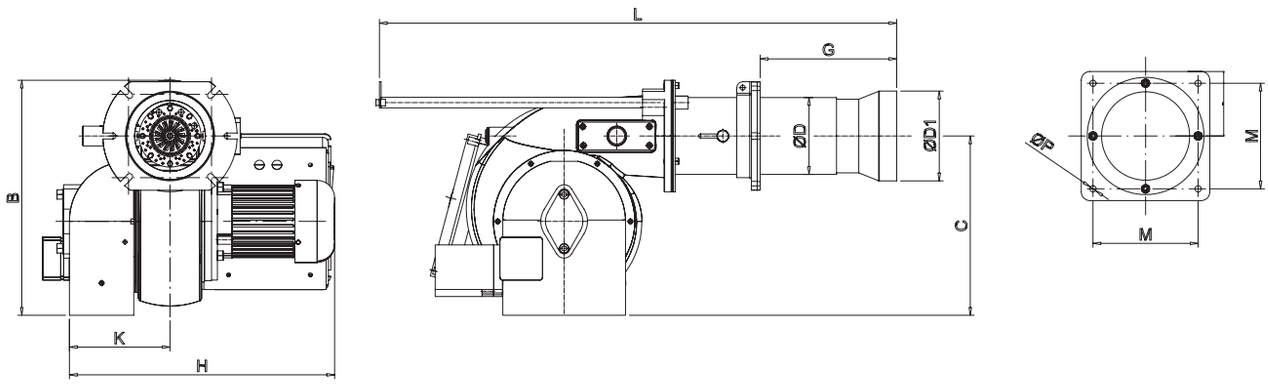
TECHNICAL SPECIFICATIONS

- Optimum fuel / air mixture with special gas nozzle
- High pressure, light build fan design
- Low noise level due to light and aerodynamic body design made of high quality aluminum
- Sliding flange for connection to different boiler types,
- Automatic control equipment of the burner according to European standard EN-298
- Easy access to all equipments without dismounting the burner from the boiler,
- High efficiency operation thanks to by air flow rate adjustment from both the suction and the gun barrel.
- Adequate gas supply control with minimum gas pressure switches.
- Combustion air control with air pressure switches.
- Easy installation and operation
- Direct ignition and pilot ignition options. (Pilot ignition is optional for some models.)
- Mechanical, pneumatic or electronic modulating control options.

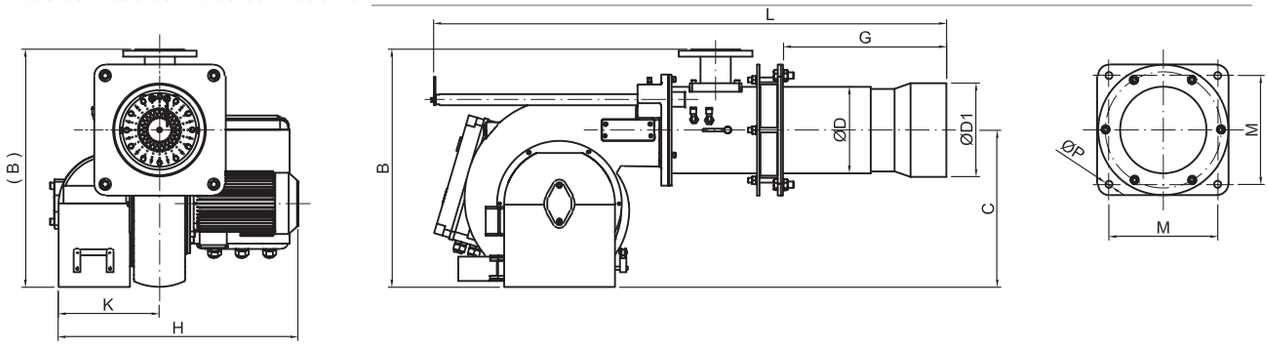
BURNER DIMENSIONS

* Gmax values are standart production values. For diferent sizes pls. contact with our sales team.

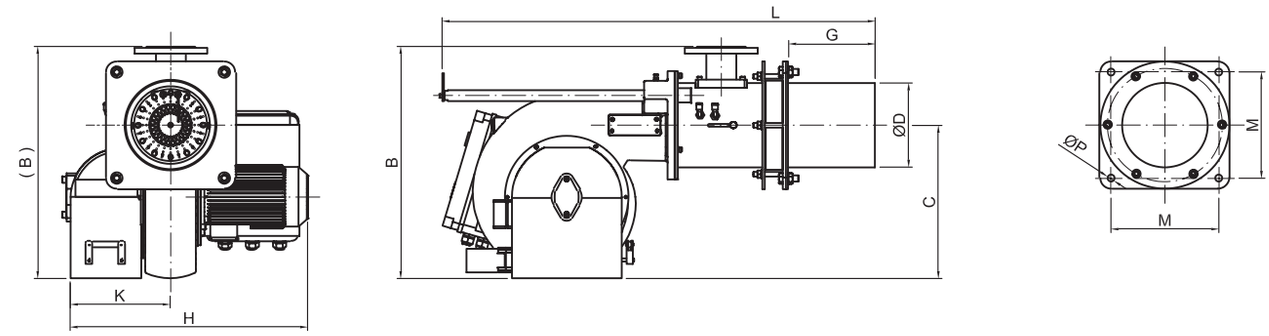
ECO 2 ECO 30 ECO 45



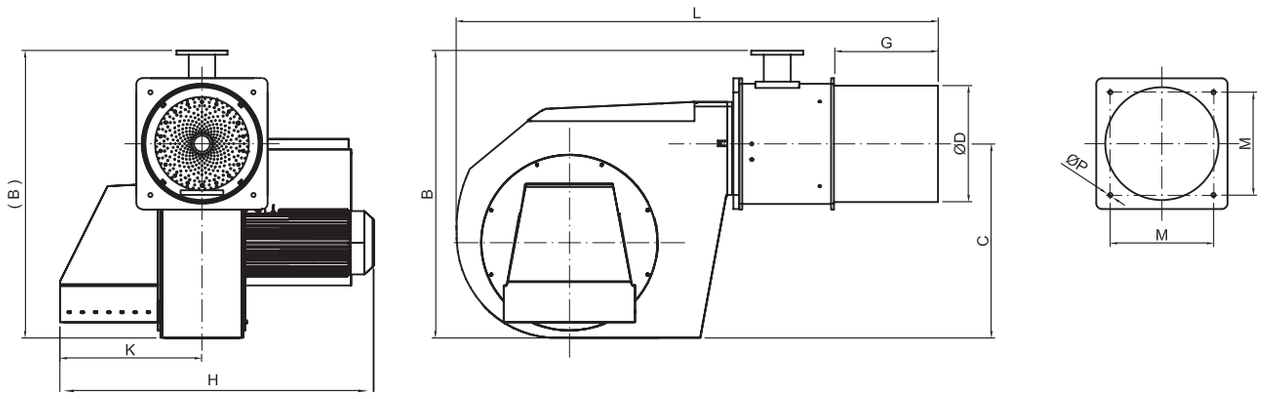
ECO 50 ECO 55 ECO 65 ECO 70



ECO 60 ECO 75



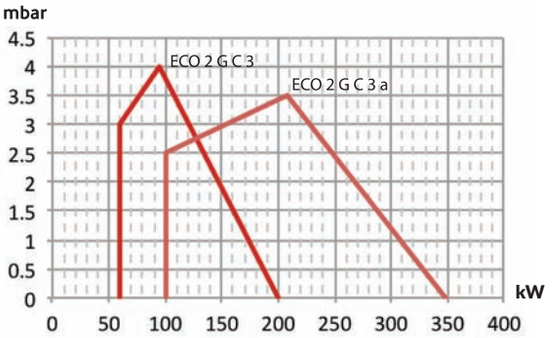
ECO 8 ECO 9



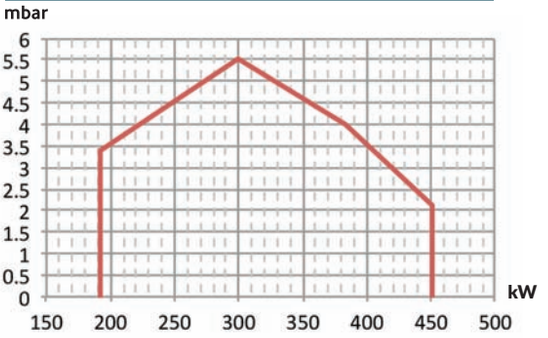
	L	Gmin	Gmax	H	K	B	C	ØP	M	ØD	ØD1
ECO 2 G	960	106	320	325	150	320	230	10	142	120	139
ECO 30 G	960	130	320	440	170	400	305	10	142	131	153
ECO 45 G	1030	150	390	515	210	460	350	11	180	148	172
ECO 50 G	1300	280	440	650	255	625	422	18	275	218	236
ECO 55 G	1300	280	440	650	255	625	422	18	275	218	236
ECO 60 G	1450	200	355	850	330	730	510	18	275	240	-
ECO 65 G	1500	200	440	815	330	735	510	18	275	250	280
ECO 70 G	1500	200	440	820	330	735	510	18	275	250	280
ECO 75 G	1450	200	340	885	350	795	530	22	335	300	-
ECO 8 G	1640	-	315	1070	430	955	635	18	360	375	-
ECO 9 G	2040	-	435	1330	610	1110	830	18	440	496	-

BACK PRESSURE DIAGRAMS

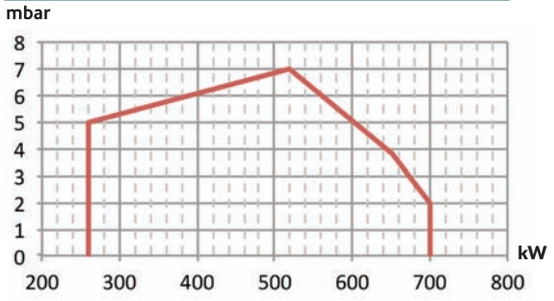
ECO 2 G C 3 / 3 a



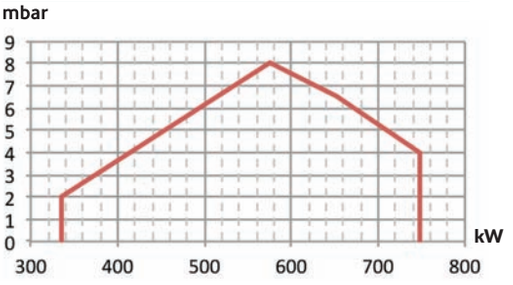
ECO 30 G C 3



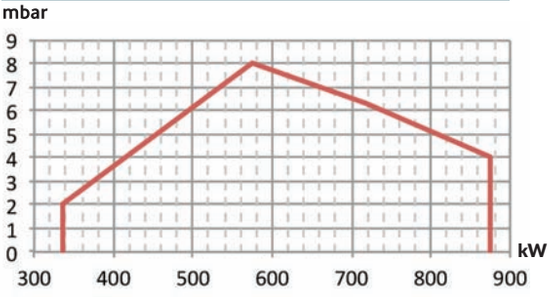
ECO 30 G C 3 a



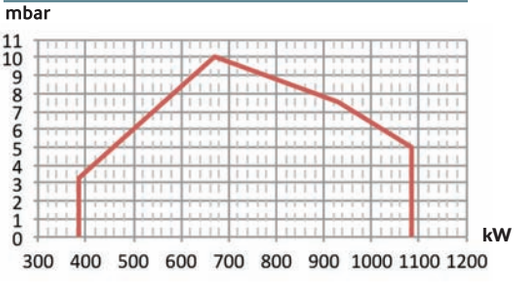
ECO 45 G C 3



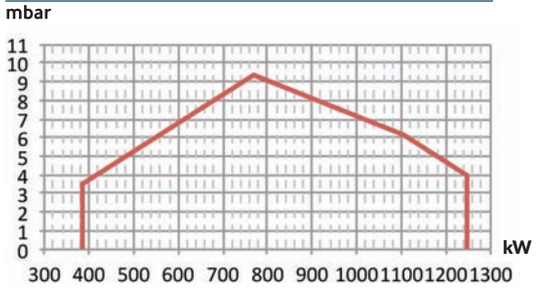
ECO 45 G C 3 L



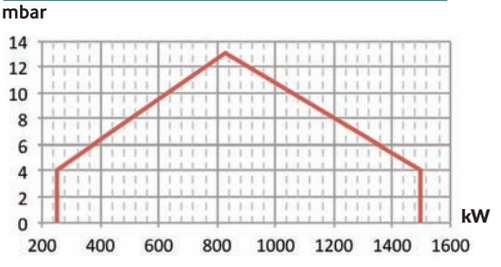
ECO 45 G C 3 a



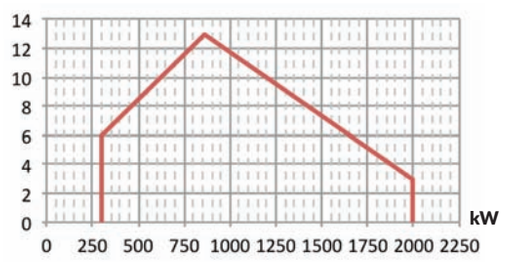
ECO 45 G C 3 b



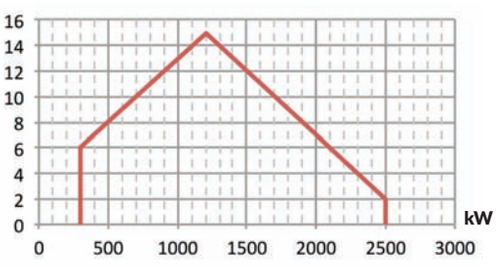
ECO 50 G C 3



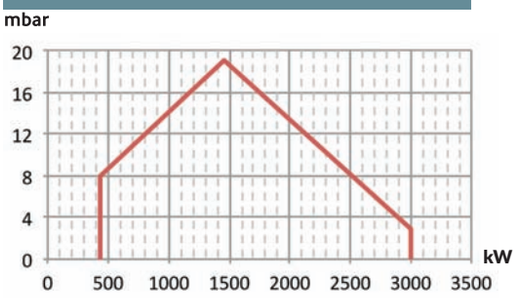
ECO 55 G C 3



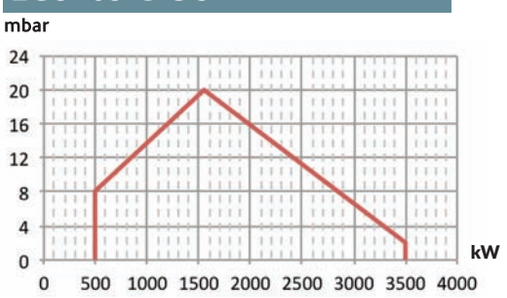
ECO 55 G C 3 a



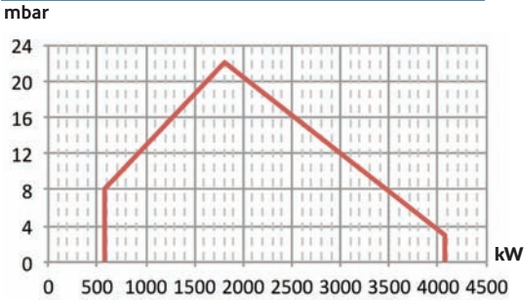
ECO 60 G C 3



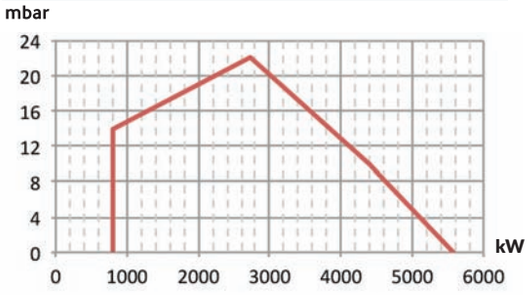
ECO 65 G C 3



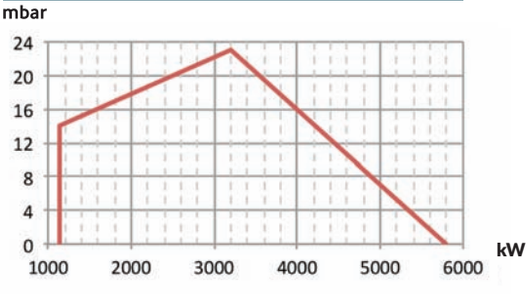
ECO 70 G C 3



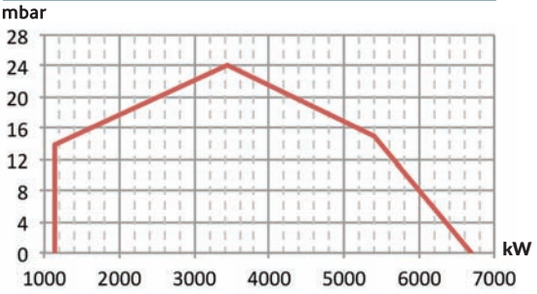
ECO 75 G C 3



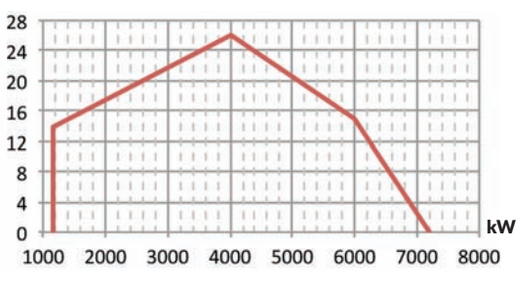
ECO 8 G C 3



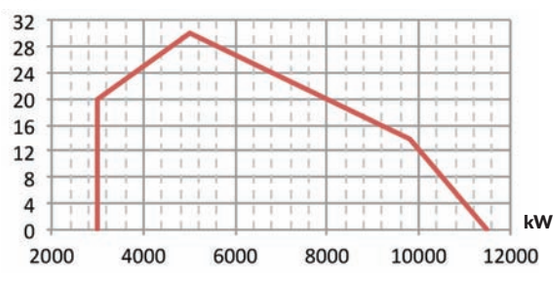
ECO 8 G C 3 a



ECO 8 G C 3 b



ECO 9 G C 3



Specifications of one stage monoblock gas burners

Specifications	ECO 1 G C 1	ECO 1 G C 1 a	ECO 2 G C 1	ECO 2 G C 1 a
Control Type	1S	1S	1S	1S
Air Flow Regulating	M	M	M	M
Adjustable Flame Tube Extension	○	○	•	•
Gas Valve	•	•	•	•
Minimum gas pressure switch	•	•	•	•
Maximum gas pressure switch	•	•	•	•
Air pressure switch	•	•	•	•
Flame dedector	iO	iO	iO	iO
Ignition	DI	DI	DI	DI
Sliding boiler connection flange	•	•	•	•
Handling shaft	○	○	•	•
7 pins electrical alimentation and one stage socket	•	•	•	•
TSE EN-676 CERTIFICATION	•	•	•	•
CE Marking	•	•	•	•
Electrical protection class	IP20	IP20	IP20	IP20

Table explanations

1S	ONE STAGE	2S	TWO STAGE	M	Modulating
M	MANUAL	SM	SERVOMOTOR		
iO	IONIZATION	PH	PHOTOCELL		
DI	DIRECT IGNITION	PI	PILOT IGNITION		
•	YES	○	NO	•	Optional

Specifications of two stage monoblock gas burners

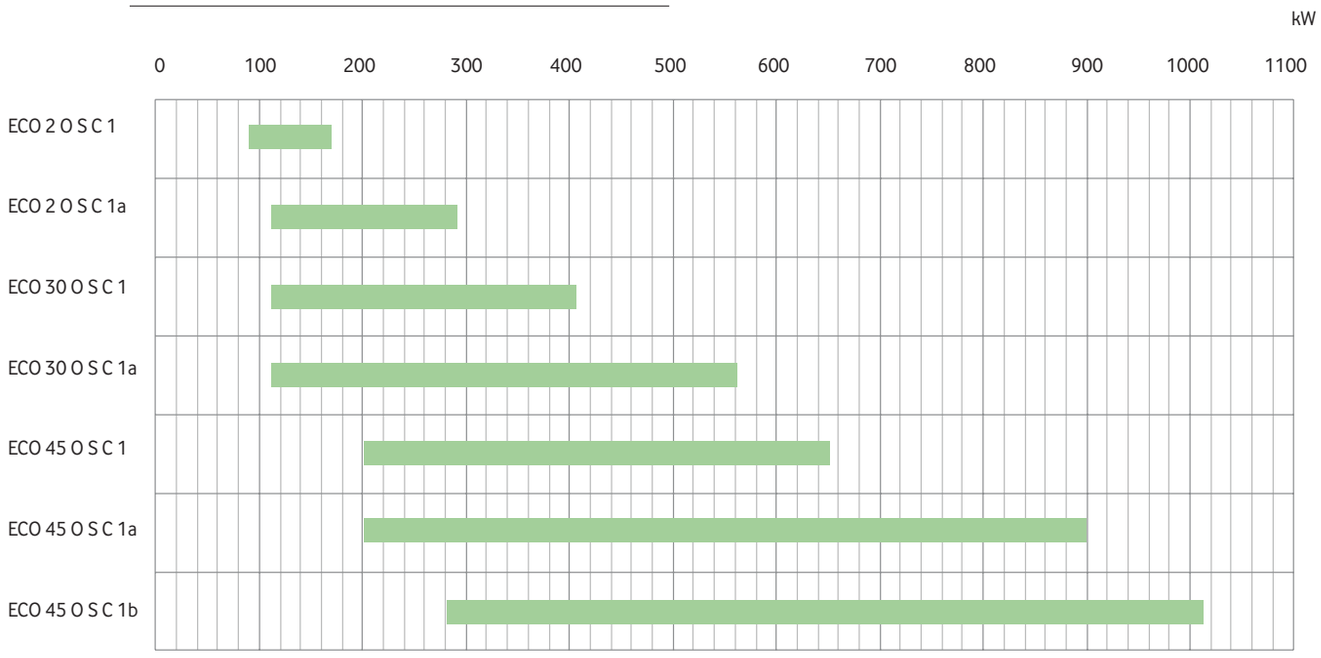
Specifications	ECO 2 G C 2	ECO 2 G C 2a	ECO 30 G C 2	ECO 30 G C 2a	ECO 45 G C 2	ECO 45 G C 2L	ECO 45 G C 2a	ECO 45 G C 2b	ECO 50 G C 2	ECO 55 G C 2	ECO 55 G C 2a	ECO 60 G C 2	ECO 65 G C 2	ECO 70 G C 2
Control Type	2S	2S	2S	2S	2S	2S	2S	2S	2S	2S	2S	2S	2S	2S
Air Flow Regulating	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM
Adjustable Flame Tube Extension	•	•	•	•	•	•	•	•	•	•	•	○	•	•
Gas Valve	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Minimum gas pressure switch	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Maximum gas pressure switch	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Air pressure switch	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Flame dedector	iO	iO	iO	iO	iO	iO	iO	iO	iO	iO	iO	iO	iO	iO
Ignition	DI	DI	DI	DI	DI	DI	DI	DI	DI	DI	DI	DI	DI	DI
VPS Gas Leakage Control Device	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Sliding boiler connection flange	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Handling shaft	•	•	•	•	•	•	•	•	•	•	•	•	•	•
7 pins electrical alimentation and one stage socket	•	•	○	○	○	○	○	○	○	○	○	○	○	○
4 pins connection socket for second stage	•	•	○	○	○	○	○	○	○	○	○	○	○	○
TSE EN-676 CERTIFICATION	•	•	•	•	•	•	•	•	•	•	•	•	•	•
CE Marking	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Electrical protection class	IP20	IP20	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40

Specifications of modulating monoblock gas burners

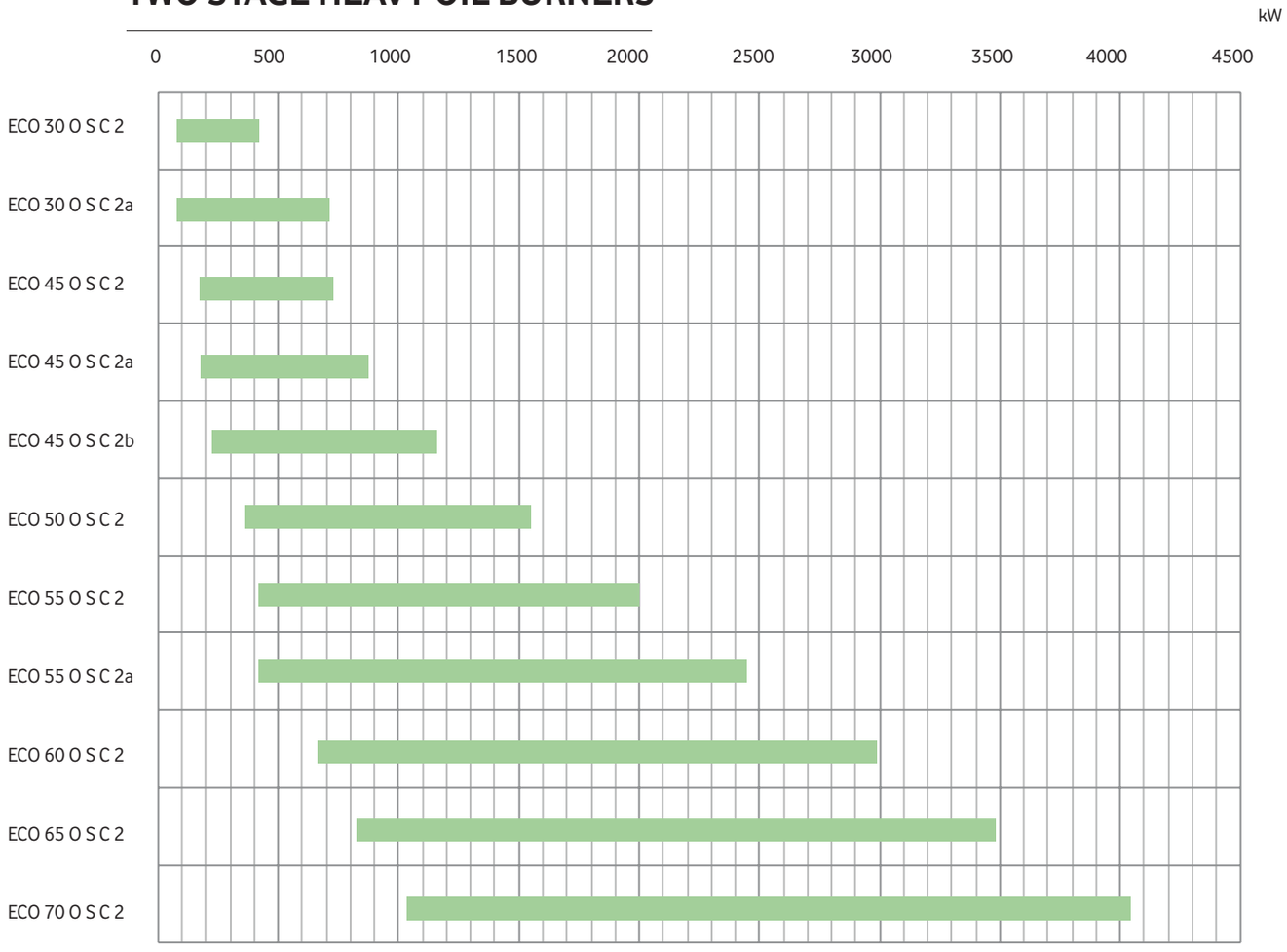
Specifications	ECO 2 G C 3	ECO 2 G C 3a	ECO 30 G C 3	ECO 30 G C 3a	ECO 45 G C 3	ECO 45 G C 3L	ECO 45 G C 3a	ECO 45 G C 3b	ECO 50 G C 3	ECO 55 G C 3	ECO 55 G C 3a	ECO 60 G C 3	ECO 65 G C 3	ECO 70 G C 3	ECO 75 G C 3	ECO 8 G C 3	ECO 8 G C 3a	ECO 8 G C 3b	ECO 9 G C 3
Control Type	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Air Flow Regulating	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM
Adjustable Flame Tube Extension	•	•	•	•	•	•	•	•	•	•	•	○	•	•	○	○	○	○	○
Gas Valve	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Minimum gas pressure switch	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Maximum gas pressure switch	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Air pressure switch	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Flame dedector	iO	iO	iO	iO	iO	iO	iO	iO	iO	iO	iO	iO	iO	iO	PH	PH	PH	PH	PH
Ignition	DI	DI	DI	DI	DI	DI	DI	DI	DI	DI	DI	DI	DI	DI	PI	PI	PI	PI	PI
VPS Gas Leakage Control Device	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Sliding boiler connection flange	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	○	○	○	○
Handling shaft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	○	○	○	○
TSE EN-676 CERTIFICATION	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
CE Marking	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Electrical protection class	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP54	IP54	IP54	IP54

HEAVY OIL BURNERS

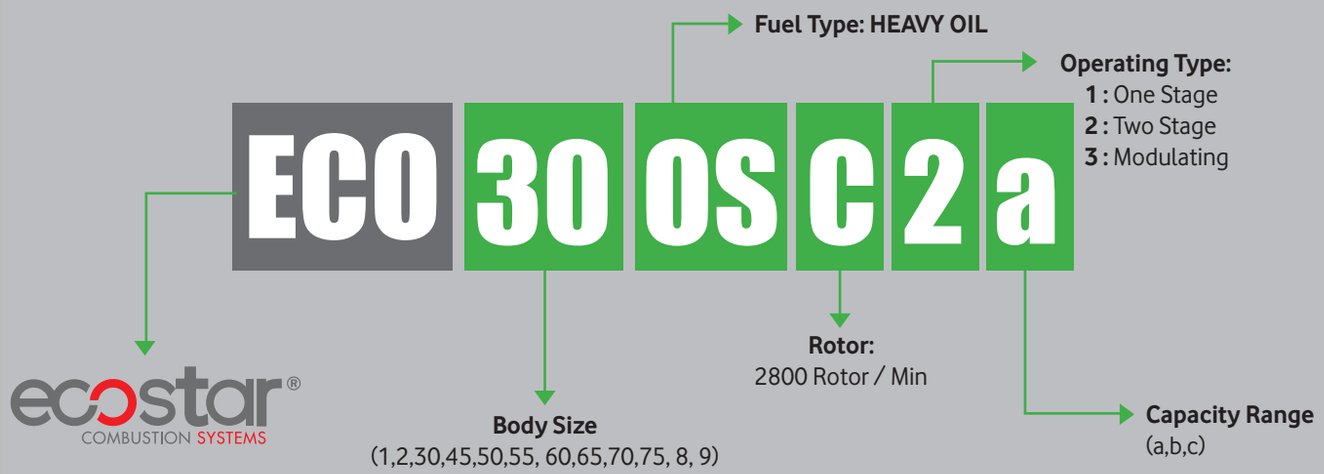
ONE STAGE HEAVY OIL BURNERS



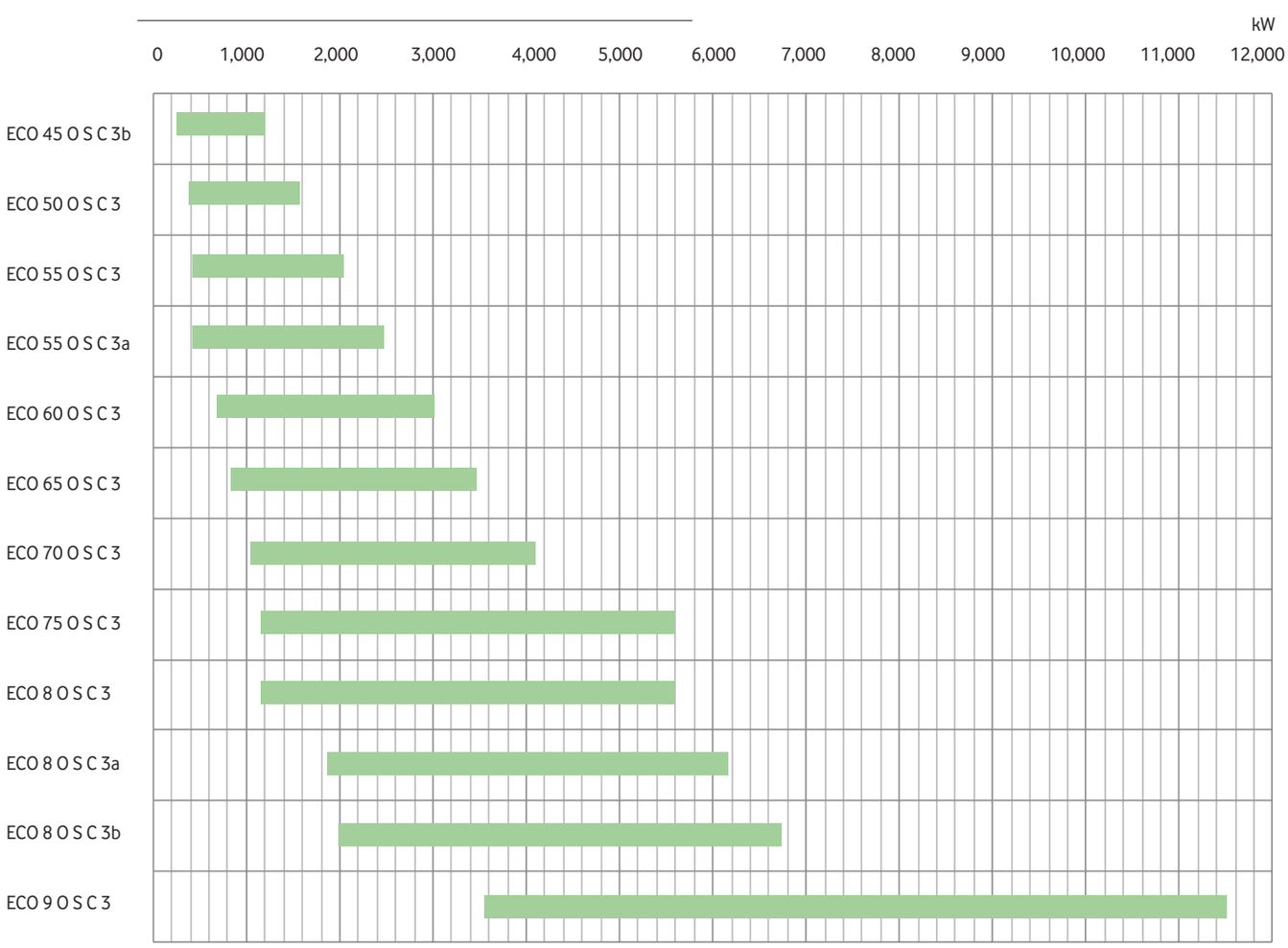
TWO STAGE HEAVY OIL BURNERS



CODE KEY



MODULATING HEAVY OIL BURNERS



HEAVY OIL BURNERS

ONE STAGE HEAVY OIL BURNERS

CAPACITY TABLES

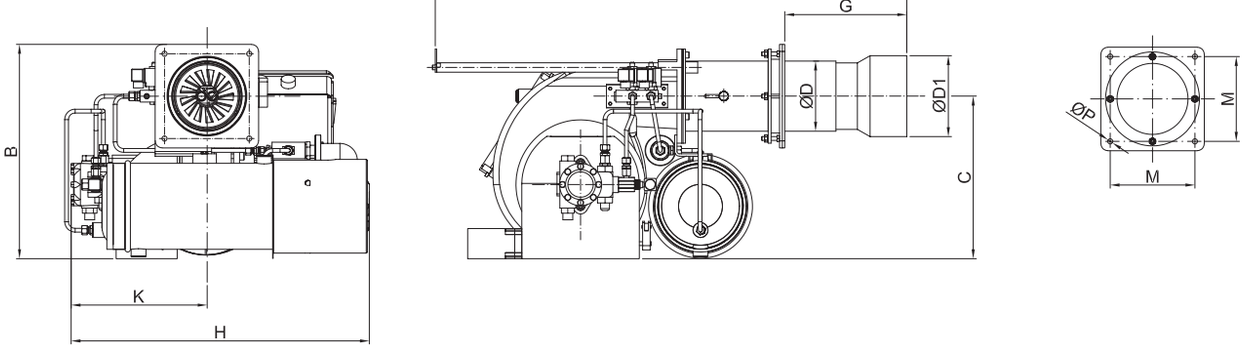
BURNER TYPE	CAPACITY		CAPACITY		HEAVY OIL CONSUMPTION		FAN MOTOR POWER	FUEL PUMP POWER	FUEL HEATER	VOLTAGE AT 50 Hz
	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. kg/h	Max. kg/h	kW	kW	kW	VAC
ECO 2 O S C 1	77.200	144.750	90	168	8	15	0,37	-	1,5	3N 380
ECO 2 O S C 1a	96.500	250.900	112	292	10	26	0,37	-	1,5	3N 380
ECO 30 O S C 1	96.500	347.400	112	404	10	36	0,37	-	3,0	3N 380
ECO 30 O S C 1a	96.500	482.500	112	561	10	50	0,37	-	3,0	3N 380
ECO 45 O S C 1	173.700	559.700	202	651	18	58	1,10	-	3,0	3N 380
ECO 45 O S C 1a	173.700	772.000	202	898	18	80	1,50	-	6,0	3N 380
ECO 45 O S C 1b	241.250	868.500	281	1.010	25	90	1,50	-	6,0	3N 380

* Net calorific value H Heavy Oil: 9650 kcal/kg

BURNER DIMENSIONS

* Gmax values are standart production values. For diferent sizes pls. contact with our sales team.

ECO 2 ECO 30 ECO 45



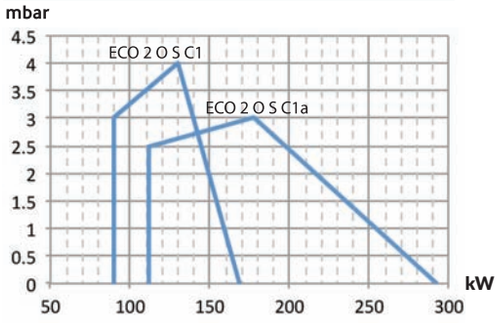
TECHNICAL SPECIFICATIONS

- Optimum fuel / air mixture with special gas nozzle
- High pressure, light build fan design
- Low noise level due to light and aerodynamic body design made of high quality aluminum
- Sliding flange for connection to different boiler types,
- Automatic control equipment of the burner according to European standard EN-267
- Easy access to all equipments without dismounting the burner from the boiler,
- High efficiency operation thanks to by air flow rate adjustment from both the suction and the gun barrel.
- Easy installation and operation
- Special-design, compact pre-heater, safety, operating and limiting thermo switches
- High pressure mechanical atomization at nozzle
- Direct ignition and pilot ignition options. (Pilot ignition is optional for some models.)

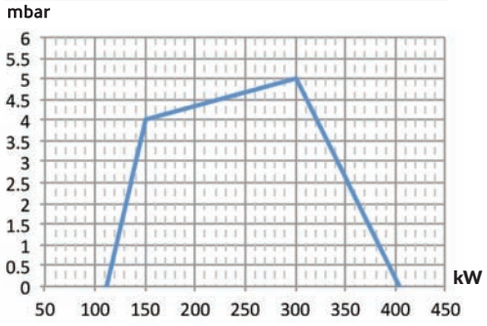
	L	Gmin	Gmax	H	K	B	C	ØP	M	ØD	ØD1
ECO 2 O (S)	820	106	270	495	220	320	230	10	142	120	139
ECO 30 O (S)	880	130	265	550	250	400	305	10	142	130	153
ECO 45 O (S)	1040	150	310	600	300	460	350	12	180	148	172

BACK PRESSURE DIAGRAMS

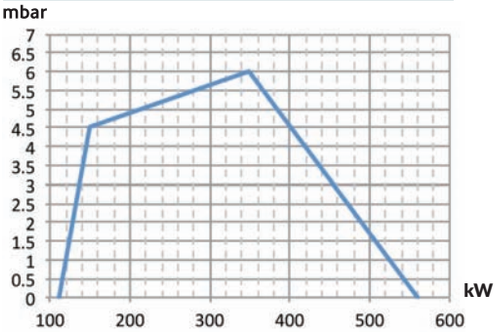
ECO 2 O S C 1 /1 a



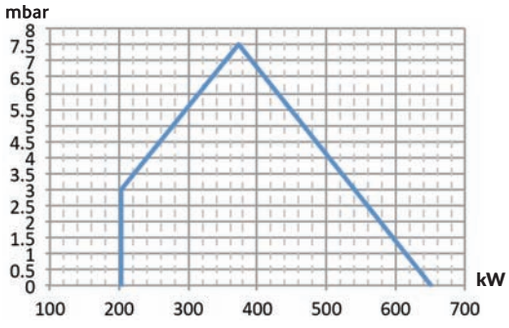
ECO 30 O S C 1



ECO 30 O S C 1a

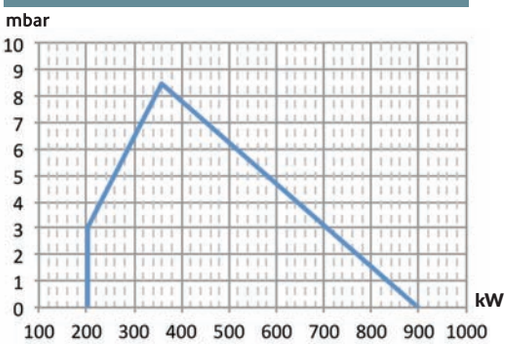


ECO 45 O S C 1

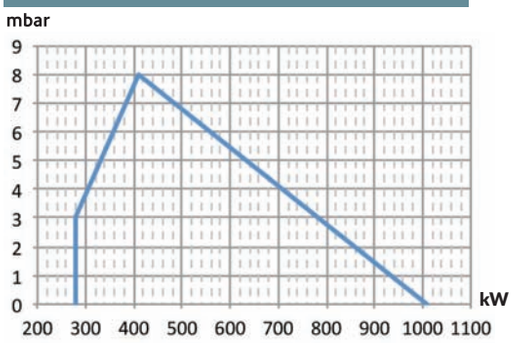


Pls. scan for electronic catalogue.

