

Industry catalogue 2010

elco





Variatron®

To further improve the performance of its systems, Elco is able to apply inverter-controlled regulation of the fan speed over the whole range of modulating burners.

The **Variatron®** is delivered pre-programmed. Its adjustment is extremely simple, requiring only the setting of two limits to obtain progressive speed regulation over the whole burner turndown range.

Application of the **Variatron®** to Elco burners results in:

- electrical consumption savings in the order of 50-60%;
- in combination with the **AGP®** turndown ratio of up to 1:8, resulting in perfect adaptation to system requirements and improvement in average seasonal efficiency, in particular with condensing or low-temperature boilers or specific processes;
- silent start-up and average overall noise reduction of 2 dB (at maximum power) to 12 dB (at minimum power).



Free Flame®

Low NOx oil combustion is based on rapid gasification of the fuel by recirculating the combustion gases internally and allows the fuel-air to mix rapidly. Once the fuel has been vaporized, it will burn and stabilize 30 centimeters from the combustion head.

The flame appears to "float freely" hence the name "FreeFlame". The heat absorbed by the gasifying oil will cause a significant drop in the flame's temperature and a decrease in the formation of the thermal nitrogen oxide. The range EK 6 to Newtron 10 burners operate on domestic oil using the "FreeFlame" technology. An additional system can be used to control excess combustion air (O₂ regulation).



Diamond Head®

The principle of the **Diamond Head®** gas combustion is based on the intentional recirculation of the combustion flue gases. These are partially drawn into the base of the flame via triangular openings positioned at the end of the combustion head.

The position and geometry of the gas injectors are such that a significant amount of combustion flue gas is drawn in and rapidly mixed with air and gas at the root of the flame. This mixture crosses the main reaction area, slowing the combustion, which resulted in lowering the main flame temperature.

The result of this staging combustion is a significant reduction in the formation of thermal nitrogen oxides.

The advantage of this internal recirculation technique is an automatic adjustment to the quantity of recycled combustion flue gases: the volume of the flame is always as low as possible, which has a very minor effect on the nominal power of the generator, unlike external recirculation systems.

An additional system can be used to control excess combustion air (O₂ regulation).



AGP®

Developed and produced by Elco, the **AGP®** (proportional air-gas) System provides:

- Perfect stability of the air-gas mixture;
- a constantly high CO₂ content over the whole burner power range;
- precise control of air excess, which is important for high-efficiency operation, in particular for condensing generators.

The **AGP®** System measures:

- the gas pressure downstream of the gas train;
- the air pressure behind the flame holder;
- the furnace backpressure.

Any variations in the three pressures are immediately and simultaneously recorded by the system which automatically restores the correct gas/combustion air ratio.

AGP® System maintains a constant gas/combustion air ratio even in the presence of:

- positive or negative variations in the gas pressure;
- variations in air flow due to changes in the electrical supply voltage or fouling of the ventilation system;
- variations in the furnace and flue draft pressure on start-up and during load changes.



GEM®

The most recent and universally applied system is an electronic one. It controls the position of one or more actuators simultaneously. The servoMotors of the air flow and oil components are controlled by a microprocessor which contains setpoints defined for each load curve. An additional advantage of the **GEM®** (electronic mix management) System is that it provides specific information on all the commands and states of the overall system: these can be accessed directly or by remote control. Digital programming is easy, either via specific module or a computer by following simple instructions.



Quick Start®

Quick Start® is dedicated to industry applications. These applications require a high-temperature stability for process and a power production without interruption.

That is the reason why, for the first start-up, there is a long preheating period, adjustable from 40 to 300 seconds. After a controlled shutdown, the burner will instantaneously ignite the flame when heat is required by the system. For the gas burners, a tightness control is required each time the burner will be stopped.

This working means:

- An increase of productivity that results from a minimum temperature variation, due to the control device
- a primary and secondary energy savings
- no thermal shock suffered by materials used to huge temperature variations
- a really good security thanks to permanent control device.



RGC®

For some specific applications which require Low NOx values, we have recourse to external injection of the combustion flue gases collected in their exhaust duct and introduced into the flame by a turbine.

The reduction in NOx follows the same principle as that of the Diamond head, through the reduction of flame temperature.

The **RGC®** (combustion flue gas recirculation) System is a complete assembly that comprises a stainless steel fan and an injection spacer for the injection of the combustion flue gases into the flame. The amount of flue gases is managed either by a servoMotor attached to a flap or a recirculation fan with frequency inverter.



FGV®

Industrial process generators require the flame shape be perfectly adjusted to the enclosure that it must operate in. RPD and EK-DUO are equipped with **FGV®** (variable geometry flame) System: a crown of air registers inside the burner body forces rotation movement on the air flow. The faster the rotational movement is, the shorter and wider the flame. When the air rotational movement is slower, the flame will be long and narrow. The length and diameter of the flame can be varied in a ratio of 1 to 2.



EDP®

The most familiar process for the disposal of non-recyclable waste was incineration. RPD burners can be equipped, on request, with the **EDP®** (elimination of waste by pyrolysis) System: an additional injector spacer that disperses the gaseous substances to be eliminated around the main flame.

Liquids to be disposed of are atomized directly into the flame by one or more nozzles. Well mixed here, they are broken down at a temperature of between 1200 and 1400°C. Our research and development office studies all cases in order to be able to adapt the best possible solution to the customer's requirements.



RTC®

The functional design of the housing, coupled with the innovative technology of the combustion heads, creates the **RTC®** (retained head adjustment) System, offering several advantages:

- full access to all components, by simply removing the cover;
- easy and rapid maintenance;
- complete removal of the combustion head and access to its internal components with a single operation, without removing the burner from the boiler or disconnecting the gas train;
- optimum combustion head settings, which are not affected during servicing;
- rapid cleaning of the mechanical components, thanks to their clear layout;
- reduced servicing times through the use of standard nuts, bolts, screws and pipe fittings, which can be adjusted using only a few tools.



IME®

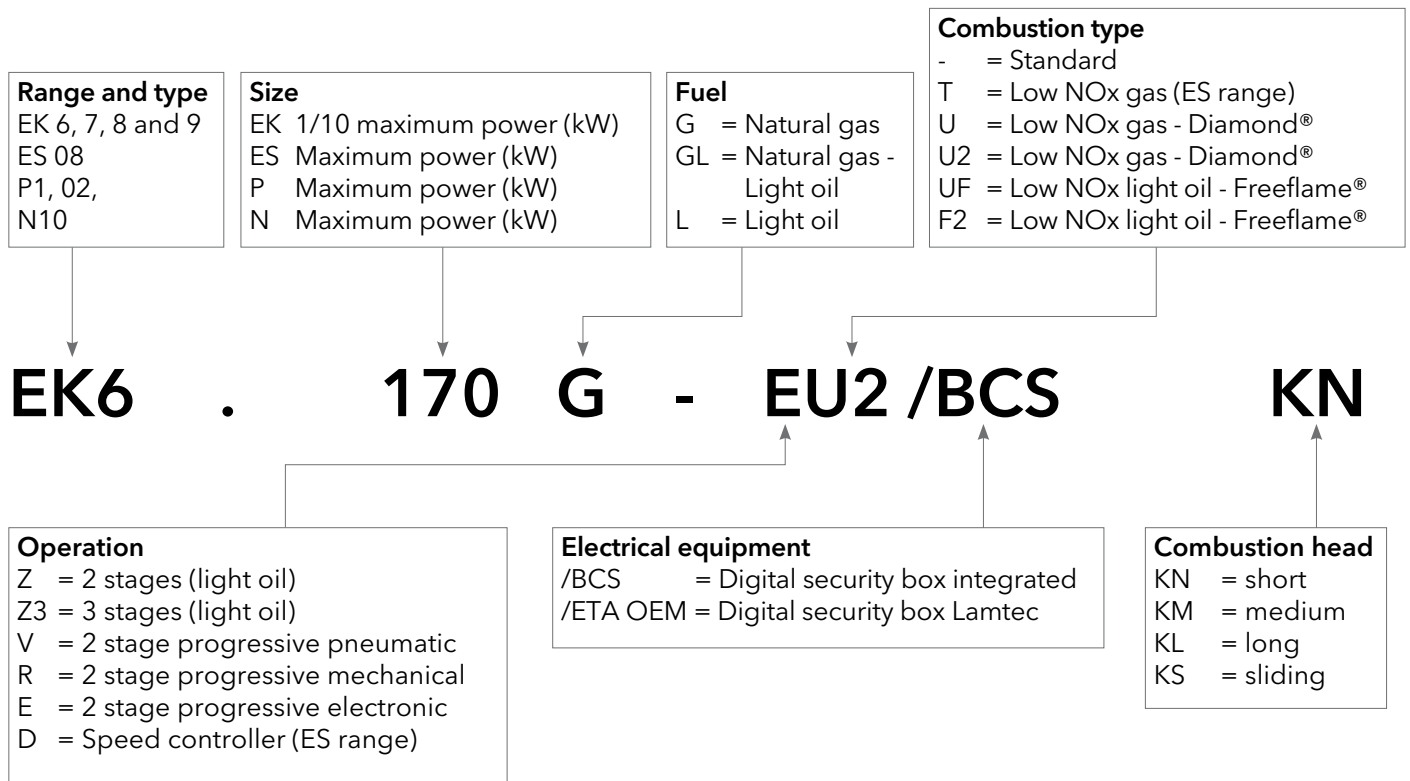
Elco research developed innovative combustion heads with two main priorities:

- Power range identical to the corresponding standard burners;
- Simplicity of manufacture, commissioning and maintenance.