ECO 45 O S C 1a



ECO 45 O S C 1b



HEAVY OIL BURNERS

TWO-STAGE HEAVY OIL BURNERS

CAPACITY TABLES

BURNER TYPE	CAPACITY		CAPACITY		HEAVY OIL CONSUMPTION		FAN MOTOR POWER	FUEL PUMP POWER	FUEL HEATER	VOLTAGE AT 50 Hz
	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. kg/h	Max. kg/h	kW	kW	kW	VAC
ECO 30 O S C 2	96,500	386,000	112	449	10	40	0.37	-	3.0	3N 380
ECO 30 O S C 2a	96,500	627,250	112	729	10	65	0.75	-	3.0	3N 380
ECO 45 O S C 2	173,700	646,550	202	752	18	67	1.10	-	3.0	3N 380
ECO 45 O S C 2a	173,700	772,000	202	898	18	80	1.10	-	6.00	3N 380
ECO 45 O S C 2b	212,300	1,013,250	247	1,180	22	105	1.50	-	6.0	3N 380
ECO 50 O S C 2	337,750	1,351,000	393	1,571	35	140	2.20	-	6.0	3N 380
ECO 55 O S C 2	386,000	1,737,000	449	2,020	40	180	3.00	-	12.0	3N 380
ECO 55 O S C 2a	386,000	2,123,000	449	2,469	40	220	3.00	-	12.0	3N 380
ECO 60 O S C 2	598,300	2,576,550	696	3,000	62	267	4.00	0.75	14.0	3N 380
ECO 65 O S C 2	733,400	3,010,800	853	3,500	76	312	5.50	0.75	14.0	3N 380
ECO 70 O S C 2	916,750	3,502,950	1,066	4,070	95	363	7.50	0.75	2 x 9,0	3N 380

* Net calorific value H Heavy Oil: 9650 kcal/kg

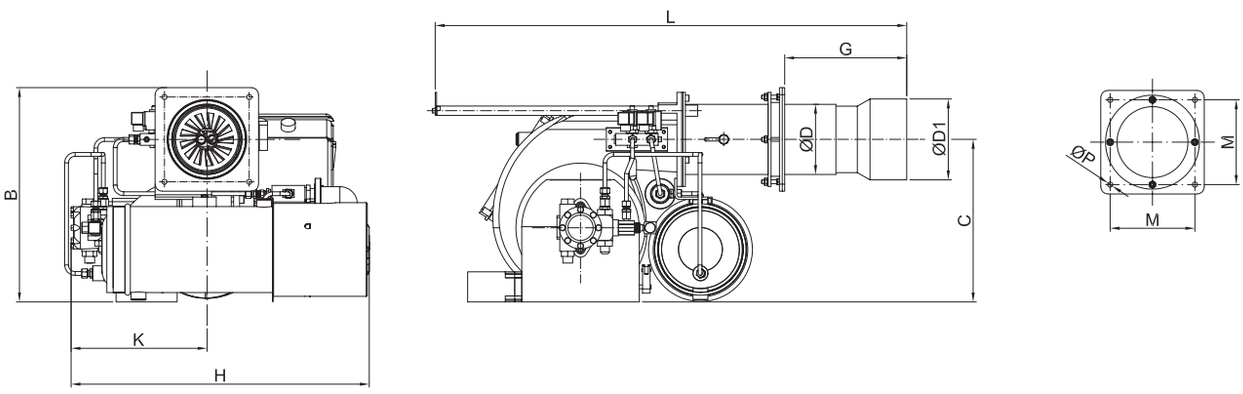
TECHNICAL SPECIFICATIONS

- Optimum fuel / air mixture with special gas nozzle
- High pressure, light build fan design
- Low noise level due to light and aerodynamic body design made of high quality aluminum
- Sliding flange for connection to different boiler types,
- Automatic control equipment of the burner according to European standard EN-267
- Easy access to all equipments without dismounting the burner from the boiler,
- High efficiency operation thanks to by air flow rate adjustment from both the suction and the gun barrel.
- Easy installation and operation
- Special-design, compact pre-heater, safety, operating and limiting thermo switches
- High pressure mechanical atomization at nozzle
- Direct ignition and pilot ignition options. (Pilot ignition is optional for some models.)

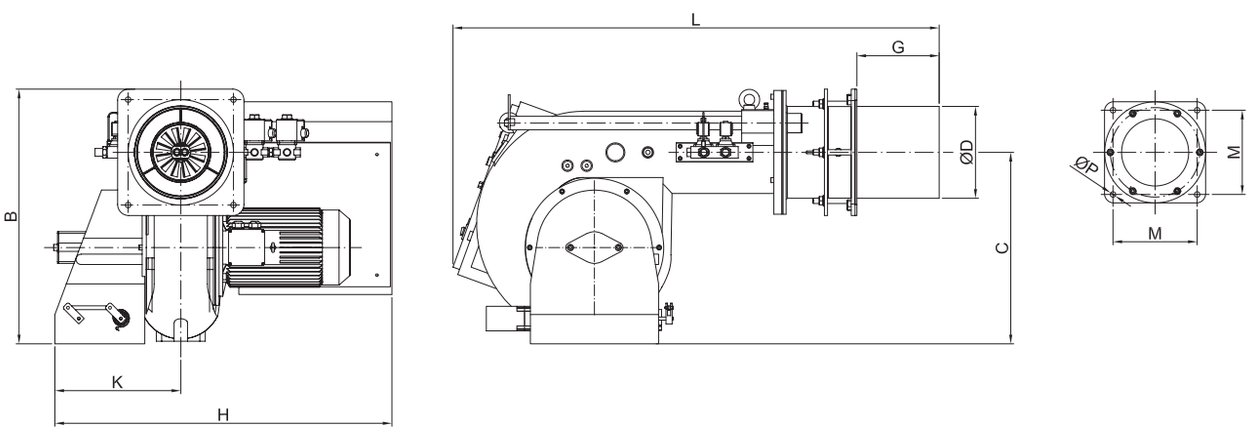
BURNER DIMENSIONS

* Gmax values are standart production values. For diferent sizes pls. contact with our sales team.

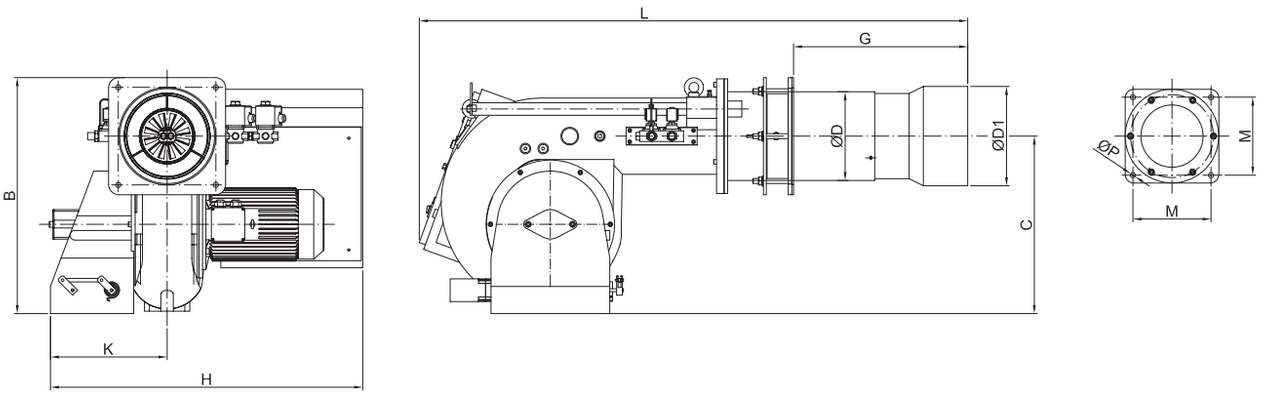
ECO 30 ECO 45 ECO 50 ECO 55



ECO 60



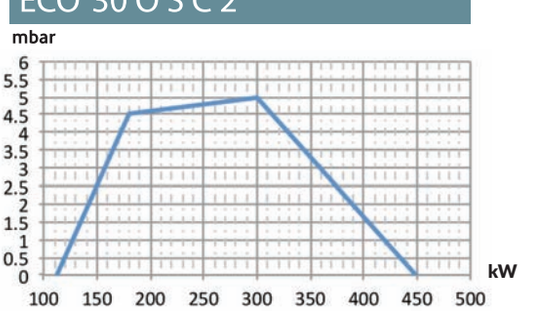
ECO 65 ECO 70



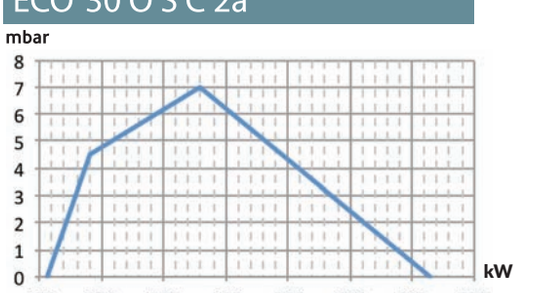
	L	Gmin	Gmax	H	K	B	C	ØP	M	ØD	ØD1
ECO 30 O (S)	880	130	265	550	250	400	305	10	142	130	153
ECO 45 O (S)	1040	150	310	600	300	460	350	12	180	148	172
ECO 50 O (S)	1370	280	440	780	360	590	422	18	275	218	236
ECO 55 O (S)	1370	280	440	780	360	590	422	18	275	218	236
ECO 60 O (S)	1300	-	140	890	340	670	510	18	275	240	-
ECO 65 O (S)	1580	200	535	890	340	670	510	18	275	250	280
ECO 70 O (S)	1580	200	535	890	340	670	510	18	275	250	280

BACK PRESSURE DIAGRAMS

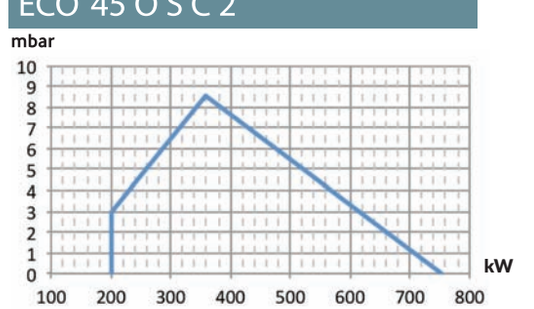
ECO 30 O S C 2



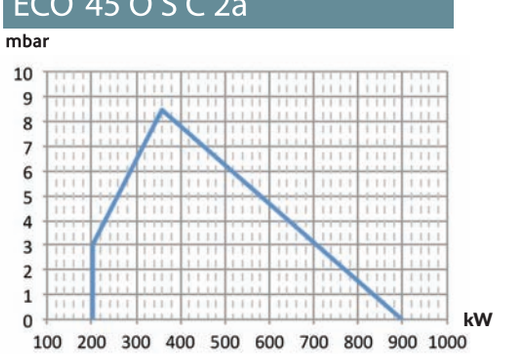
ECO 30 O S C 2a



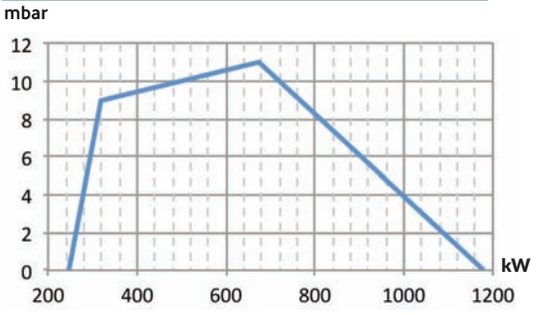
ECO 45 O S C 2



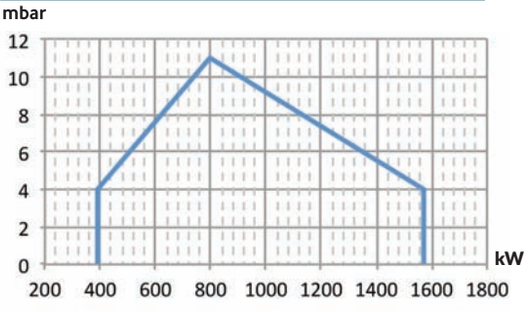
ECO 45 O S C 2a



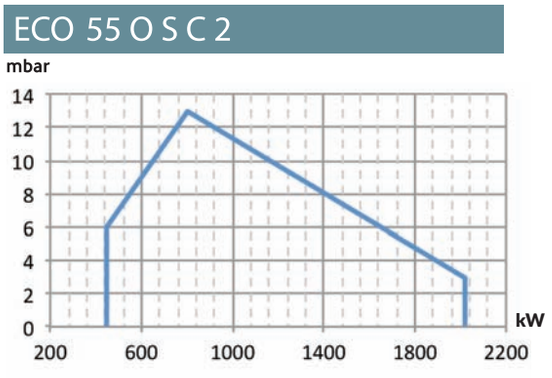
ECO 45 O S C 2b



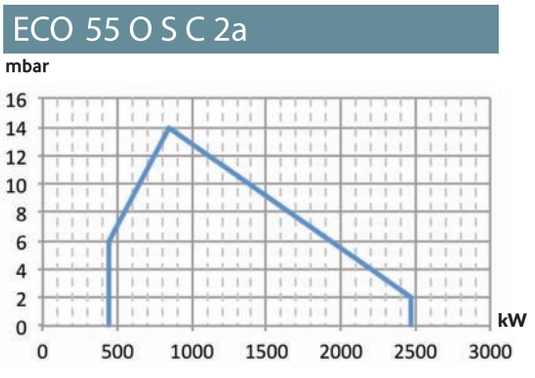
ECO 50 O S C 2



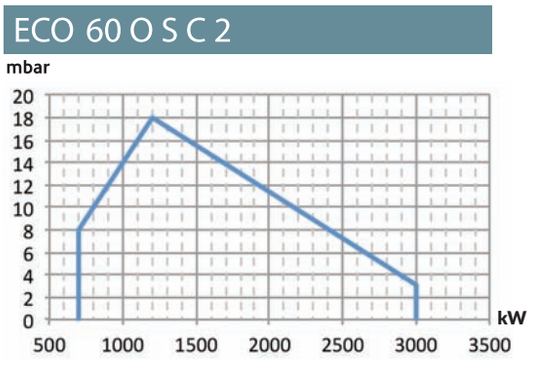
ECO 55 O S C 2



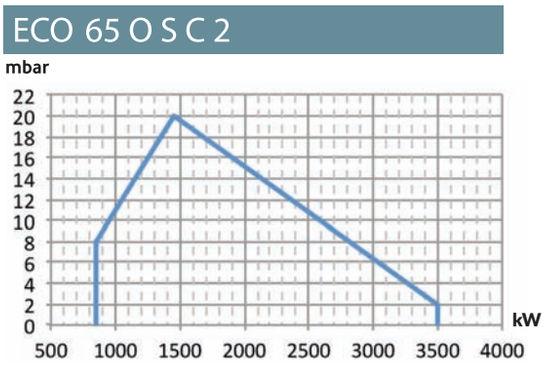
ECO 55 O S C 2a



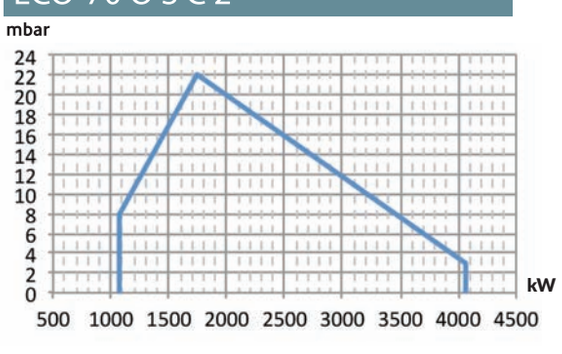
ECO 60 O S C 2



ECO 65 O S C 2



ECO 70 O S C 2



Pls. scan for electronic catalogue.

HEAVY OIL BURNERS

MODULATING HEAVY OIL BURNERS

CAPACITY TABLES

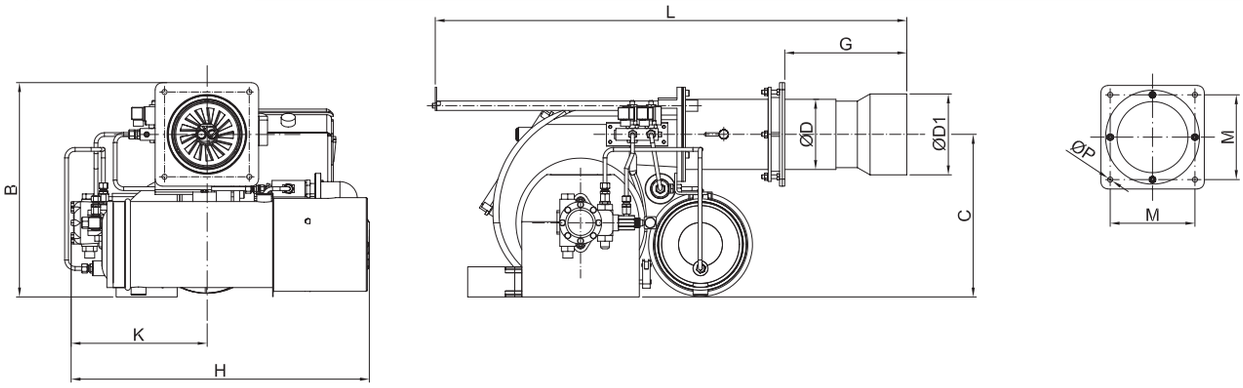
BURNER TYPE	CAPACITY		CAPACITY		HEAVY OIL CONSUMPTION		FAN MOTOR POWER	FUEL PUMP POWER	FUEL HEATER	VOLTAGE AT 50 Hz
	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. kg/h	Max. kg/h	kW	kW	kW	VAC
ECO 45 O S C 3b	212,300	1,013,250	247	1,180	22	105	1.50	-	6.0	3N 380
ECO 50 O S C 3	337,750	1,351,000	393	1,571	35	140	2.20	-	6.0	3N 380
ECO 55 O S C 3	386,000	1,737,000	449	2,020	40	180	3.00	-	12.0	3N 380
ECO 55 O S C 3a	386,000	2,123,000	449	2,469	40	220	3.00	-	12.0	3N 380
ECO 60 O S C 3	598,300	2,576,550	696	3,000	62	267	4.00	1.10	14.0	3N 380
ECO 65 O S C 3	733,400	3,010,800	853	3,500	76	312	5.50	1.50	2 x 9,0	3N 380
ECO 70 O S C 3	916,750	3,502,950	1,066	4,070	95	363	7.50	1.50	2 x 9,0	3N 380
ECO 75 O S C 3	1,003,600	4,825,000	1,167	5,600	104	500	11.00	1.50	2 x 14,0	3N 380
ECO 8 O S C 3	1,003,600	4,825,000	1,167	5,600	104	500	11.00	2.20	2 x 14,0	3N 380
ECO 8 O S C 3a	1,609,920	5,307,500	1,872	6,165	167	550	15.00	2.20	2 x 16,0	3N 380
ECO 8 O S C 3b	1,762,140	5,790,000	2,049	6,700	183	600	15.00	2.20	2 x 16,0	3N 380
ECO 9 O S C 3	3,059,880	9,890,000	3,558	11,500	317	1,025	22.00	4.00	37.0	3N 380

* Net calorific value H Heavy Oil: 9650 kcal/kg

BURNER DIMENSIONS

* Gmax values are standart production values. For diferent sizes pls. contact with our sales team.

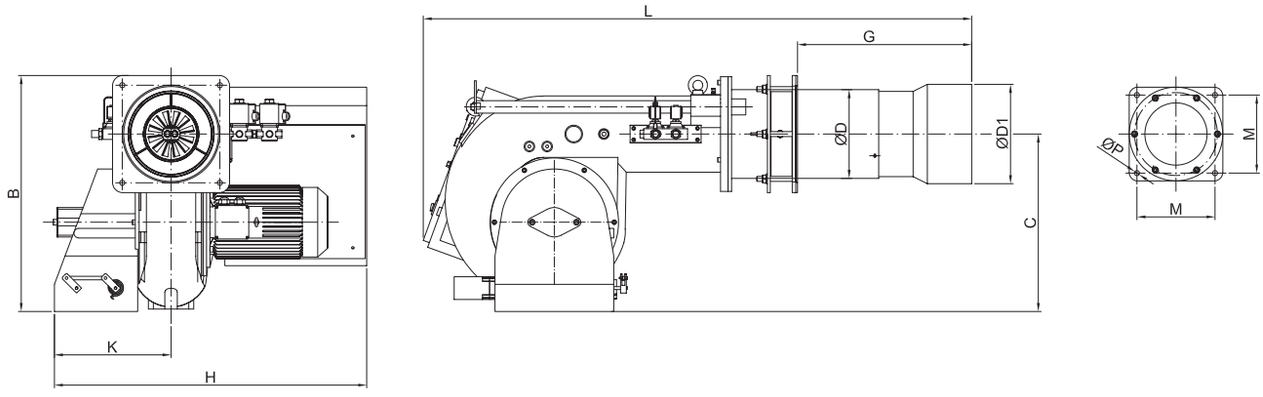
ECO 45 ECO 50 ECO 55



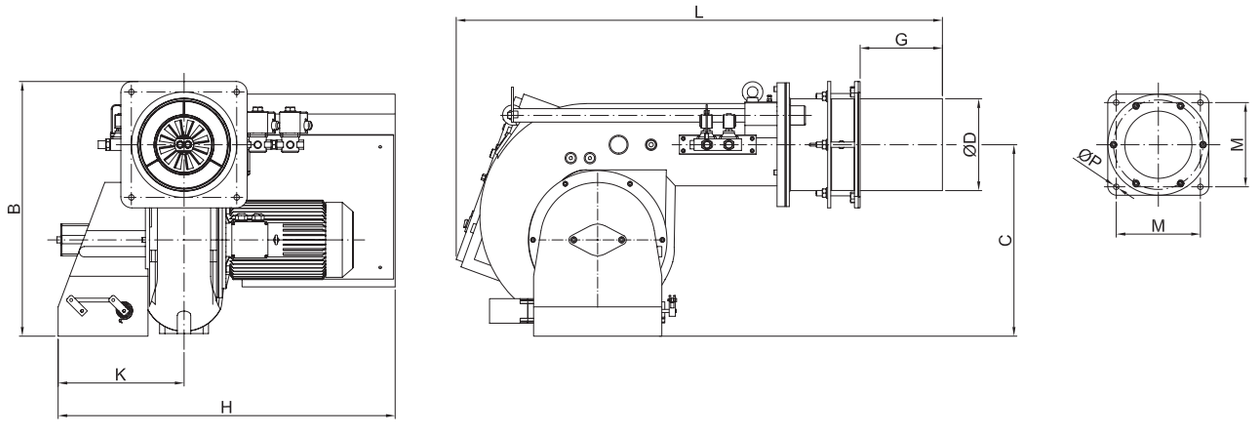
TECHNICAL SPECIFICATIONS

- Optimum fuel / air mixture with special gas nozzle
- High pressure, light build fan design
- Low noise level due to light and aerodynamic body design made of high quality aluminum
- Sliding flange for connection to different boiler types,
- Automatic control equipment of the burner according to European standard EN-267
- Easy access to all equipments without dismounting the burner from the boiler,
- High efficiency operation thanks to by air flow rate adjustment from both the suction and the gun barrel.
- Easy installation and operation
- Special-design, compact pre-heater, safety, operating and limiting thermo switches
- High pressure mechanical atomization at nozzle
- Direct ignition and pilot ignition options. (Pilot ignition is optional for some models.)
- Mechanical or electronic modulating control options.

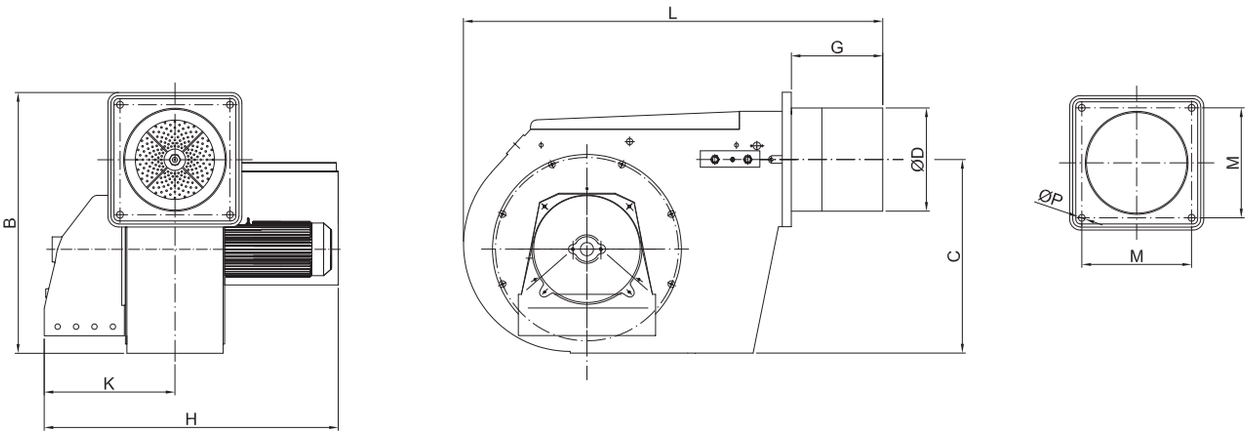
ECO 65 ECO 70



ECO 60 ECO 75



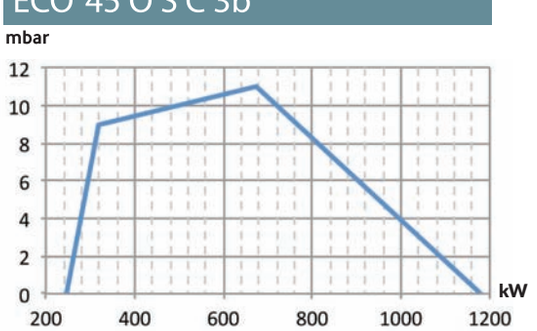
ECO 8 ECO 9



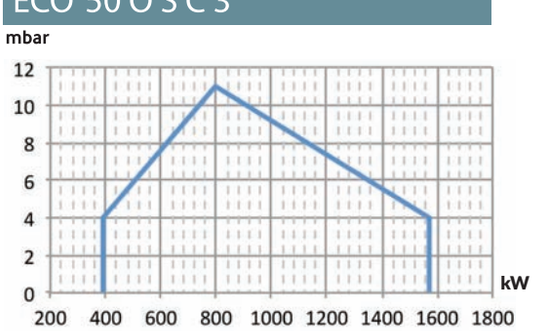
	L	Gmin	Gmax	H	K	B	C	ØP	M	ØD	ØD1
ECO 45 O (S)	1040	150	310	600	300	460	350	12	180	148	172
ECO 50 O (S)	1370	280	440	780	360	590	422	18	275	218	236
ECO 55 O (S)	1370	280	440	780	360	590	422	18	275	218	236
ECO 60 O (S)	1300	-	140	890	340	670	510	18	275	240	-
ECO 65 O (S)	1580	200	535	890	340	670	510	18	275	250	280
ECO 70 O (S)	1580	200	535	890	340	670	510	18	275	250	280
ECO 75 O (S)	1500	200	285	870	360	730	525	22	335	300	-
ECO 8 O (S)	1400	-	300	1100	530	860	635	23	360	338	-
ECO 9 O (S)	1730	-	500	1330	610	1110	830	23	440	450	-

BACK PRESSURE DIAGRAMS

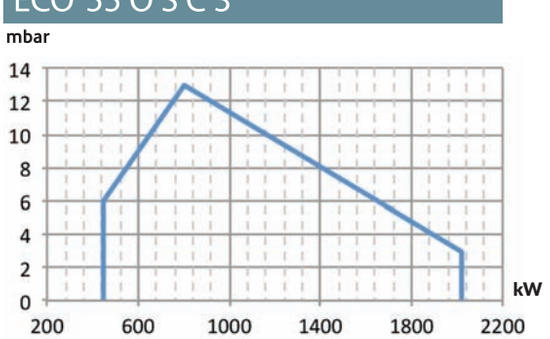
ECO 45 O S C 3b



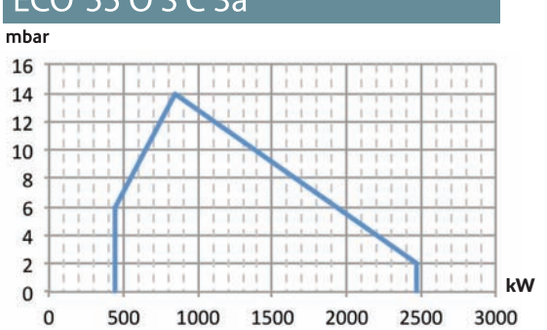
ECO 50 O S C 3



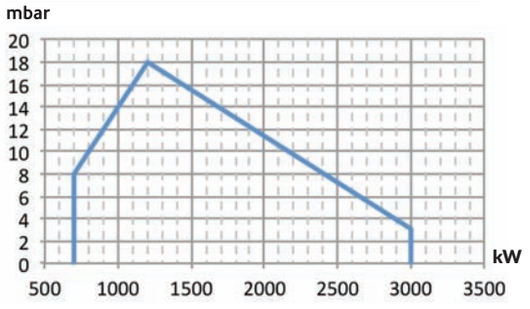
ECO 55 O S C 3



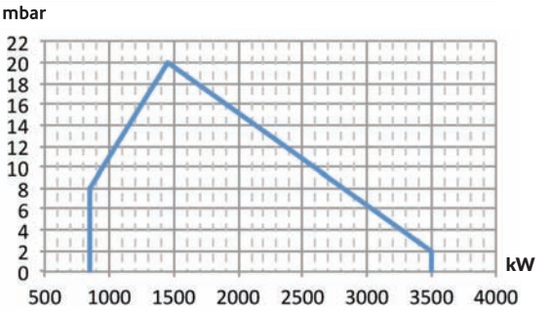
ECO 55 O S C 3a



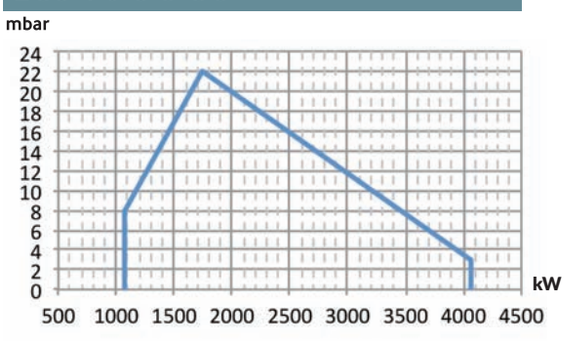
ECO 60 O S C 3



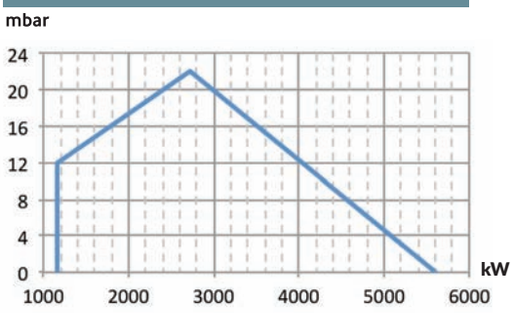
ECO 65 O S C 3



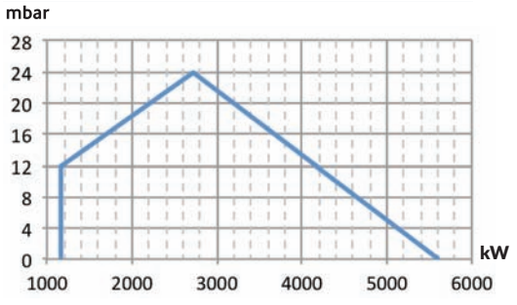
ECO 70 O S C 3



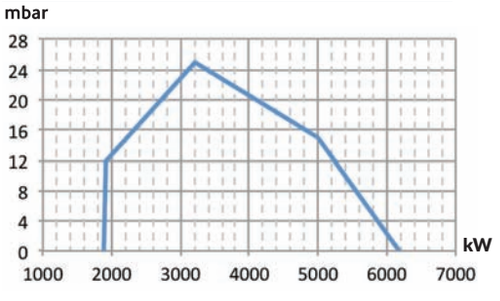
ECO 75 O S C 3



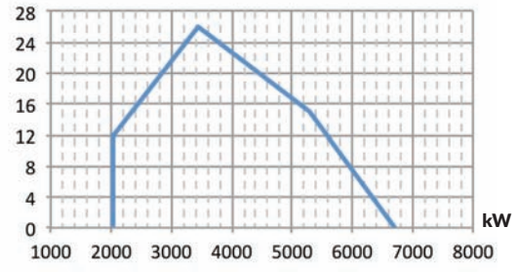
ECO 8 O S C 3



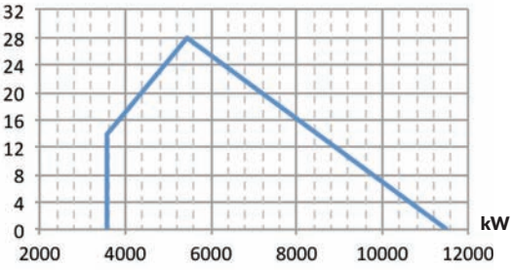
ECO 8 O S C 3a



ECO 8 O S C 3b



ECO 9 O S C 3



Specifications of one stage monoblock heavy oil burners

Specifications	ECO 20 SC 1	ECO 20 SC 1a	ECO 30 SC 1	ECO 30 SC 1a	ECO 45 SC 1	ECO 45 SC 1a	ECO 45 SC 1b
Control Type	1S	1S	1S	1S	1S	1S	1S
Air Flow Regulating	M	M	M	M	M	M	M
Ignition	DI	DI	DI	DI	DI	DI	DI
Flame dedector	PH	PH	PH	PH	PH	PH	PH
Heating and pumping station	•	•	•	•	•	•	•
Liquid oil pump and hoses	•	•	•	•	•	•	•
Handling shaft	•	•	•	•	•	•	•
Optional flame tube length	•	•	•	•	•	•	•
Oil transfer station	•	•	•	•	•	•	•
TSE EN-676 CERTIFICATION	•	•	•	•	•	•	•
CE Marking	•	•	•	•	•	•	•
Electrical protection class	IP40	IP40	IP40	IP40	IP40	IP40	IP40

Table explanations

1S	ONE STAGE	2S	TWO STAGE	M	Modulating
M	MANUAL	SM	SERVOMOTOR		
İO	IONIZATION	PH	PHOTOCELL		
DI	DIRECT IGNITION	PI	PILOT IGNITION		
•	YES	°	NO	•	Optional

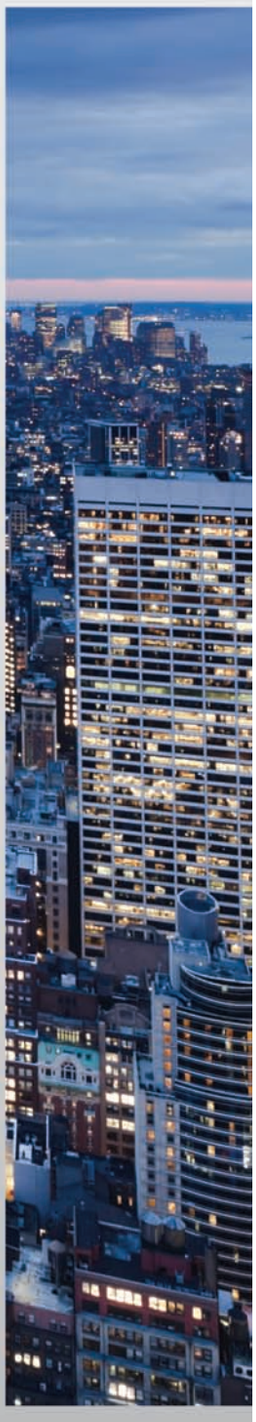
Specifications of two stage monoblock heavy oil burners

Specifications	ECO 2 GC 2	ECO 2 GC 2a	ECO 30 GC 2	ECO 30 GC 2a	ECO 45 GC 2	ECO 45 GC 2L	ECO 45 GC 2a	ECO 45 GC 2b	ECO 50 GC 2	ECO 55 GC 2	ECO 55 GC 2a
Control Type	2S	2S	2S	2S	2S	2S	2S	2S	2S	2S	2S
Air Flow Regulating	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM
Ignition	DI	DI	DI	DI	DI	DI	DI	DI	DI	DI	DI
Flame dedector	PH	PH	PH	PH	PH	PH	PH	PH	PH	PH	PH
Heating and pumping station	•	•	•	•	•	•	•	•	•	•	•
Liquid oil pump and hoses	•	•	•	•	•	•	•	•	•	•	•
Handling shaft	•	•	•	•	•	•	•	•	•	•	•
Optional flame tube length	•	•	•	•	•	•	•	•	•	•	•
Oil transfer station	•	•	•	•	•	•	•	•	•	•	•
TSE EN-676 CERTIFICATION	•	•	•	•	•	•	•	•	•	•	•
CE Marking	•	•	•	•	•	•	•	•	•	•	•
Electrical protection class	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40

Specifications of modulating monoblock heavy oil burners

Specifications	ECO 45 OSC 3b	ECO 50 OSC 3	ECO 55 OSC 3	ECO 55 OSC 3a	ECO 60 OSC 3	ECO 65 OSC 3	ECO 70 OSC 3	ECO 75 OSC 3	ECO 80 SC 3	ECO 80 SC 3a	ECO 80 SC 3b	ECO 90 SC 3
Control Type	M	M	M	M	M	M	M	M	M	M	M	M
Air Flow Regulating	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM
Ignition	DI	DI	DI	DI	DI	DI	DI	DI	PI	PI	PI	PI
Flame dedector	PH	PH	PH	PH	PH	PH	PH	PH	PH	PH	PH	PH
Heating and pumping station	•	•	•	•	•	•	•	•	•	•	•	•
Liquid oil pump and hoses	•	•	•	•	•	•	•	•	•	•	•	•
Handling shaft	•	•	•	•	•	•	•	•	°	°	°	°
Optional flame tube length	•	•	•	•	•	•	•	•	•	•	•	•
Connection for O2-CO combustion control system	•	•	•	•	•	•	•	•	•	•	•	•
Inverter connection for combustion air fan	•	•	•	•	•	•	•	•	•	•	•	•
Oil transfer station	•	•	•	•	•	•	•	•	•	•	•	•
TSE EN-676 CERTIFICATION	•	•	•	•	•	•	•	•	•	•	•	•
CE Marking	•	•	•	•	•	•	•	•	•	•	•	•
Electrical protection class	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP54	IP54	IP54	IP54	IP54

Innovative ideas...