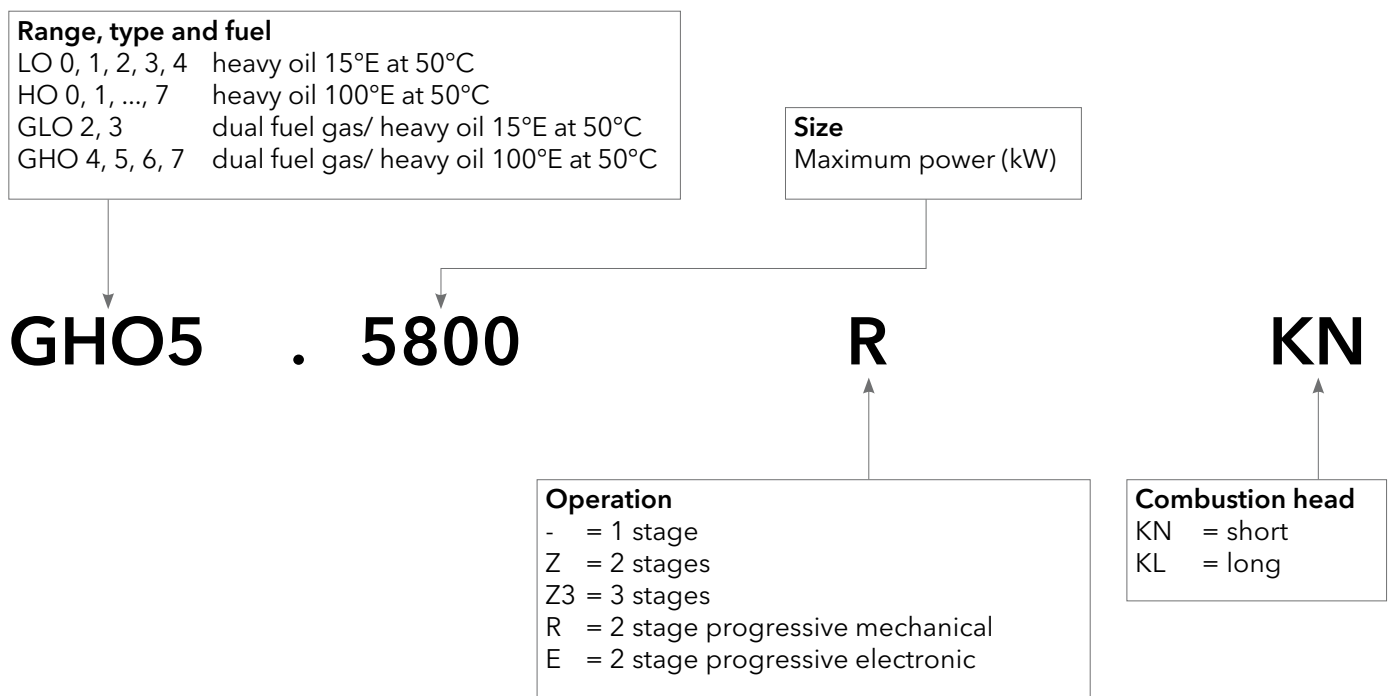
The result is a "staged" combustion head, in which the gas is injected at different levels.

In the initial phase, combustion occurs with a large amount of air excess, and therefore low energy density. The flame therefore has time to cool down through radiation and for partial recirculation of exhaust gases, before the second phase, in which the remainder of the gas flow is injected. With the adoption of the **IME®** (multi-stage injection) System up to 6 MW, fitted as standard on all gas burners, Elco guarantees nitrogen oxide emissions less than 80 mg/kWh for natural gas combustion, measured according to the EN 676.

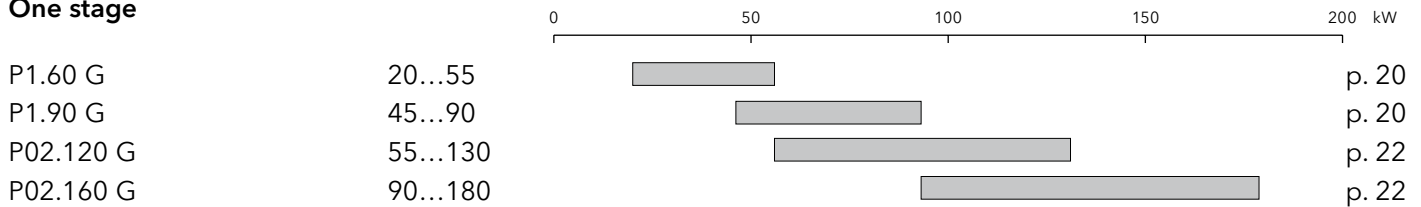
Designation of the Monoblock EK, ES, Protron (P) and Newtron (N) burners



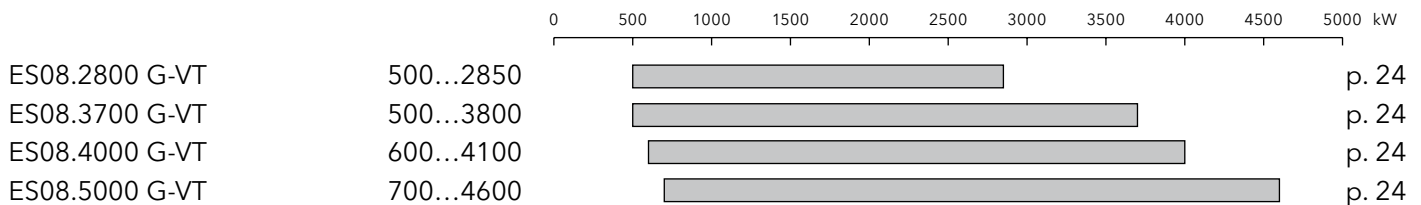
Designation of the Monoblock LO-Tron, HO-Tron, GLO-Tron, GHO-Tron burners



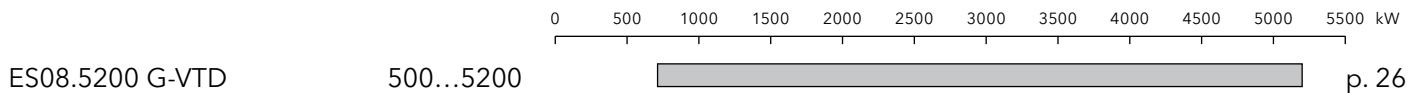
One stage



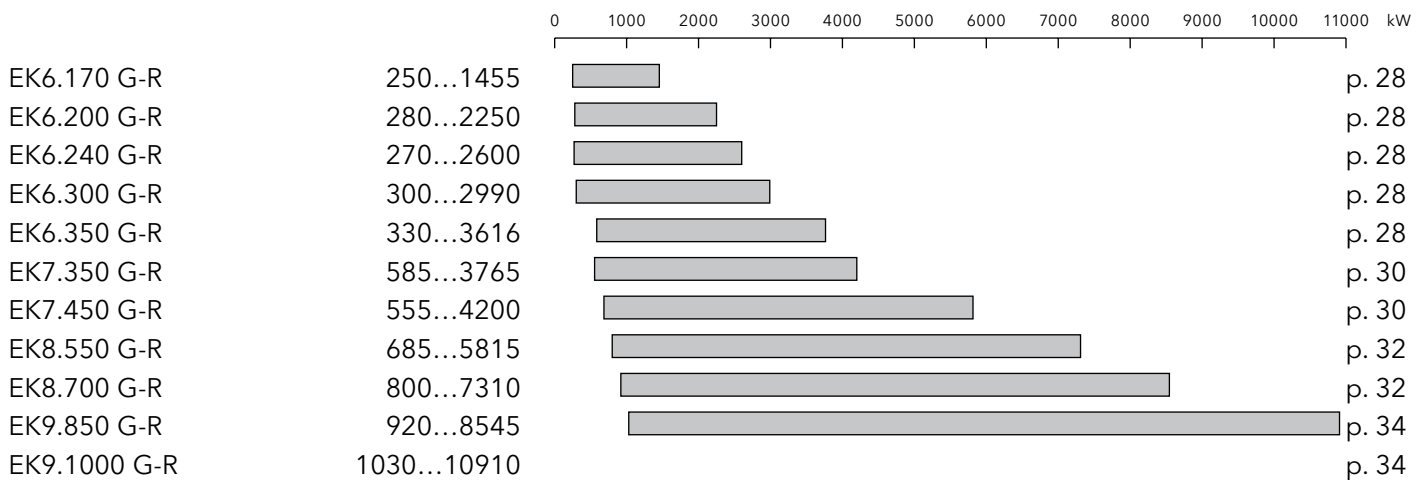
Two stage progressive pneumatic Low NOx



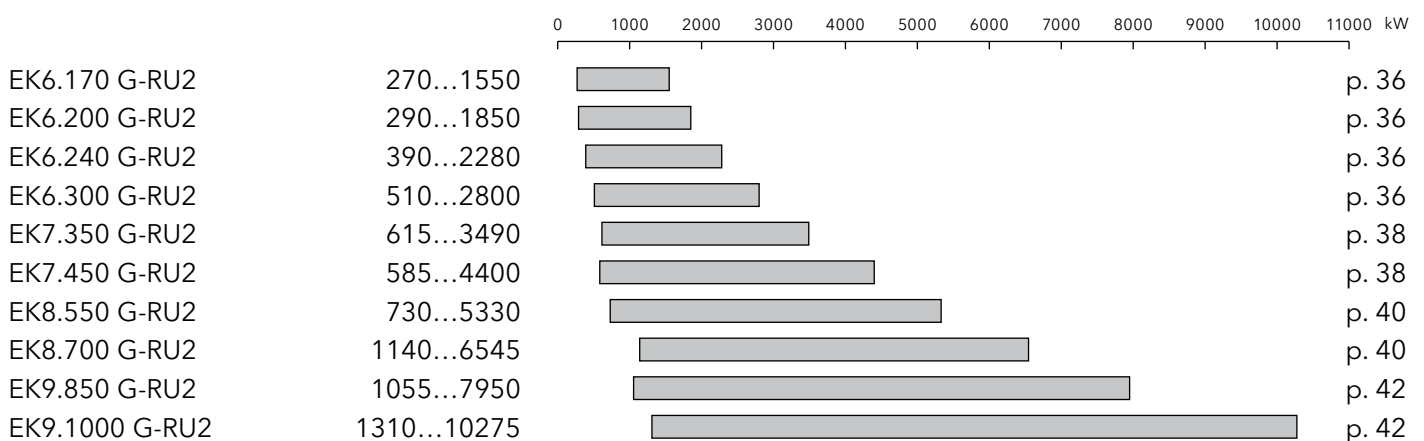
Two stage progressive pneumatic Low NOx + fan speed control