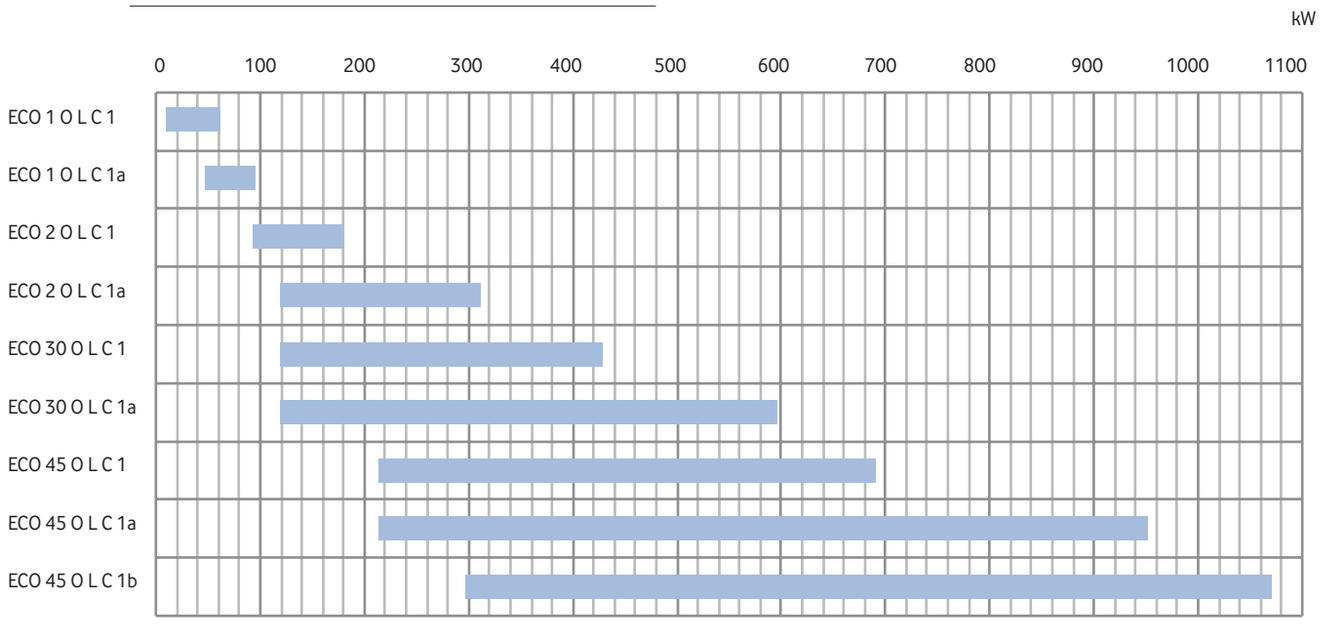


ecostar®
COMBUSTION SYSTEMS

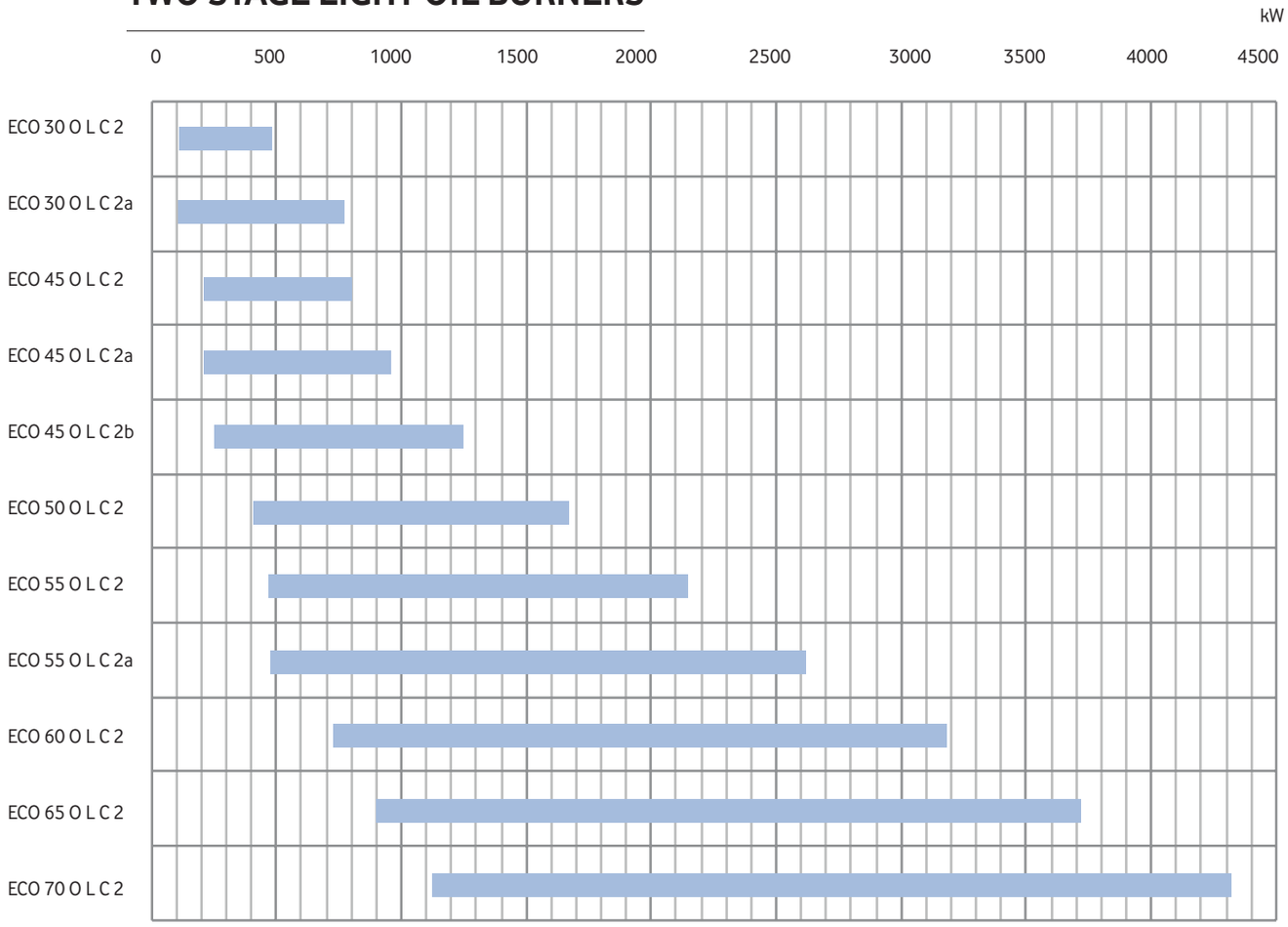
www.ecostarburners.com

LIGHT OIL BURNERS

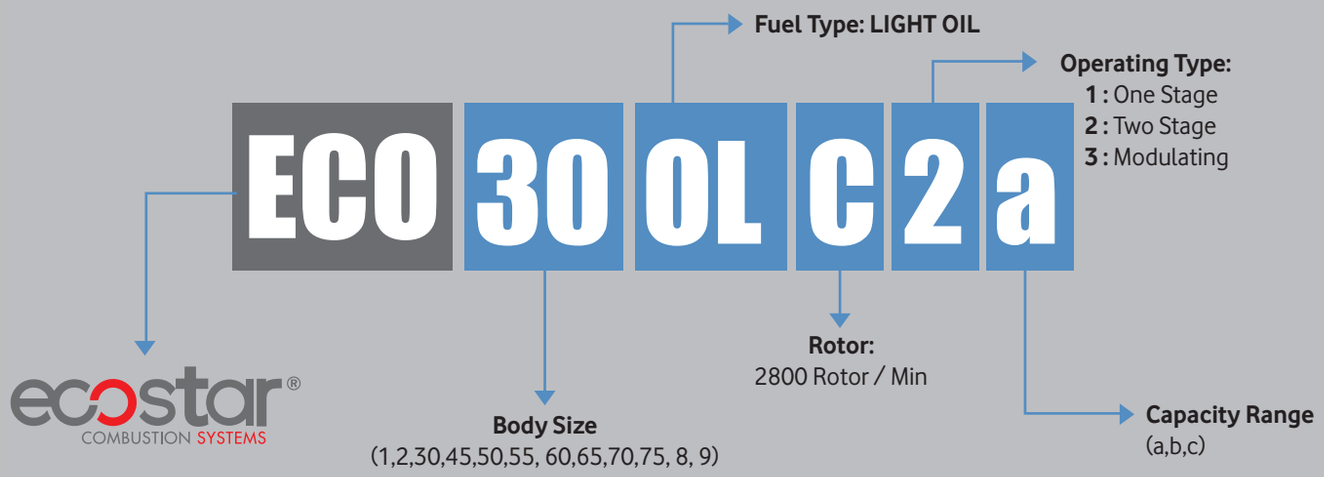
ONE STAGE LIGHT OIL BURNERS



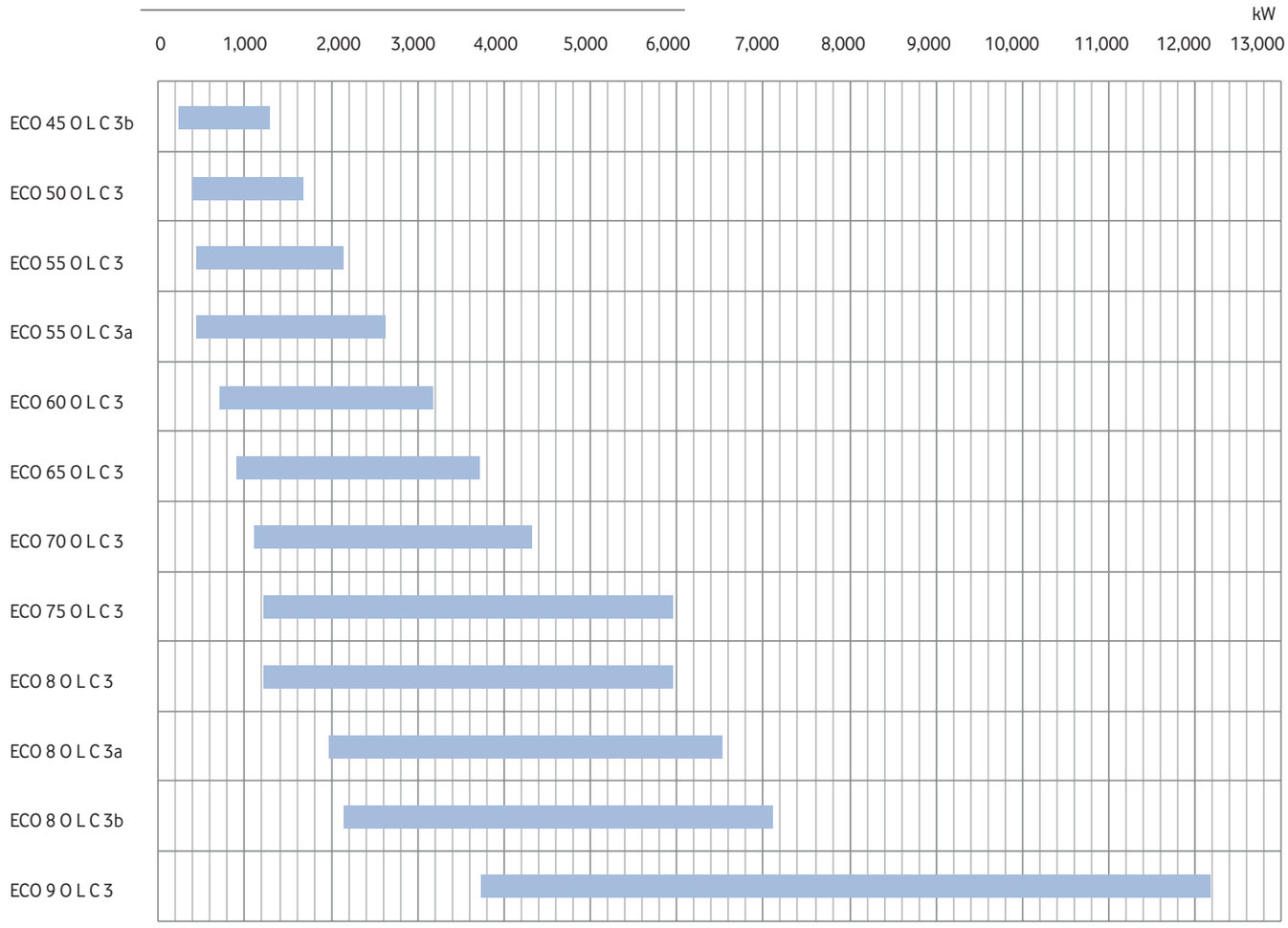
TWO STAGE LIGHT OIL BURNERS



CODE KEY



MODULATING LIGHT OIL BURNERS



Pls. scan for electronic catalogue.

LIGHT OIL BURNERS

ONE STAGE LIGHT OIL BURNERS

CAPACITY TABLES

BURNER TYPE	CAPACITY		CAPACITY		LIGHT-OIL CONSUMPTION		FAN MOTOR POWER	FUEL PUMP POWER	VOLTAGE AT 50 Hz
	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. kg/h	Max. kg/h	kW	kW	VAC
ECO 1 O L C 1	10.200	51.000	12	59	1	5	0,11	-	1N 230
ECO 1 O L C 1a	40.800	81.600	47	95	4	8	0,11	-	1N 230
ECO 2 O L C 1	81.600	153.000	95	178	8	15	0,37	-	3N 380
ECO 2 O L C 1a	102.000	265.200	119	308	10	26	0,37	-	3N 380
ECO 30 O L C 1	102.000	367.200	119	427	10	36	0,37	-	3N 380
ECO 30 O L C 1a	102.000	510.000	119	593	10	50	0,37	-	3N 380
ECO 45 O L C 1	183.600	591.600	213	688	18	58	1,10	-	3N 380
ECO 45 O L C 1a	183.600	816.000	213	949	18	80	1,50	-	3N 380
ECO 45 O L C 1b	255.000	918.000	297	1.067	25	90	1,50	-	3N 380

* Net calorific value H Light Oil: 10200 kcal/kg

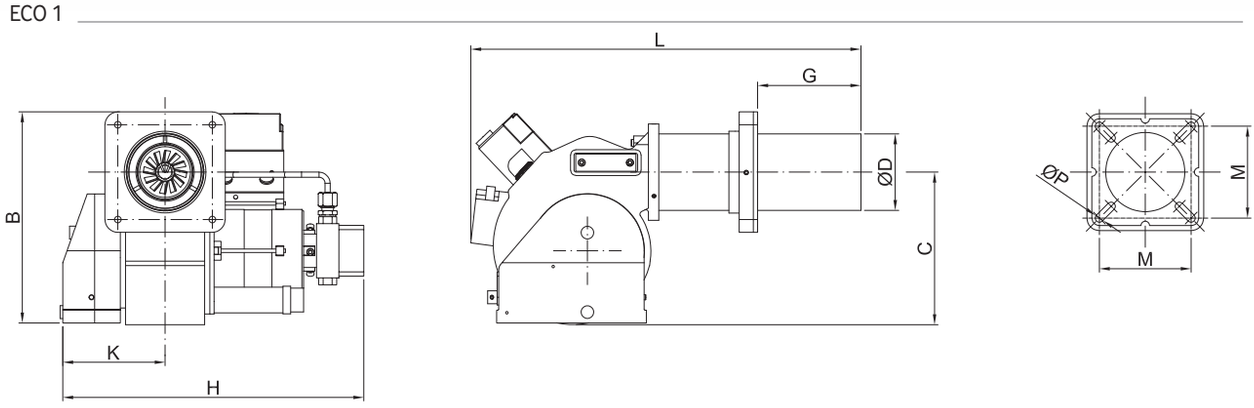
TECHNICAL SPECIFICATIONS

- Optimum fuel / air mixture with special gas nozzle
- High pressure, light build fan design
- Low noise level due to light and aerodynamic body design made of high quality aluminum
- Sliding flange for connection to different boiler types,
- Automatic control equipment of the burner according to European standard EN-267
- Easy access to all equipments without dismounting the burner from the boiler,
- High efficiency operation thanks to by air flow rate adjustment from both the suction and the gun barrel.
- Easy installation and operation
- Special-design, compact pre-heater, safety, operating and limiting thermo switches
- High pressure mechanical atomization at nozzle
- Direct ignition and pilot ignition options. (Pilot ignition is optional for some models.)

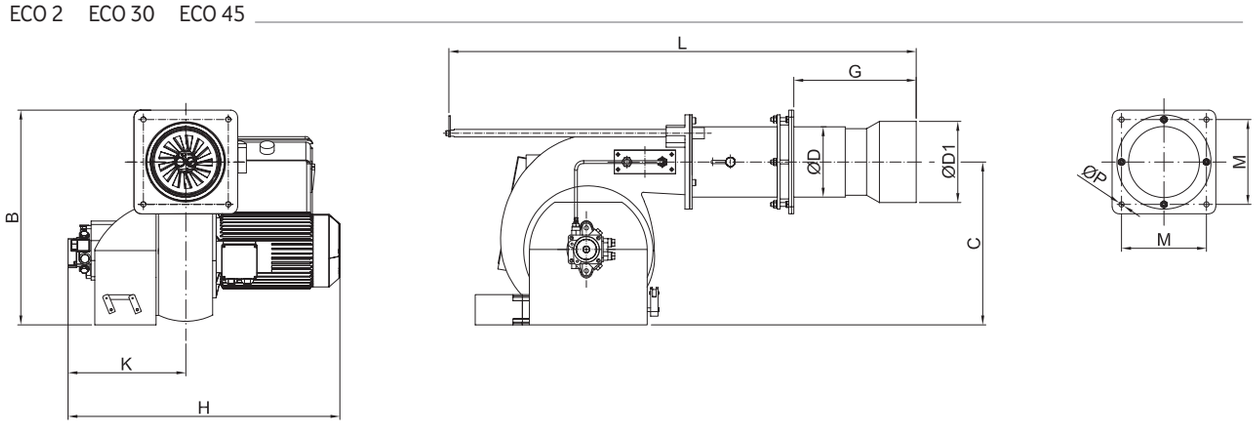
BURNER DIMENSIONS

* Gmax values are standart production values. For diferent sizes pls. contact with our sales team.

ECO 1



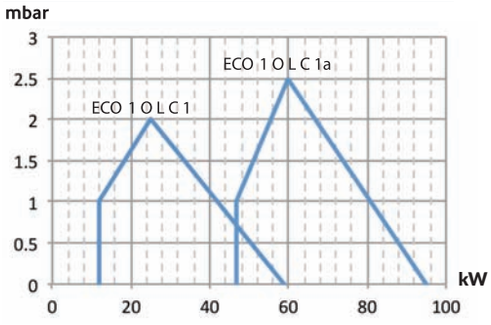
ECO 2 ECO 30 ECO 45



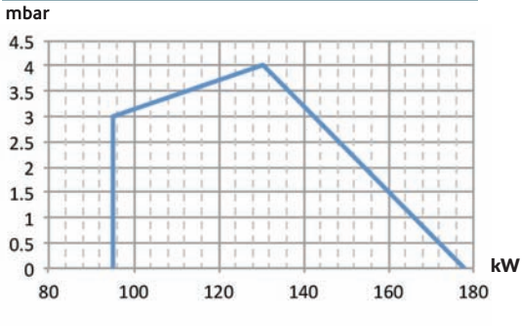
	L	Gmin	Gmax	H	K	B	C	ØP	M	ØD	ØD1
ECO 1 O (L)	560	50	310	340	125	250	175	10	110	89	-
ECO 2 O (L)	820	106	290	390	220	320	230	10	142	120	139
ECO 30 O (L)	790	130	245	545	240	400	305	10	142	130	153
ECO 45 O (L)	1040	150	350	600	300	460	350	12	180	148	172

BACK PRESSURE DIAGRAMS

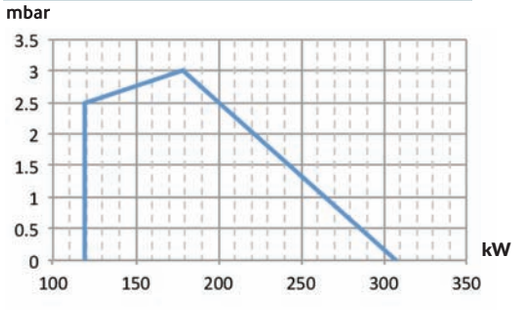
ECO 1 O L C 1 / 1a



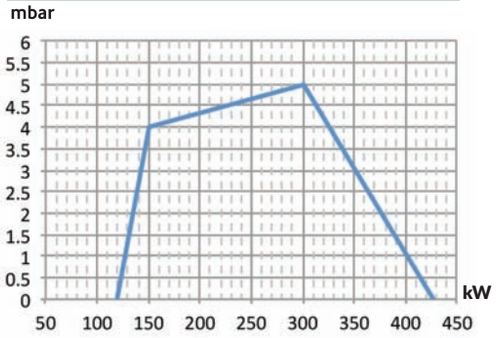
ECO 2 O L C 1



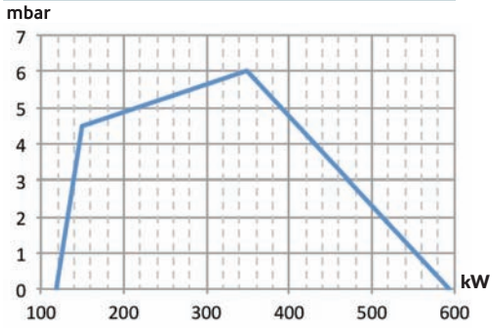
ECO 2 O L C 1a



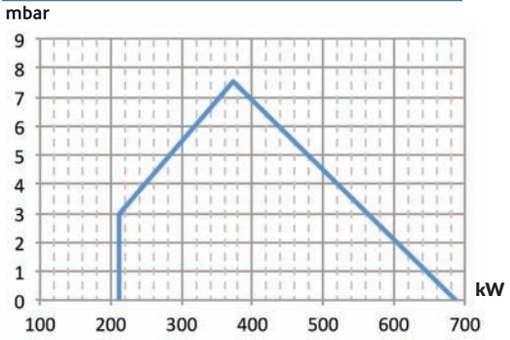
ECO 30 O L C 1



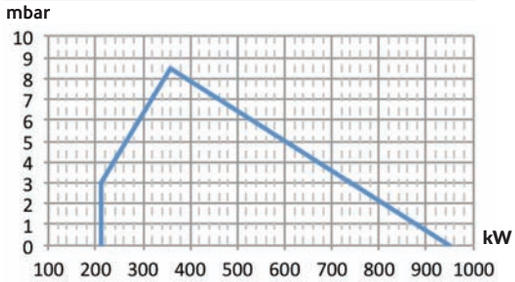
ECO 30 O L C 1a



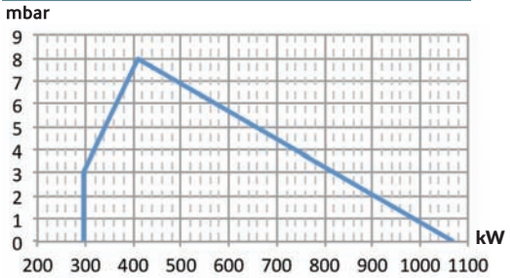
ECO 45 O L C 1



ECO 45 O L C 1a



ECO 45 O L C 1b



ecostar®
COMBUSTION SYSTEMS

www.ecostarburners.com

LIGHT OIL BURNERS

TWO STAGE BURNERS

CAPACITY TABLES

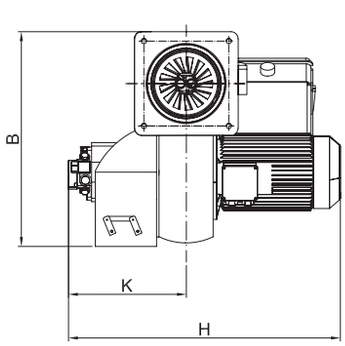
BURNER TYPE	CAPACITY		CAPACITY		LIGHT-OIL CONSUMPTION		FAN MOTOR POWER	FUEL PUMP POWER	VOLTAGE AT 50 Hz
	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. kg/h	Max. kg/h	kW	kW	VAC
ECO 30 O L C 2	102.000	408.000	119	474	10	40	0,37	-	3N 380
ECO 30 O L C 2a	102.000	663.000	119	771	10	65	0,75	-	3N 380
ECO 45 O L C 2	183.600	683.400	213	795	18	67	1,10	-	3N 380
ECO 45 O L C 2a	183.600	816.000	213	949	18	80	1,10	-	3N 380
ECO 45 O L C 2b	224.400	1.071.000	261	1.245	22	105	1,50	-	3N 380
ECO 50 O L C 2	357.000	1.428.000	415	1.660	35	140	2,20	-	3N 380
ECO 55 O L C 2	408.000	1.836.000	474	2.135	40	180	3,00	-	3N 380
ECO 55 O L C 2a	408.000	2.244.000	474	2.609	40	220	3,00	-	3N 380
ECO 60 O L C 2	632.400	2.723.400	735	3.167	62	267	4,00	0,75	3N 380
ECO 65 O L C 2	775.200	3.182.400	901	3.700	76	312	5,50	0,75	3N 380
ECO 70 O L C 2	969.000	3.702.600	1.127	4.305	95	363	7,50	0,75	3N 380

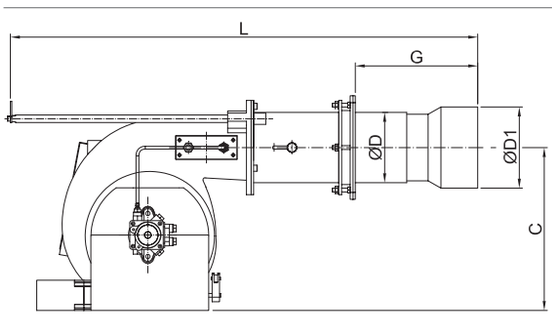
* Net calorific value H Light Oil: 10200 kcal/kg

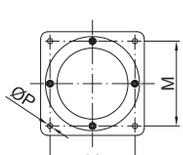
BURNER DIMENSIONS

* Gmax values are standart production values. For diferent sizes pls. contact with our sales team.

ECO 2 ECO 30 ECO 45 ECO 50 ECO 55



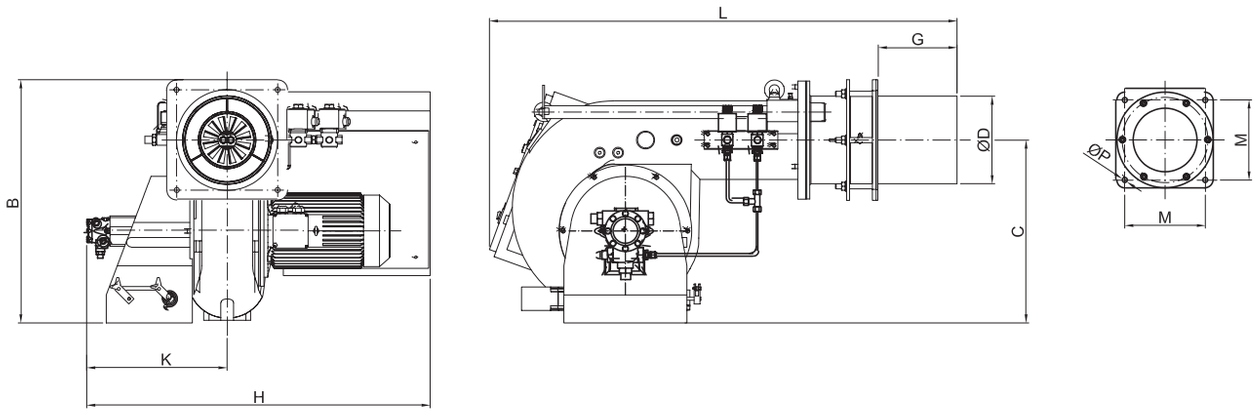




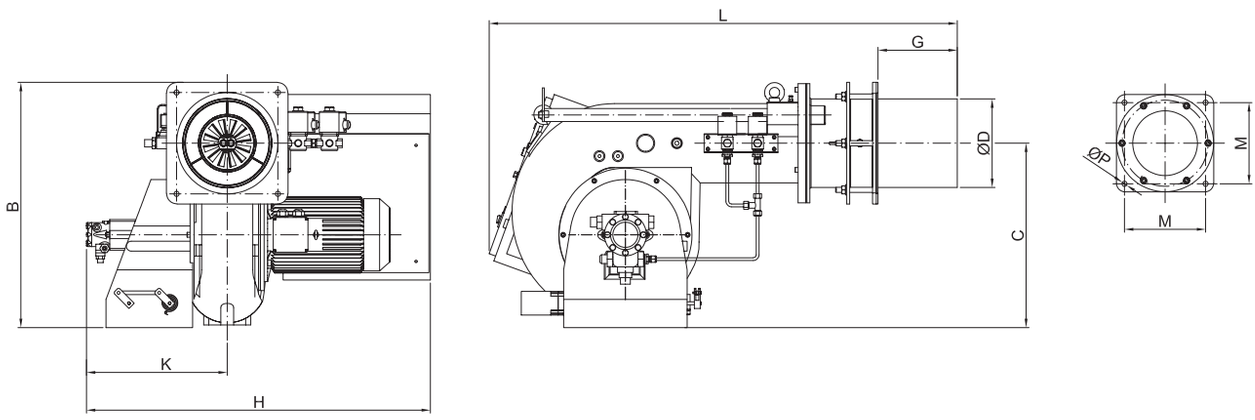
TECHNICAL SPECIFICATIONS

- Optimum fuel / air mixture with special gas nozzle
- High pressure, light build fan design
- Low noise level due to light and aerodynamic body design made of high quality aluminum
- Sliding flange for connection to different boiler types,
- Automatic control equipment of the burner according to European standard EN-267
- Easy access to all equipments without dismounting the burner from the boiler,
- High efficiency operation thanks to by air flow rate adjustment from both the suction and the gun barrel.
- Easy installation and operation
- Special-design, compact pre-heater, safety, operating and limiting thermo switches
- High pressure mechanical atomization at nozzle
- Direct ignition and pilot ignition options. (Pilot ignition is optional for some models.)

ECO 60



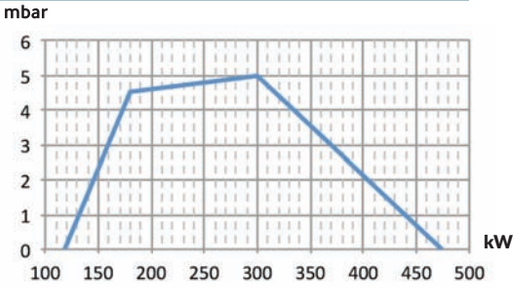
ECO 65 ECO 70



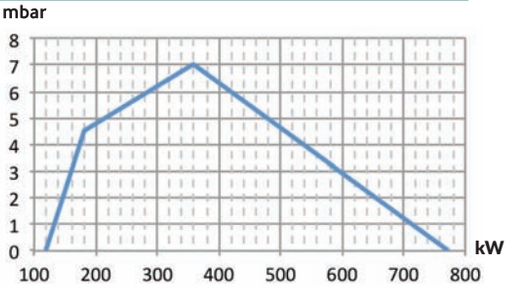
	L	Gmin	Gmax	H	K	B	C	ØP	M	ØD	ØD1
ECO 30 O (L)	790	130	245	545	240	400	305	10	142	130	153
ECO 45 O (L)	1040	150	350	600	300	460	350	12	180	148	172
ECO 50 O (L)	1370	280	440	780	360	590	422	18	275	218	236
ECO 55 O (L)	1370	280	440	780	360	590	422	18	275	218	236
ECO 60 O (L)	1300	-	140	950	400	670	510	18	275	240	-
ECO 65 O (L)	1580	200	535	950	400	670	510	18	275	250	280
ECO 70 O (L)	1580	200	535	950	400	670	510	18	275	250	280

BACK PRESSURE DIAGRAMS

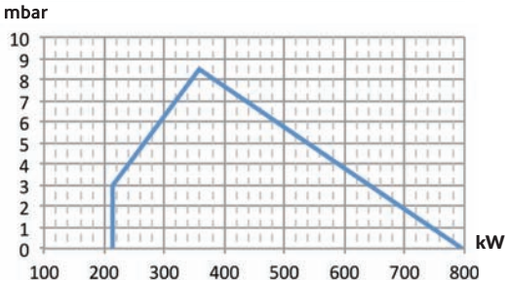
ECO 30 O L C 2



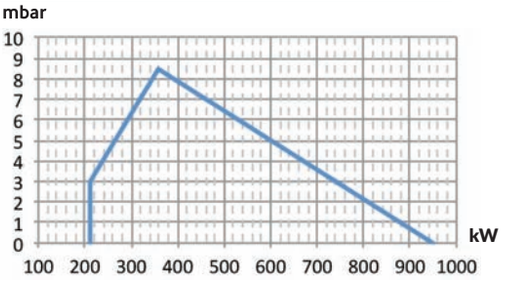
ECO 30 O L C 2a



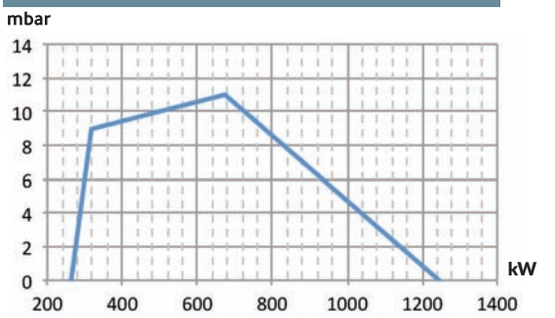
ECO 45 O L C 2



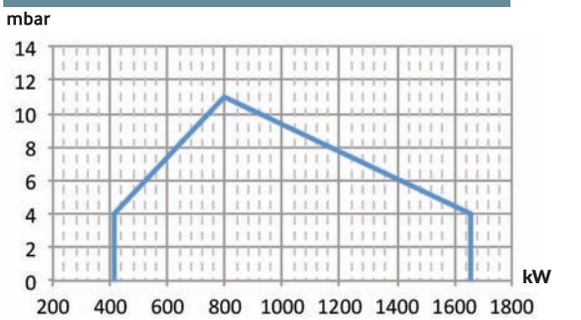
ECO 45 O L C 2a



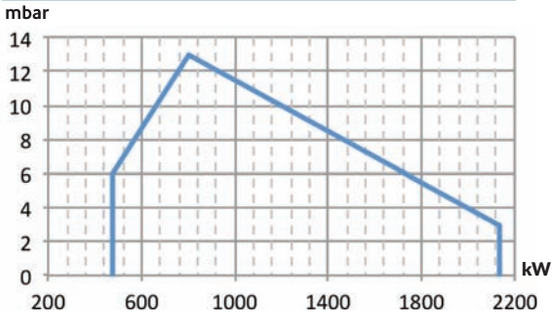
ECO 45 O L C 2b



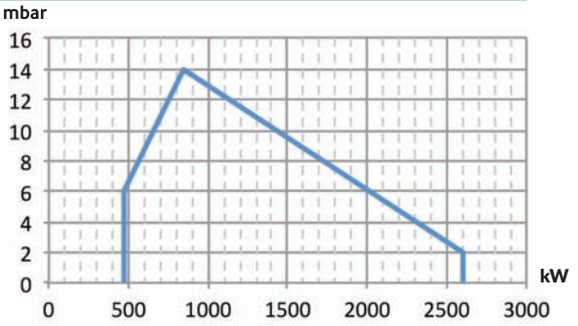
ECO 50 O L C 2



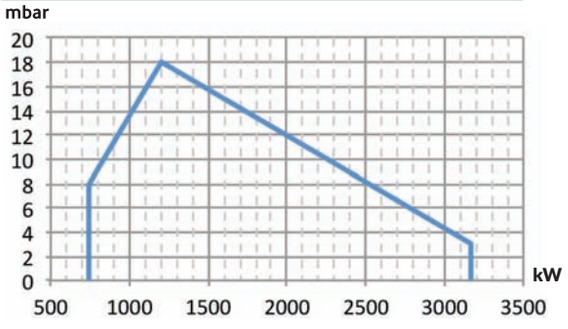
ECO 55 O L C 2



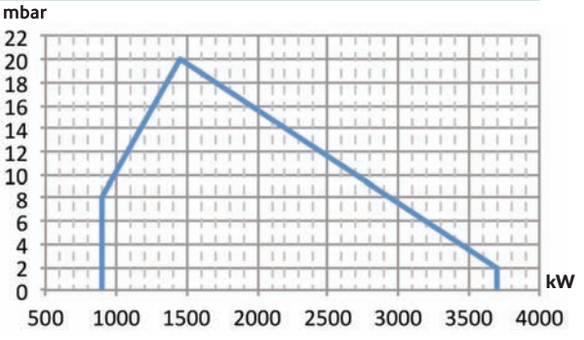
ECO 55 O L C 2a



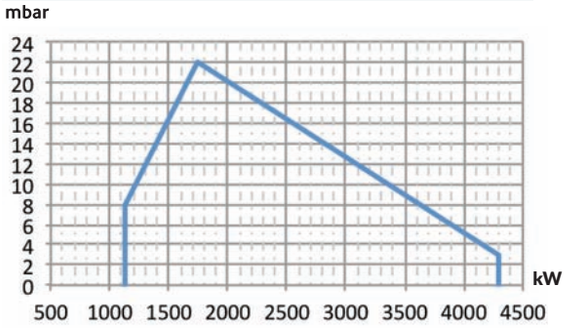
ECO 60 O L C 2



ECO 65 O L C 2

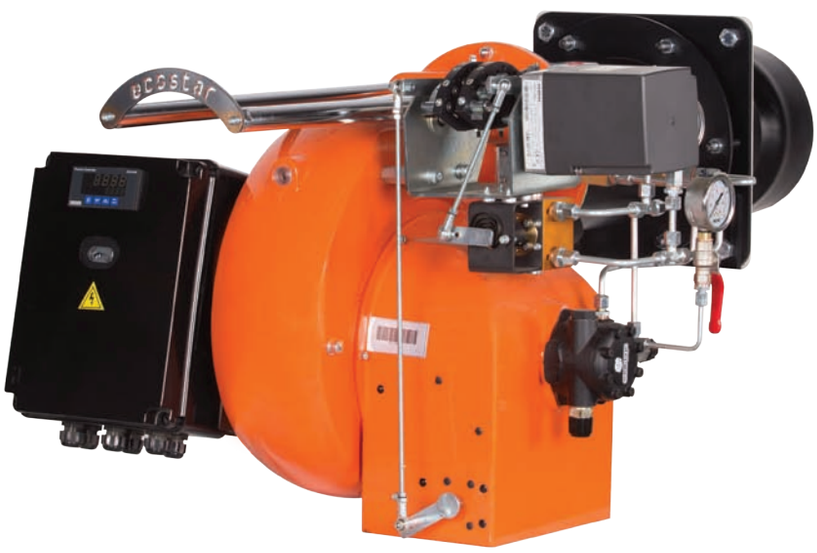


ECO 70 O L C 2



Pls. scan for electronic catalogue.

LIGHT OIL BURNERS



MODULATING LIGHT OIL BURNERS

CAPACITY TABLES

BURNER TYPE	CAPACITY		CAPACITY		LIGHT-OIL CONSUMPTION		FAN MOTOR POWER	FUEL PUMP POWER	VOLTAGE AT 50 Hz
	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. kg/h	Max. kg/h	kW	kW	VAC
ECO 45 O L C 3b	224.400	1.071.000	261	1.245	22	105	1,50	-	3N 380
ECO 50 O L C 3	357.000	1.428.000	415	1.660	35	140	2,20	-	3N 380
ECO 55 O L C 3	408.000	1.836.000	474	2.135	40	180	3,00	-	3N 380
ECO 55 O L C 3a	408.000	2.244.000	474	2.609	40	220	3,00	-	3N 380
ECO 60 O L C 3	632.400	2.723.400	735	3.167	62	267	4,00	1,10	3N 380
ECO 65 O L C 3	775.200	3.182.400	901	3.700	76	312	5,50	1,50	3N 380
ECO 70 O L C 3	969.000	3.702.600	1.127	4.305	95	363	7,50	1,50	3N 380
ECO 75 O L C 3	1.060.800	5.100.000	1.233	5.930	104	500	11,00	1,50	3N 380
ECO 8 O L C 3	1.060.800	5.100.000	1.233	5.930	104	500	11,00	2,20	3N 380
ECO 8 O L C 3a	1.703.400	5.610.000	1.981	6.523	167	550	15,00	2,20	3N 380
ECO 8 O L C 3b	1.866.600	6.120.000	2.170	7.116	183	600	15,00	3,00	3N 380
ECO 9 O L C 3	3.234.277	10.453.679	3.761	12.155	317	1.025	22,00	4,00	3N 380

* Net calorific value H Light Oil: 10200 kcal/kg

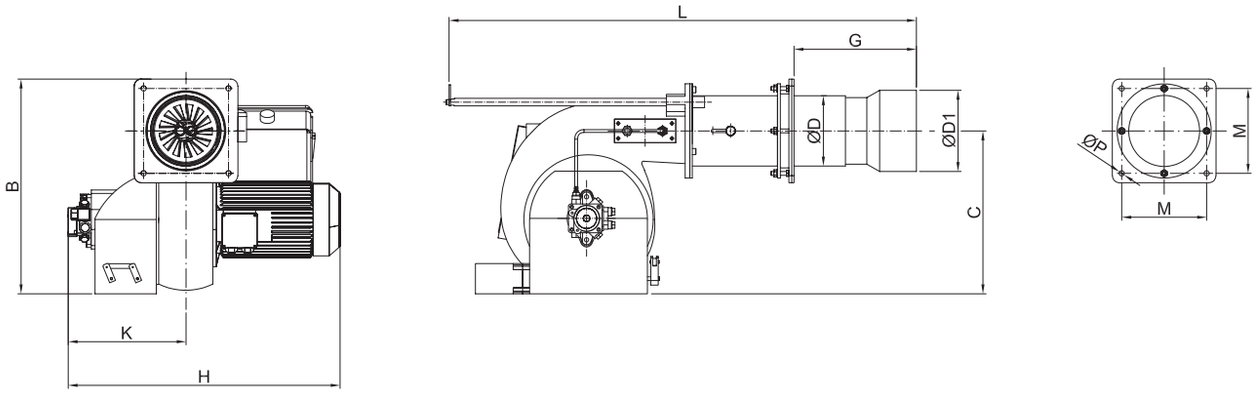
TECHNICAL SPECIFICATIONS

- Optimum fuel / air mixture with special gas nozzle
- High pressure, light build fan design
- Low noise level due to light and aerodynamic body design made of high quality aluminum
- Sliding flange for connection to different boiler types,
- Automatic control equipment of the burner according to European standard EN-267
- Easy access to all equipments without dismounting the burner from the boiler,
- High efficiency operation thanks to by air flow rate adjustment from both the suction and the gun barrel.
- Easy installation and operation
- Special-design, compact pre-heater, safety, operating and limiting thermo switches
- High pressure mechanical atomization at nozzle
- Direct ignition and pilot ignition options. (Pilot ignition is optional for some models.)
- Mechanical or electronic modulating control options.

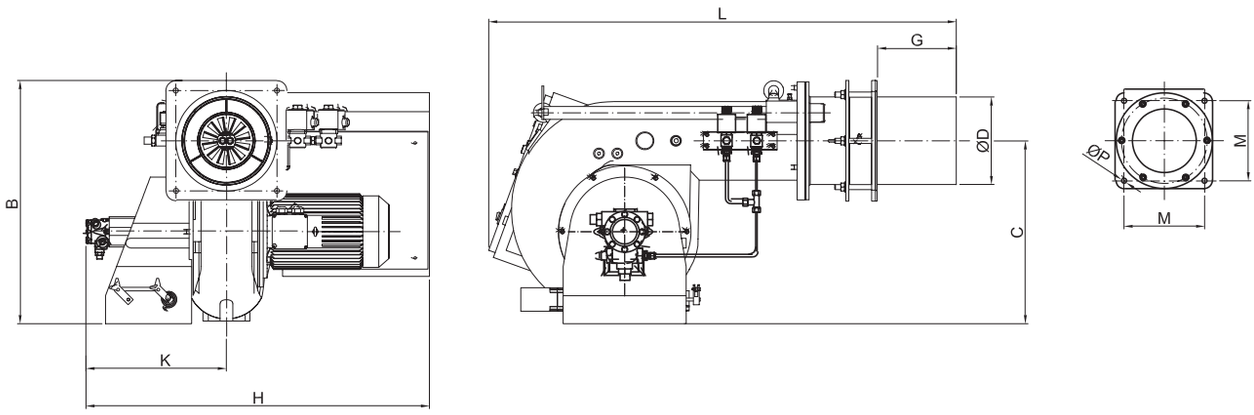
BURNER DIMENSIONS

* Gmax values are standart production values. For diferent sizes pls. contact with our sales team.

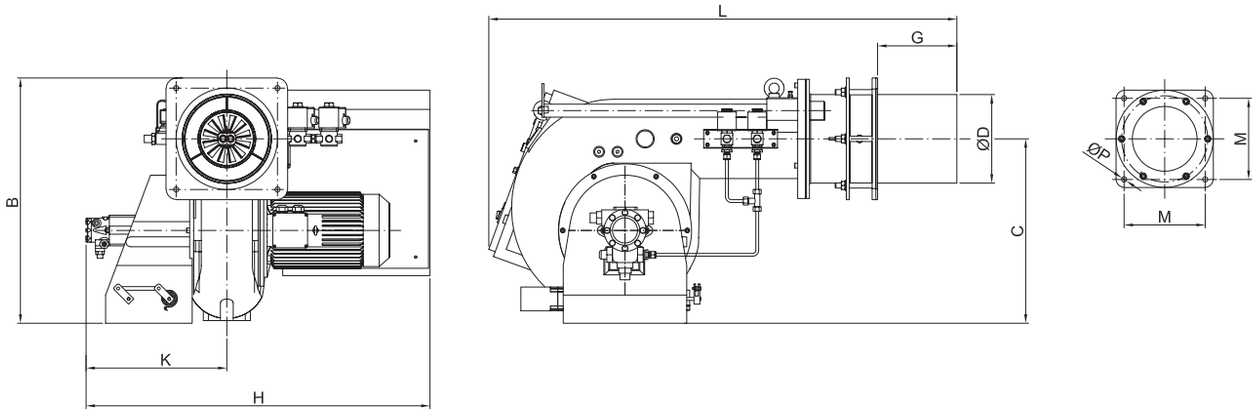
ECO 45 ECO 50 ECO 55



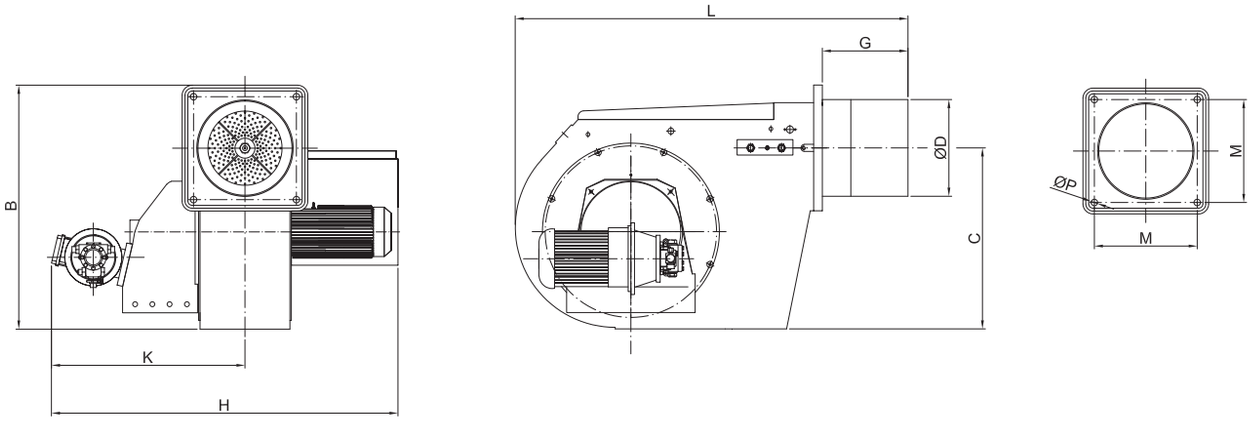
ECO 60 ECO 75



ECO 65 ECO 70



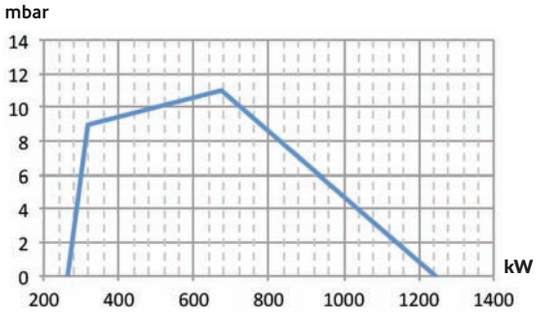
ECO 8 ECO 9



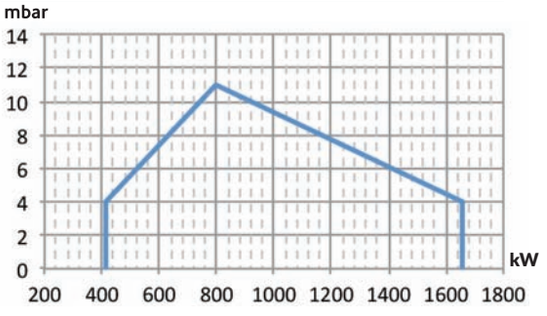
	L	Gmin	Gmax	H	K	B	C	ØP	M	ØD	ØD1
ECO 45 O (L)	1040	150	350	600	300	460	350	12	180	148	172
ECO 50 O (L)	1370	280	440	780	360	590	422	18	275	218	236
ECO 55 O (L)	1370	280	440	780	360	590	422	18	275	218	236
ECO 60 O (L)	1300	-	140	950	400	670	510	18	275	240	-
ECO 65 O (L)	1580	200	535	950	400	670	510	18	275	250	280
ECO 70 O (L)	1580	200	535	950	400	670	510	18	275	250	280
ECO 75 O (L)	1500	200	285	870	360	730	525	22	335	300	-
ECO 8 O (L)	1400	-	300	1300	730	860	635	23	360	338	-
ECO 9 O (L)	1730	-	500	1350	610	1110	830	23	440	450	-

BACK PRESSURE DIAGRAMS

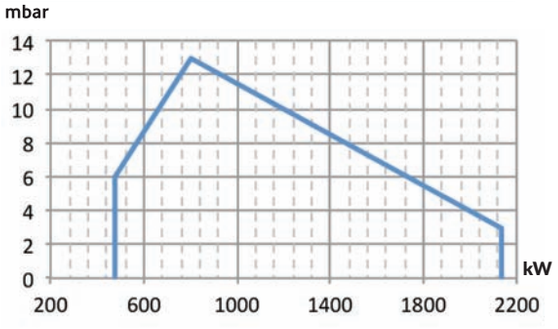
ECO 45 O L C 3b



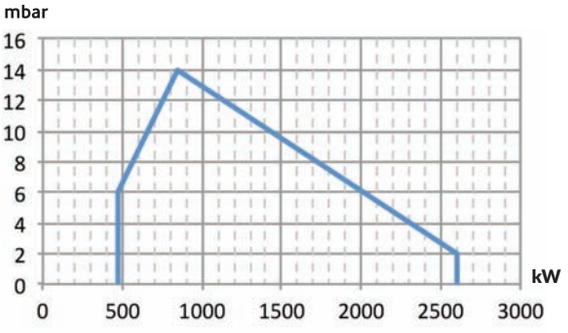
ECO 50 O L C 3



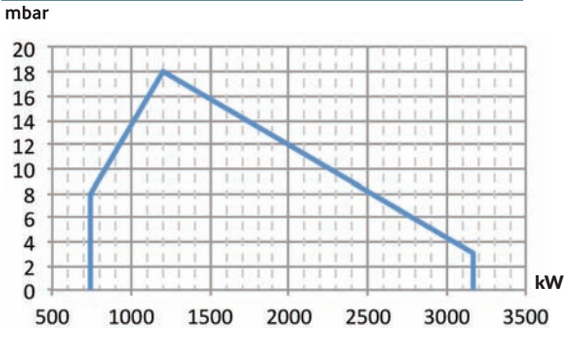
ECO 55 O L C 3



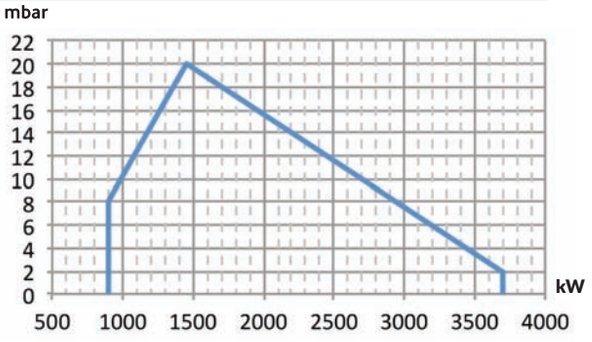
ECO 55 O L C 3a



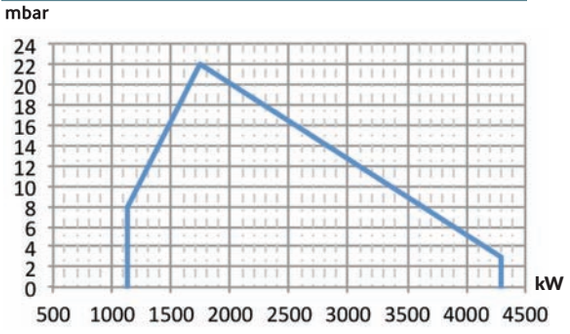
ECO 60 O L C 3



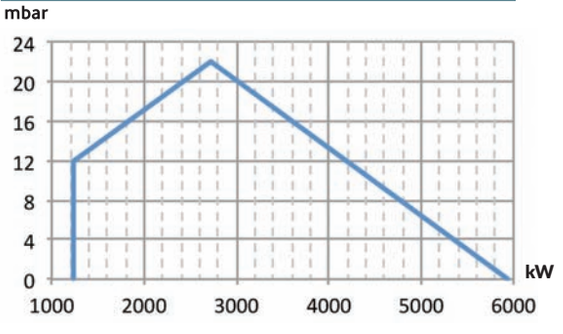
ECO 65 O L C 3



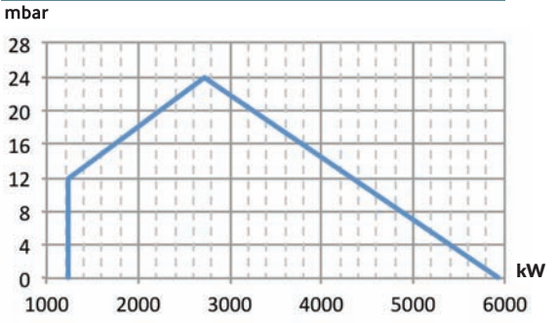
ECO 70 O L C 3



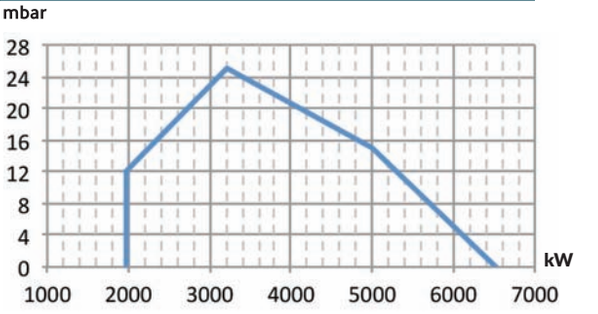
ECO 75 O L C 3



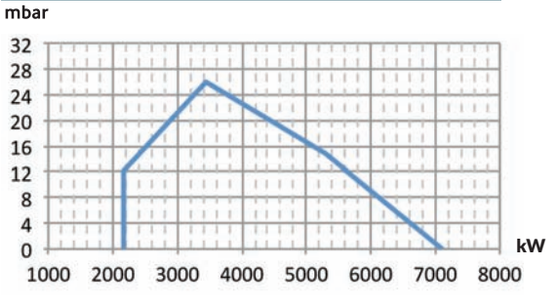
ECO 8 O L C 3



ECO 8 O L C 3a



ECO 8 O L C 3b



ECO 9 O L C 3

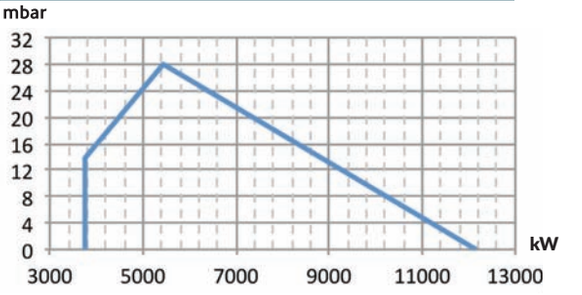


Table explanations

1S	ONE STAGE	2S	TWO STAGE	M	Modulating
M	MANUAL	SM	SERVOMOTOR		
İO	IONIZATION	PH	PHOTOCELL		
DI	DIRECT IGNITION	PI	PILOT IGNITION		
•	YES	°	NO	•	Optional

Specifications of one stage monoblock light oil burners

Specifications	ECO 10 LC1	ECO 10 LC1a	ECO 20 LC1	ECO 20 LC1a	ECO 30 LC1	ECO 30 LC1a	ECO 45 LC1	ECO 45 LC1a	ECO 45 LC1b
Control Type	1S	1S	1S	1S	1S	1S	1S	1S	1S
Air Flow Regulating	M	M	M	M	M	M	M	M	M
Flame dedector	PH	PH	PH	PH	PH	PH	PH	PH	PH
Ignition	DI	DI	DI	DI	DI	DI	DI	DI	DI
Liquid oil pump and hoses	•	•	•	•	•	•	•	•	•
Handling shaft	°	°	•	•	•	•	•	•	•
Optional flame tube length	•	•	•	•	•	•	•	•	•
Oil transfer station	•	•	•	•	•	•	•	•	•
TSE EN-676 CERTIFICATION	•	•	•	•	•	•	•	•	•
CE Marking	•	•	•	•	•	•	•	•	•
Electrical protection class	IP20	IP20	IP40	IP40	IP40	IP40	IP40	IP40	IP40

Specifications of two stage monoblock light oil burners

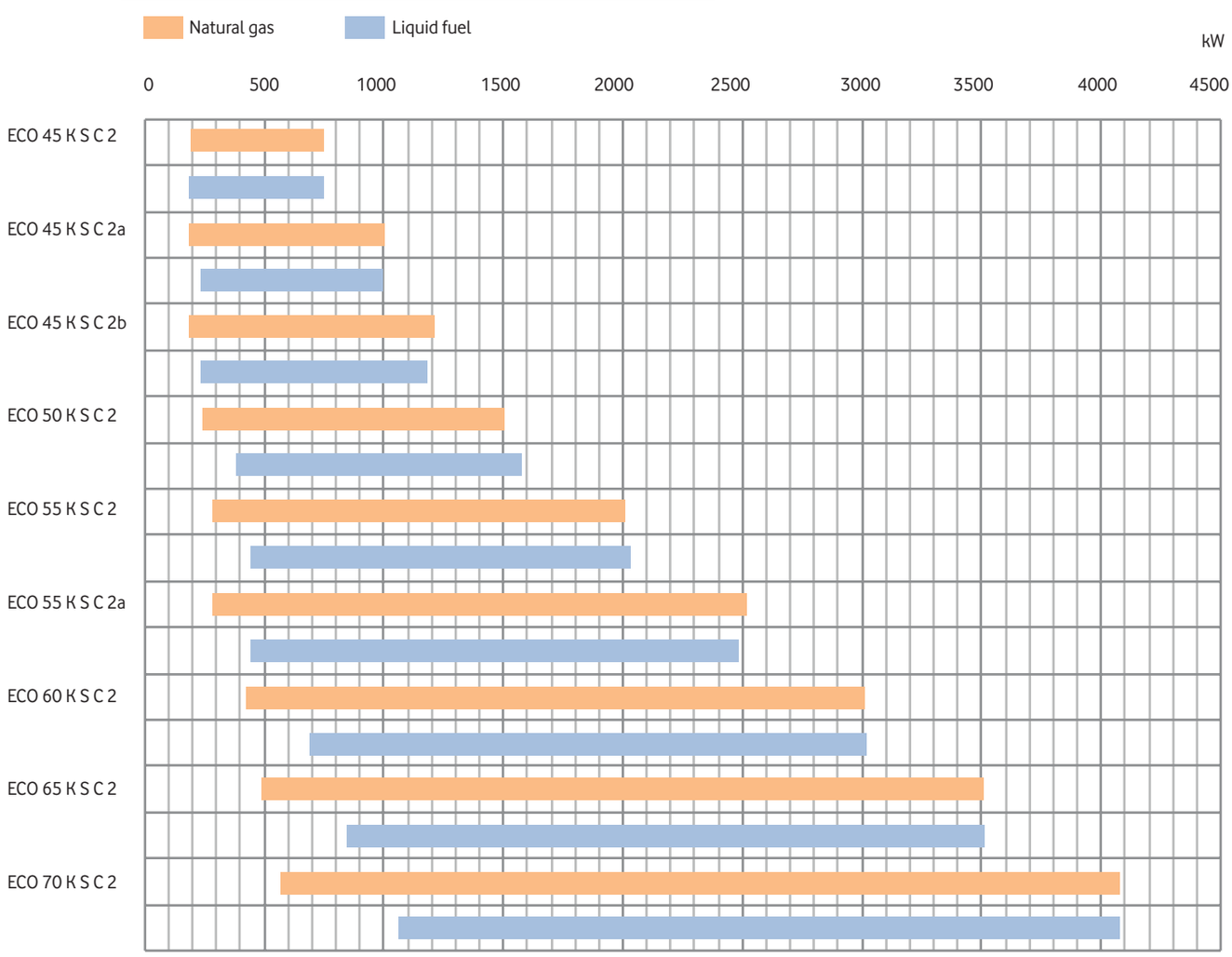
Specifications	ECO 30 LC2	ECO 30 LC2a	ECO 45 LC2	ECO 45 LC2a	ECO 45 LC2b	ECO 50 LC2	ECO 55 LC2	ECO 55 LC2a	ECO 60 LC2	ECO 65 LC2	ECO 70 LC2
Control Type	2S	2S	2S	2S	2S	2S	2S	2S	2S	2S	2S
Air Flow Regulating	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM
Ignition	DI	DI	DI	DI	DI	DI	DI	DI	DI	DI	DI
Pilot gas valve	•	•	•	•	•	•	•	•	•	•	•
Flame dedector	PH	PH	PH	PH	PH	PH	PH	PH	PH	PH	PH
Liquid oil pump and hoses	•	•	•	•	•	•	•	•	•	•	•
Handling shaft	•	•	•	•	•	•	•	•	•	•	•
Optional flame tube length	•	•	•	•	•	•	•	•	•	•	•
Oil transfer station	•	•	•	•	•	•	•	•	•	•	•
TSE EN-676 CERTIFICATION	•	•	•	•	•	•	•	•	•	•	•
CE Marking	•	•	•	•	•	•	•	•	•	•	•
Electrical protection class	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40

Specifications of modulating monoblock light oil burners

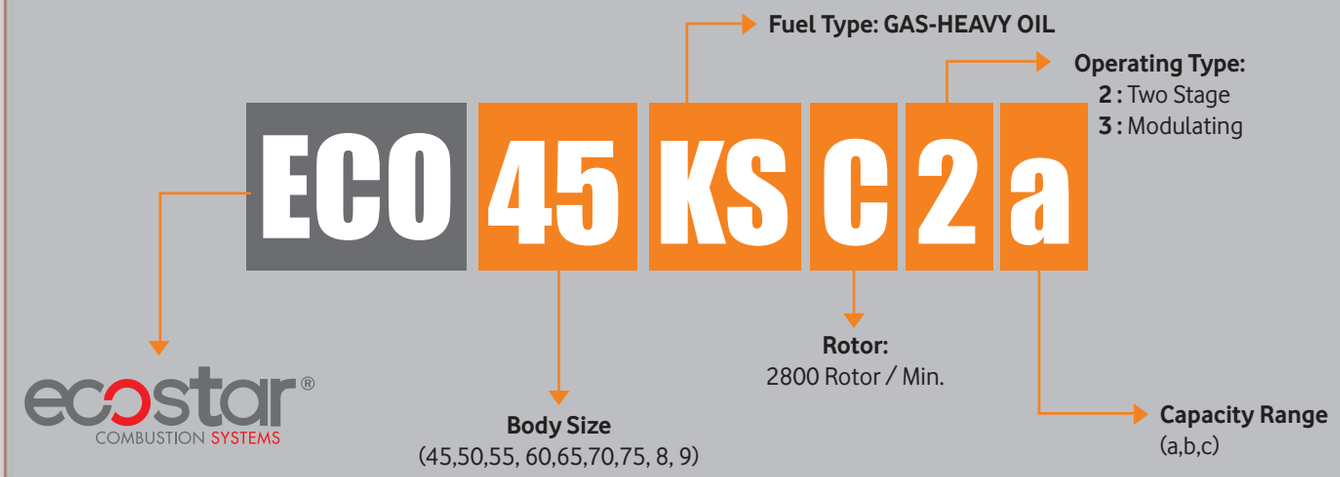
Specifications	ECO 45 OSC3b	ECO 50 OSC3	ECO 55 OSC3	ECO 55 OSC3a	ECO 60 OSC3	ECO 65 OSC3	ECO 70 OSC3	ECO 75 OSC3	ECO 80 OSC3	ECO 80 OSC3a	ECO 80 OSC3b	ECO 90 OSC3
Control Type	M	M	M	M	M	M	M	M	M	M	M	M
Air Flow Regulating	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM
Ignition	DI	DI	DI	DI	DI	DI	DI	PI	PI	PI	PI	PI
Pilot gas valve	•	•	•	•	•	•	•	•	•	•	•	•
Flame dedector	PH	PH	PH	PH	PH	PH	PH	PH	PH	PH	PH	PH
Liquid oil pump and hoses	•	•	•	•	•	•	•	•	•	•	•	•
Handling shaft	•	•	•	•	•	•	•	•	°	°	°	°
Optional flame tube length	•	•	•	•	•	•	•	•	•	•	•	•
Connection for O2-CO combustion control system	•	•	•	•	•	•	•	•	•	•	•	•
Inverter connection for combustion air fan	•	•	•	•	•	•	•	•	•	•	•	•
Oil transfer station	•	•	•	•	•	•	•	•	•	•	•	•
TSE EN-676 CERTIFICATION	•	•	•	•	•	•	•	•	•	•	•	•
CE Marking	•	•	•	•	•	•	•	•	•	•	•	•
Electrical protection class	IP40	IP40	IP40	IP40	IP40	IP40	IP54	IP54	IP54	IP54	IP54	IP54

GAS – HEAVY OIL BURNERS

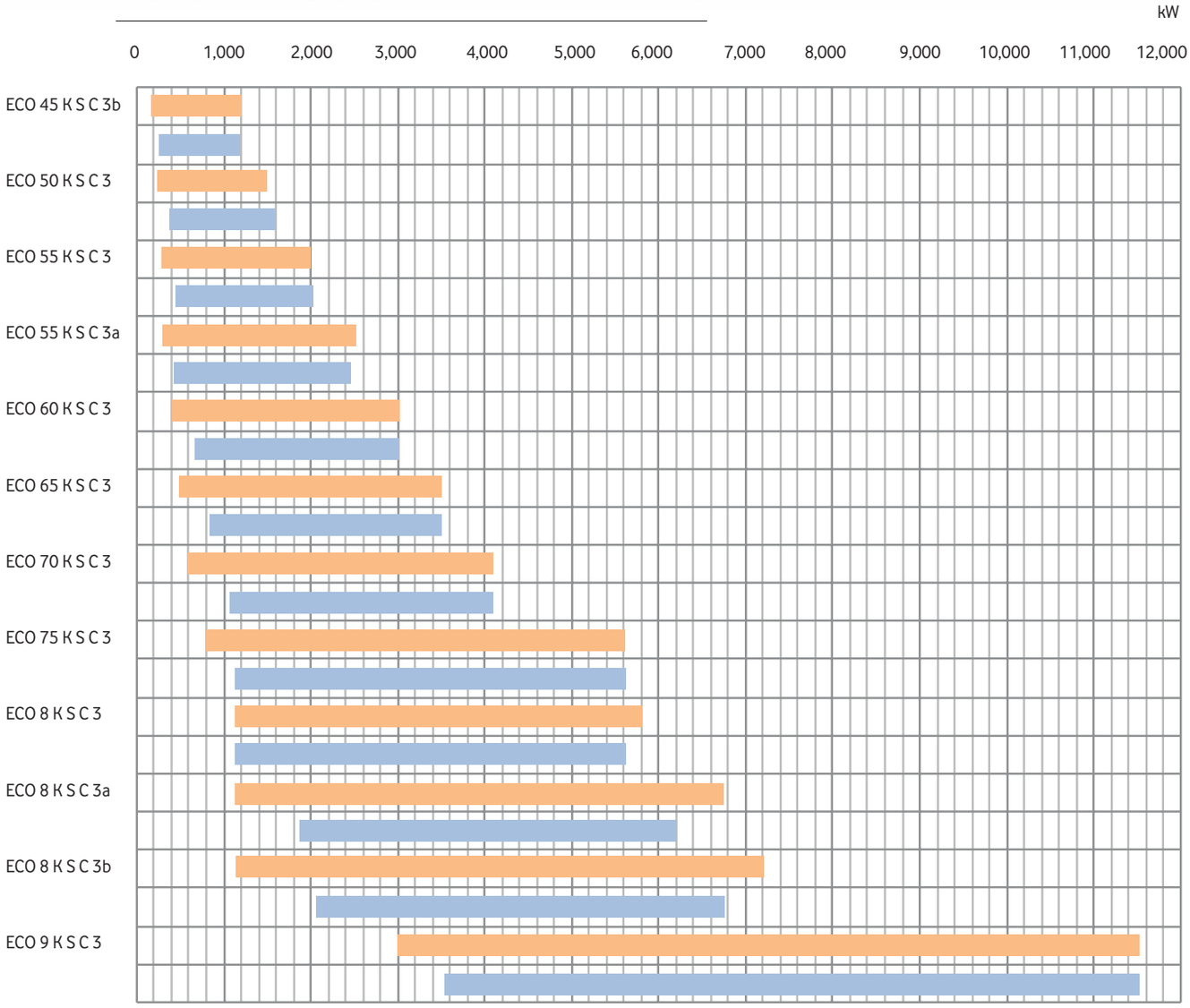
TWO STAGE GAS - HEAVY OIL BURNERS



CODE KEY



MODULATING GAS-HEAVY OIL BURNERS



GAS-HEAVY OIL

TWO STAGE GAS-HEAVY OIL BURNERS

CAPACITY TABLES

BURNER TYPE	GAS CAPACITY		GAS CAPACITY		NATURAL GAS CONSUMPTION		HEAVY-OIL CAPACITY		HEAVY-OIL CAPACITY		HEAVY-OIL CONS.		FAN MOTOR POWER	FUEL PUMP POWER	FUEL HEATER	VOLTAGE AT 50 Hz
	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. Nm3/h	Max. Nm3/h	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. kg/h	Max. kg/h	kW	kW	kW	VAC
ECO 45 K S C 2	172.000	645.000	200	750	20,8	78,2	172.000	645.000	200	750	17,8	66,8	0,75	0,75	3	3N 380
ECO 45 K S C 2a	172.000	860.000	200	1.000	20,8	104,2	212.420	851.400	247	990	22,0	88,2	1,10	0,75	6	3N 380
ECO 45 K S C 2b	172.000	1.032.000	200	1.200	20,8	125,1	212.420	1.014.800	247	1.180	22,0	105,2	1,50	0,75	6	3N 380
ECO 50 K S C 2	215.000	1.290.000	250	1.500	26,1	156,4	337.750	1.351.000	393	1.571	35,0	140,0	2,20	0,75	6	3N 380
ECO 55 K S C 2	258.000	1.720.000	300	2.000	31,3	208,5	386.000	1.737.000	449	2.020	40,0	180,0	3,00	0,75	12	3N 380
ECO 55 K S C 2a	258.000	2.150.000	300	2.500	31,3	260,6	386.000	2.123.000	449	2.469	40,0	220,0	3,00	0,75	12	3N 380
ECO 60 K S C 2	369.800	2.580.000	430	3.000	44,8	312,7	598.560	2.580.000	696	3.000	62,0	267,4	4,00	0,75	14	3N 380
ECO 65 K S C 2	430.000	3.010.000	500	3.500	52,1	364,8	733.580	3.010.000	853	3.500	76,0	311,9	5,50	0,75	14	3N 380
ECO 70 K S C 2	498.800	3.500.200	580	4.070	60,5	424,3	916.760	3.500.200	1.066	4.070	95,0	362,7	7,50	0,75	2 x 9	3N 380

* Net calorific value H Natural gas: 8250 kcal/Nm³ H Heavy Oil: 9650 kcal/kg

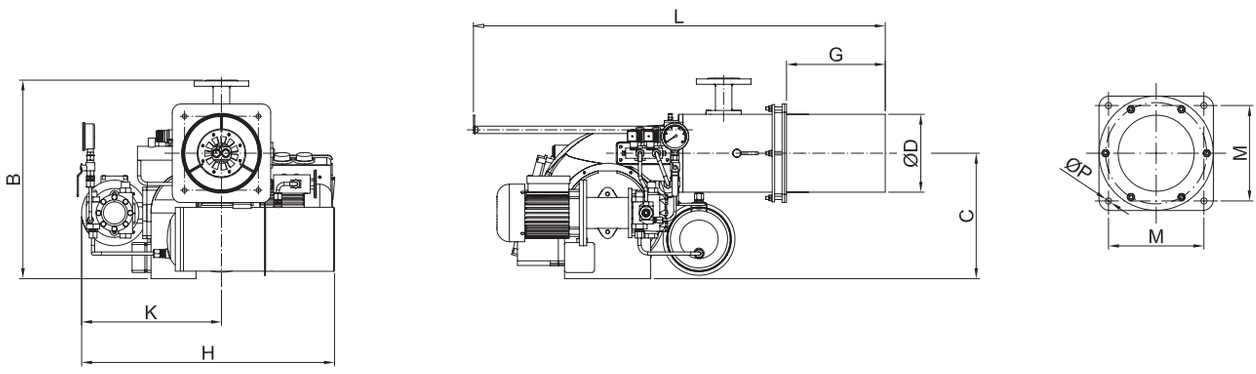
TECHNICAL SPECIFICATIONS

- Optimum fuel / air mixture with special gas nozzle
- High pressure, light build fan design
- Low noise level due to light and aerodynamic body design made of high quality aluminum
- Sliding flange for connection to different boiler types,
- Automatic control equipment of the burner according to European standard EN-267
- Easy access to all equipments without dismounting the burner from the boiler,
- High efficiency operation thanks to by air flow rate adjustment from both the suction and the gun barrel.
- Easy installation and operation
- Special-design, compact pre-heater, safety, operating and limiting thermo switches
- High pressure mechanical atomization at nozzle
- Direct ignition and pilot ignition options. (Pilot ignition is optional for some models.)

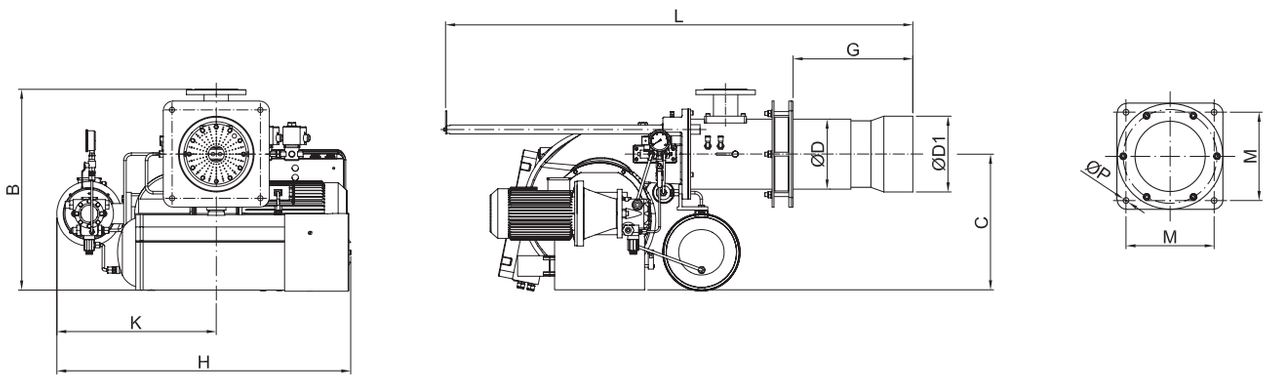
BURNER DIMENSIONS

* Gmax values are standart production values. For diferent sizes pls. contact with our sales team.

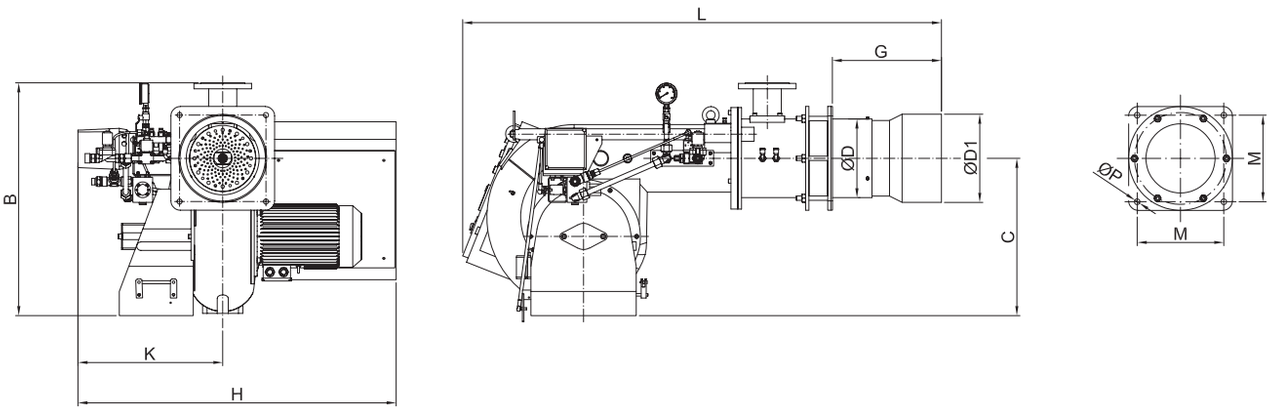
ECO 45



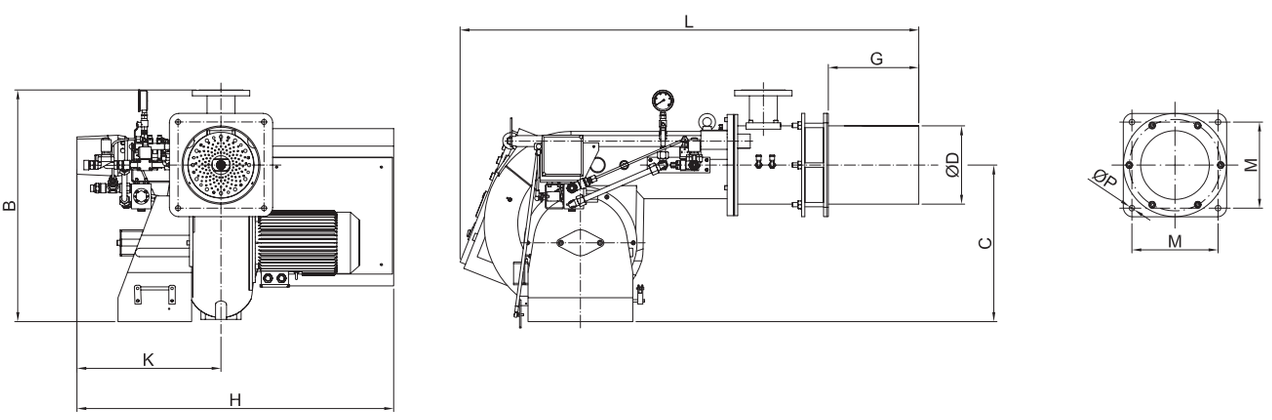
ECO 50 ECO 55



ECO 65 ECO 70



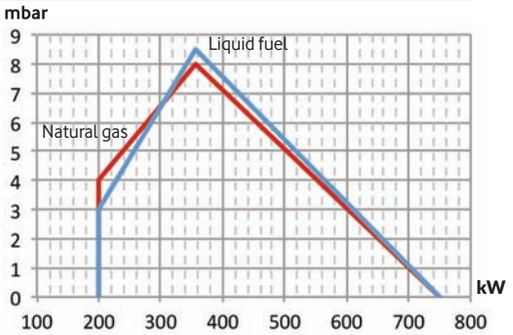
ECO 60 ECO 75



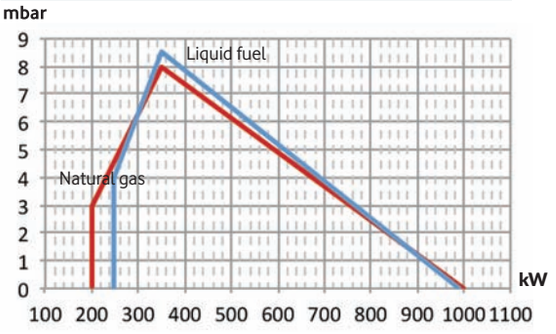
	L	Gmin	Gmax	H	K	B	C	ØP	M	ØD	ØD1
ECO 45 K (S)	1100	150	275	790	410	540	350	11	180	200	-
ECO 50 K (S)	1370	280	440	900	500	625	422	18	275	218	236
ECO 55 K (S)	1370	280	440	900	500	625	422	18	275	218	236
ECO 60 K (S)	1450	200	355	1100	590	730	510	18	275	240	-
ECO 65 K (S)	1580	200	440	1100	590	735	510	18	275	250	280
ECO 70 K (S)	1580	200	440	1100	590	735	510	18	275	250	280
ECO 75 K (S)	1450	200	340	1130	600	795	525	22	335	300	-

BACK PRESSURE DIAGRAMS

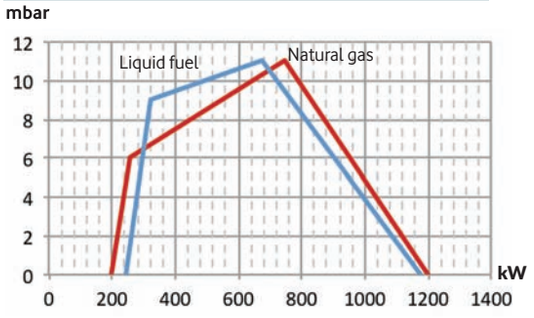
ECO 45 K S C 2



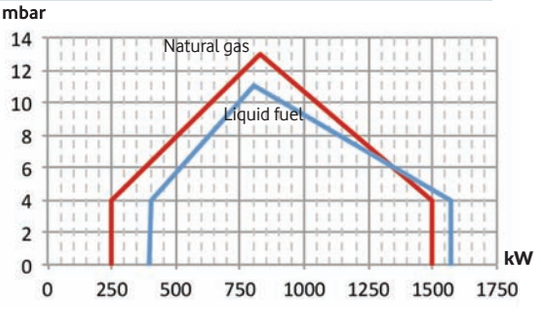
ECO 45 K S C 2a



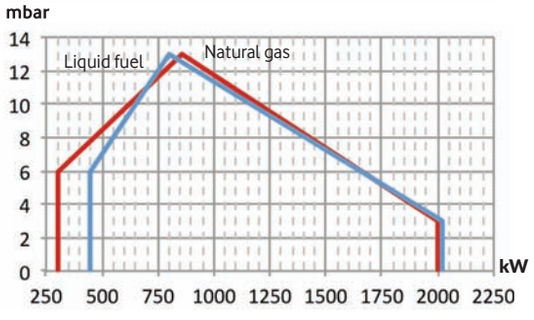
ECO 45 K S C 2b



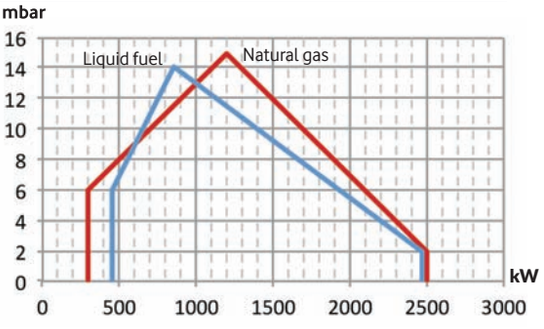
ECO 50 K S C 2



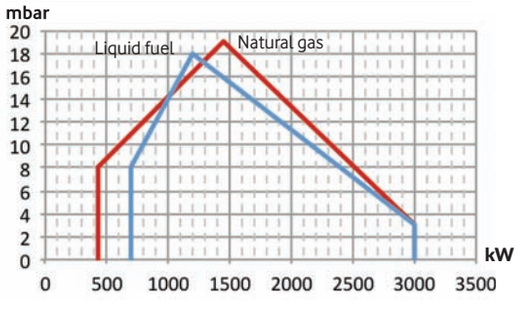
ECO 55 K S C 2



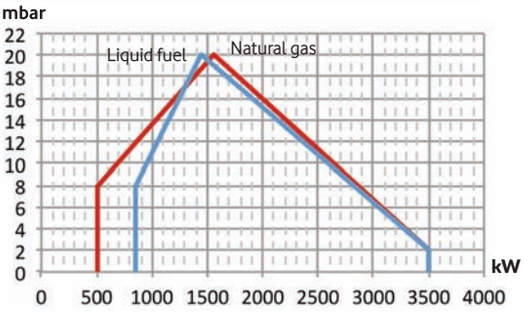
ECO 55 K S C 2a



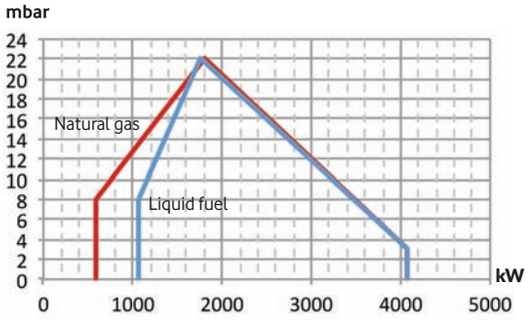
ECO 60 K S C 2



ECO 65 K S C 2



ECO 70 K S C 2



GAS-HEAVY OIL

MODULATING GAS-HEAVY OIL BURNERS

CAPACITY TABLES

BURNER TYPE	GAS CAPACITY		GAS CAPACITY		NATURAL GAS CONSUMPTION		HEAVY-OIL CAPACITY		HEAVY-OIL CAPACITY		HEAVY-OIL CONS.		FAN MOTOR POWER	FUEL PUMP POWER	FUEL HEATER	VOLTAGE AT 50 Hz
	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. Nm3/h	Max. Nm3/h	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. kg/h	Max. kg/h	kW	kW	kW	VAC
ECO 45 K S C 3b	172.000	1.032.000	200	1.200	20,8	125,1	212.420	1.014.800	247	1.180	22,0	105,2	1,50	0,75	6,0	3N 380
ECO 50 K S C 3	215.000	1.290.000	250	1.500	26,1	156,4	337.750	1.351.000	393	1.571	35,0	140,0	2,20	0,75	6,0	3N 380
ECO 55 K S C 3	258.000	1.720.000	300	2.000	31,3	208,5	386.000	1.737.000	449	2.020	40,0	180,0	3,00	1,10	12,0	3N 380
ECO 55 K S C 3a	258.000	2.150.000	300	2.500	31,3	260,6	386.000	2.123.000	449	2.469	40,0	220,0	3,00	1,10	12,0	3N 380
ECO 60 K S C 3	369.800	2.580.000	430	3.000	44,8	312,7	598.560	2.580.000	696	3.000	62,0	267,4	4,00	1,10	14,0	3N 380
ECO 65 K S C 3	430.000	3.010.000	500	3.500	52,1	364,8	733.580	3.010.000	853	3.500	76,0	311,9	5,50	1,50	2 x 9,0	3N 380
ECO 70 K S C 3	498.800	3.500.200	580	4.070	60,5	424,3	916.760	3.500.200	1.066	4.070	95,0	362,7	7,50	1,50	2 x 9,0	3N 380
ECO 75 K S C 3	686.000	4.800.000	798	5.581	83,2	581,8	1.003.620	4.824.600	1.167	5.610	104,0	500,0	11,00	1,50	2 x 14,0	3N 380
ECO 8 K S C 3	989.000	4.988.000	1.150	5.800	119,9	604,6	1.003.620	4.824.600	1.167	5.610	104,0	500,0	11,00	2,20	2 x 14,0	3N 380
ECO 8 K S C 3a	989.000	5.762.000	1.150	6.700	119,9	698,4	1.611.640	5.307.920	1.874	6.172	167,0	550,0	15,00	2,20	2 x 16,0	3N 380
ECO 8 K S C 3b	989.000	6.192.000	1.150	7.200	119,9	750,5	1.765.580	5.790.380	2.053	6.733	183,0	600,0	15,00	2,20	2 x 16,0	3N 380
ECO 9 K S C 3	2.580.000	9.890.000	3.000	11.500	312,7	1198,8	3.059.880	9.890.000	3.558	11.500	317,1	1024,9	22,00	4,00	37,0	3N 380

* Net calorific value H Natural gas: 8250 kcal/Nm³ H Heavy Oil: 9650 kcal/kg

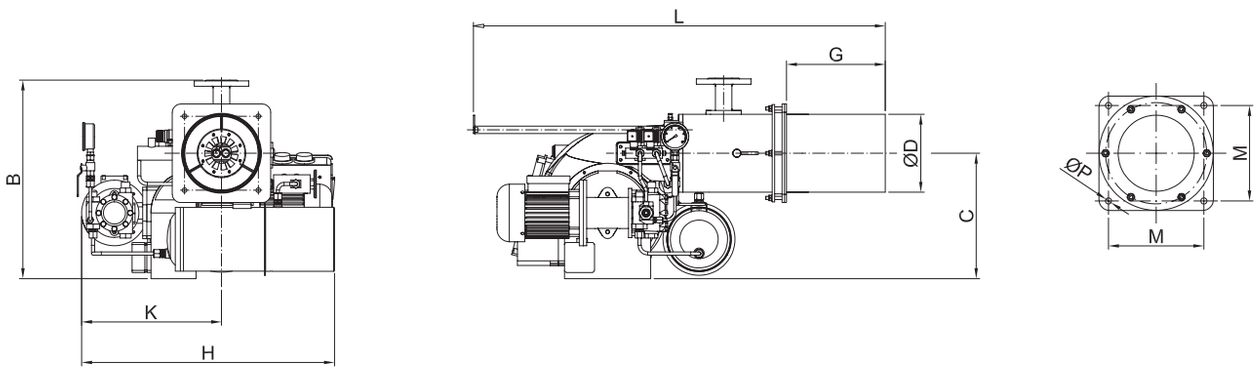
TECHNICAL SPECIFICATIONS

- Optimum fuel / air mixture with special gas nozzle
- High pressure, light build fan design
- Low noise level due to light and aerodynamic body design made of high quality aluminum
- Sliding flange for connection to different boiler types,
- Automatic control equipment of the burner according to European standard EN-267
- Easy access to all equipments without dismounting the burner from the boiler,
- High efficiency operation thanks to by air flow rate adjustment from both the suction and the gun barrel.
- Easy installation and operation
- Special-design, compact pre-heater, safety, operating and limiting thermo switches
- High pressure mechanical atomization at nozzle
- Direct ignition and pilot ignition options. (Pilot ignition is optional for some models.)
- Mechanical or electronic modulating control options.