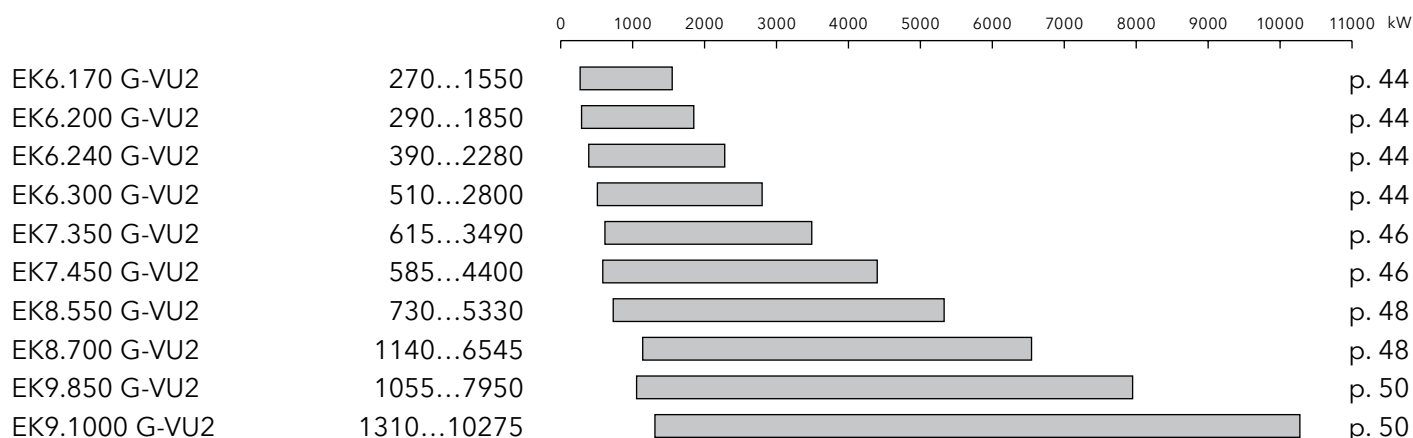
Two stage progressive mechanical



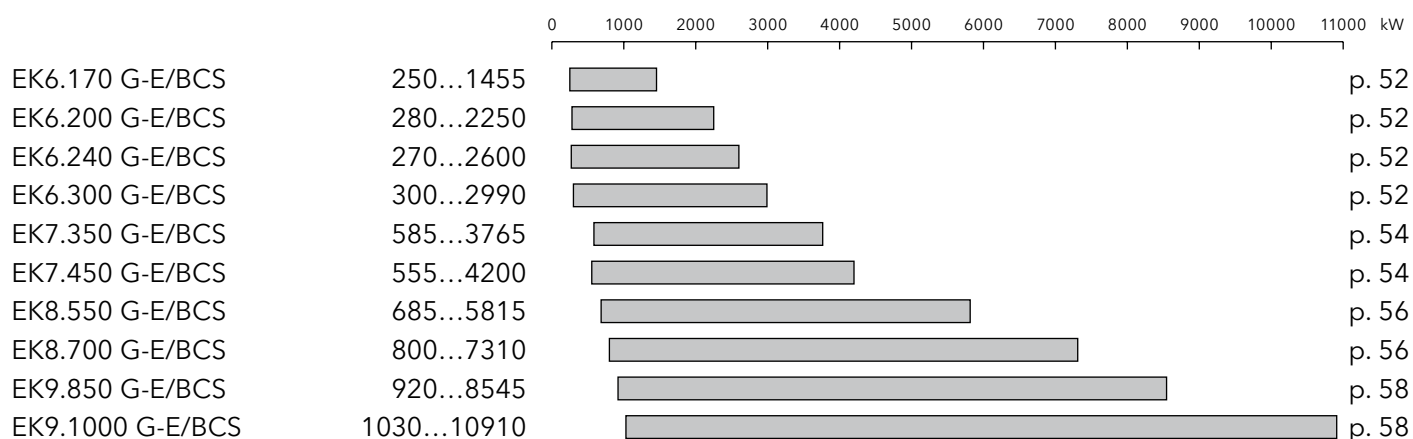
Two stage progressive mechanical Low NOx



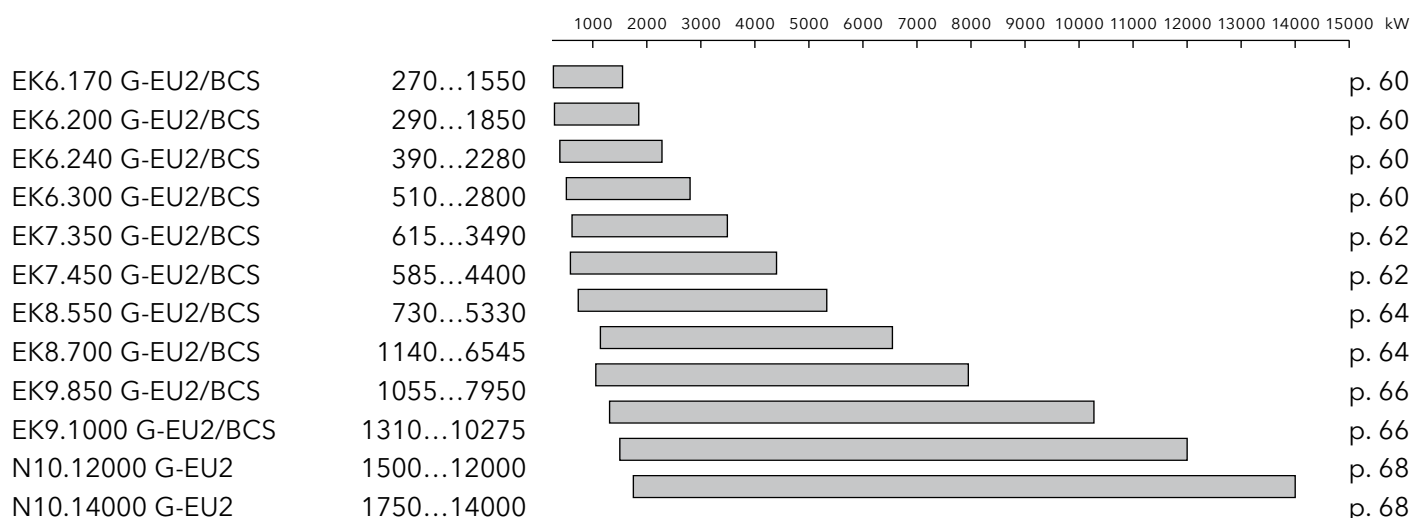
Two stage progressive pneumatic Low NOx



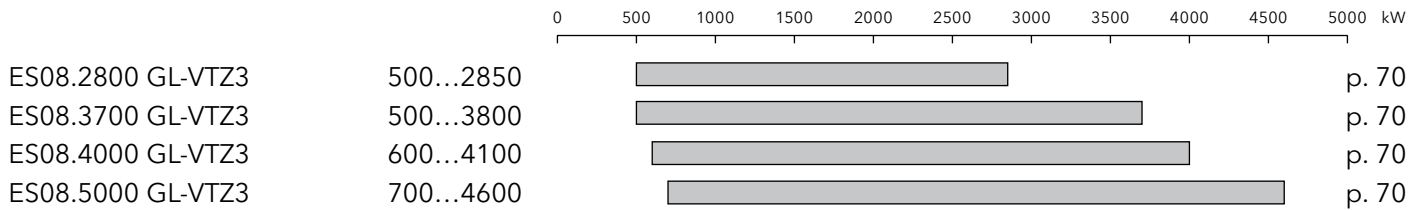
Two stage progressive electronic



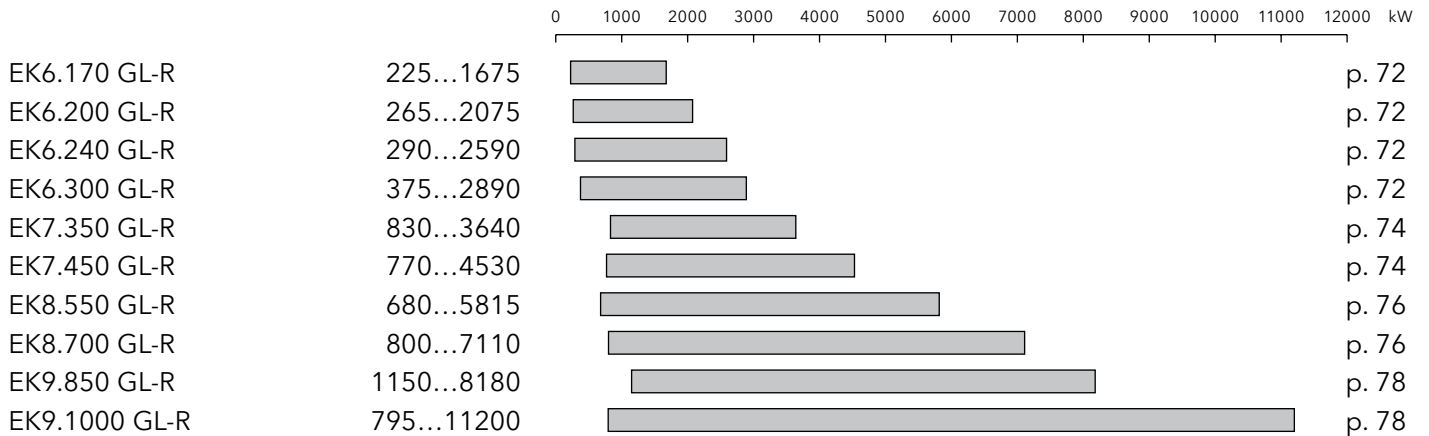
Two stage progressive electronic Low NOx



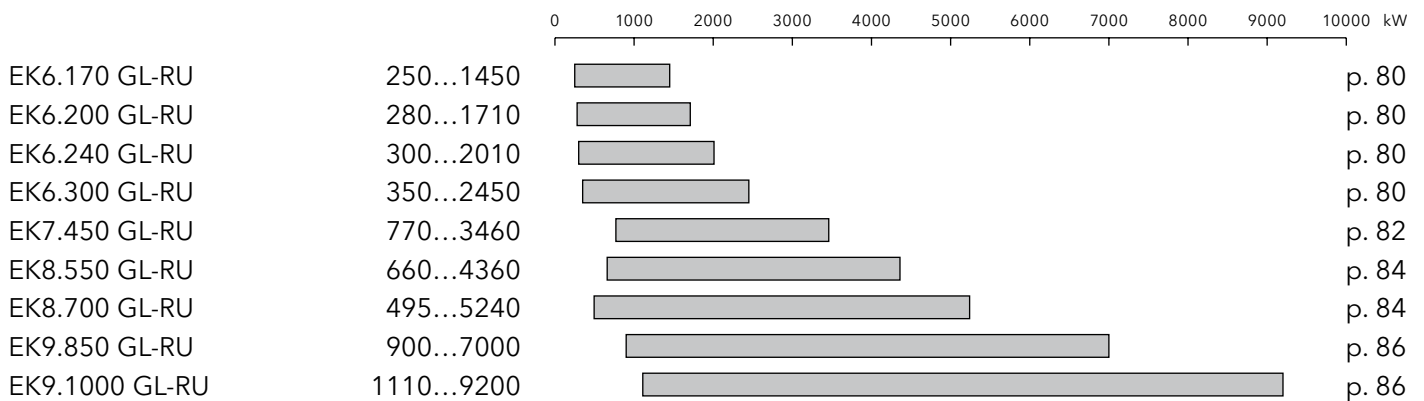
Two stage progressive pneumatic in gas / three stages in oil



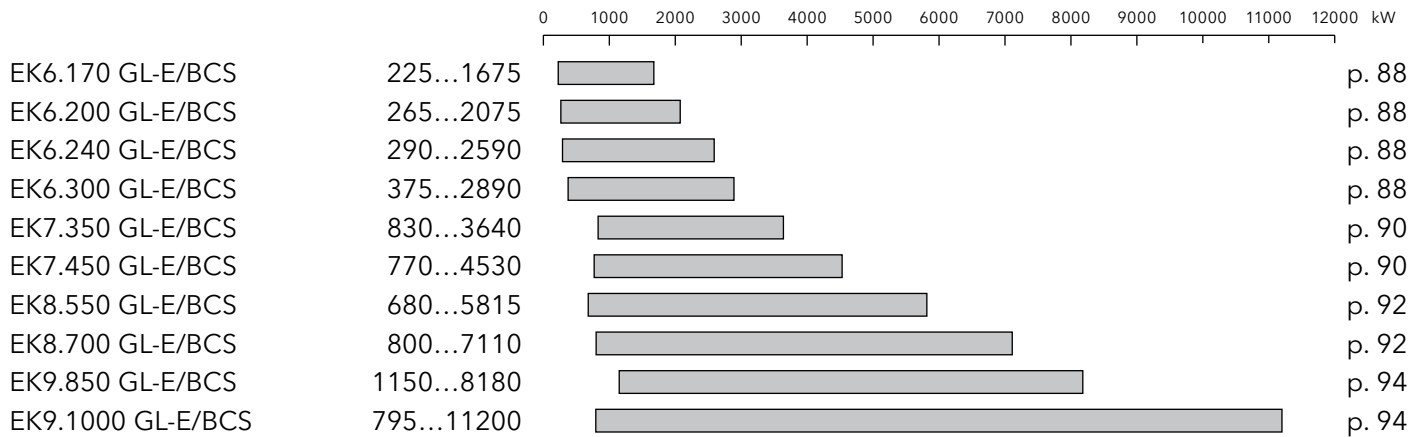
Two stage progressive mechanical



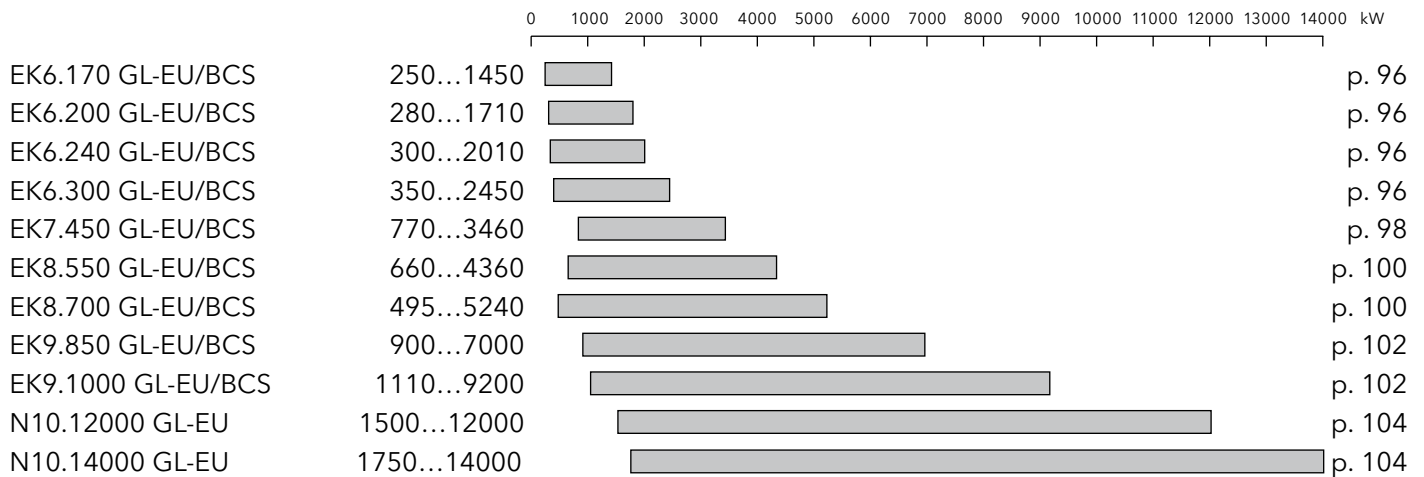
Two stage progressive mechanical Low NOx in gas



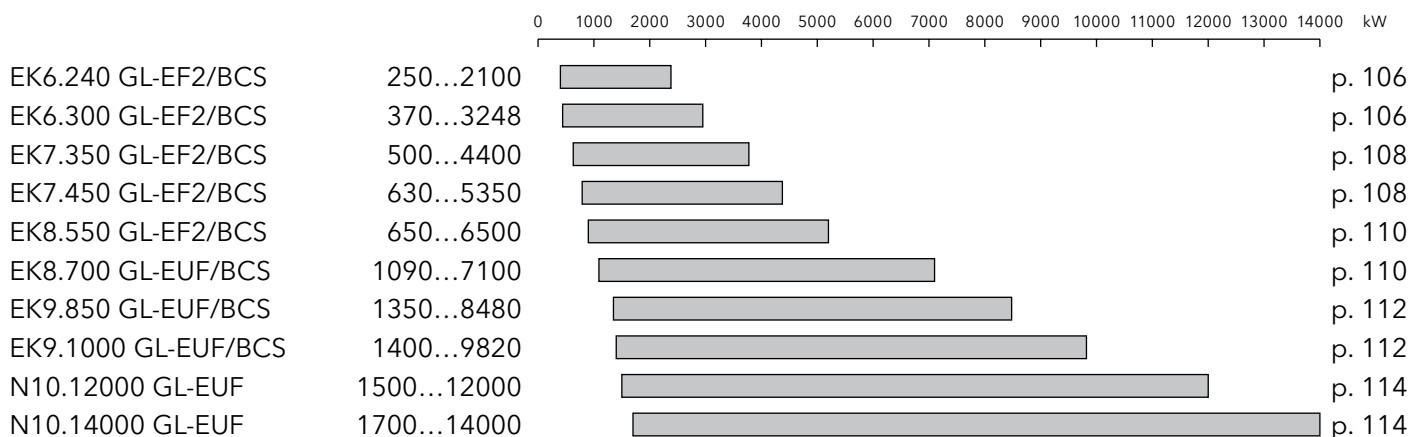
Two stage progressive electronic



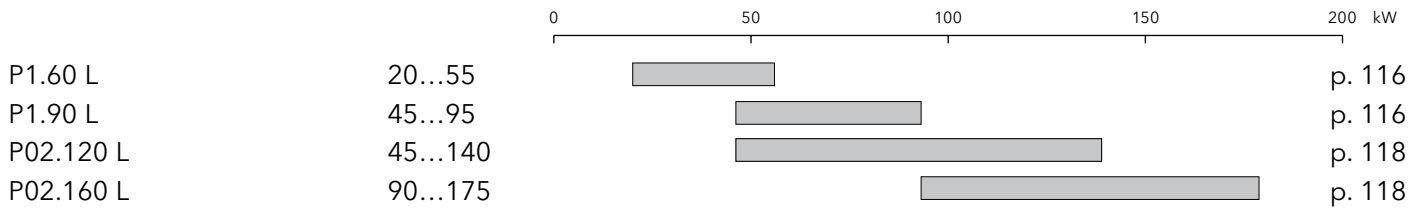
Two stage progressive electronic Low NOx in gas



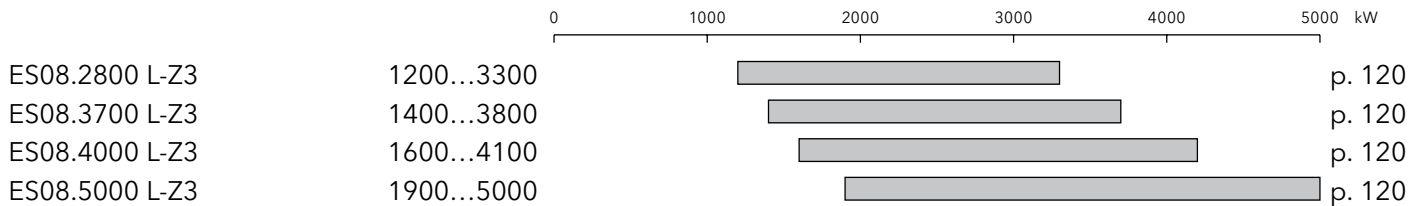
Two stage progressive electronic Low NOx in gas and in light oil