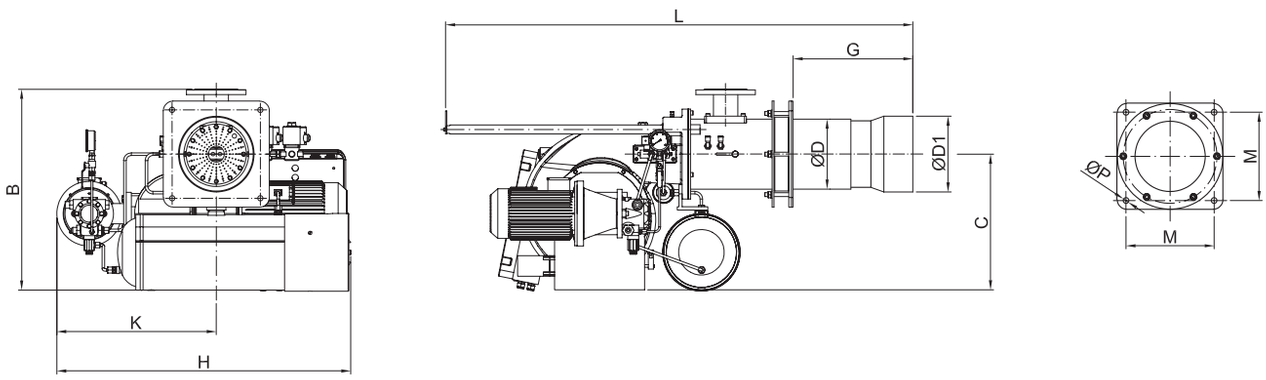
BURNER DIMENSIONS

* Gmax values are standart production values. For diferent sizes pls. contact with our sales team.

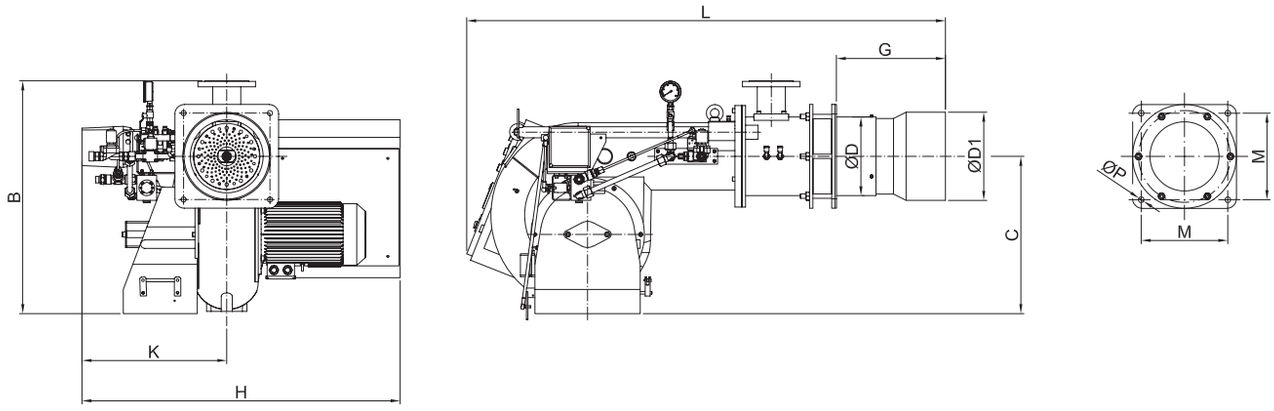
ECO 45



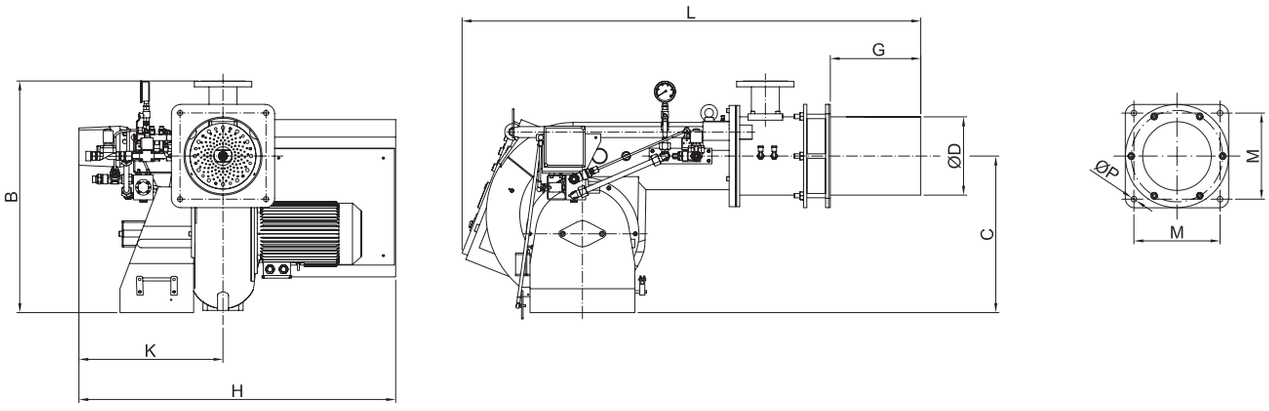
ECO 50 ECO 55



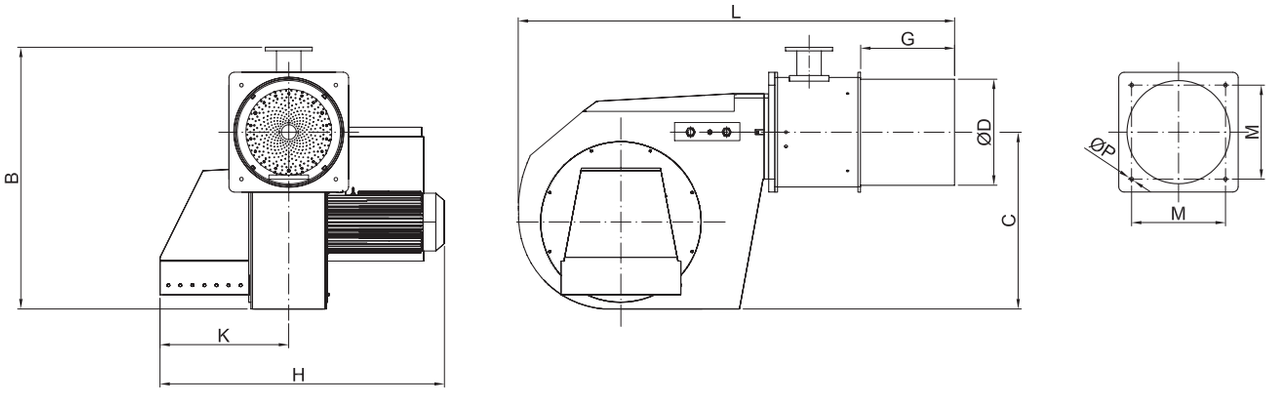
ECO 65 ECO 70



ECO 60 ECO 75



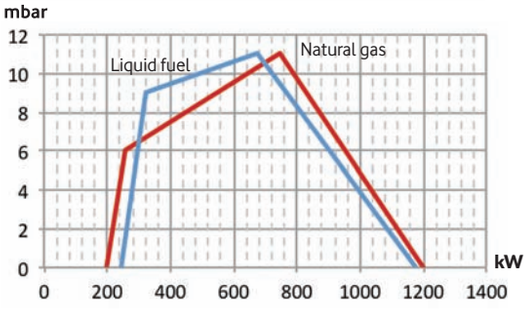
ECO 8 ECO 9



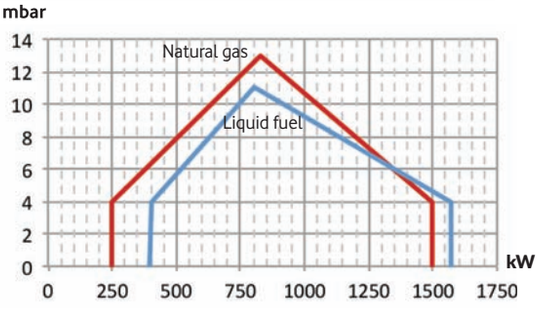
	L	Gmin	Gmax	H	K	B	C	ØP	M	ØD	ØD1
ECO 45 K (S)	1100	150	275	790	410	540	350	11	180	200	-
ECO 50 K (S)	1370	280	440	900	500	625	422	18	275	218	236
ECO 55 K (S)	1370	280	440	900	500	625	422	18	275	218	236
ECO 60 K (S)	1450	200	355	1100	590	730	510	18	275	240	-
ECO 65 K (S)	1580	200	440	1100	590	735	510	18	275	250	280
ECO 70 K (S)	1580	200	440	1100	590	735	510	18	275	250	280
ECO 75 K (S)	1450	200	340	1130	600	795	525	22	335	300	-
ECO 8 K (S)	1640	-	315	1100	530	955	635	18	360	375	-
ECO 9 K (S)	2040	-	435	1350	610	1220	830	18	440	492	-

BACK PRESSURE DIAGRAMS

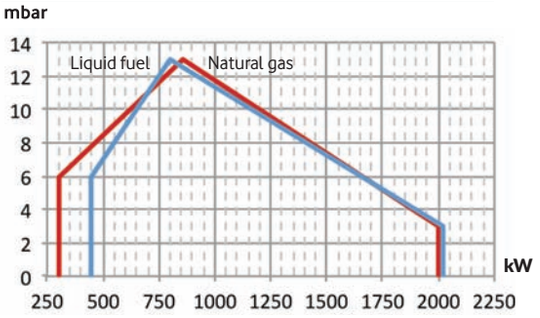
ECO 45 K S C 3b



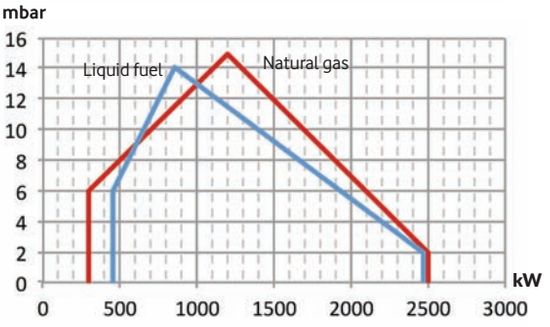
ECO 50 K S C 3



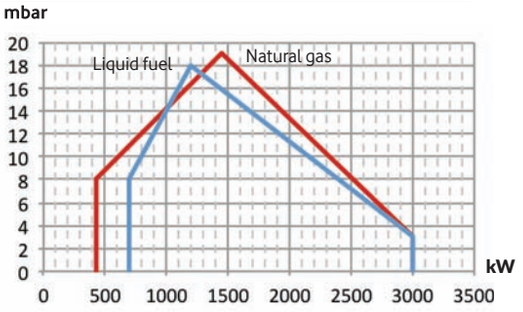
ECO 55 K S C 3



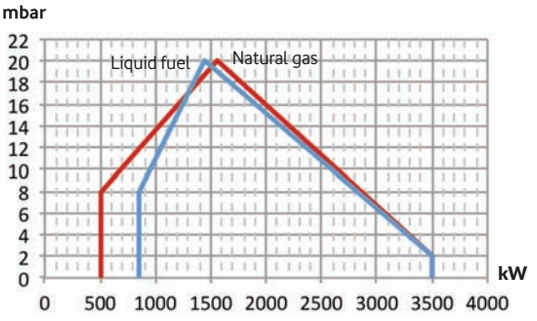
ECO 55 K S C 3a



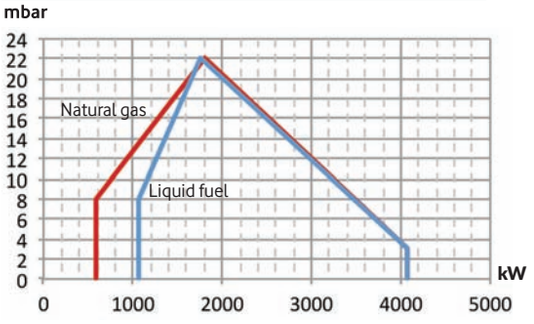
ECO 60 K S C 3



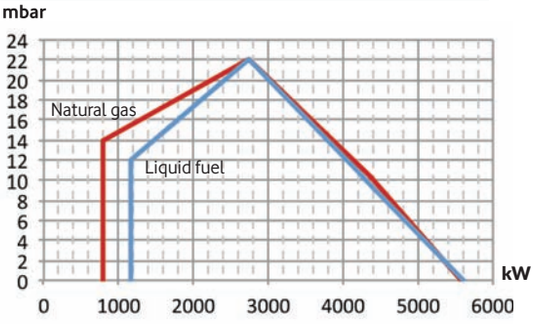
ECO 65 K S C 3



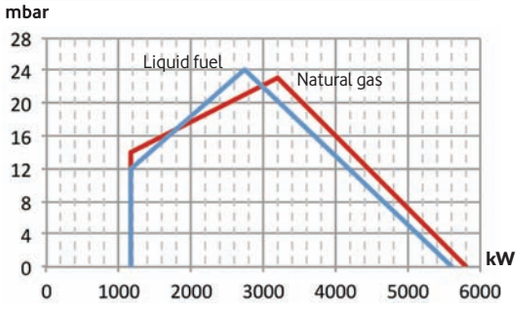
ECO 70 K S C 3



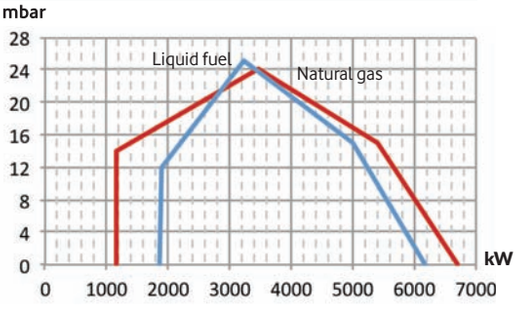
ECO 75 K S C 3



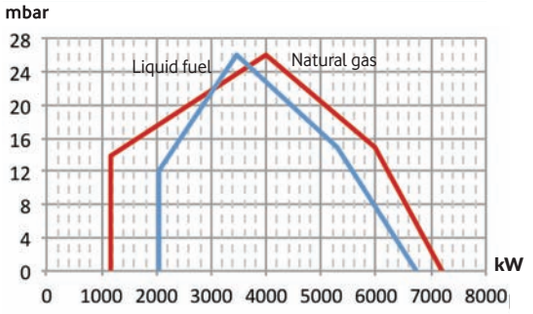
ECO 8 K S C 3



ECO 8 K S C 3a



ECO 8 K S C 3b



ECO 9 K S C 3

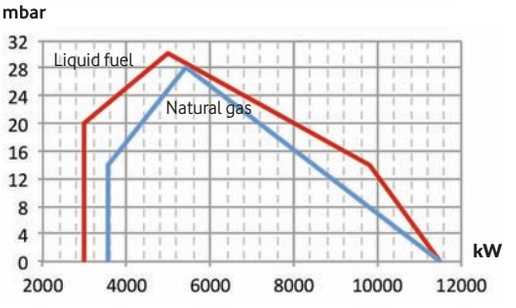


Table explanations

1S	ONE STAGE	2S	TWO STAGE	M	Modulating
M	MANUAL	SM	SERVOMOTOR		
İO	IONIZATION	PH	PHOTOCELL		
DI	DIRECT IGNITION	PI	PILOT IGNITION		
•	YES	°	NO	•	Optional

Specifications of two stage monoblock gas + heavy oil burners

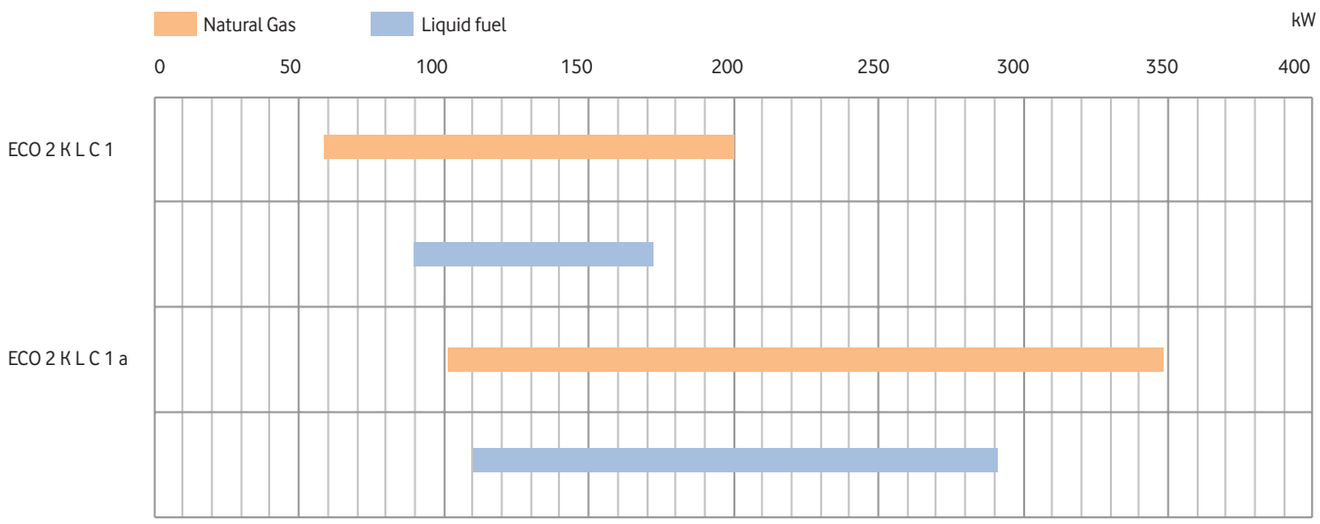
Specifications	ECO 45 KSC 2	ECO 45 KSC 2a	ECO 45 KSC 2b	ECO 50 KSC 2	ECO 55 KSC 2	ECO 55 KSC 2a	ECO 60 KSC 2	ECO 65 KSC 2	ECO 70 KSC 2
Control Type	2S	2S	2S	2S	2S	2S	2S	2S	2S
Air Flow Regulating	SM	SM	SM	SM	SM	SM	SM	SM	SM
Gas Valve	•	•	•	•	•	•	•	•	•
Minimum gas pressure switch	•	•	•	•	•	•	•	•	•
Maximum gas pressure switch	•	•	•	•	•	•	•	•	•
Air pressure switch	•	•	•	•	•	•	•	•	•
Heating and pumping station	•	•	•	•	•	•	•	•	•
Liquid oil pump and hoses	•	•	•	•	•	•	•	•	•
Flame dedector	PH	PH	PH	PH	PH	PH	PH	PH	PH
VPS Gas Leakage Control Device	•	•	•	•	•	•	•	•	•
Sliding boiler connection flange	•	•	•	•	•	•	•	•	•
Handling shaft	•	•	•	•	•	•	•	•	•
TSE EN-676 CERTIFICATION	•	•	•	•	•	•	•	•	•
CE Marking	•	•	•	•	•	•	•	•	•
Electrical protection class	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP54

Specifications of modulating monoblock gas + heavy oil burners

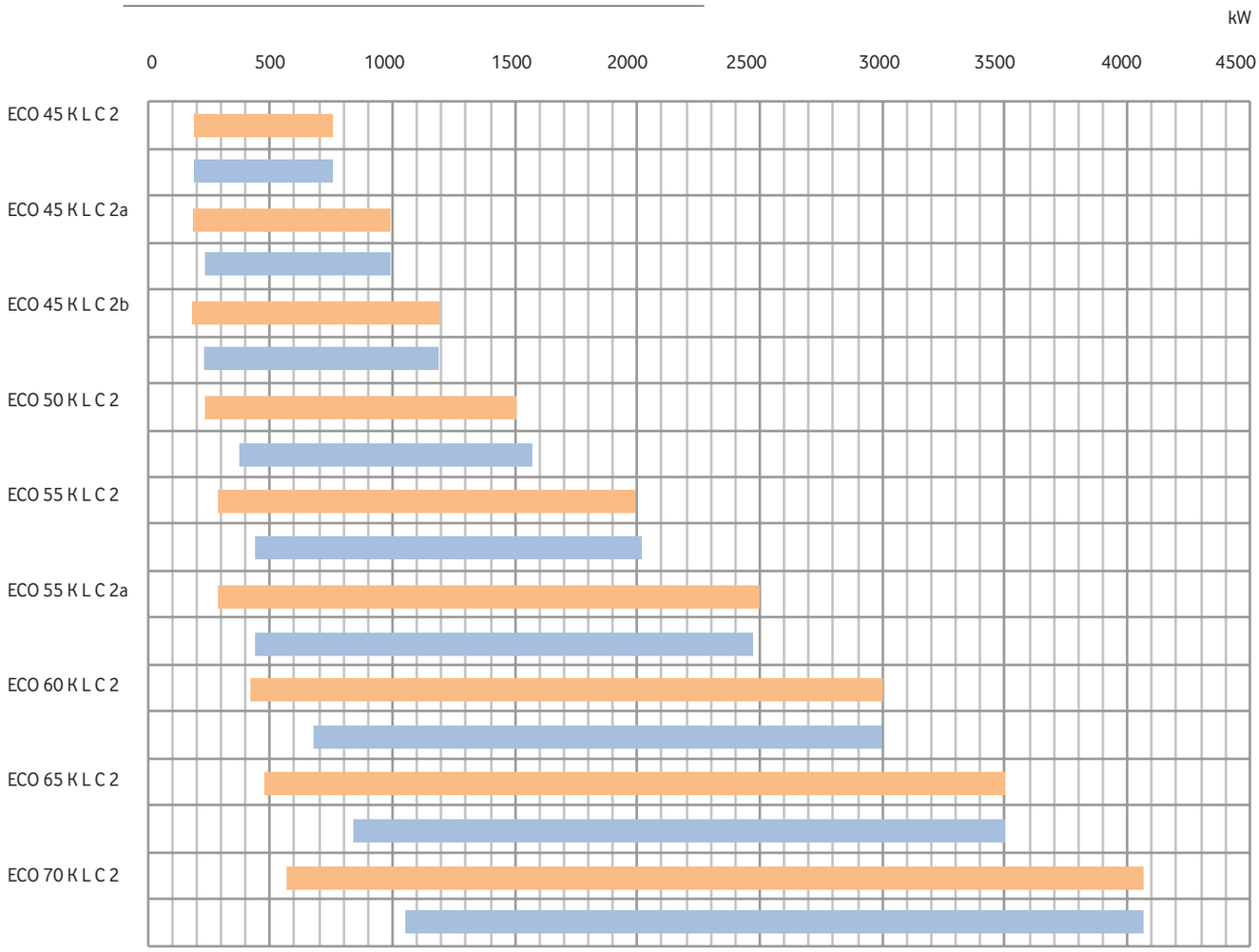
Specifications	ECO 45 KSC 3b	ECO 50 KSC 3	ECO 55 KSC 3	ECO 55 KSC 3a	ECO 60 KSC 3	ECO 65 KSC 3	ECO 70 KSC 3	ECO 75 KSC 3	ECO 8 KSC 3	ECO 8 KSC 3a	ECO 8 KSC 3b	ECO 9 KSC 3
Control Type	M	M	M	M	M	M	M	M	M	M	M	M
Air Flow Regulating	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM
Gas Valve	•	•	•	•	•	•	•	•	•	•	•	•
Minimum gas pressure switch	•	•	•	•	•	•	•	•	•	•	•	•
Maximum gas pressure switch	•	•	•	•	•	•	•	•	•	•	•	•
Air pressure switch	•	•	•	•	•	•	•	•	•	•	•	•
Heating and pumping station	•	•	•	•	•	•	•	•	•	•	•	•
Liquid oil pump and hoses	•	•	•	•	•	•	•	•	•	•	•	•
Flame dedector	PH	PH	PH	PH	PH	PH	PH	PH	PH	PH	PH	PH
VPS Gas Leakage Control Device	•	•	•	•	•	•	•	•	•	•	•	•
Sliding boiler connection flange	•	•	•	•	•	•	•	•	°	°	°	°
Handling shaft	•	•	•	•	•	•	•	•	°	°	°	°
TSE EN-676 CERTIFICATION	•	•	•	•	•	•	•	•	•	•	•	•
CE Marking	•	•	•	•	•	•	•	•	•	•	•	•
Electrical protection class	IP40	IP40	IP40	IP40	IP40	IP40	IP54	IP54	IP54	IP54	IP54	IP54

GAS-LIGHT OIL

ONE STAGE GAS-LIGHT OIL BURNERS



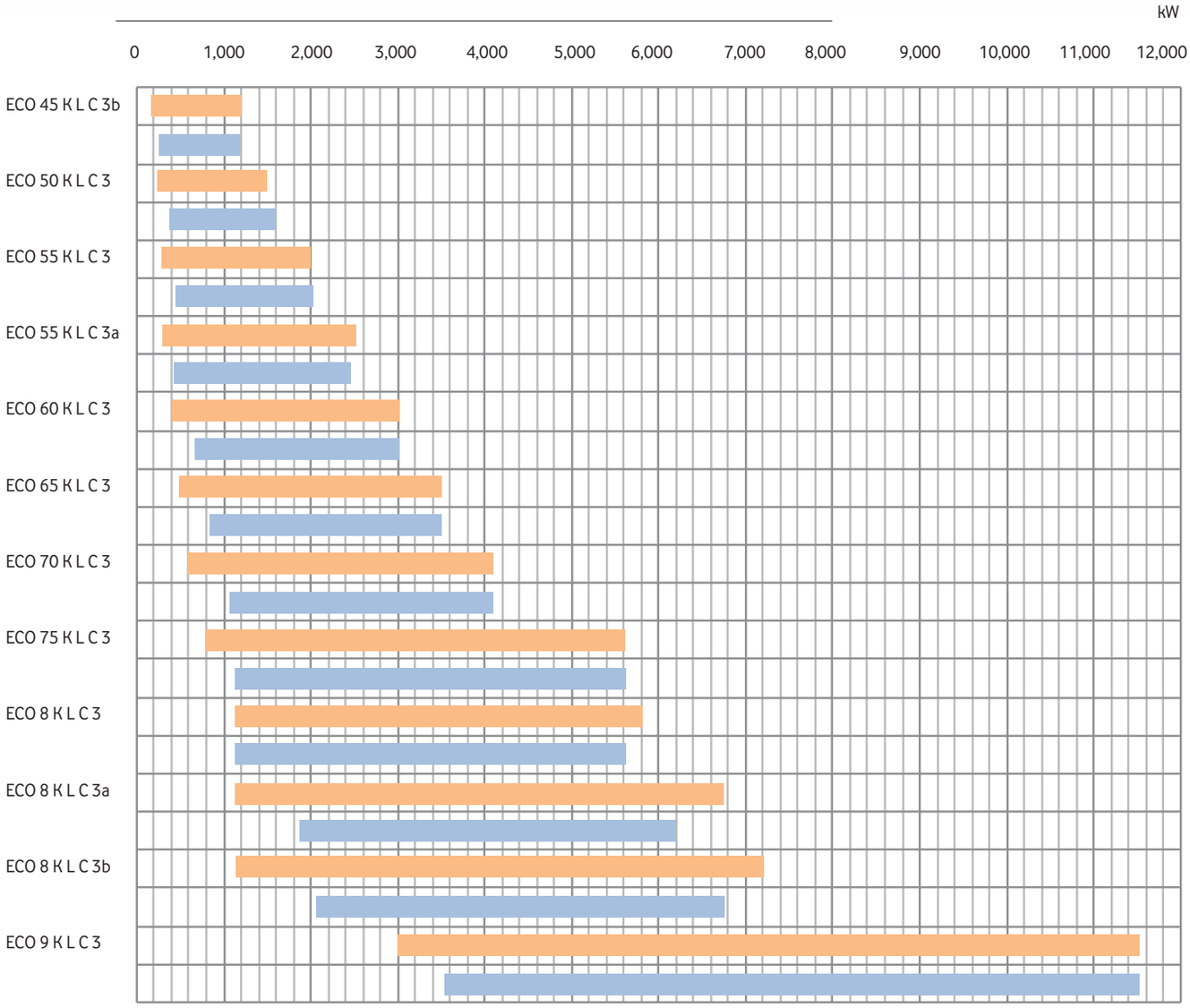
TWO STAGE GAS-LIGHT OIL BURNERS



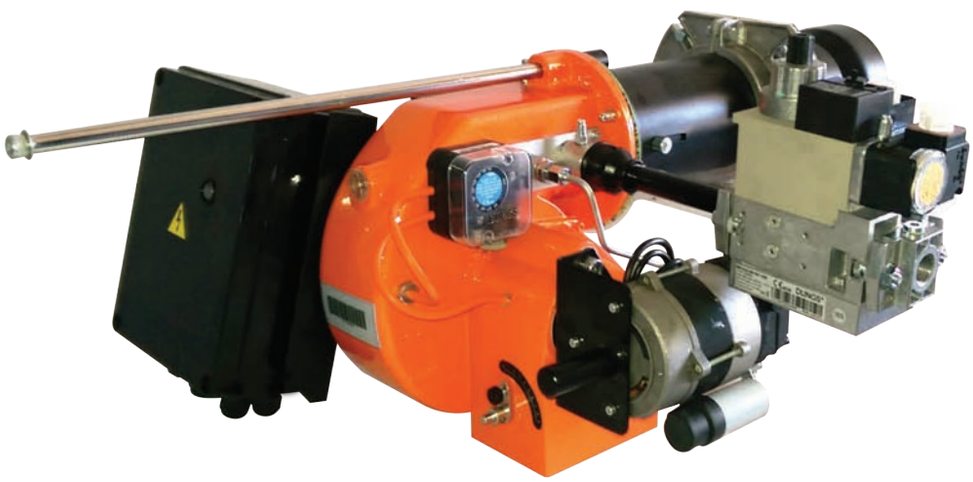
CODE KEY

ecostar® COMBUSTION SYSTEMS

MODULATING GAS – LIGHT OIL BURNERS



GAS-LIGHT OIL



ONE STAGE GAS-LIGHT OIL BURNERS

CAPACITY TABLES

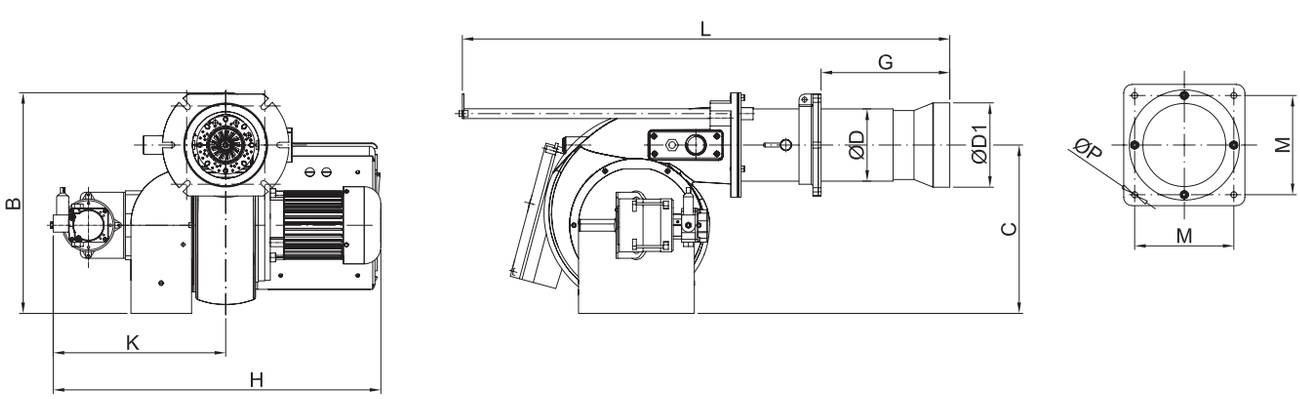
BURNER TYPE	GAS CAPACITY		GAS CAPACITY		NATURAL GAS CONSUMPTION		LIGHT OIL CAPACITY		LIGHT OIL CAPACITY		LIGHT OIL CONSUMPTION		FAN MOTOR POWER	FUEL PUMP POWER	VOLTAGE AT 50 Hz
	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. Nm3/h	Max. Nm3/h	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. kg/h	Max. kg/h	kW	kW	VAC
ECO 2 K L C 1	51,600	172,000	60	200	6.3	20.8	77,400	144,480	90	168	7.6	14.2	0.15	0.15	1N 230
ECO 2 K L C 1 a	86,000	299,280	100	348	10.4	36.3	96,320	251,120	112	292	9.4	24.6	0.15	0.15	1N 230

* Net calorific value H Natural Gas: 8250 kcal/Nm³ H Light Oil: 10200 kcal/kg

BURNER SIZES

* Gmax values are standart production values. For diferent sizes pls. contact with our sales team

ECO 2



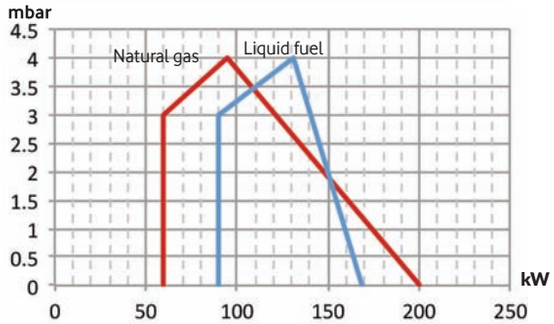
TECHNICAL SPECIFICATIONS

- Optimum fuel / air mixture with special gas nozzle
- High pressure, light build fan design
- Low noise level due to light and aerodynamic body design made of high quality aluminum
- Sliding flange for connection to different boiler types,
- Automatic control equipment of the burner according to European standard EN-267
- Easy access to all equipments without dismounting the burner from the boiler,
- High efficiency operation thanks to by air flow rate adjustment from both the suction and the gun barrel.
- Easy installation and operation
- Special-design, compact pre-heater, safety, operating and limiting thermo switches
- High pressure mechanical atomization at nozzle
- Direct ignition and pilot ignition options. (Pilot ignition is optional for some models.)

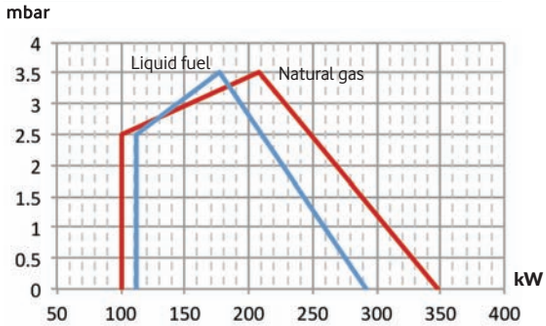
	L	Gmin	Gmax	H	K	B	C	ØP	M	ØD	ØD1
ECO 2 K (L)	950	106	320	560	285	320	230	10	142	120	139

BACK PRESSURE DIAGRAMS

ECO 2 K L C 1



ECO 2 K L C 1 a



Pls. scan for electronic catalogue.

GAS-LIGHT OIL

TWO STAGE GAS-LIGHT OIL BURNERS

CAPACITY TABLES

BURNER TYPE	GAS CAPACITY		GAS CAPACITY		NATURAL GAS CONSUMPTION		LIGHT OIL CAPACITY		LIGHT OIL CAPACITY		LIGHT OIL CONSUMPTION		FAN MOTOR POWER	FUEL PUMP POWER	VOLTAGE AT 50 Hz
	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. Nm3/h	Max. Nm3/h	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. kg/h	Max. kg/h	kW	kW	VAC
ECO 45 K L C 2	172,000	645,000	200	750	20.8	78.2	172,000	645,000	200	750	16.9	63.2	0.75	0.75	3N 380
ECO 45 K L C 2a	172,000	860,000	200	1,000	20.8	104.2	212,420	851,400	247	990	20.8	83.5	1.10	0.75	3N 380
ECO 45 K L C 2b	172,000	1,032,000	200	1,200	20.8	125.1	212,420	1,014,800	247	1,180	20.8	99.5	1.50	0.75	3N 380
ECO 50 K L C 2	215,000	1,290,000	250	1,500	26.1	156.4	337,750	1,351,000	393	1,571	33.1	132.5	2.20	0.75	3N 380
ECO 55 K L C 2	258,000	1,720,000	300	2,000	31.3	208.5	386,000	1,737,000	449	2,020	37.8	170.3	3.00	0.75	3N 380
ECO 55 K L C 2a	258,000	2,150,000	300	2,500	31.3	260.6	386,000	2,123,000	449	2,469	37.8	208.1	3.00	0.75	3N 380
ECO 60 K L C 2	369,800	2,580,000	430	3,000	44.8	312.7	598,560	2,580,000	696	3,000	58.7	252.9	4.00	0.75	3N 380
ECO 65 K L C 2	430,000	3,010,000	500	3,500	52.1	364.8	733,580	3,010,000	853	3,500	71.9	295.1	5.50	0.75	3N 380
ECO 70 K L C 2	498,800	3,500,200	580	4,070	60.5	424.3	916,760	3,500,200	1,066	4,070	89.9	343.2	7.50	0.75	3N 380

* Net calorific value H Natural Gas: 8250 kcal/Nm³ H Light Oil: 10200 kcal/kg

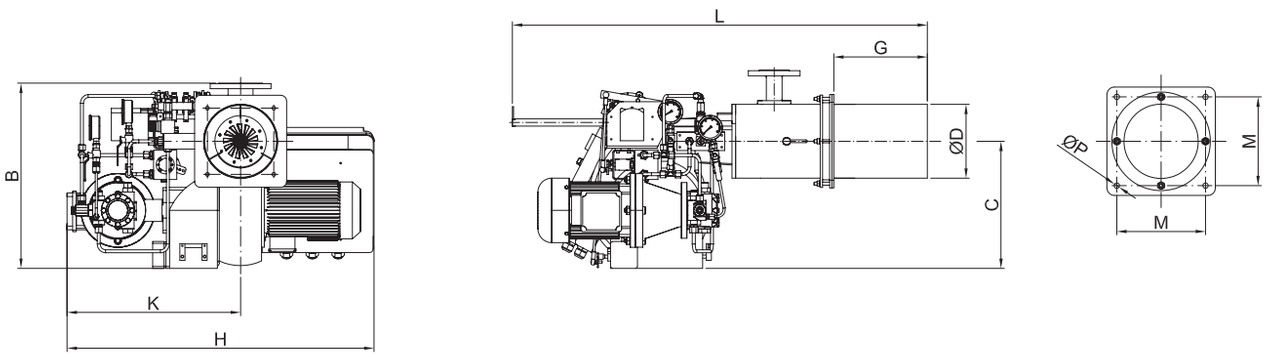
TECHNICAL SPECIFICATIONS

- Optimum fuel / air mixture with special gas nozzle
- High pressure, light build fan design
- Low noise level due to light and aerodynamic body design made of high quality aluminum
- Sliding flange for connection to different boiler types,
- Automatic control equipment of the burner according to European standard EN-267
- Easy access to all equipments without dismounting the burner from the boiler,
- High efficiency operation thanks to by air flow rate adjustment from both the suction and the gun barrel.
- Easy installation and operation
- Special-design, compact pre-heater, safety, operating and limiting thermo switches
- High pressure mechanical atomization at nozzle
- Direct ignition and pilot ignition options. (Pilot ignition is optional for some models.)

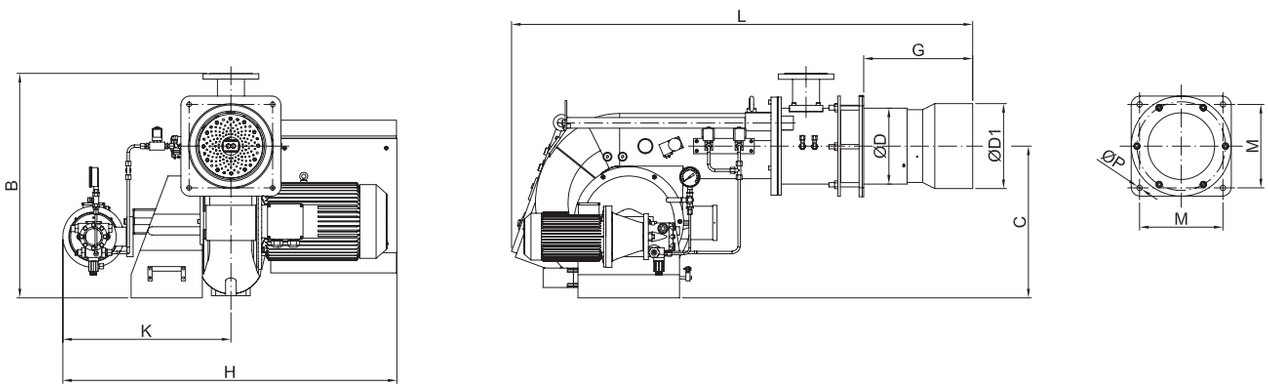
BURNER DIMENSIONS

* Gmax values are standart production values. For diferent sizes pls. contact with our sales team.

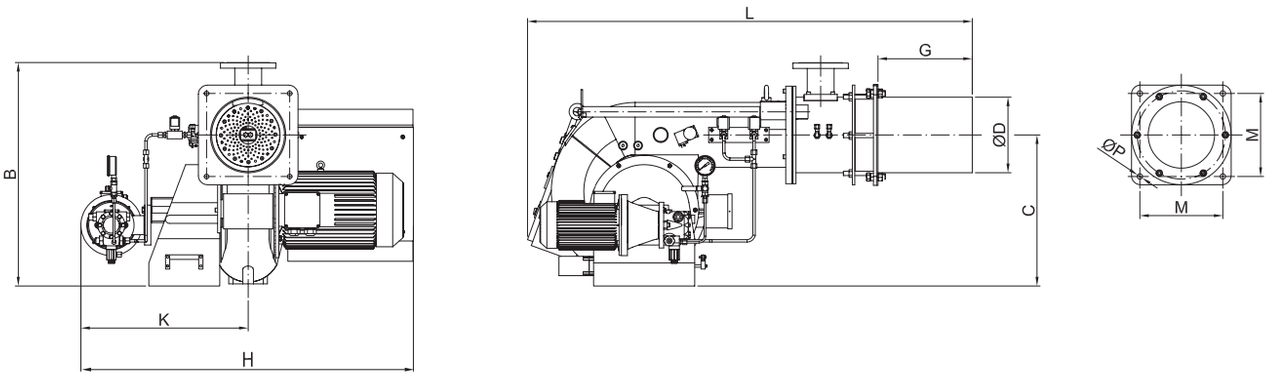
ECO 45



ECO 50 ECO 55 ECO 65 ECO 70



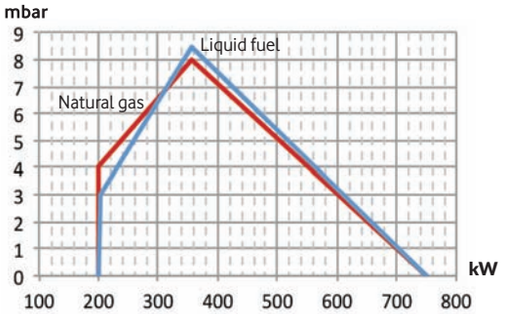
ECO 60



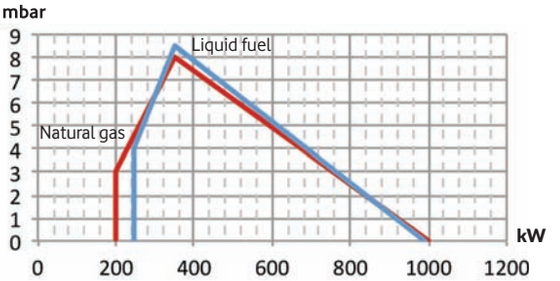
	L	Gmin	Gmax	H	K	B	C	ØP	M	ØD	ØD1
ECO 45 K (L)	1100	150	275	790	410	540	350	11	180	200	-
ECO 50 K (L)	1370	280	440	900	500	625	422	18	275	218	236
ECO 55 K (L)	1370	280	440	900	500	625	422	18	275	218	236
ECO 60 K (L)	1450	200	355	1100	590	730	510	18	275	240	-
ECO 65 K (L)	1580	200	440	1100	590	735	510	18	275	250	280
ECO 70 K (L)	1580	200	440	1100	590	735	510	18	275	250	280

BACK PRESSURE DIAGRAMS

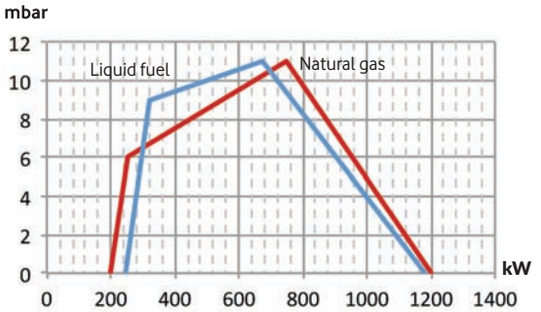
ECO 45 K L C 2



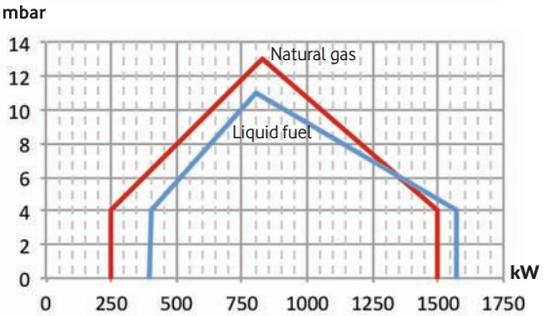
ECO 45 K L C 2 a



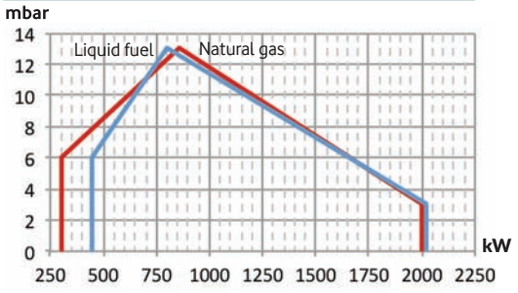
ECO 45 K L C 2b



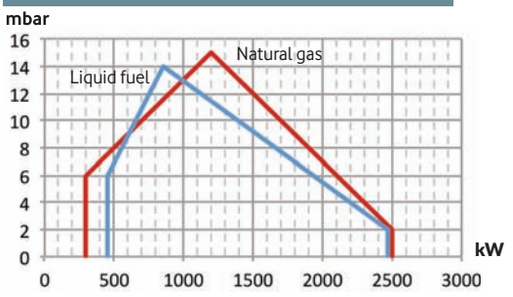
ECO 50 K L C 2



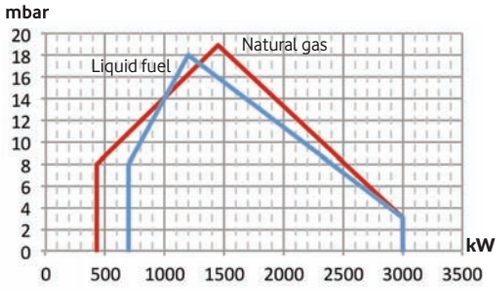
ECO 55 K L C 2



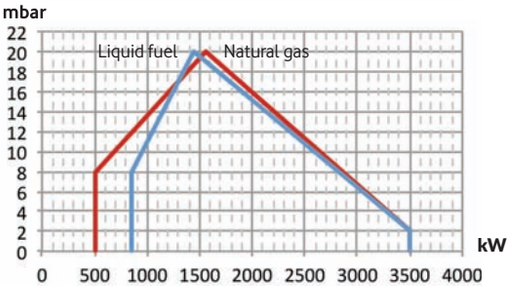
ECO 55 K L C 2a



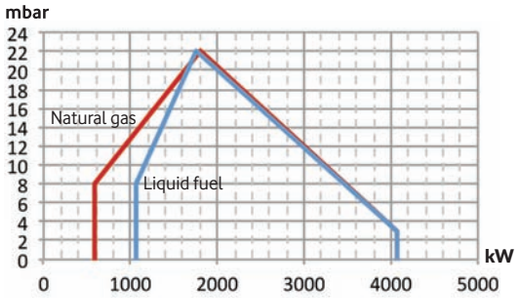
ECO 60 K L C 2



ECO 65 K L C 2



ECO 70 K L C 2



Pls. scan for electronic catalogue.

GAS-LIGHT OIL

MODULATING GAS-LIGHT OIL DUAL BURNERS

CAPACITY TABLES

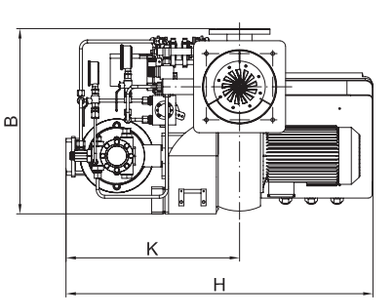
BURNER TYPE	GAS CAPACITY		GAS CAPACITY		NATURAL GAS CONSUMPTION		LIGHT OIL CAPACITY		LIGHT OIL CAPACITY		LIGHT OIL CONSUMPTION		FAN MOTOR POWER	FUEL PUMP POWER	VOLTAGE AT 50 Hz
	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. Nm3/h	Max. Nm3/h	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. kg/h	Max. kg/h	kW	kW	VAC
ECO 45 K L C 3b	172,000	1,032,000	200	1,200	20.8	125.1	212,420	1,014,800	247	1,180	20.8	99.5	1.50	0.75	3N 380
ECO 50 K L C 3	215,000	1,290,000	250	1,500	26.1	156.4	337,750	1,351,000	393	1,571	33.1	132.5	2.20	0.75	3N 380
ECO 55 K L C 3	258,000	1,720,000	300	2,000	31.3	208.5	386,000	1,737,000	449	2,020	37.8	170.3	3.00	1.10	3N 380
ECO 55 K L C 3a	258,000	2,150,000	300	2,500	31.3	260.6	386,000	2,123,000	449	2,469	37.8	208.1	3.00	1.10	3N 380
ECO 60 K L C 3	369,800	2,580,000	430	3,000	44.8	312.7	598,560	2,580,000	696	3,000	58.7	252.9	4.00	1.10	3N 380
ECO 65 K L C 3	430,000	3,010,000	500	3,500	52.1	364.8	733,580	3,010,000	853	3,500	71.9	295.1	5.50	1.50	3N 380
ECO 70 K L C 3	498,800	3,500,200	580	4,070	60.5	424.3	916,760	3,500,200	1,066	4,070	89.9	343.2	7.50	1.50	3N 380
ECO 75 K L C 3	686,000	4,800,000	798	5,581	83.2	581.8	1,003,620	4,824,600	1,167	5,610	98.4	473.0	11.00	1.50	3N 380
ECO 8 K L C 3	989,000	4,988,000	1,150	5,800	119.9	604.6	1,003,620	4,824,600	1,167	5,610	98.4	473.0	11.00	2.20	3N 380
ECO 8 K L C 3a	989,000	5,762,000	1,150	6,700	119.9	698.4	1,611,640	5,307,920	1,874	6,172	158.0	520.4	15.00	2.20	3N 380
ECO 8 K L C 3b	989,000	6,192,000	1,150	7,200	119.9	750.5	1,765,580	5,790,380	2,053	6,733	173.1	567.7	15.00	2.20	3N 380
ECO 9 K L C 3	2,580,000	9,890,000	3,000	11,500	312.7	1198.8	3,059,880	9,890,000	3,558	11,500	317.1	1024.9	22.00	4.00	3N 380

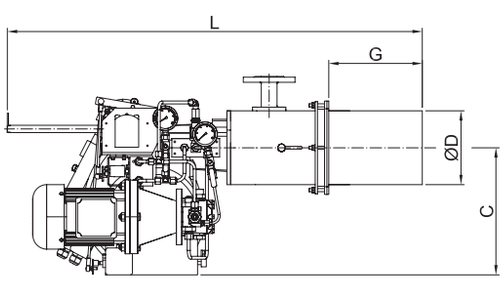
* Net calorific value H Natural Gas: 8250 kcal/Nm³ H Light Oil: 10200 kcal/kg

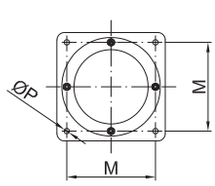
BURNER DIMENSIONS

* Gmax values are standart production values. For diferent sizes pls. contact with our sales team.

ECO 45



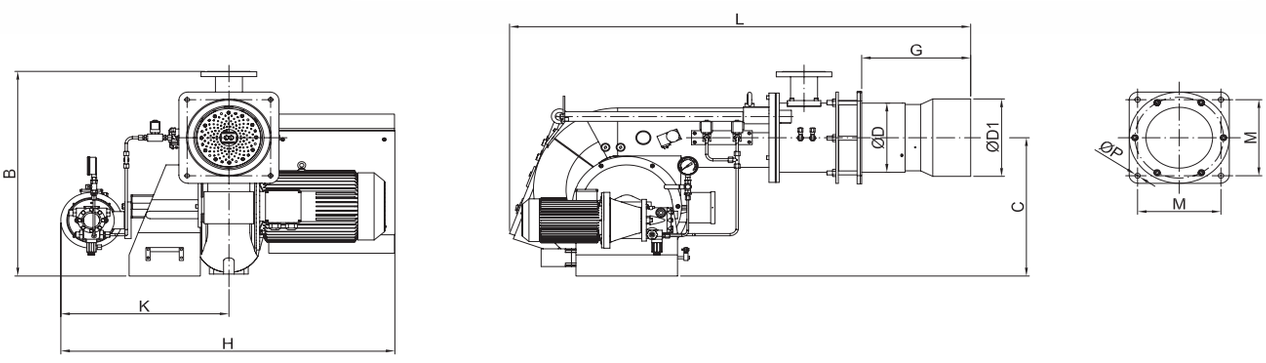




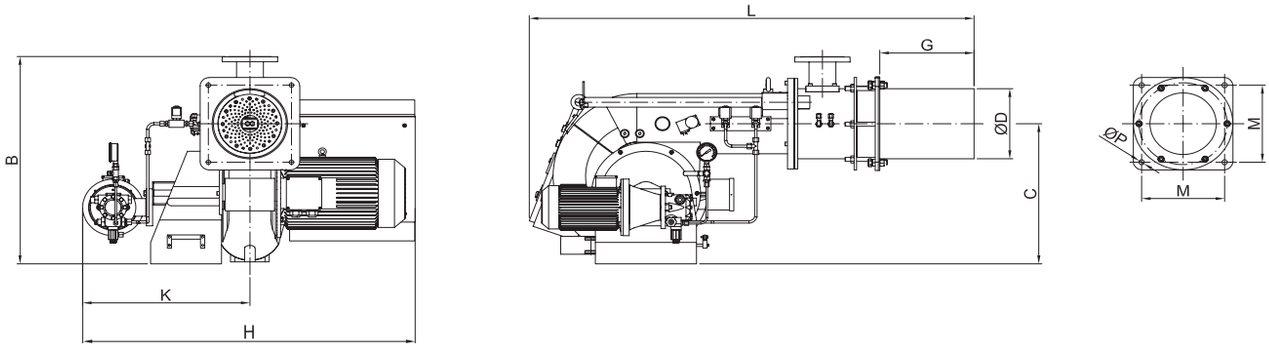
TECHNICAL SPECIFICATIONS

- Optimum fuel / air mixture with special gas nozzle
- High pressure, light build fan design
- Low noise level due to light and aerodynamic body design made of high quality aluminum
- Sliding flange for connection to different boiler types,
- Automatic control equipment of the burner according to European standard EN-267
- Easy access to all equipments without dismounting the burner from the boiler,
- High efficiency operation thanks to by air flow rate adjustment from both the suction and the gun barrel.
- Easy installation and operation
- Special-design, compact pre-heater, safety, operating and limiting thermo switches
- High pressure mechanical atomization at nozzle
- Direct ignition and pilot ignition options. (Pilot ignition is optional for some models.)

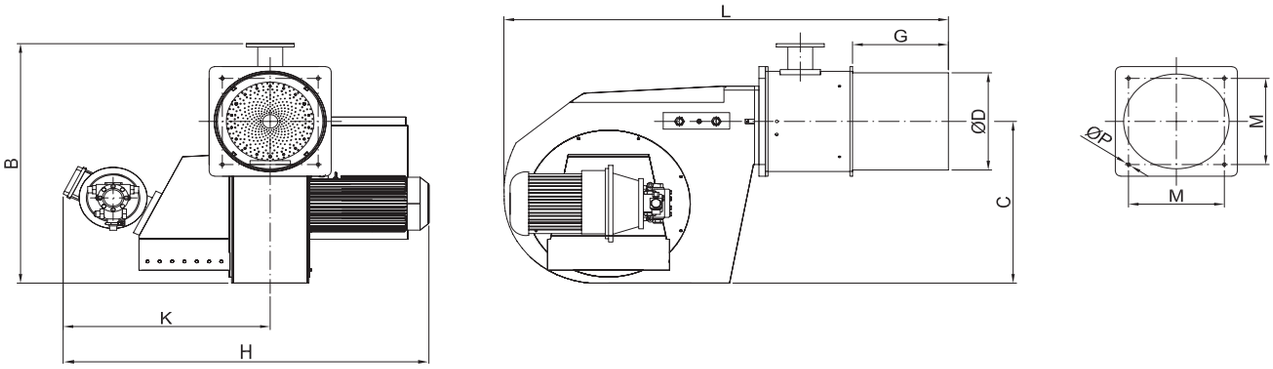
ECO 50 ECO 55 ECO 65 ECO 70



ECO 60 ECO 75



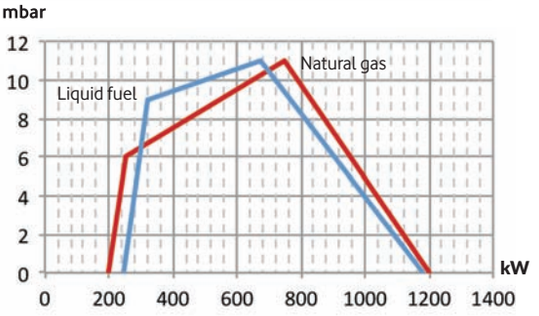
ECO 8 ECO 9



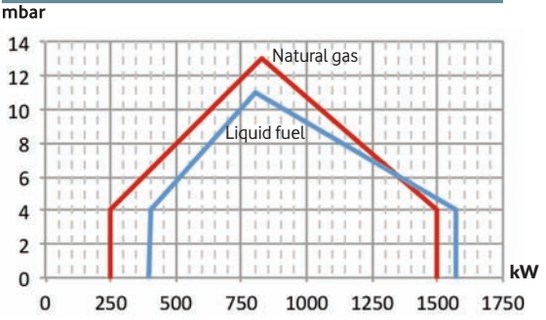
	L	Gmin	Gmax	H	K	B	C	ØP	M	ØD	ØD1
ECO 45 K (L)	1100	150	275	790	410	540	350	11	180	200	-
ECO 50 K (L)	1370	280	440	900	500	625	422	18	275	218	236
ECO 55 K (L)	1370	280	440	900	500	625	422	18	275	218	236
ECO 60 K (L)	1450	200	355	1100	590	730	510	18	275	240	-
ECO 65 K (L)	1580	200	440	1100	590	735	510	18	275	250	280
ECO 70 K (L)	1580	200	440	1100	590	735	510	18	275	250	280
ECO 75 K (L)	1450	200	340	1130	600	795	525	22	335	300	-
ECO 8 K (L)	1640	-	315	1230	600	955	635	18	360	375	-
ECO 9 K (L)	2040	-	435	1350	610	1220	830	18	440	496	-

BACK PRESSURE DIAGRAMS

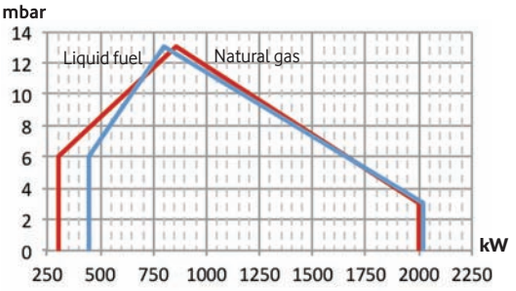
ECO 45 K L C 3b



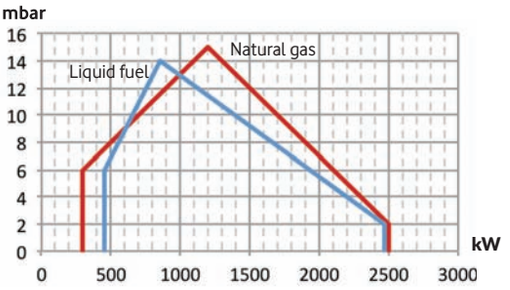
ECO 50 K L C 3



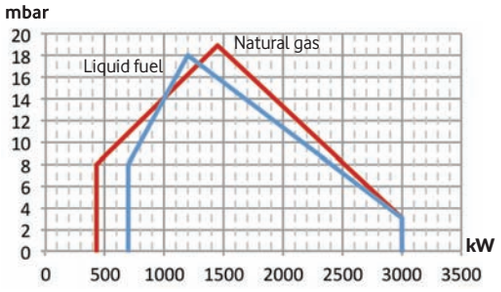
ECO 55 K L C 3



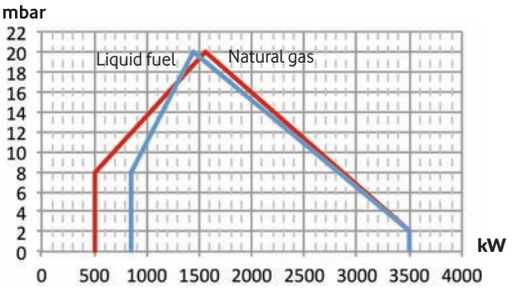
ECO 55 K L C 3a



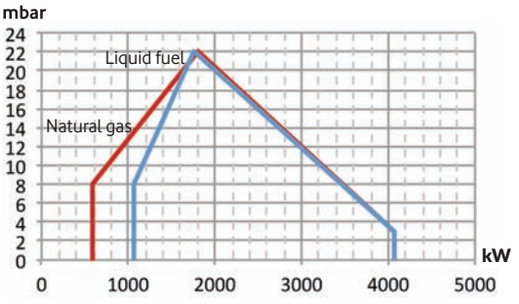
ECO 60 K L C 3



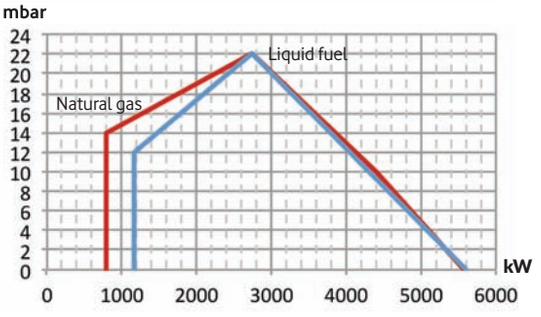
ECO 65 K L C 3



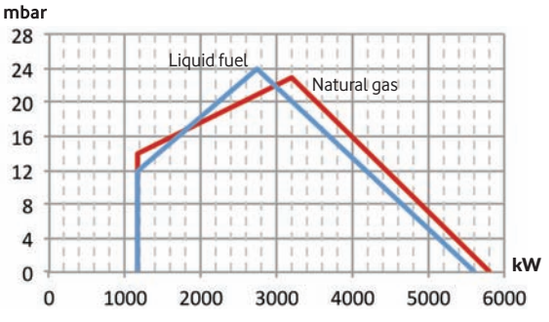
ECO 70 K L C 3



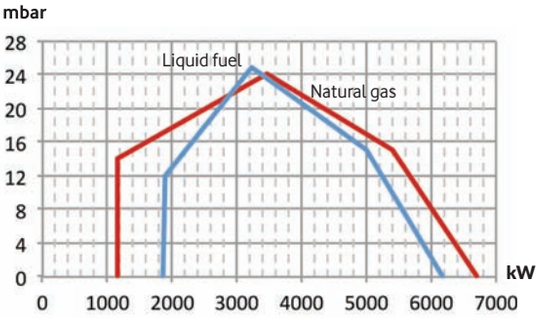
ECO 75 K L C 3



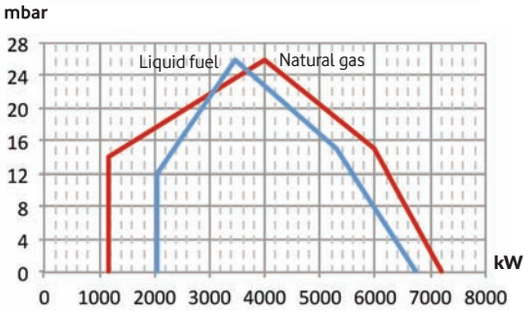
ECO 8 K L C 3



ECO 8 K L C 3a



ECO 8 K L C 3b



ECO 9 K L C 3

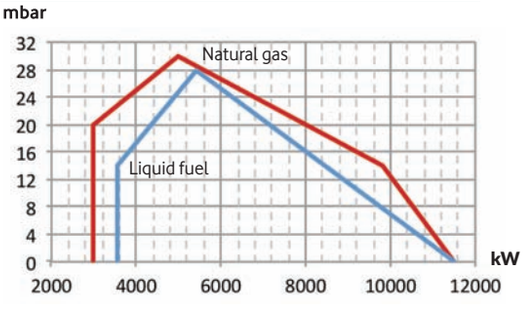


Table explanations

1S	ONE STAGE	2S	TWO STAGE	M	Modulating
M	MANUAL	SM	SERVOMOTOR		
İO	IONIZATION	PH	PHOTOCELL		
DI	DIRECT IGNITION	PI	PILOT IGNITION		
•	YES	°	NO	•	Optional

Specifications of one stage - two stage monoblock gas + light oil burners

Specifications	ECO 2 K L C 1	ECO 2 K L C 1 a	ECO 45 K L C 2	ECO 45 K L C 2a	ECO 45 K L C 2b	ECO 50 K L C 2	ECO 55 K L C 2	ECO 55 K L C 2a	ECO 60 K L C 2	ECO 65 K L C 2	ECO 70 K L C 2
Control Type	1S	1S	2S	2S	2S	2S	2S	2S	2S	2S	2S
Air Flow Regulating	M	M	SM	SM	SM	SM	SM	SM	SM	SM	SM
Gas Valve	•	•	•	•	•	•	•	•	•	•	•
Minimum gas pressure switch	•	•	•	•	•	•	•	•	•	•	•
Maximum gas pressure switch	•	•	•	•	•	•	•	•	•	•	•
Air pressure switch	•	•	•	•	•	•	•	•	•	•	•
Flame dedector	•	•	•	•	•	•	•	•	•	•	•
Flame dedector	PH	PH	PH	PH	PH	PH	PH	PH	PH	PH	PH
VPS Gas Leakage Control Device	•	•	•	•	•	•	•	•	•	•	•
Sliding boiler connection flange	•	•	•	•	•	•	•	•	•	•	•
Handling shaft	•	•	•	•	•	•	•	•	•	•	•
TSE EN-676 CERTIFICATION	•	•	•	•	•	•	•	•	•	•	•
CE Marking	•	•	•	•	•	•	•	•	•	•	•
Electrical protection class	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40

Specifications of modulating monoblock gas + light oil burners

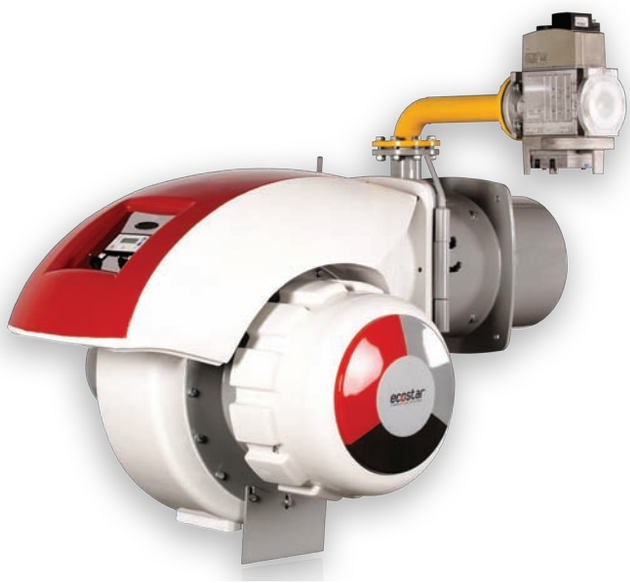
Specifications	ECO 45 K L C 3b	ECO 50 K L C 3	ECO 55 K L C 3	ECO 55 K L C 3a	ECO 60 K L C 3	ECO 65 K L C 3	ECO 70 K L C 3	ECO 75 K L C 3	ECO 8 K L C 3	ECO 8 K L C 3a	ECO 8 K L C 3b	ECO 9 K L C 3
Control Type	M	M	M	M	M	M	M	M	M	M	M	M
Air Flow Regulating	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM
Gas Valve	•	•	•	•	•	•	•	•	•	•	•	•
Minimum gas pressure switch	•	•	•	•	•	•	•	•	•	•	•	•
Maximum gas pressure switch	•	•	•	•	•	•	•	•	•	•	•	•
Air pressure switch	•	•	•	•	•	•	•	•	•	•	•	•
Liquid oil pump and hoses	•	•	•	•	•	•	•	•	•	•	•	•
Flame dedector	PH	PH	PH	PH	PH	PH	PH	PH	PH	PH	PH	PH
VPS Gas Leakage Control Device	•	•	•	•	•	•	•	•	•	•	•	•
Sliding boiler connection flange	•	•	•	•	•	•	•	•	°	°	°	°
Handling shaft	•	•	•	•	•	•	•	•	°	°	°	°
TSE EN-676 CERTIFICATION	•	•	•	•	•	•	•	•	•	•	•	•
CE Marking	•	•	•	•	•	•	•	•	•	•	•	•
Electrical protection class	IP40	IP40	IP40	IP40	IP40	IP40	IP54	IP54	IP54	IP54	IP54	IP54

ecostar®
COMBUSTION SYSTEMS

www.ecostarburners.com

Pls. scan for electronic catalogue.

NG SERIES GAS BURNERS



NEW GENERATION MODULATING GAS BURNERS

CAPACITY TABLES

BURNER TYPE	CAPACITY		CAPACITY		NATURAL GAS CONSUMPTION		LPG CONSUMPTION		FAN MOTOR POWER	VOLTAGE AT 50 Hz
	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. Nm3/h	Max. Nm3/h	Min. Nm3/h	Max. Nm3/h	kW	VAC
ECO 50 G C 3 NG	215.000	1.290.000	250	1.500	26,1	156,4	9,6	57,3	2,20	3N 380
ECO 55 G C 3 NG	258.000	1.720.000	300	2.000	31,3	208,5	11,5	76,4	3,00	3N 380
ECO 55 G C 3a NG	258.000	2.150.000	300	2.500	31,3	260,6	11,5	95,6	3,00	3N 380
ECO 60 G C 3 NG	369.800	2.580.000	430	3.000	44,8	312,7	16,4	114,7	4	3N 380
ECO 65 G C 3 NG	430.000	3.010.000	500	3.500	52,1	364,8	19,1	133,8	5,5	3N 380
ECO 70 G C 3 NG	498.800	3.500.200	580	4.070	60,5	424,3	22,2	155,6	7,5	3N 380
ECO 8 G C 3 NG	516.000	5.160.000	600	6.000	62,5	625,5	22,9	229,3	11,00	3N 380
ECO 8 G C 3 a NG	602.000	6.020.000	700	7.000	73,0	729,7	26,8	267,6	11,00	3N 380
ECO 8 G C 3 b NG	688.000	6.880.000	800	8.000	83,4	833,9	30,6	305,8	15,00	3N 380
ECO 9 G C 3 NG	731.000	7.310.000	850	8.500	88,6	886,1	32,5	324,9	18,50	3N 380
ECO 9 G C 3 a NG	774.000	7.740.000	900	9.000	93,8	938,2	34,4	344,0	22,00	3N 380
ECO 9 G C 3 b NG	946.000	9.030.000	1.100	10.500	114,7	1.094,5	42,0	401,3	22,00	3N 380
ECO 9 G C 3 c NG	1.290.000	10.320.000	1.500	12.000	156,4	1.250,9	57,3	458,7	22,00	3N 380

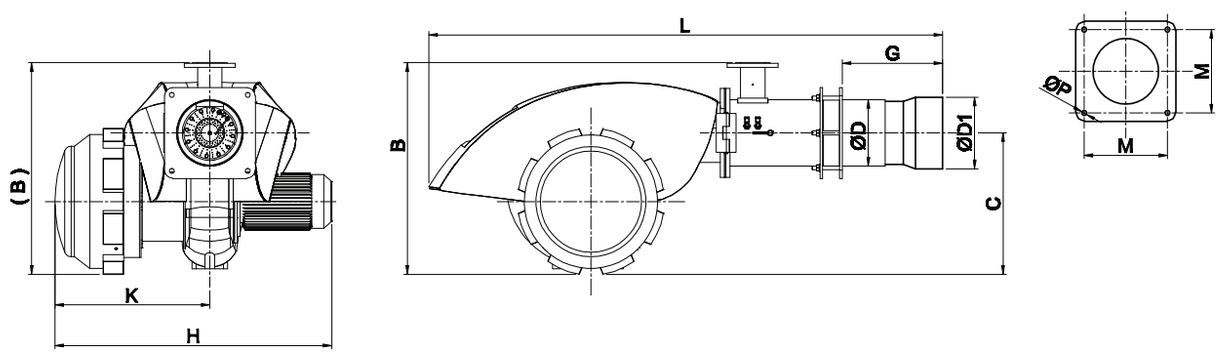
TECHNICAL SPECIFICATIONS

- Easy maintenance with its hinged system without detaching the burner from the boiler,
- Sliding flange for connection to different types of boilers,
- Lower noise levels with special silencer system,
- The plug-socket connection system limits the number of cable connections that allows minimizing the number of cable connections in production.
- Adjustable combustion head for desired capacity,
- High sensitive adjustment control with the gas-air servo motors that allows optimum air/fuel mixture which supplies high combustion efficiency.
- High performance fan,
- Easy-to-use operator panel that simplifies fault detections,
- Optional CO/O2 (trim) system integration for combustion optimization,
- Adequate gas supply control with minimum gas pressure switch
- Combustion air control with air pressure switch
- Leak control with integrated gas leak controller (leakage control system),
- Pilot ignition system integrated into the gas valve without requiring an additional burner pilot line

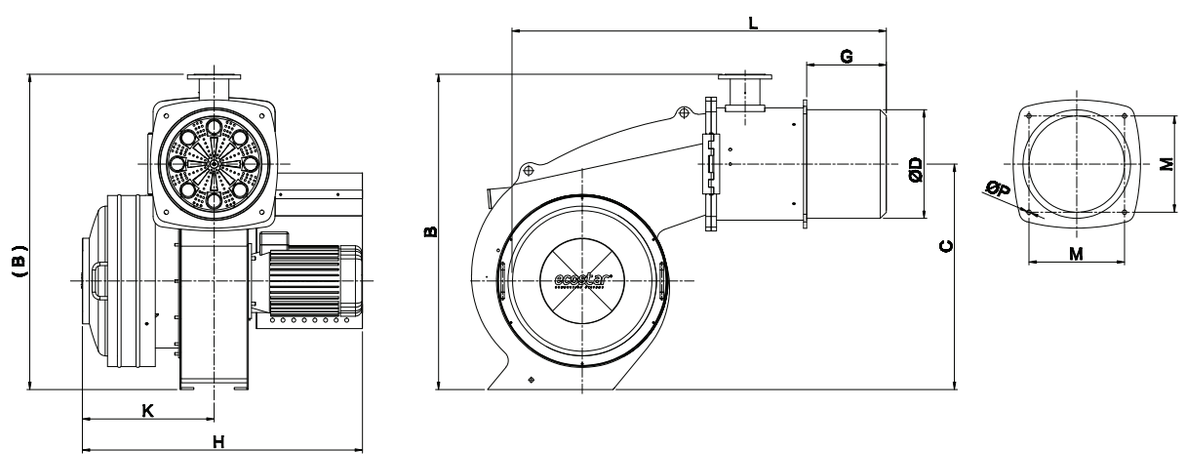
BURNER DIMENSIONS

* Gmax values are standart production values. For diferent sizes pls. contact with our sales team.