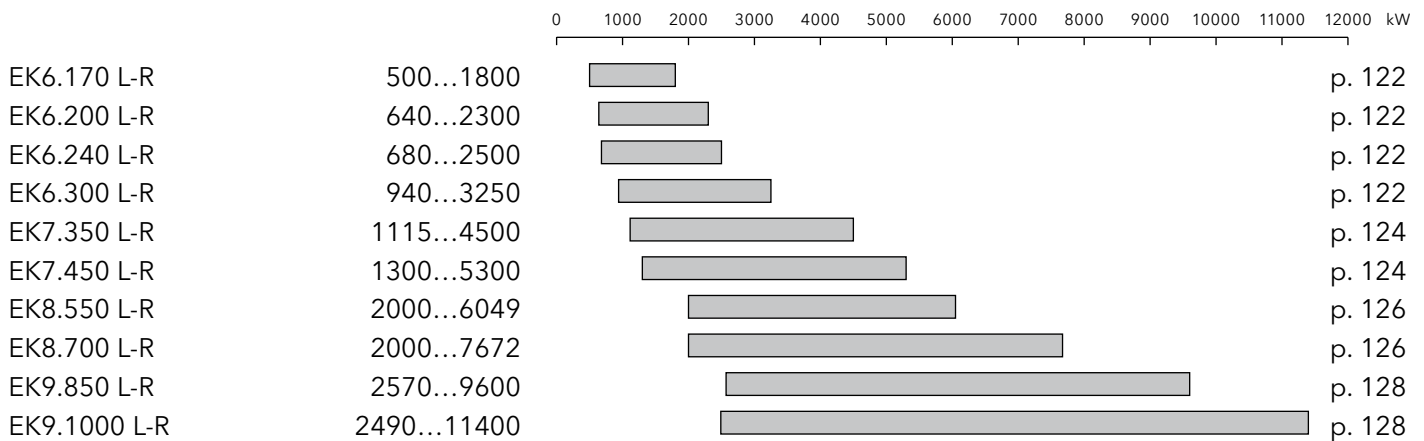
One stage



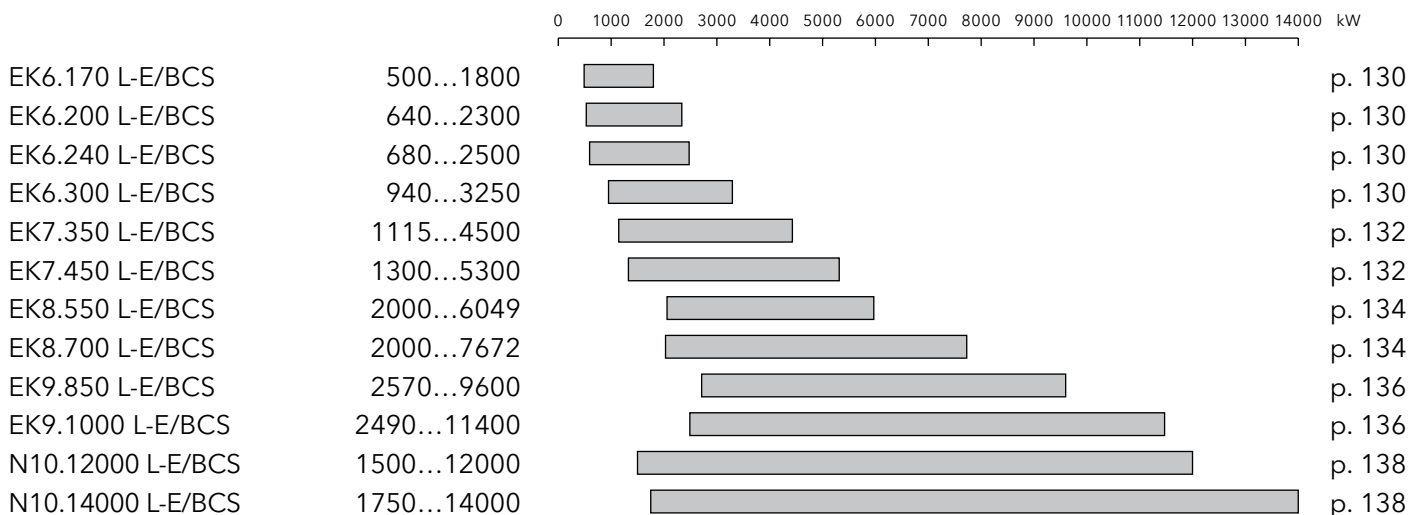
Three stages standard



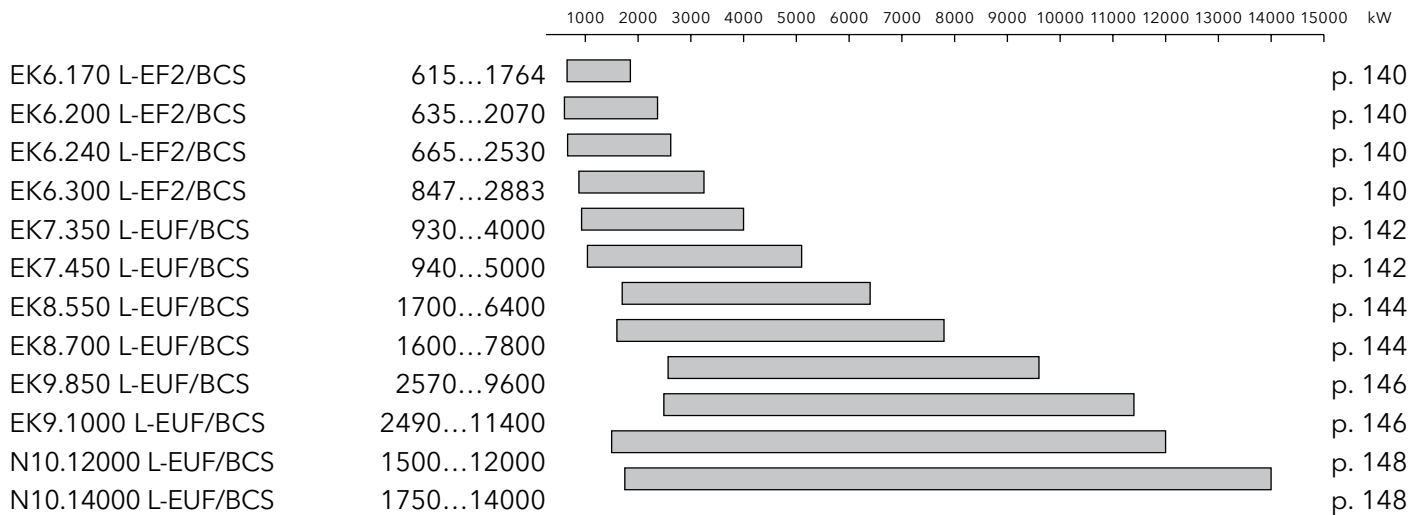
Two stage progressive mechanical standard

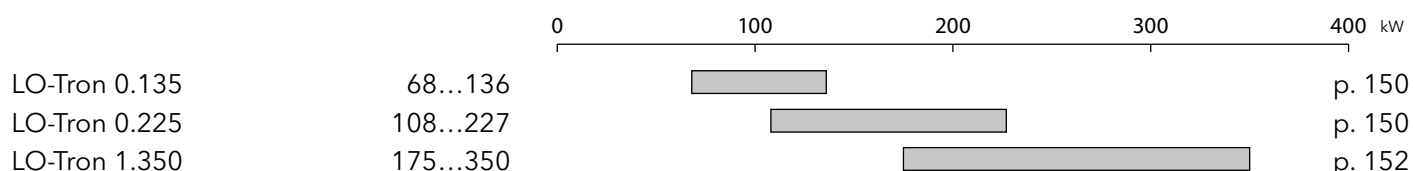
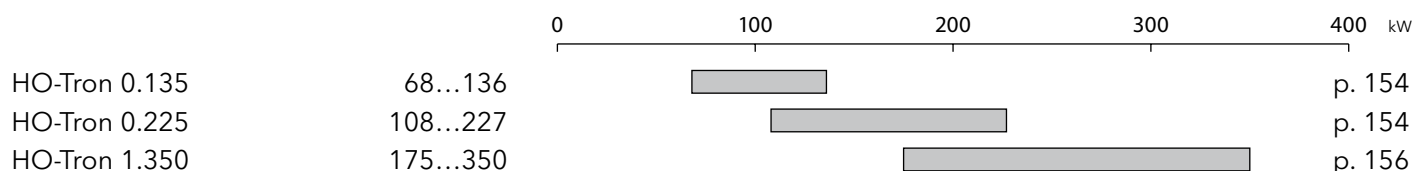
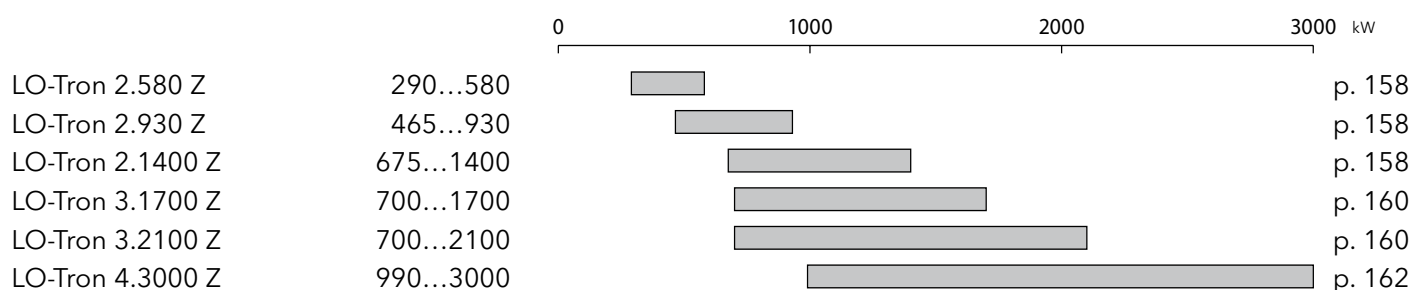
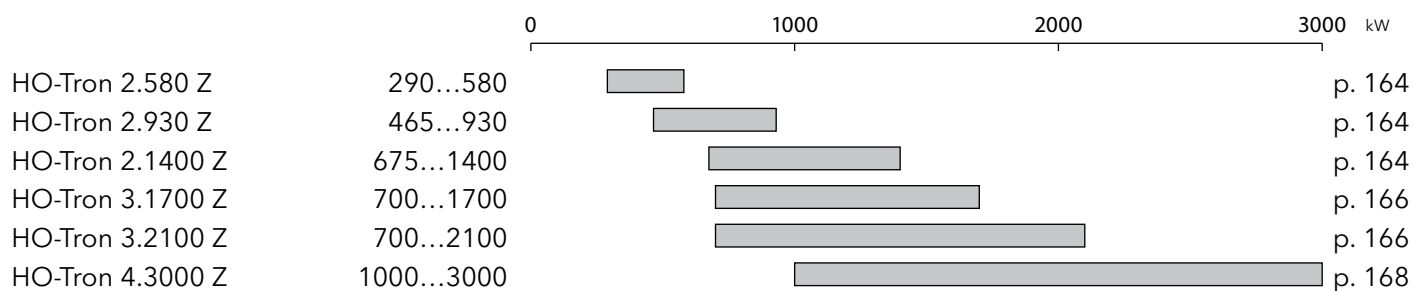
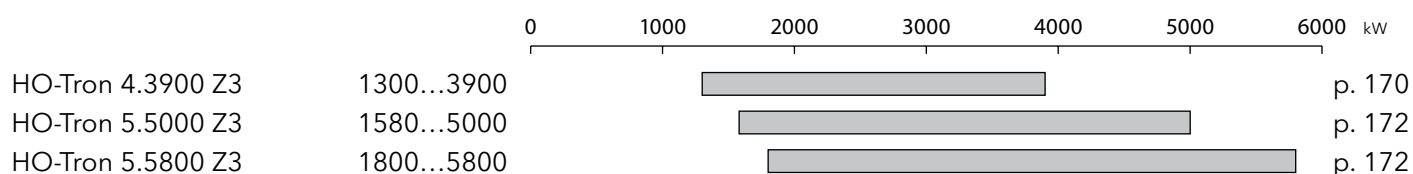


Two stage progressive electronic standard



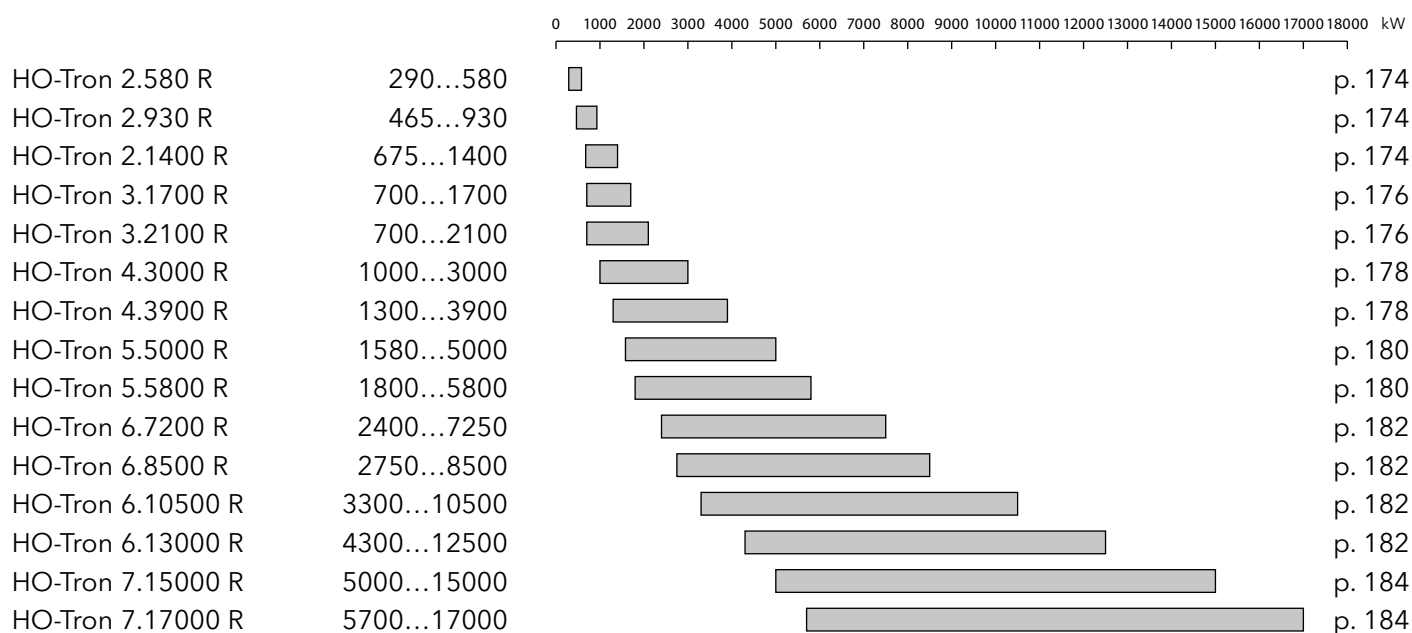
Two stage progressive electronic Low NOx



One stage (Heavy oil 15°E at 50°C)**One stage (Heavy oil 50°E at 50°C)****Two stages (Heavy oil 15°E at 50°C)****Two stages (Heavy oil 100°E at 50°C)****Three stages (Heavy oil 100°E at 50°C)**

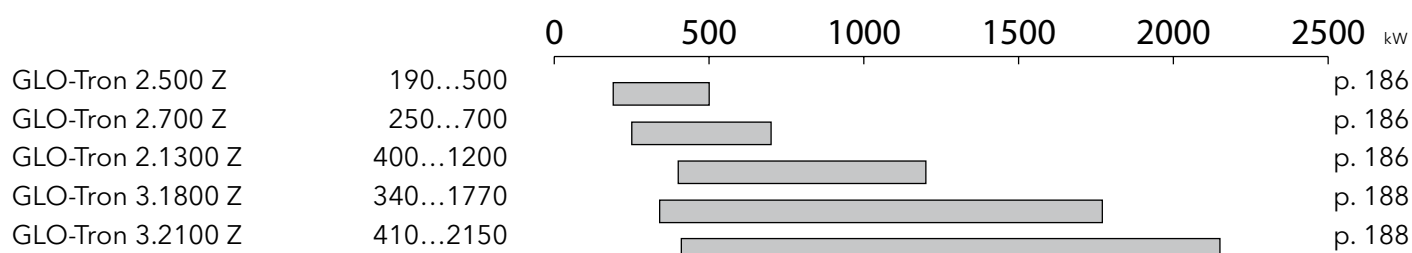
Index Heavy oil Monoblock

Two stage progressive mechanical (Heavy oil 100°E at 50°C)

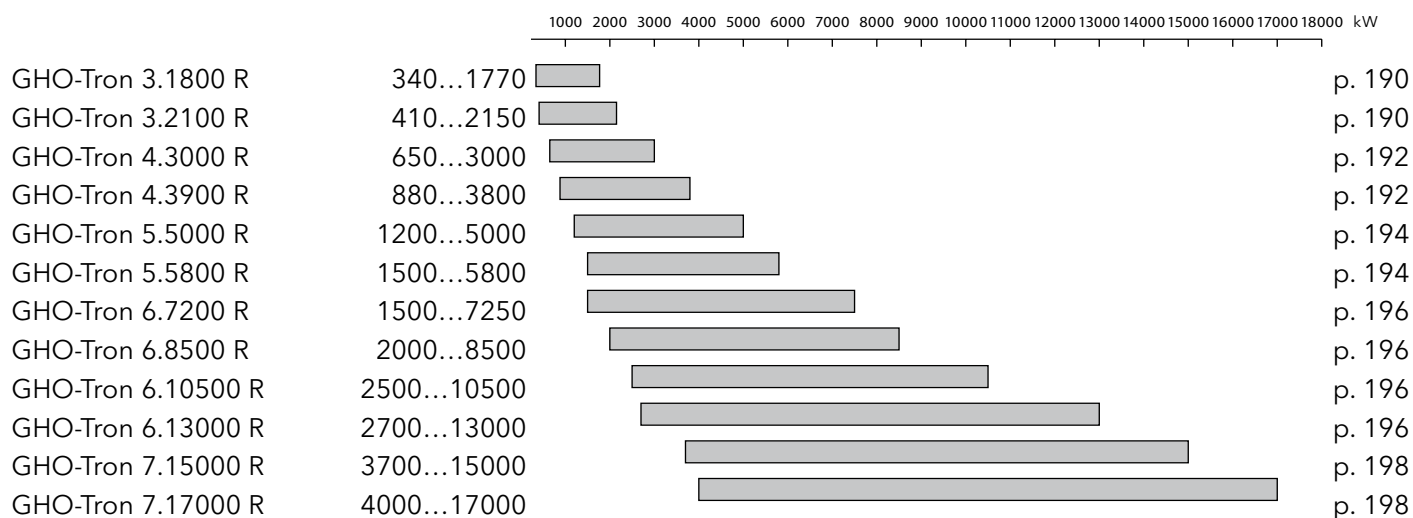


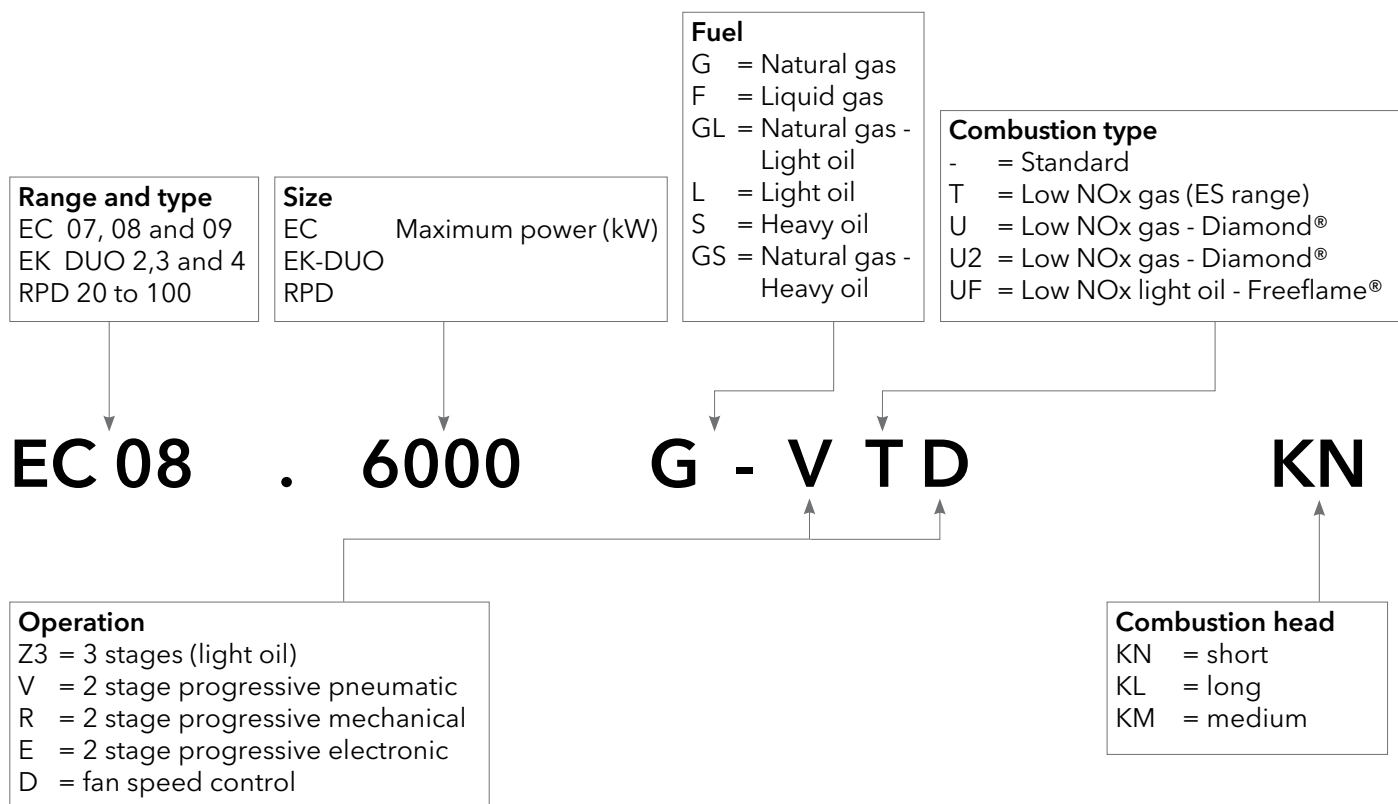
Index Dual Fuel heavy oil Monoblock

Two stages (Heavy oil 15°E at 50°C)