ECO 50 NG ECO 55 NG ECO 65 NG ECO 70 NG ECO 8 NG



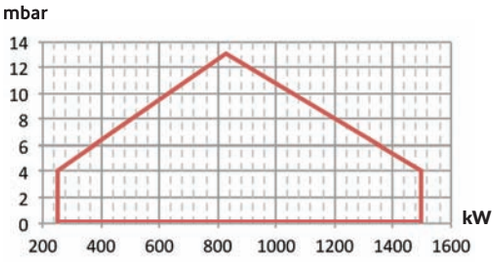
ECO 9 NG



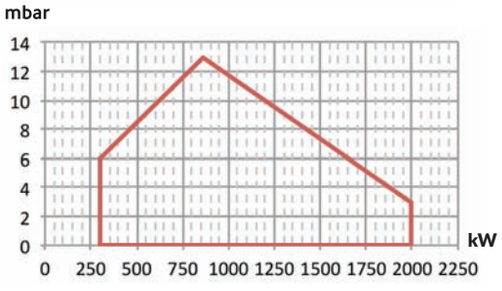
	L	Gmin	Gmax	H	K	B	C	ØP	M	ØD	ØD1
ECO 50 G C 3 NG	1560	280	440	890	530	630	430	18	275	218	236
ECO 55 G C 3 NG	1560	280	440	890	530	630	430	18	275	218	236
ECO 55 G C 3 a NG	1560	280	440	890	530	630	430	18	275	218	236
ECO 60 G C 3 NG	1855	200	355	1000	560	770	515	18	275	240	-
ECO 65 G C 3 NG	2005	200	440	1000	560	770	515	18	275	250	280
ECO 70 G C 3 NG	2005	200	440	1000	560	770	515	18	275	250	280
ECO 8 G C 3 NG	1860	305	305	1210	610	1060	685	18	360	408	-
ECO 8 G C 3 a NG	1860	305	305	1210	610	1060	685	18	360	408	-
ECO 8 G C 3 b NG	1860	305	305	1210	610	1060	685	18	360	408	-
ECO 9 G C 3 NG	1955	375	375	1320	620	1475	1055	22	450	508	-
ECO 9 G C 3 a NG	1955	375	375	1320	620	1475	1055	22	450	508	-
ECO 9 G C 3 b NG	1955	375	375	1320	620	1475	1055	22	450	508	-
ECO 9 G C 3 c NG	1955	375	375	1320	620	1475	1055	22	450	508	-

BACK PRESSURE DIAGRAMS

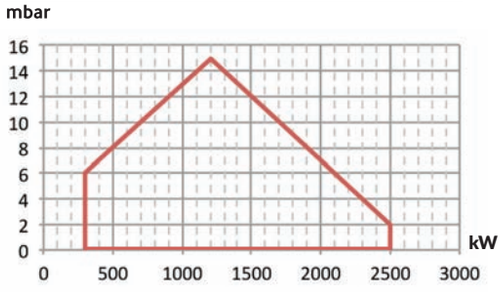
ECO 50 G C 3 NG



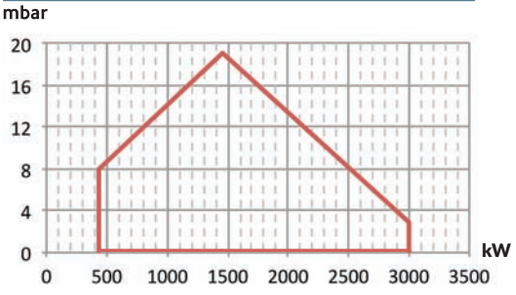
ECO 55 G C 3 NG



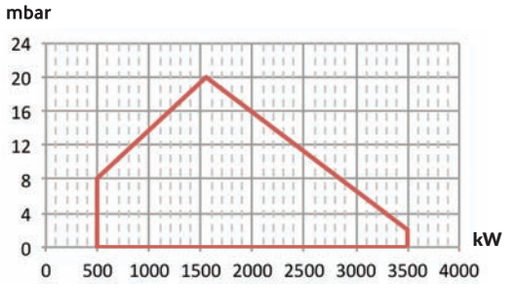
ECO 55 G C 3a NG



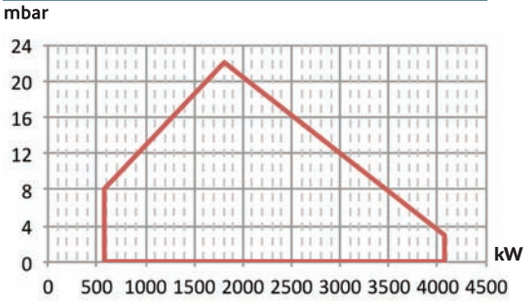
ECO 60 G C 3 NG



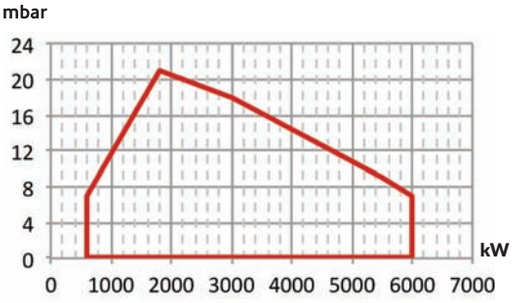
ECO 65 G C 3 NG



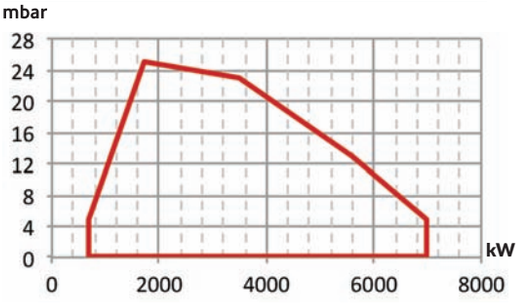
ECO 70 G C 3a NG



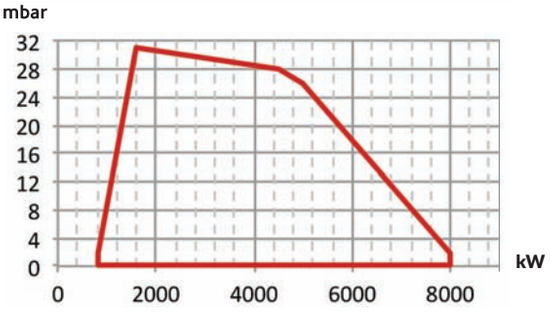
ECO 8 G C 3 NG



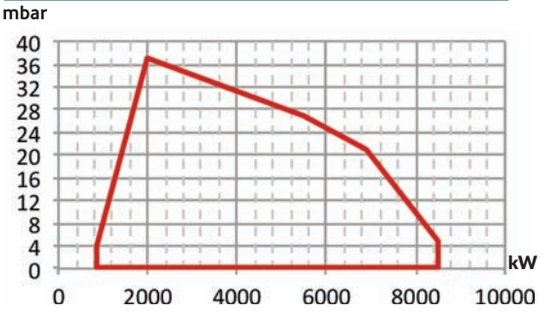
ECO 8 G C 3 a NG



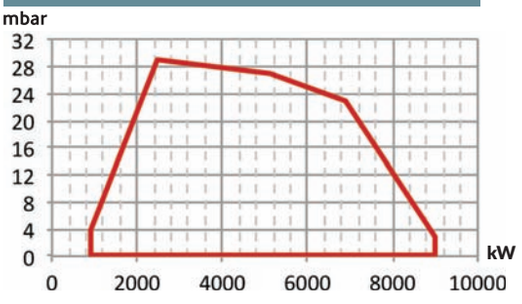
ECO 8 G C 3 b NG



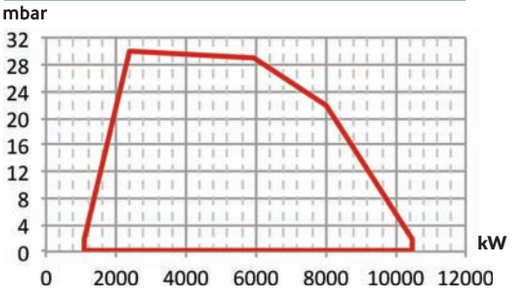
ECO 9 G C 3 NG



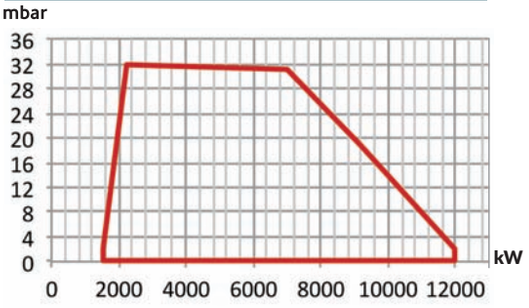
ECO 9 G C 3 a NG



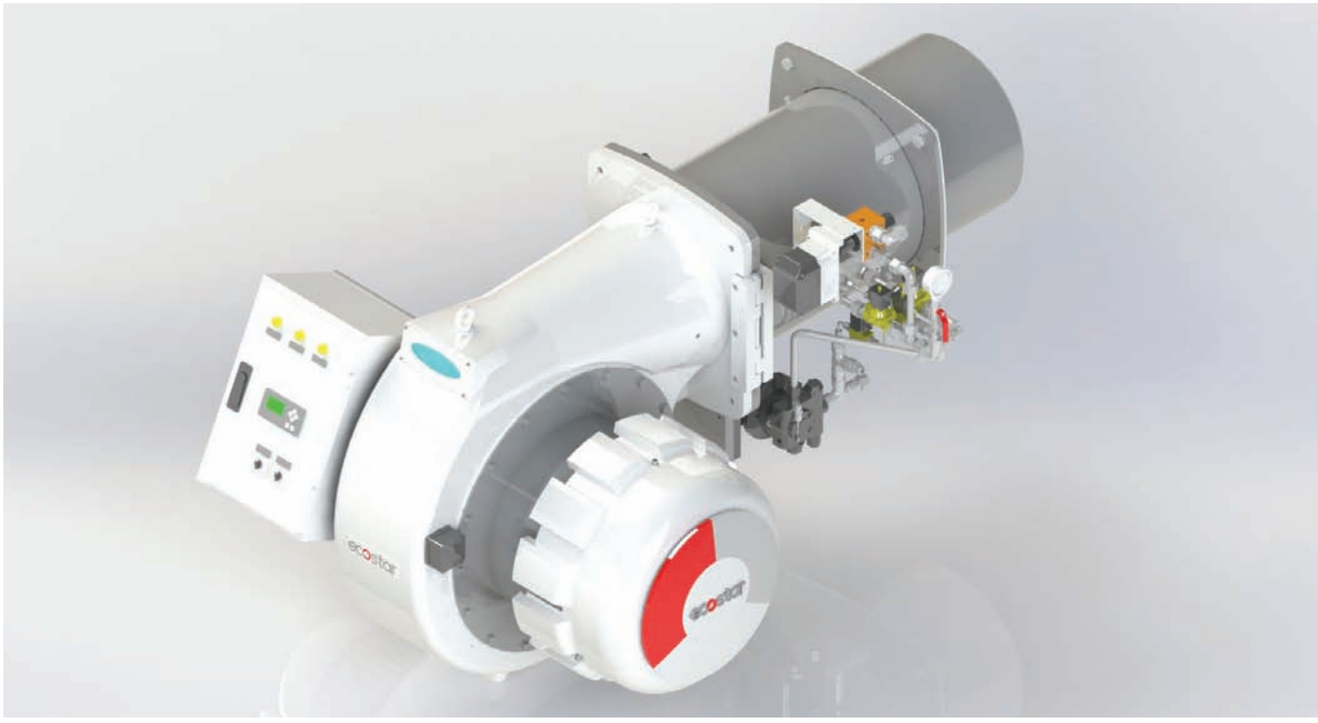
ECO 9 G C 3 b NG



ECO 9 G C 3 c NG



NG SERIES LIGHT OIL BURNERS



NEW GENERATION MODULATING LIGHT OIL BURNERS

CAPACITY TABLES

BURNER TYPE	CAPACITY		CAPACITY		LIGHT OIL CONSUMPTION		FAN MOTOR POWER	VOLTAGE AT 50 Hz
	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. kg/h	Max. kg/h	kW	VAC
ECO 8 O L C 3 NG	722.400	5.160.000	840	6.000	70,8	505,9	11,00	3N 380
ECO 8 O L C 3a NG	842.800	6.020.000	980	7.000	82,6	590,2	11,00	3N 380
ECO 8 O L C 3b NG	963.200	6.880.000	1.120	8.000	94,4	674,5	15,00	3N 380
ECO 9 O L C 3 NG	1.023.400	7.310.000	1.190	8.500	100,3	716,7	18,50	3N 380
ECO 9 O L C 3a NG	1.083.600	7.740.000	1.260	9.000	106,2	758,8	22,00	3N 380
ECO 9 O L C 3b NG	1.324.400	9.030.000	1.540	10.500	129,8	885,3	22,00	3N 380
ECO 9 O L C 3c NG	1.806.000	10.320.000	2.100	12.000	177,1	1.011,8	22,00	3N 380

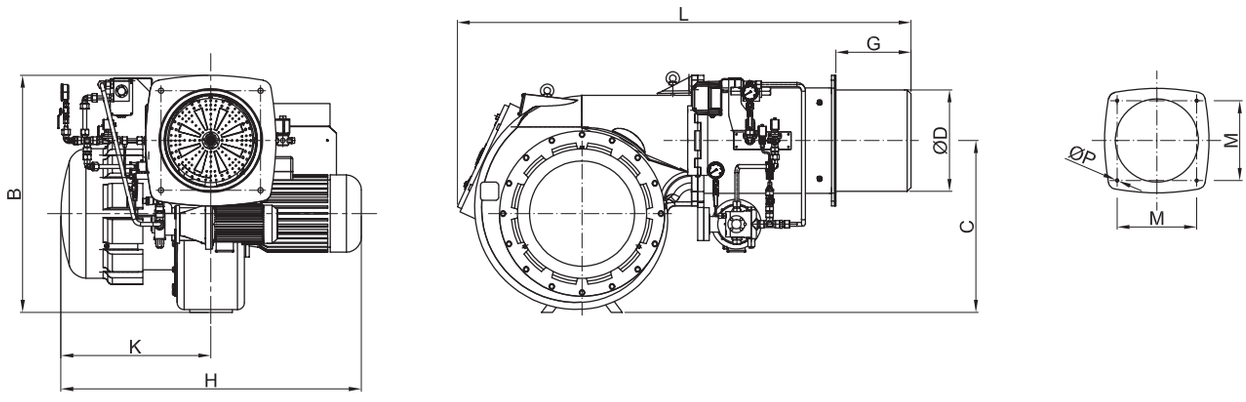
TECHNICAL SPECIFICATIONS

- Easy maintenance with its hinged system without detaching the burner from the boiler,
- Sliding flange for connection to different types of boilers,
- Lower noise levels with special silencer system,
- The plug-socket connection system limits the number of cable connections that allows minimizing the number of cable connections in production.
- Adjustable combustion head for desired capacity,
- High sensitive adjustment control with the gas-air servo motors that allows optimum air/fuel mixture which supplies high combustion efficiency.
- High performance fan,
- Easy-to-use operator panel that simplifies fault detections,
- Optional CO/O2 (trim) system integration for combustion optimization,
- Combustion air control with air pressure switch
- Pilot ignition system
- High pressure mechanical atomization at nozzle

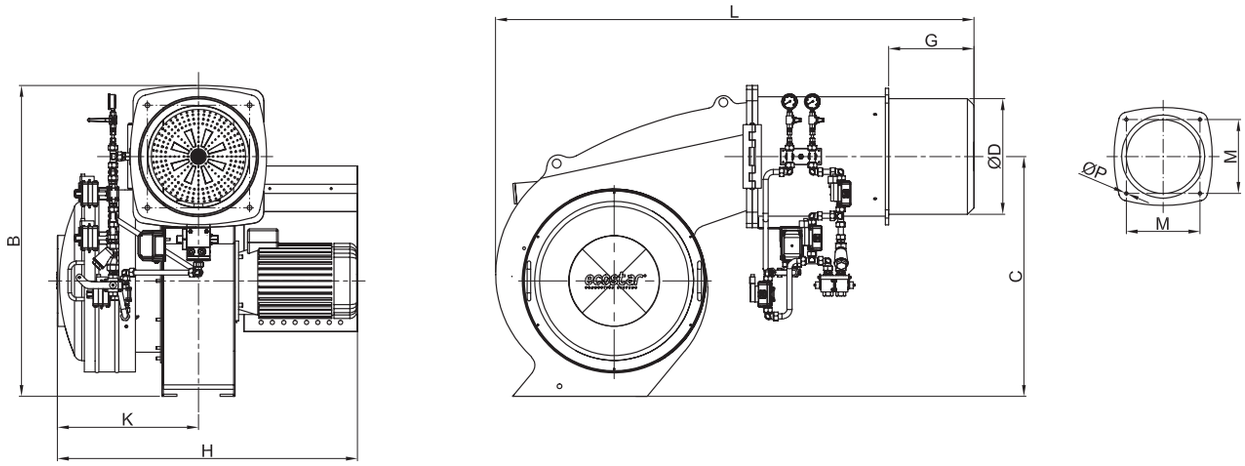
BURNER DIMENSIONS

* Gmax values are standard production values. Contact the sales department for different dimensions

ECO 8



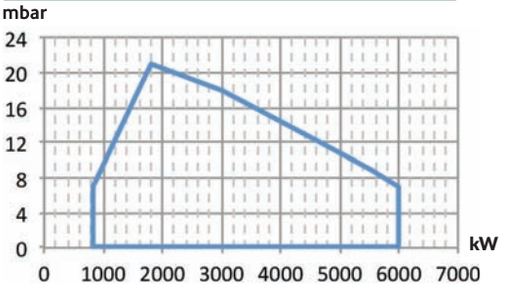
ECO 9



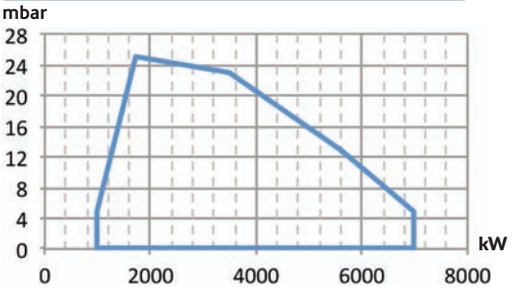
	L	Gmin	Gmax	H	K	B	C	ØP	M	ØD	ØD1
ECO 8 O (L) NG	1830	-	300	1210	610	960	695	18	400	408	-
ECO 9 O (L) NG	2110	-	375	1320	620	1370	1055	22	450	508	-

BACK PRESSURE DIAGRAMS

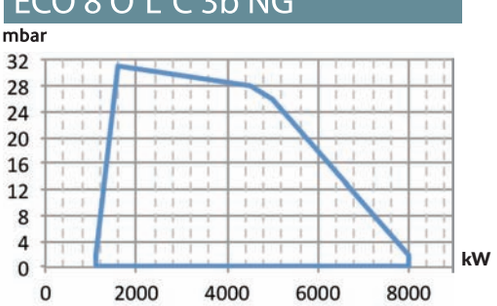
ECO 8 O L C 3 NG



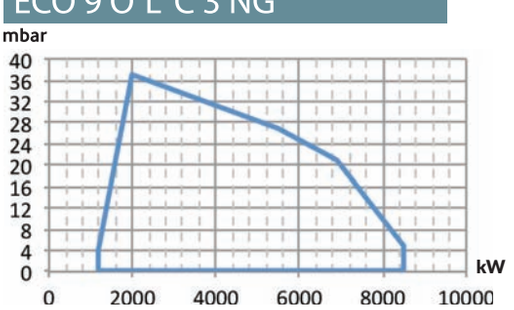
ECO 8 O L C 3a NG



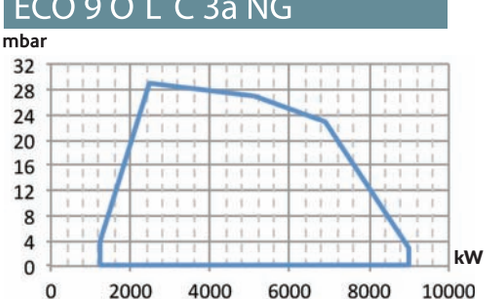
ECO 8 O L C 3b NG



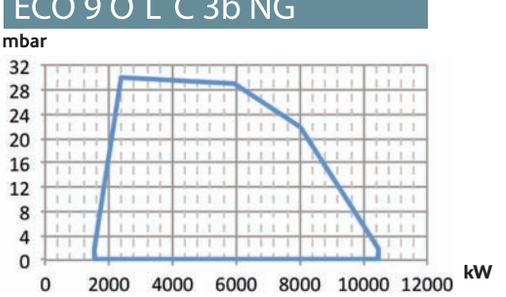
ECO 9 O L C 3 NG



ECO 9 O L C 3a NG



ECO 9 O L C 3b NG



ECO 9 O L C 3c NG

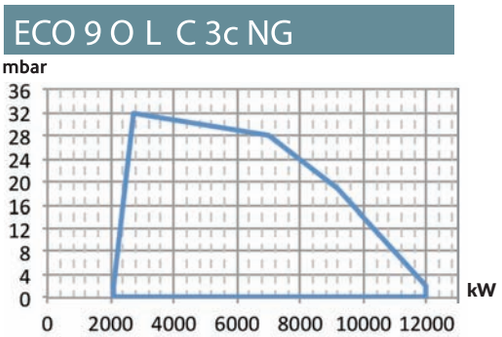


Table explanations

1S	ONE STAGE	2S	TWO STAGE	M	Modulating
M	MANUAL	SM	SERVOMOTOR		
İO	IONIZATION	PH	PHOTOCELL		
DI	DIRECT IGNITION	PI	PILOT IGNITION		
•	YES	°	NO	•	Optional

Specifications of New Generation modulating monoblock gas burners

Specifications	ECO 50 G C 3 NG	ECO 55 G C 3 NG	ECO 55 G C 3a NG	ECO 60 G C 3 NG	ECO 65 G C 3 NG	ECO 70 G C 3 NG	ECO 8 G C 3 NG	ECO 8 G C 3 a NG	ECO 8 G C 3 b NG	ECO 9 G C 3 NG	ECO 9 G C 3 a NG	ECO 9 G C 3 b NG	ECO 9 G C 3 c NG
Control Type	M	M	M	M	M	M	M	M	M	M	M	M	M
Air Flow Regulating	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM
Adjustable Flame Tube Extension	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM	SM
Gas Valve	•	•	•	•	•	•	•	•	•	•	•	•	•
Ignition	DI	DI	DI	DI	DI	DI	PI	PI	PI	PI	PI	PI	PI
Minimum gas pressure switch	•	•	•	•	•	•	•	•	•	•	•	•	•
Maximum gas pressure switch	•	•	•	•	•	•	•	•	•	•	•	•	•
VPS Gas Leakage Control Device	•	•	•	•	•	•	•	•	•	•	•	•	•
Air pressure switch	•	•	•	•	•	•	•	•	•	•	•	•	•
Flame dedector	İO	İO	İO	İO	İO	İO	PH	PH	PH	PH	PH	PH	PH
Hinged body for easy maintanance	•	•	•	•	•	•	•	•	•	•	•	•	•
Optional flame tube length	•	•	•	•	•	•	•	•	•	•	•	•	•
Connection for O2-CO combustion control system	•	•	•	•	•	•	•	•	•	•	•	•	•
Inverter connection for combustion air fan	•	•	•	•	•	•	•	•	•	•	•	•	•
Fuel transfering station	•	•	•	•	•	•	•	•	•	•	•	•	•
TSE EN-676 CERTIFICATION	•	•	•	•	•	•	•	•	•	•	•	•	•
CE Marking	•	•	•	•	•	•	•	•	•	•	•	•	•
Electrical protection class	IP40	IP40	IP40	IP40	IP40	IP40	IP54	IP54	IP54	IP54	IP54	IP54	IP54

Specifications of New Generation modulating monoblock light-oil burners

Specifications	ECO 8 O L C 3 NG	ECO 8 O L C 3 a NG	ECO 8 O L C 3 b NG	ECO 9 O L C 3 NG	ECO 9 O L C 3 a NG	ECO 9 O L C 3 b NG	ECO 9 O L C 3 c NG
Control Type	M	M	M	M	M	M	M
Air Flow Regulating	SM	SM	SM	SM	SM	SM	SM
Adjustable Flame Tube Extension	SM	SM	SM	SM	SM	SM	SM
Ignition	PI	PI	PI	PI	PI	PI	PI
Pilot gas valve	•	•	•	•	•	•	•
Air pressure switch	•	•	•	•	•	•	•
Flame dedector	PH	PH	PH	PH	PH	PH	PH
Liquid oil pump and hoses	•	•	•	•	•	•	•
Hinged body for easy maintanance	•	•	•	•	•	•	•
Optional flame tube length	•	•	•	•	•	•	•
Connection for O2-CO combustion control system	•	•	•	•	•	•	•
Inverter connection for combustion air fan	•	•	•	•	•	•	•
Fuel transfering station	•	•	•	•	•	•	•
TSE EN-676 CERTIFICATION	•	•	•	•	•	•	•
CE Marking	•	•	•	•	•	•	•
Electrical protection class	IP54	IP54	IP54	IP54	IP54	IP54	IP54

NG SERIES HEAVY OIL BURNERS

NEW GENERATION MODULATING HEAVY OIL BURNERS

CAPACITY TABLES

BURNER TYPE	CAPACITY		CAPACITY		HEAVY-OIL CONSUMPTION		FAN MOTOR POWER	VOLTAGE AT 50 Hz
	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. kg/h	Max. kg/h	kW	VAC
ECO 8 O S C 3 NG	722.400	5.160.000	840	6.000	74,9	534,7	11,00	3N 380
ECO 8 O S C 3a NG	842.800	6.020.000	980	7.000	87,3	623,8	11,00	3N 380
ECO 8 O S C 3b NG	963.200	6.880.000	1.120	8.000	99,8	713,0	15,00	3N 380
ECO 9 O S C 3 NG	1.023.400	7.310.000	1.190	8.500	106,1	757,5	18,50	3N 380
ECO 9 O S C 3a NG	1.083.600	7.740.000	1.260	9.000	112,3	802,1	22,00	3N 380
ECO 9 O S C 3b NG	1.324.400	9.030.000	1.540	10.500	137,2	935,8	22,00	3N 380
ECO 9 O S C 3c NG	1.806.000	10.320.000	2.100	12.000	187,2	1.069,4	22,00	3N 380

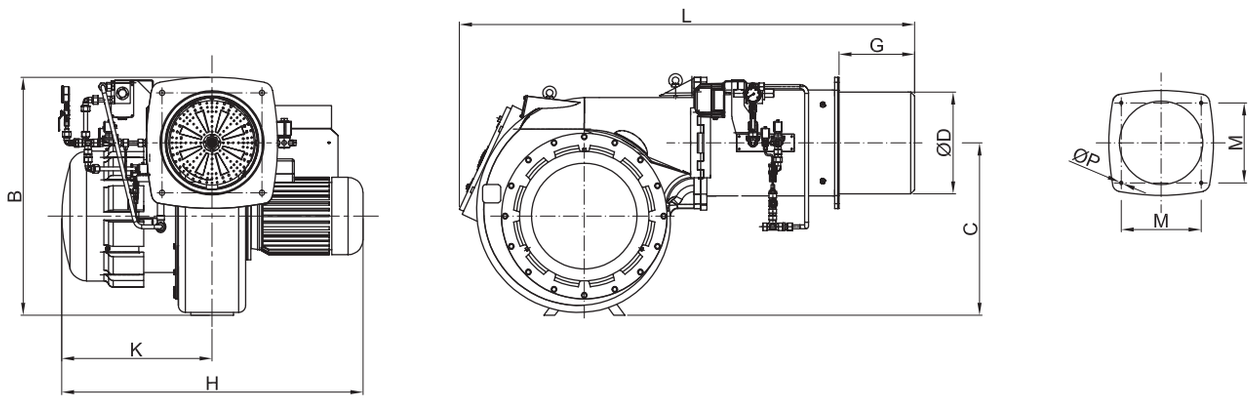
TECHNICAL SPECIFICATIONS

- Easy maintenance with its hinged system without detaching the burner from the boiler,
- Sliding flange for connection to different types of boilers,
- Lower noise levels with special silencer system,
- The plug-socket connection system limits the number of cable connections that allows minimizing the number of cable connections in production.
- Adjustable combustion head for desired capacity,
- High sensitive adjustment control with the gas-air servo motors that allows optimum air/fuel mixture which supplies high combustion efficiency.
- High performance fan,
- Easy-to-use operator panel that simplifies fault detections,
- Optional CO/O2 (trim) system integration for combustion optimization,
- Adequate gas supply control with minimum gas pressure switch
- Combustion air control with air pressure switch
- Leak control with integrated gas leak controller (leakage control system),
- Pilot ignition system integrated into the gas valve without requiring an additional burner pilot line

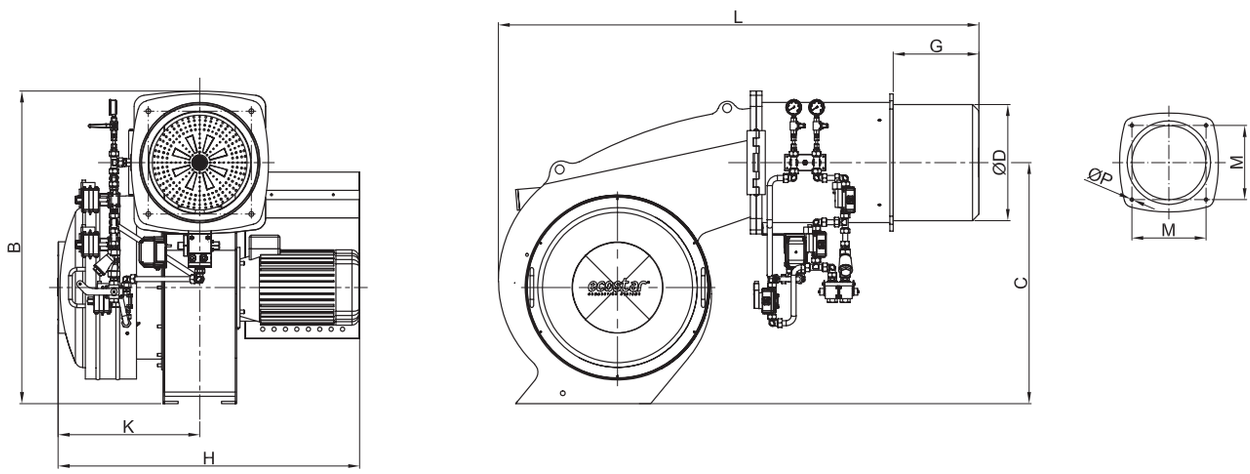
BURNER DIMENSIONS

* Gmax values are standard production values. Contact the sales department for different dimensions.

ECO 8



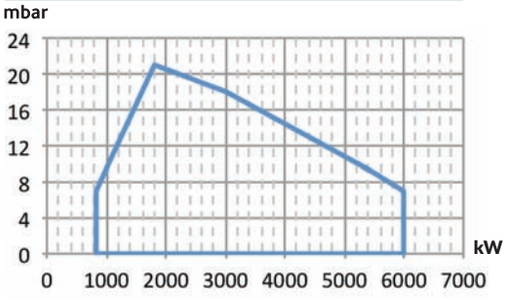
ECO 9



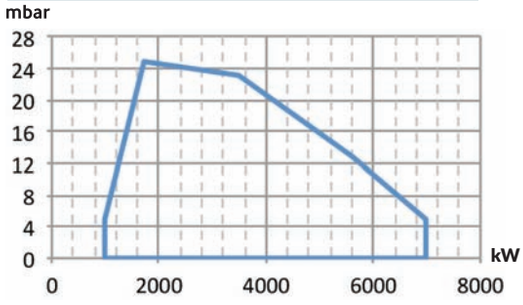
	L	Gmin	Gmax	H	K	B	C	ØP	M	ØD	ØD1
ECO 8 O (S) NG	1830	-	300	1210	610	960	695	18	400	408	-
ECO 9 O (S) NG	2110	-	375	1320	620	1370	1055	22	450	508	-

BACK PRESSURE DIAGRAMS

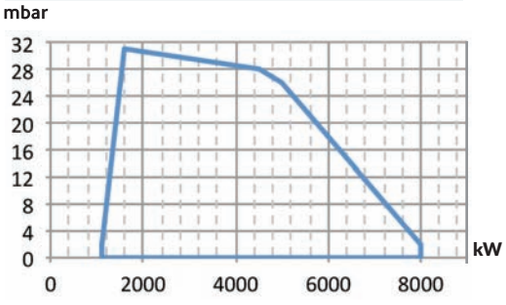
ECO 8 O S C 3 NG



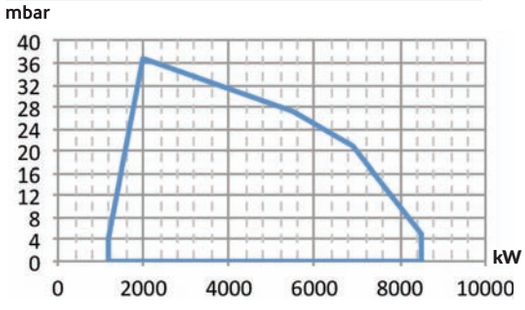
ECO 8 O S C 3a NG



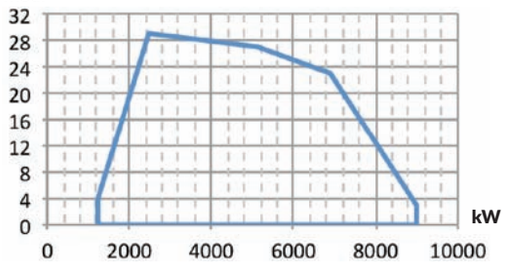
ECO 8 O S C 3b NG



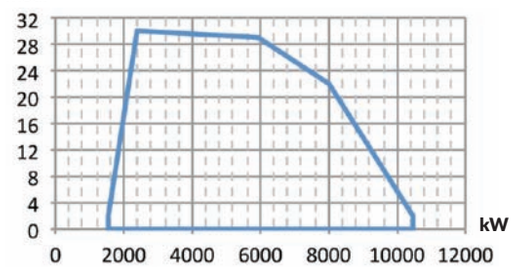
ECO 9 O S C 3 NG



ECO 9 O S C 3a NG



ECO 9 O S C 3b NG



ECO 9 O S C 3c NG

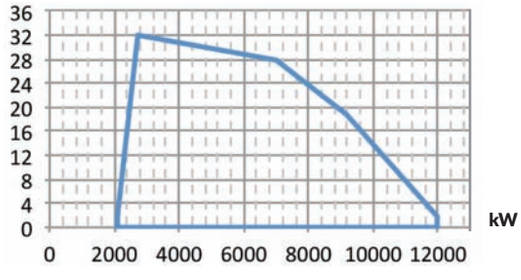


Table explanations

1S	ONE STAGE	2S	TWO STAGE	M	Modulating
M	MANUAL	SM	SERVOMOTOR		
İO	IONIZATION	PH	PHOTOCELL		
DI	DIRECT IGNITION	PI	PILOT IGNITION		
•	YES	°	NO	•	Optional

Specifications of New Generation modulating monoblock heavy-oil burners

Specifications	ECO 80S C3 NG	ECO 80S C3a NG	ECO 80S C3b NG	ECO 90S C3 NG	ECO 90S C3a NG	ECO 90S C3b NG	ECO 90S C3c NG
Control Type	M	M	M	M	M	M	M
Air Flow Regulating	SM	SM	SM	SM	SM	SM	SM
Fuel Flow Regulating	SM	SM	SM	SM	SM	SM	SM
Pilot Ignition	•	•	•	•	•	•	•
Pilot gas valve	•	•	•	•	•	•	•
Air pressure switch	•	•	•	•	•	•	•
Flame dedector	PH	PH	PH	PH	PH	PH	PH
Heating and pumping station	•	•	•	•	•	•	•
Liquid oil pump and hoses	•	•	•	•	•	•	•
Hinged body for easy maintanance	•	•	•	•	•	•	•
Optional flame tube length	•	•	•	•	•	•	•
Connection for O2-CO combustion control system	•	•	•	•	•	•	•
Inverter connection for combustion air fan	•	•	•	•	•	•	•
Fuel transfering station	•	•	•	•	•	•	•
TSE EN-676 CERTIFICATION	•	•	•	•	•	•	•
CE Marking	•	•	•	•	•	•	•
Electrical protection class	IP54	IP54	IP54	IP54	IP54	IP54	IP54

NG SERIES GAS - HEAVY OIL BURNERS

NEW GENERATION MODULATING GAS-HEAVY OIL BURNERS

CAPACITY TABLES

BURNER TYPE	NATURAL GAS CAPACITY		NATURAL GAS CAPACITY		NATURAL GAS CONSUMPTION		HEAVY-OIL CAPACITY		HEAVY-OIL CAPACITY		HEAVY-OIL CONS.		FAN MOTOR POWER	VOLTAGE AT 50 Hz
	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. Nm3/h	Max. Nm3/h	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. kg/h	Max. kg/h	kW	VAC
ECO 8 K S C 3 NG	516,000	5,160,000	600	6,000	63	625	722,400	5,160,000	840	6,000	74.9	534.7	11.00	3N 380
ECO 8 K S C 3 a NG	602,000	6,020,000	700	7,000	73	730	842,800	6,020,000	980	7,000	87.3	623.8	11.00	3N 380
ECO 8 K S C 3 b NG	688,000	6,880,000	800	8,000	83	834	963,200	6,880,000	1,120	8,000	99.8	713.0	15.00	3N 380
ECO 9 K S C 3 NG	731,000	7,310,000	850	8,500	89	886	1,023,400	7,310,000	1,190	8,500	106.1	757.5	18.50	3N 380
ECO 9 K S C 3a NG	774,000	7,740,000	900	9,000	94	938	1,083,600	7,740,000	1,260	9,000	112.3	802.1	22.00	3N 380
ECO 9 K S C 3b NG	946,000	9,030,000	1,100	10,500	115	1,095	1,324,400	9,030,000	1,540	10,500	137.2	935.8	22.00	3N 380
ECO 9 K S C 3c NG	1,290,000	10,320,000	1,500	12,000	156	1,251	1,806,000	10,320,000	2,100	12,000	187.2	1,069.4	22.00	3N 380

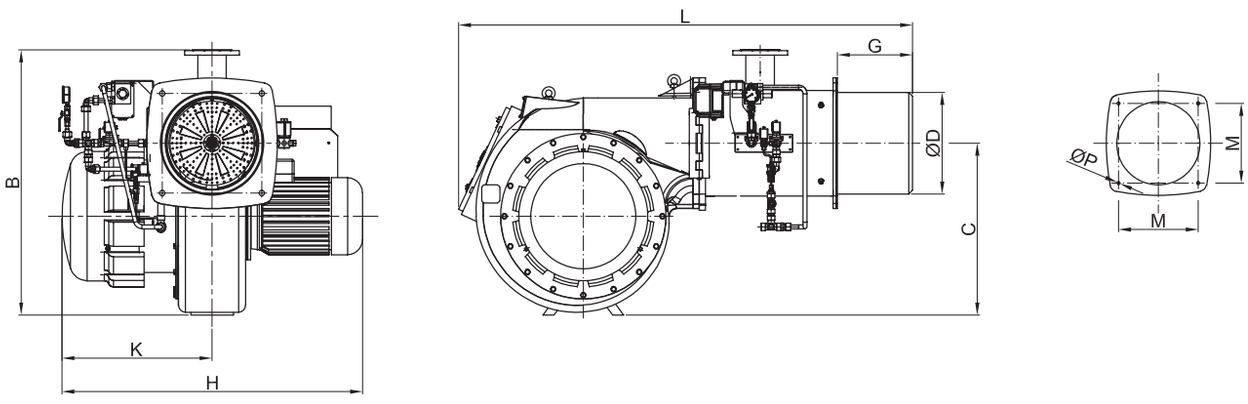
TECHNICAL SPECIFICATIONS

- Easy maintenance with its hinged system without detaching the burner from the boiler,
- Sliding flange for connection to different types of boilers,
- Lower noise levels with special silencer system,
- The plug-socket connection system limits the number of cable connections that allows minimizing the number of cable connections in production.
- Adjustable combustion head for desired capacity,
- High sensitive adjustment control with the gas-air servo motors that allows optimum air/fuel mixture which supplies high combustion efficiency.
- High performance fan,
- Easy-to-use operator panel that simplifies fault detections,
- Optional CO/O2 (trim) system integration for combustion optimization,
- Adequate gas supply control with minimum gas pressure switch
- Combustion air control with air pressure switch
- Leak control with integrated gas leak controller (leakage control system),
- High pressure mechanical atomization at nozzle,
- Pilot ignition option.

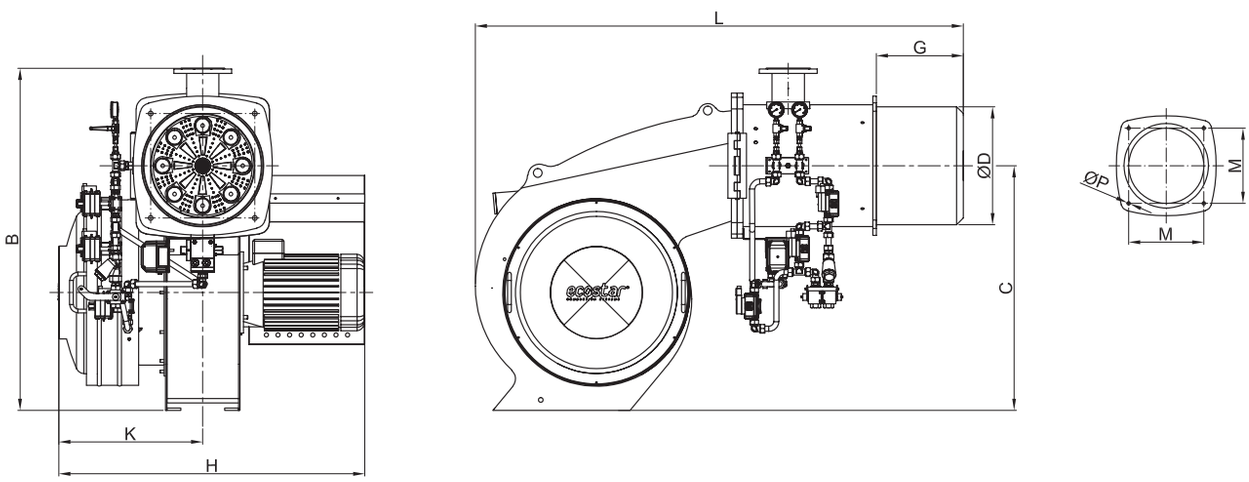
BURNER DIMENSIONS

* Gmax values are standard production values. Contact the sales department for different dimensions.

ECO 8



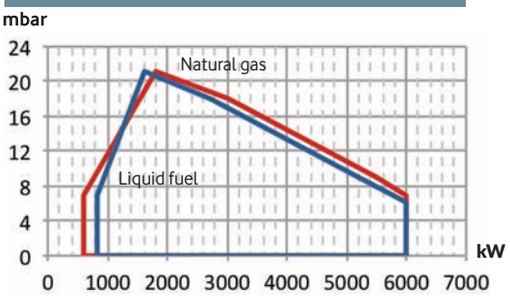
ECO 9



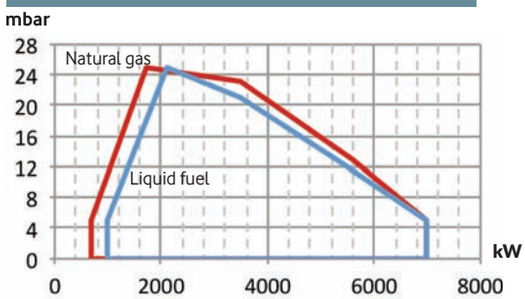
	L	Gmin	Gmax	H	K	B	C	ØP	M	ØD	ØD1
ECO 8 K (L) NG	1830	-	300	1210	610	1060	695	18	400	408	-
ECO 9 K (L) NG	2110	-	375	1320	620	1475	1055	22	450	508	-

BACK PRESSURE DIAGRAMS

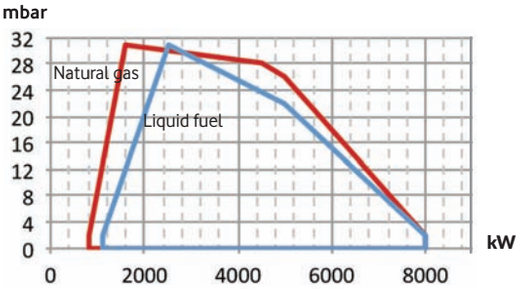
ECO 8 K S C 3 NG



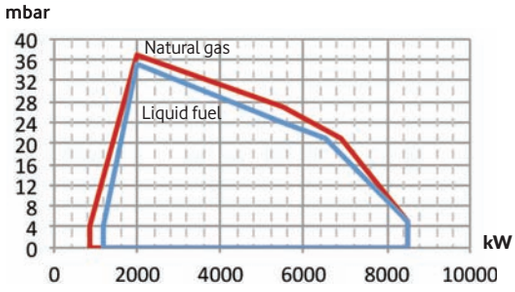
ECO 8 K S C 3a NG



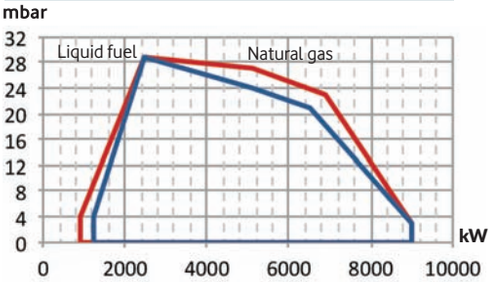
ECO 8 K S C 3b NG



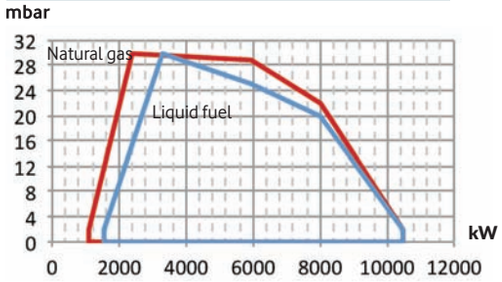
ECO 9 K S C 3 NG



ECO 9 K S C 3a NG



ECO 9 K S C 3b NG



ECO 9 K S C 3c NG

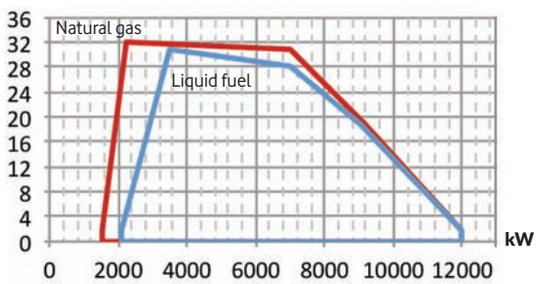
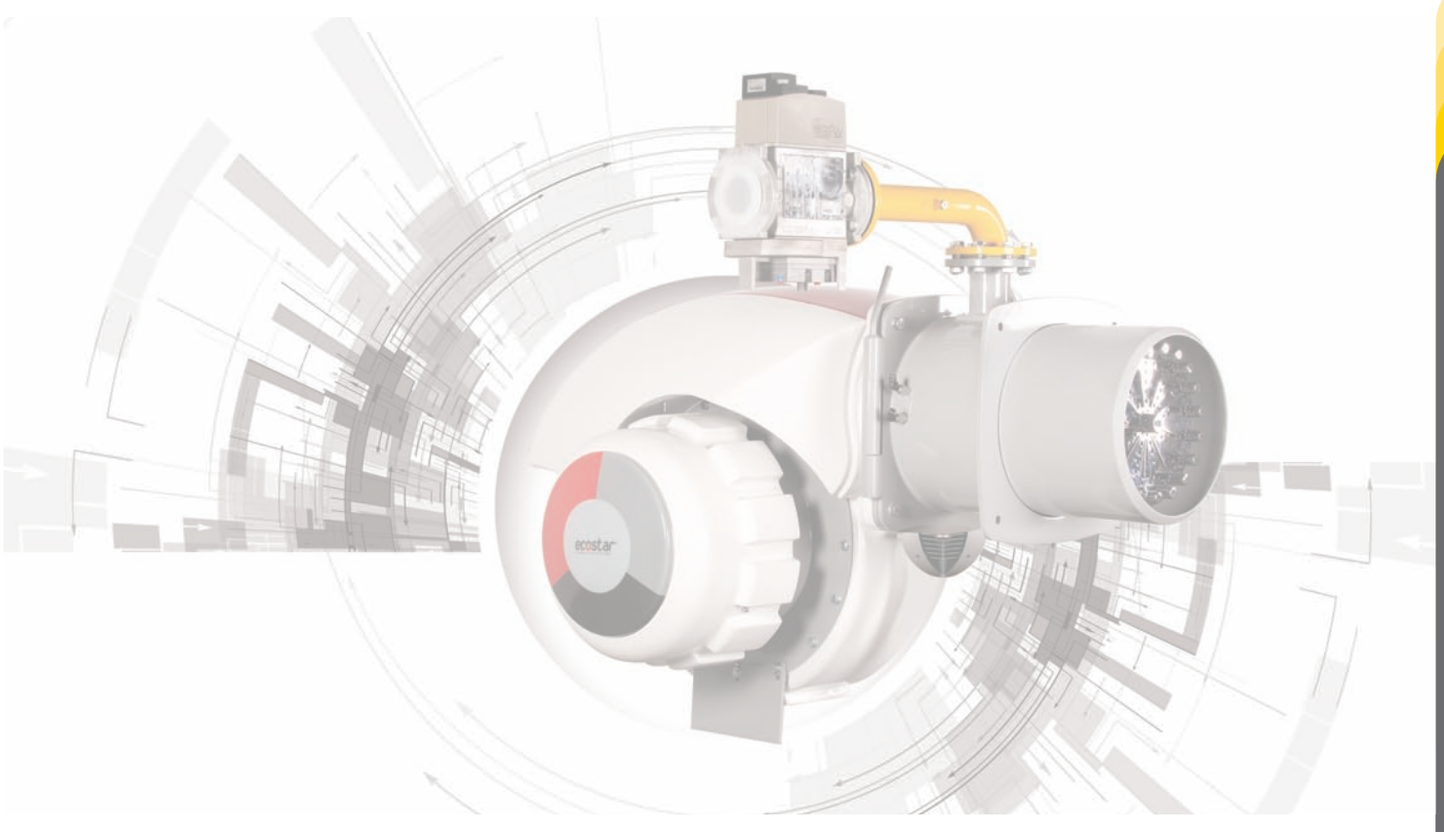


Table explanations

1S	ONE STAGE	2S	TWO STAGE	M	Modulating
M	MANUAL	SM	SERVOMOTOR		
İO	IONIZATION	PH	PHOTOCELL		
DI	DIRECT IGNITION	PI	PILOT IGNITION		
•	YES	°	NO	•	Optional

Specifications of New Generation modulating monoblock gas+heavy-oil burners

Specifications	ECO 8 K S C 3 NG	ECO 8 K S C 3a NG	ECO 8 K S C 3b NG	ECO 9 K S C 3 NG	ECO 9 K S C 3a NG	ECO 9 K S C 3b NG	ECO 9 K S C 3c NG
Control Type	M	M	M	M	M	M	M
Air Flow Regulating	SM	SM	SM	SM	SM	SM	SM
Fuel Flow Regulating	SM	SM	SM	SM	SM	SM	SM
Gas valve	•	•	•	•	•	•	•
Pilot Ignition	•	•	•	•	•	•	•
Pilot gas valve	•	•	•	•	•	•	•
Minimum gas pressure switch	•	•	•	•	•	•	•
Maximum gas pressure switch	•	•	•	•	•	•	•
VPS Gas Leakage Control Device	•	•	•	•	•	•	•
Air pressure switch	•	•	•	•	•	•	•
Flame dedector	PH	PH	PH	PH	PH	PH	PH
Heating and pumping station	•	•	•	•	•	•	•
Liquid oil pump and hoses	•	•	•	•	•	•	•
Hinged body for easy maintanance	•	•	•	•	•	•	•
Optional flame tube length	•	•	•	•	•	•	•
Connection for O2-CO combustion control system	•	•	•	•	•	•	•
Inverter connection for combustion air fan	•	•	•	•	•	•	•
Fuel transfering station	•	•	•	•	•	•	•
TSE EN-676 CERTIFICATION	•	•	•	•	•	•	•
CE Marking	•	•	•	•	•	•	•
Electrical protection class	IP54	IP54	IP54	IP54	IP54	IP54	IP54



Pls. scan for electronic catalogue.

NG SERIES GAS - LIGHT OIL BURNERS

NEW GENERATION MODULATING GAS-LIGHT OIL BURNERS

CAPACITY TABLES

BURNER TYPE	NATURAL GAS CAPACITY		NATURAL GAS CAPACITY		NATURAL GAS CONSUMPTION		LIGHT OIL CAPACITY		LIGHT OIL CAPACITY		LIGHT OIL CONS.		FAN MOTOR POWER	VOLTAGE AT 50 Hz
	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. Nm3/h	Max. Nm3/h	Min. kcal/h	Max. kcal/h	Min. kW	Max. kW	Min. kg/h	Max. kg/h	kW	VAC
ECO 8 K L C 3 NG	516,000	5,160,000	600	6,000	63	625	722,400	5,160,000	840	6,000	70.8	505.9	11.00	3N 380
ECO 8 K L C 3 a NG	602,000	6,020,000	700	7,000	73	730	842,800	6,020,000	980	7,000	82.6	590.2	11.00	3N 380
ECO 8 K L C 3 b NG	688,000	6,880,000	800	8,000	83	834	963,200	6,880,000	1,120	8,000	94.4	674.5	15.00	3N 380
ECO 9 K L C 3 NG	731,000	7,310,000	850	8,500	89	886	1,023,400	7,310,000	1,190	8,500	100.3	716.7	18.50	3N 380
ECO 9 K L C 3a NG	774,000	7,740,000	900	9,000	94	938	1,083,600	7,740,000	1,260	9,000	106.2	758.8	22.00	3N 380
ECO 9 K L C 3b NG	946,000	9,030,000	1,100	10,500	115	1,095	1,324,400	9,030,000	1,540	10,500	129.8	885.3	22.00	3N 380
ECO 9 K L C 3c NG	1,290,000	10,320,000	1,500	12,000	156	1,251	1,806,000	10,320,000	2,100	12,000	177.1	1,011.8	22.00	3N 380

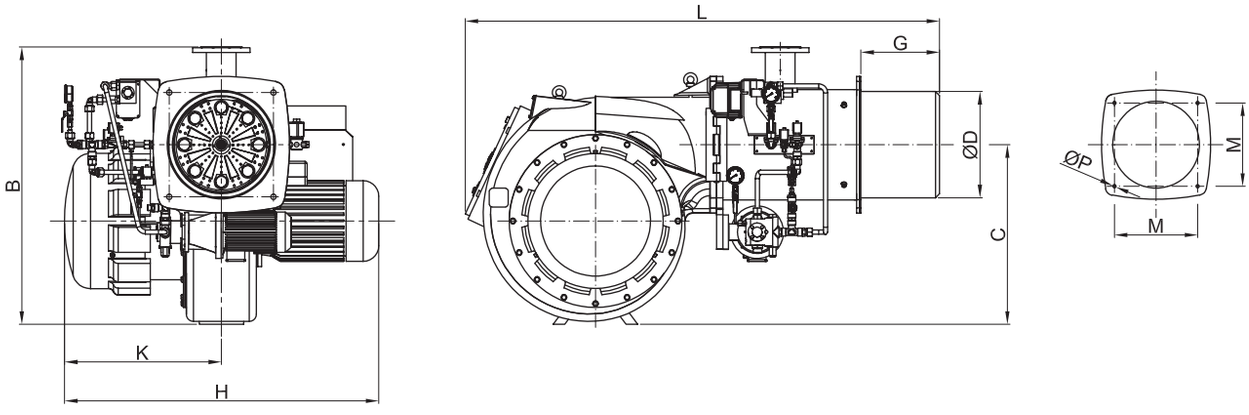
TECHNICAL SPECIFICATIONS

- Easy maintenance with its hinged system without detaching the burner from the boiler,
- Sliding flange for connection to different types of boilers,
- Lower noise levels with special silencer system,
- The plug-socket connection system limits the number of cable connections that allows minimizing the number of cable connections in production.
- Adjustable combustion head for desired capacity,
- High sensitive adjustment control with the gas-air servo motors that allows optimum air/fuel mixture which supplies high combustion efficiency.
- High performance fan,
- Easy-to-use operator panel that simplifies fault detections,
- Optional CO/O2 (trim) system integration for combustion optimization,
- Adequate gas supply control with minimum gas pressure switch
- Combustion air control with air pressure switch
- Leak control with integrated gas leak controller (leakage control system),
- High pressure mechanical atomization at nozzle,
- Pilot ignition option.

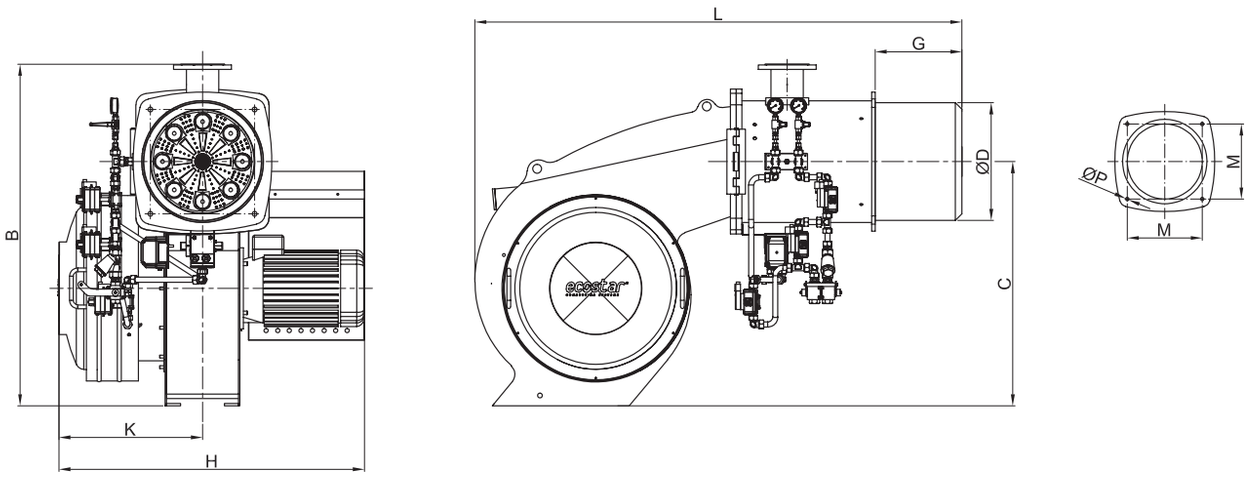
BURNER DIMENSIONS

* Gmax values are standard production values. Contact the sales department for different dimensions.

ECO 8



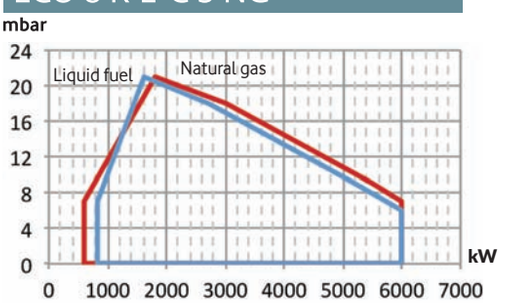
ECO 9



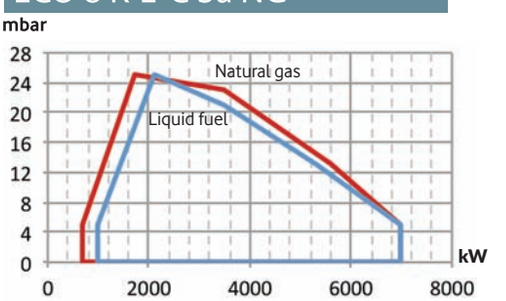
	L	Gmin	Gmax	H	K	B	C	ØP	M	ØD	ØD1
ECO 8 K (L) NG	1830	-	300	1210	610	1060	695	18	400	408	-
ECO 9 K (L) NG	2110	-	375	1320	620	1475	1055	22	450	508	-

BACK PRESSURE DIAGRAMS

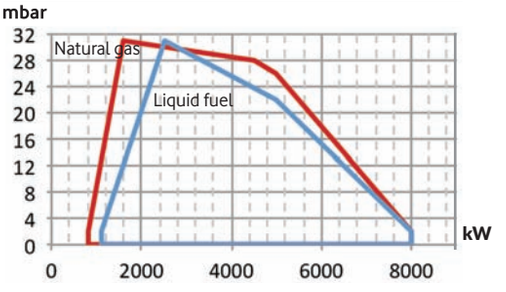
ECO 8 K L C 3 NG



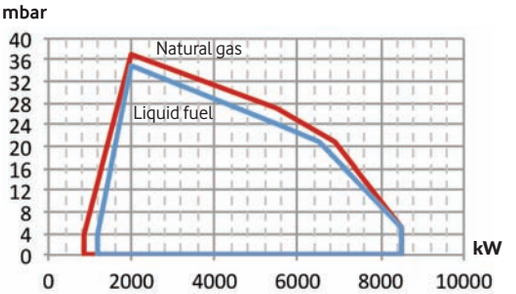
ECO 8 K L C 3a NG



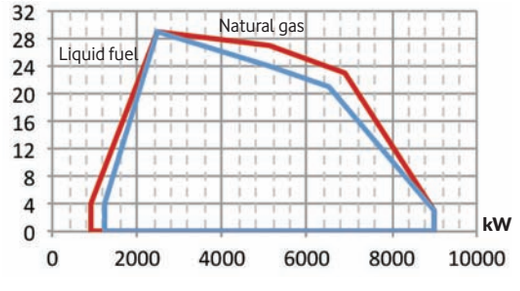
ECO 8 K L C 3b NG



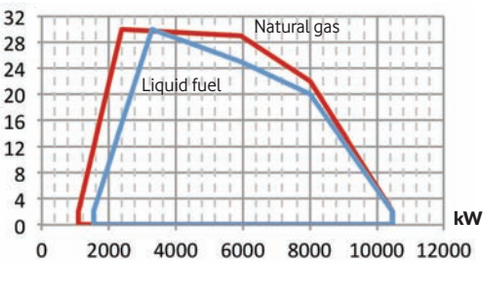
ECO 9 K L C 3 NG



ECO 9 K L C 3a NG



ECO 9 K L C 3b NG



ECO 9 K L C 3c NG

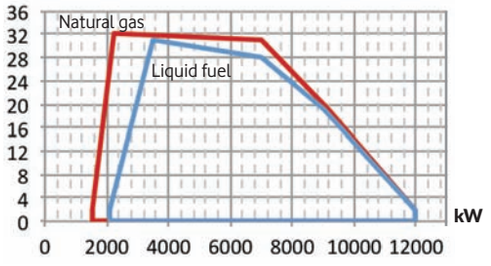


Table explanations

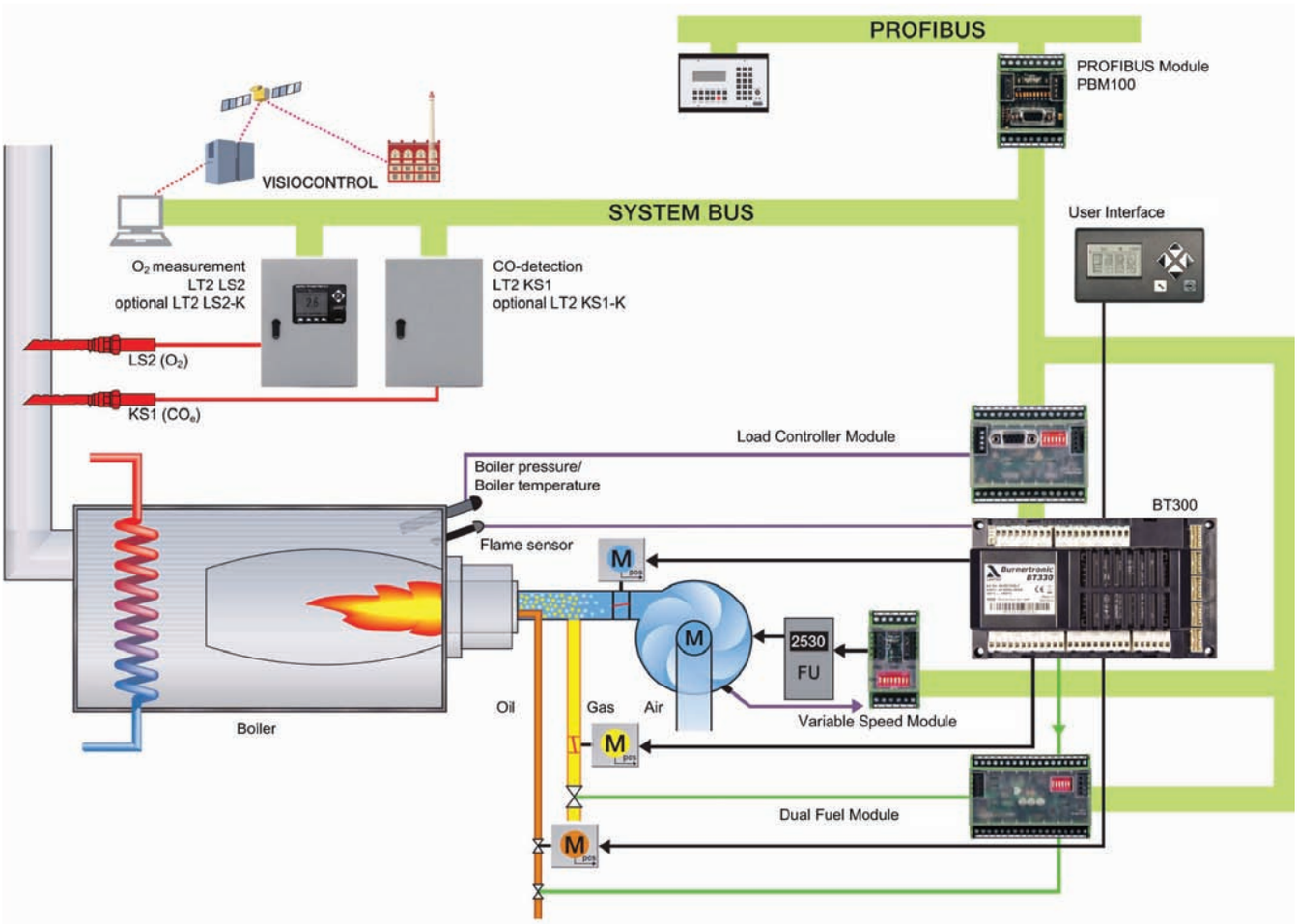
1S	ONE STAGE	2S	TWO STAGE	M	Modulating
M	MANUAL	SM	SERVOMOTOR		
İO	IONIZATION	PH	PHOTOCELL		
DI	DIRECT IGNITION	PI	PILOT IGNITION		
•	YES	º	NO	•	Optional

Specifications of New Generation modulating monoblock gas + light-oil burners

Specifications	ECO 8 K L C 3 NG	ECO 8 K L C 3 a NG	ECO 8 K L C 3 b NG	ECO 9 K L C 3 NG	ECO 9 K L C 3a NG	ECO 9 K L C 3b NG	ECO 9 K L C 3c NG
Control Type	M	M	M	M	M	M	M
Air Flow Regulating	SM	SM	SM	SM	SM	SM	SM
Fuel Flow Regulating	SM	SM	SM	SM	SM	SM	SM
Gas valve	•	•	•	•	•	•	•
Pilot Ignition	•	•	•	•	•	•	•
Pilot gas valve	•	•	•	•	•	•	•
Minimum gas pressure switch	•	•	•	•	•	•	•
Maximum gas pressure switch	•	•	•	•	•	•	•
VPS Gas Leakage Control Device	•	•	•	•	•	•	•
Air pressure switch	•	•	•	•	•	•	•
Flame dedector	PH	PH	PH	PH	PH	PH	PH
Liquid oil pump and hoses	•	•	•	•	•	•	•
Hinged body for easy maintanance	•	•	•	•	•	•	•
Optional flame tube length	•	•	•	•	•	•	•
Connection for O2-CO combustion control system	•	•	•	•	•	•	•
Inverter connection for combustion air fan	•	•	•	•	•	•	•
Fuel transfering station	•	•	•	•	•	•	•
TSE EN-676 CERTIFICATION	•	•	•	•	•	•	•
CE Marking	•	•	•	•	•	•	•
Electrical protection class	IP54	IP54	IP54	IP54	IP54	IP54	IP54

ELECTRONIC AIR/FUEL CONTROL

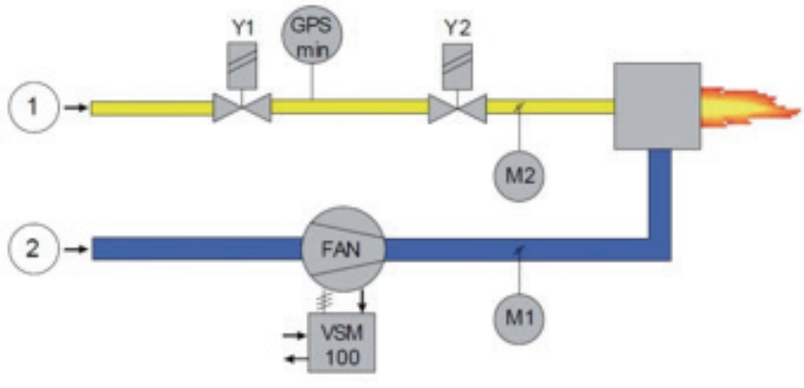
A micro-processor control with certain system components for control and inspection of medium to high power blow burners with burner management system.



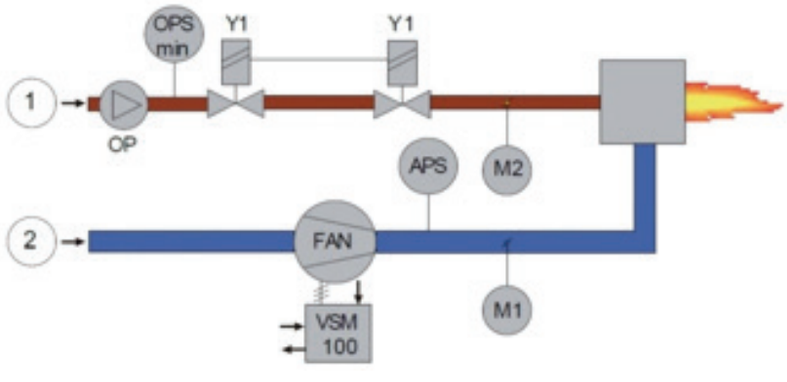
TECHNICAL SPECIFICATIONS

- Allows controlling maximum 3 air, fuel actuators depending on the application,
- Gas emission improved with precise air-fuel adjustment,
- Energy savings,
- Automatic improvement against combustion failures caused by varying barometric conditions with CO/O2 sensor connectivity,
- Fan motor inverter connection capability
- Profibus/ModBus interface connection capability,
- Easy adjustment with simplified user menu and display of fault history

SAMPLE SYSTEM DIAGRAM



Modulation gas burner with optional combustion air fan rotation controller



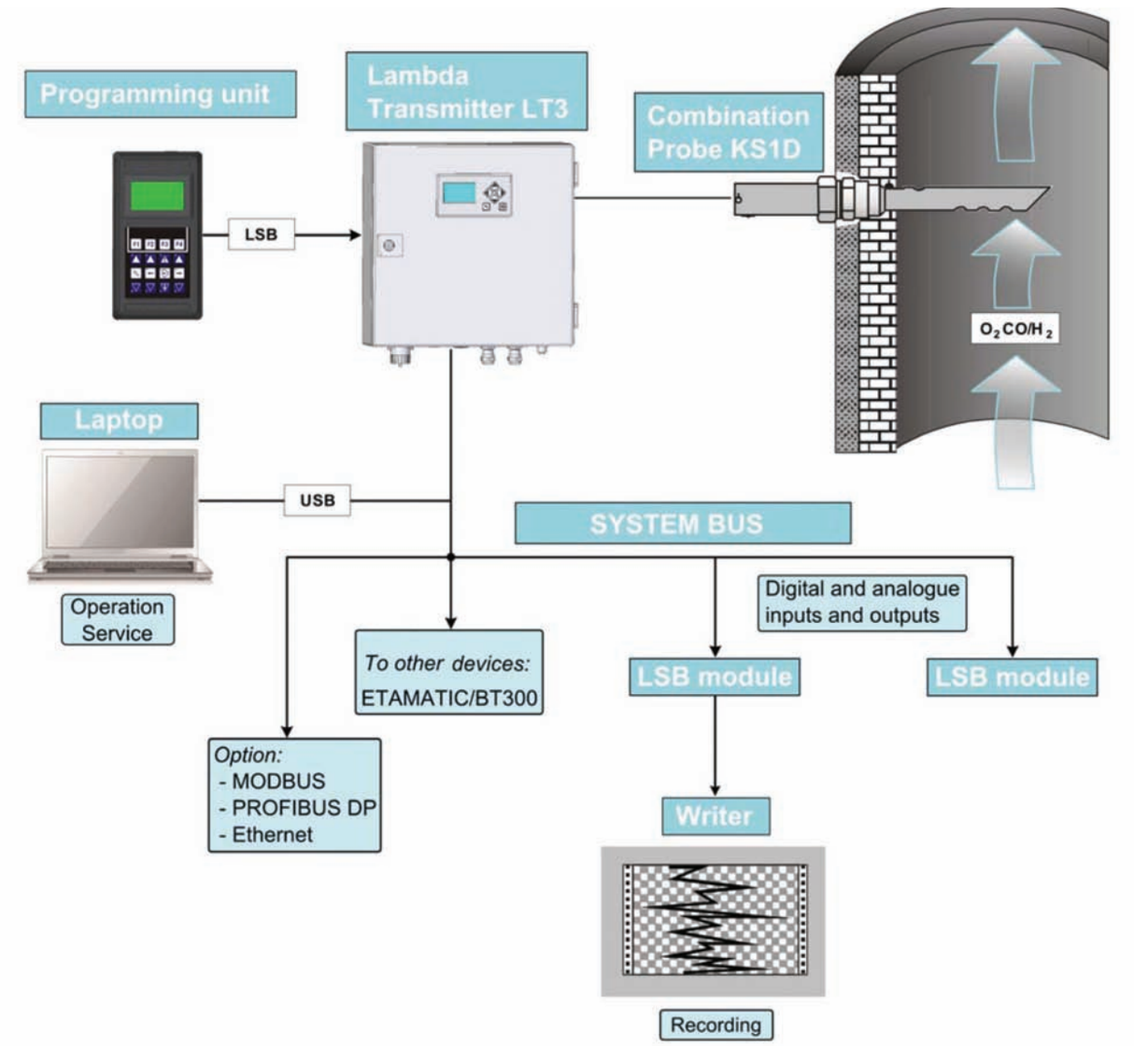
Modulation liquid fuel burner with optional combustion air fan rotation controller

O_2-CO COMBUSTION MANAGEMENT SYSTEM

Micro-processor based combustion management system is a complicated system that optimizes the most suitable air/fuel ratio with oxygen and/or carbon monoxide trim controlled, closed control logic mechanism. O2-CO combustion management system aims at maximum combustion efficiency and minimum emission values. With the aid of flue-mount flue gas sensor and transmitters, it measures the O2 and CO amounts, and optimizes the combustion by taking into account the permitted emission values according to the boiler's heat demand.

Advantages of the O2-CO combustion method system:

- Optimized combustion not affected by seasonally changing barometric conditions,
- Automatically controlled combustion with a combustion curve that is optimized in all operating conditions,
- Provides more fuel savings with high combustion efficiency.

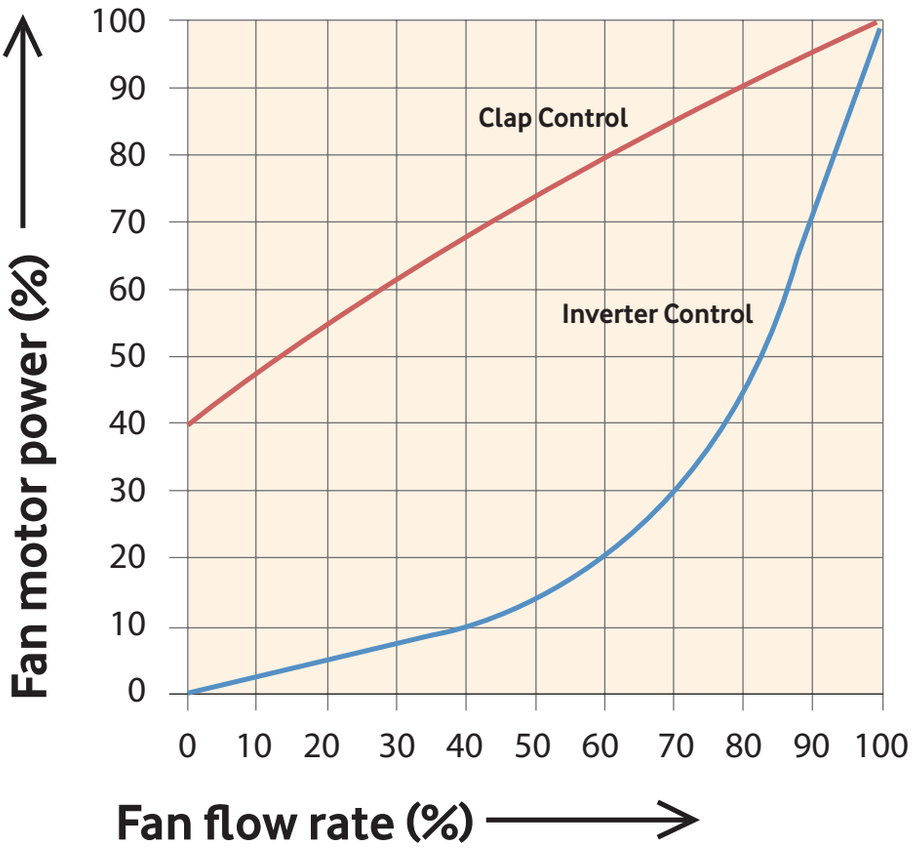


FAN SPEED CONTROL

The inverter installed to the combustion air fan motor of the burner generates air as required by controlling the power supply frequency of the fan motor, and provides savings in energy costs. The frequency controlled systems pay for themselves within few years.

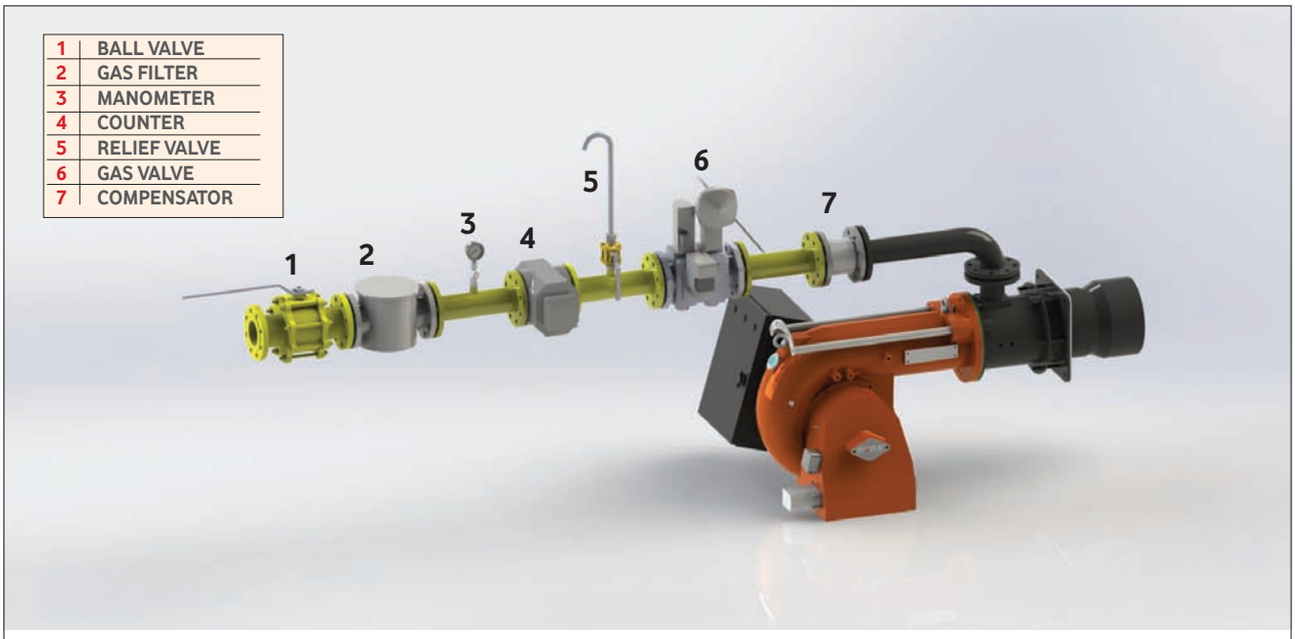
Advantages of the speed controlled systems:

- Electrical energy savings,
- Extension of motor life with adjustable acceleration and deceleration,
- Lower noise operation

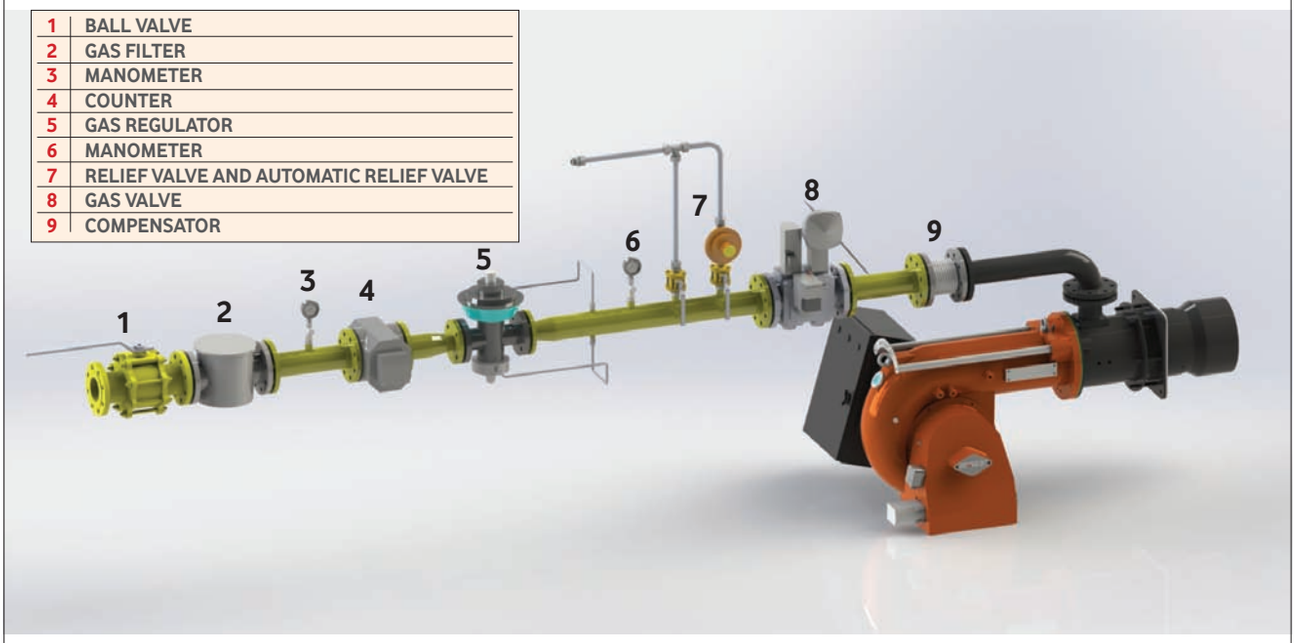


GAS TRAIN

- The gas line must be selected according to the operating conditions, burner capacity, and the operating pressure. It can be supplied as a disassembled gas line with optional accessories such as counter, gas leak device, etc. or as an assembled gas line.
- Flanged and threaded connections may differ depending on the capacity and gas pressure.



Sample system with 300 mbar gas pressure

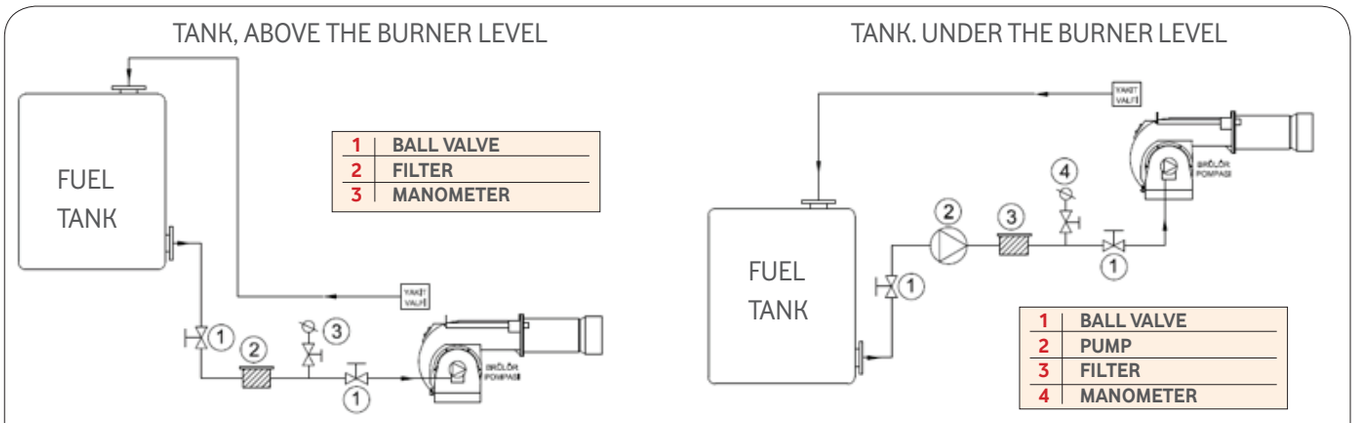


Sample system with >300 mbar gas pressure

LIQUID FUEL STATIONS

LIGHT OIL PUMPING STATION

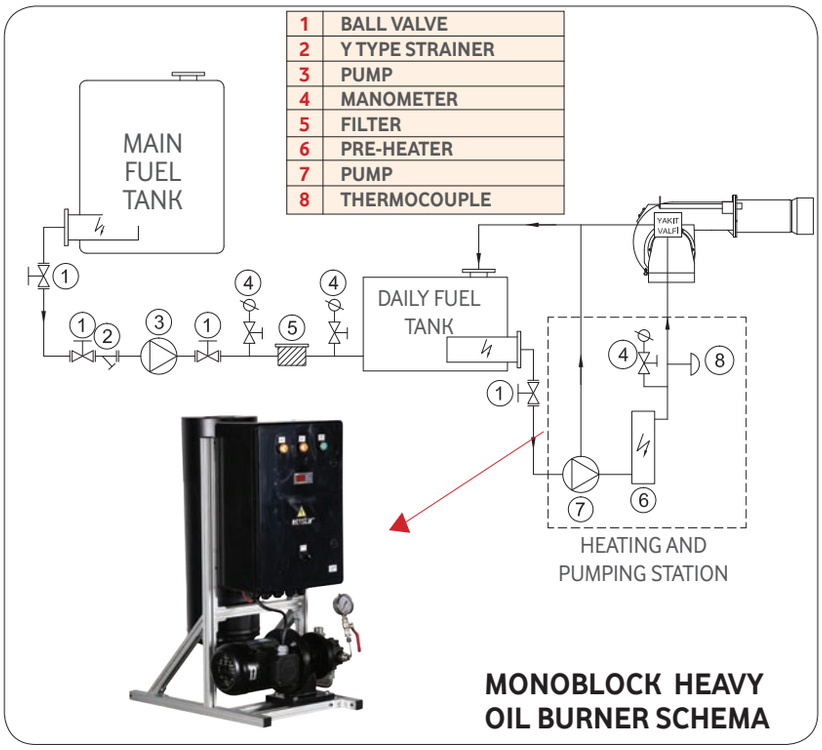
- The fuel transfer unit that ensures fuel transfer to the burner at the appropriate pressure, flow rate, and cleanliness.
- Optionally, these systems can be single or with redundant filter-pump. Auxiliary systems provides maintenance and operating advantages.



Modulating Monoblock Light Oil Burner Circuit Diagram

HEAVY-OIL HEATING and PUMPING STATION

- The filtering-heating-pumping unit that ensures that the fuel at 50-60°C from transfer line reaches the temperature that will allow it to achieve the combustion viscosity value required for its smooth combustion (120-135°C), and then ensures its transmission in the burner to use the fuel at the required pressure.
- In monoblock fuel-oil burners, the heating and pumping group includes a fuel pump, a pot heater, a temperature transmitter and a manometer.



MONOBLOCK HEAVY OIL BURNER SCHEMA

THANK YOU FOR
CHOOSING US

ecostar®
COMBUSTION SYSTEMS

www.ecostarburners.com

ecostar®
COMBUSTION SYSTEMS

TERMO ISI SİSTEMLERİ TiC. VE SAN. A.Ş.

HEAD OFFICE

Address : Esentepe Mah. Milangaz Cad. No: 75 Kat: 3 Monumento Plaza Kartal / İSTANBUL / TURKEY
Phone : +90 216 442 93 00 (pbx) Fax. : +90 216 370 45 03
Mail : info@ecostarburners.com
Web : www.ecostarburners.com

FACTORY

Address : Türkgücü OSB Bülent Ecevit Bulvarı No: 11 Çorlu / TEKİRDAĞ / TURKEY
Phone : +90 282 685 44 80/81 Fax. : +90 282 685 42 09

Update and Printing date: December / 2016