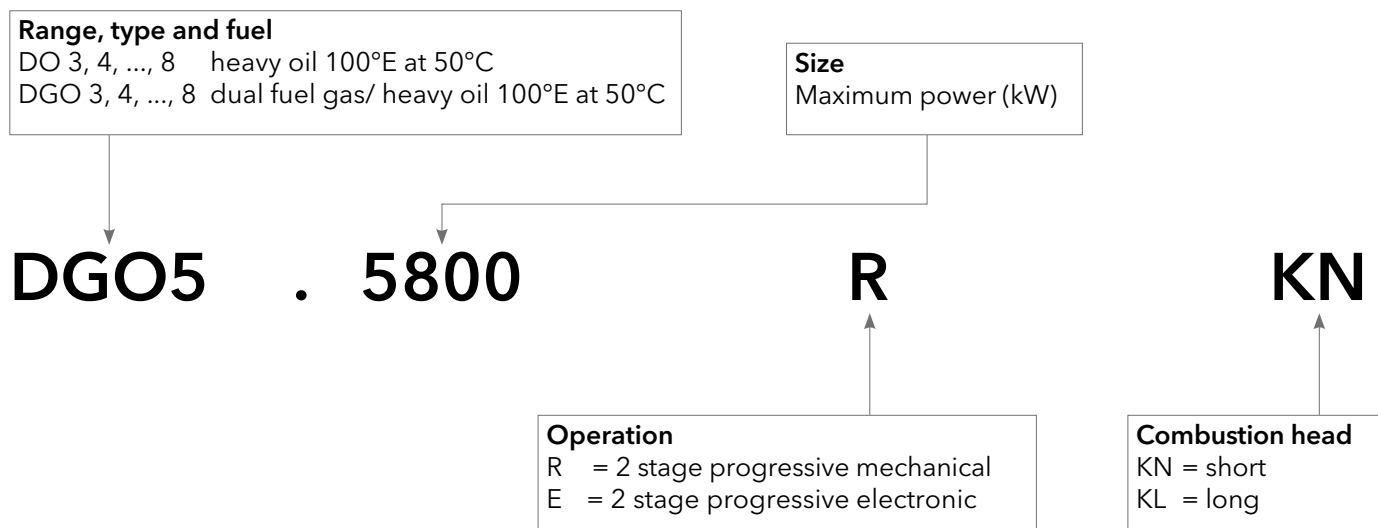


Two stage progressive mechanical (Heavy oil 100°E at 50°C)





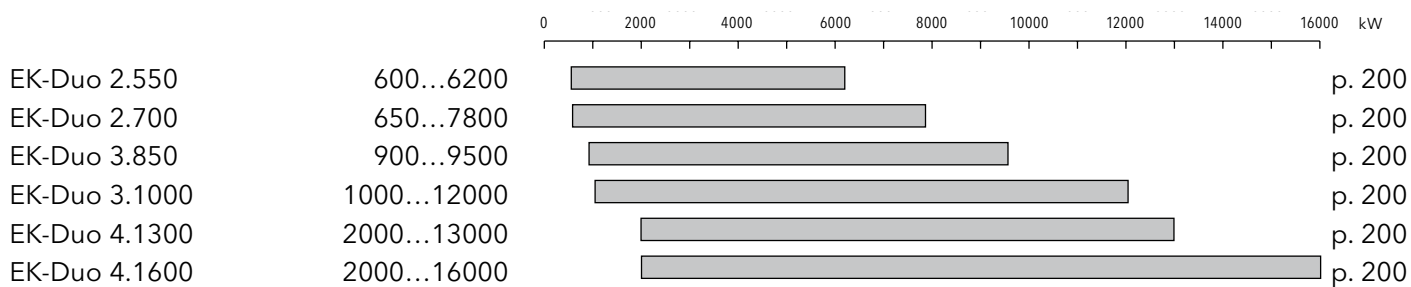
Designation of the Duoblock DO-Tron and DGO-Tron burners



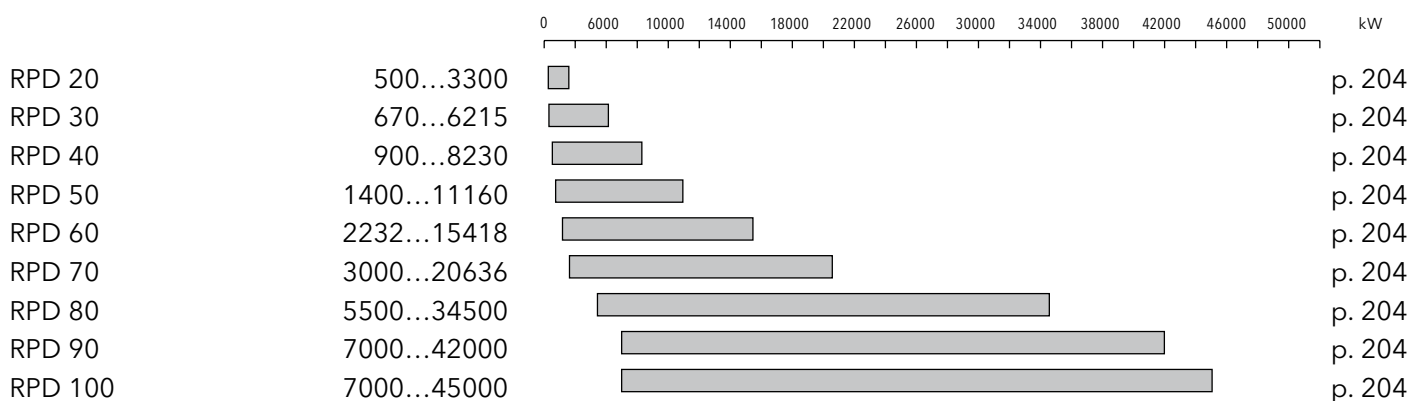
Description

p. 198

EK-Duo

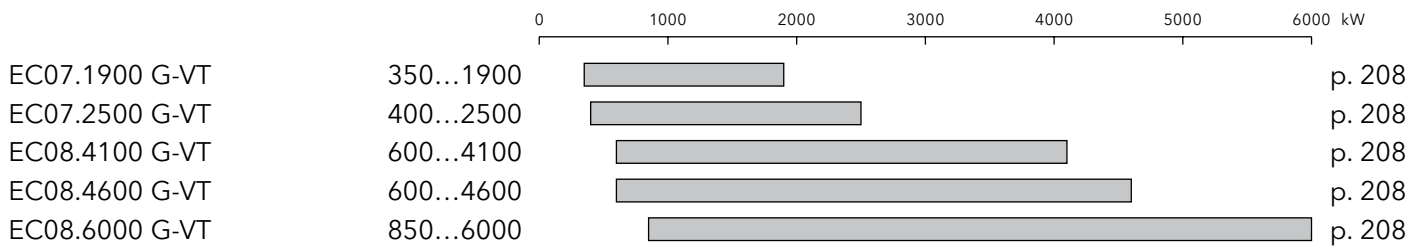


RPD

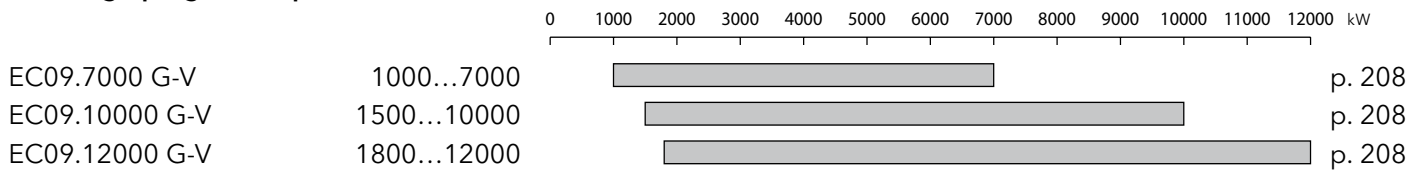


Index Gas Duoblock

Two stage progressive pneumatic Low NOx

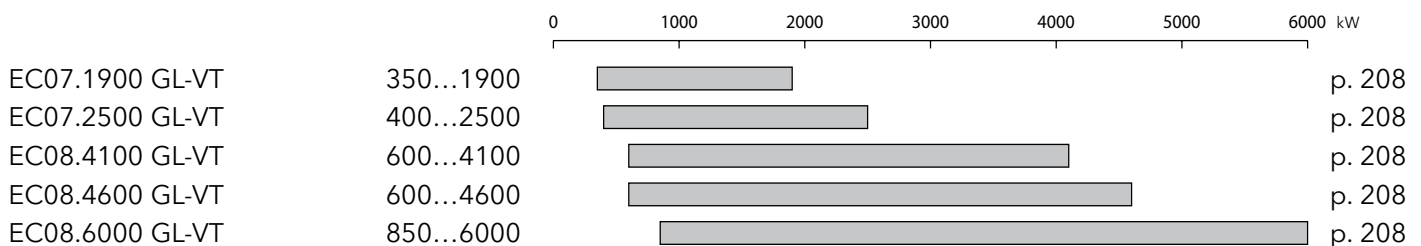


Two stage progressive pneumatic standard

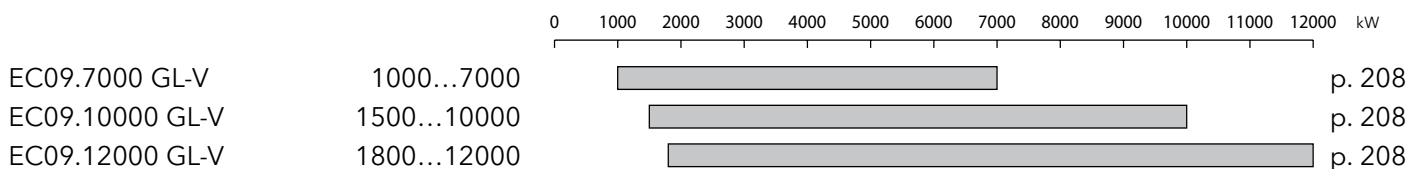


Index Dual fuel light oil Duoblock

Two stage progressive pneumatic in gas / three stages in oil

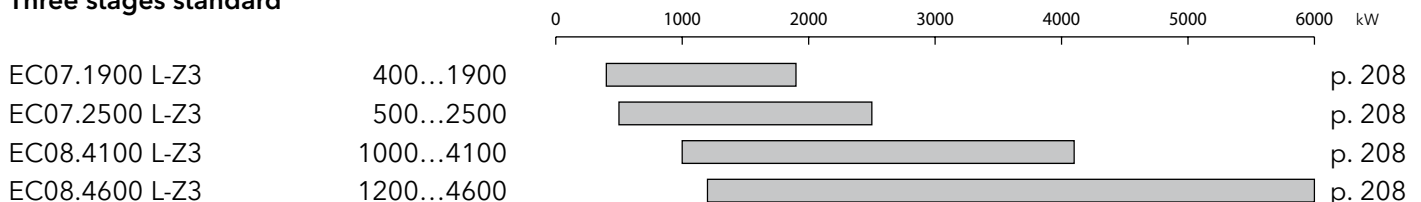


Two stage progressive pneumatic in gas / two stage progressive mechanical in oil

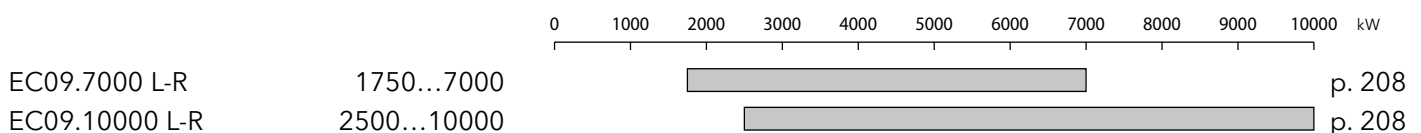


Index Light oil Duoblock

Three stages standard

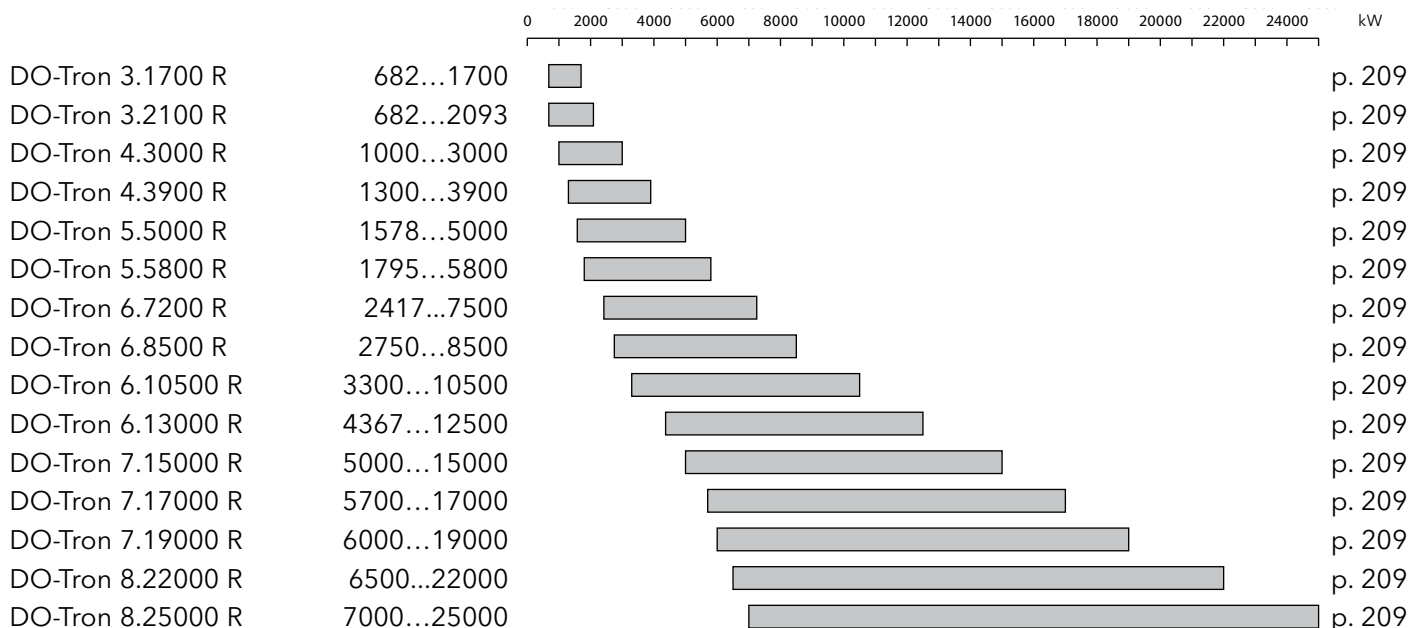


Two stage progressive mechanical standard



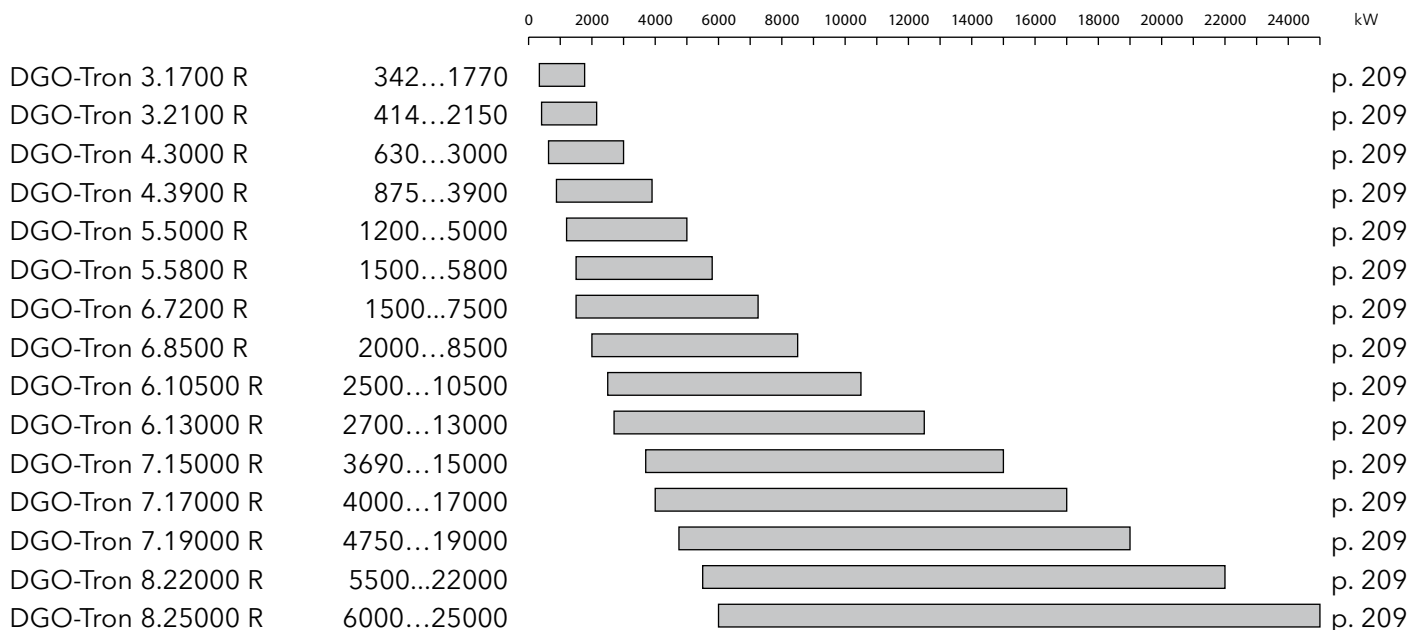
Index heavy oil Duoblock

Two stage progressive mechanical (Heavy oil 100°E at 50°C)



Index Dual fuel heavy oil Duoblock

Two stage progressive mechanical (Heavy oil 100°E at 50°C)



EC08 Gas trains

p. 210

ES08 gas train matching table

ES08 - EC Duoblock range configuration and options

Gas train VF2 - VG2

p. 218

VF2 - VG2 gas train description and selection chart for E K6-9 range

Gas train VGD

p. 222

VGD gas train description and related accessories

VGD gas train selection chart for EK6-9 - N10 range

Gas train for GLO/GHO/ DGO-Tron

p. 232

GLO/GHO/DGO-Tron gas train description and selection table

Gas options

p. 236

flanges, ball valves, lters

pressure regulators, connections, gas valve

antivibration coupling, elbow pipes, straight pipes

manometers, test burner, ow counters, spacers

seals-screw set, holders, exibles hose

Oil options

p. 242

valves groups type LBA...A, options, safety valve

oil ttings, manometers, leakage control, air valve

relief/pressure valves, welded ance, seals-screw set

ball valves, oil lters, light oil ow counter

heavy oil options

Other options

p. 248

Load controllers

Probes

Control unit BCS and probes

Control un it Etamatic and probes

Fan speed controllers - Variatron

Switch cabinets

Soundproof housing

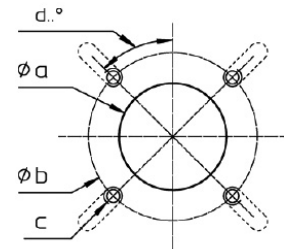
Questionnaire Burners

Description

- One stage forced draught burner for bakery oven and light industry process.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
- Maximum heat power: 55 and 90 kW.
- Adjustable combustion head length with sliding flange.
- Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Easy maintenance,
 - Limited number of tools and components,
 - Secured burner head adjustments,
- Quiet ventilation and reduced electrical consumption.
- Quick Start System®.
- Complete electrical equipment in the body of the burner with control panel.
- Single-phase electrical power supply 230V - 50Hz.
- Protection level IP 21.
- Maximum ambient air temperature 50°C.
- In compliance with the EN 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

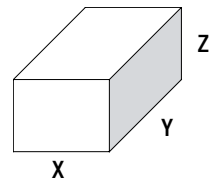
Type	Ø a (mm)	b (mm)	c	d
P 1.60 G	85 ... 104	150 ... 170	M8	45°
P 1.90 G	95 ... 104	150 ... 170	M8	45°



Packaging

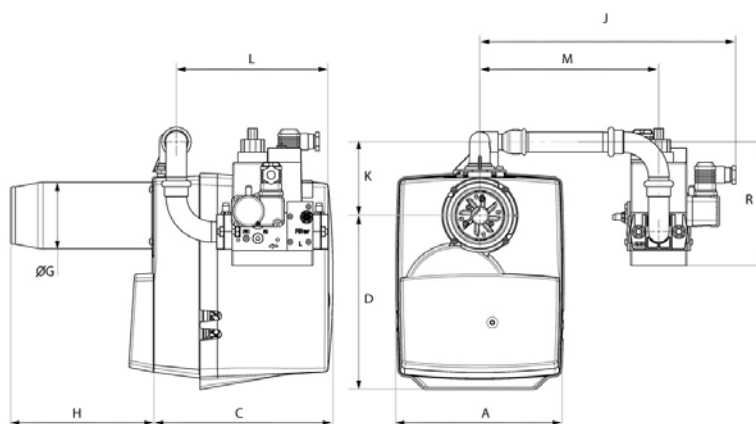
The complete burner with combustion head delivered in carton box with:

- Gas train and integrated filter,
- Boiler fixing accessories,
- Operating manual including electrical diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
P 1.60 G	260	300	640	12
P 1.90 G				13

Dimensions

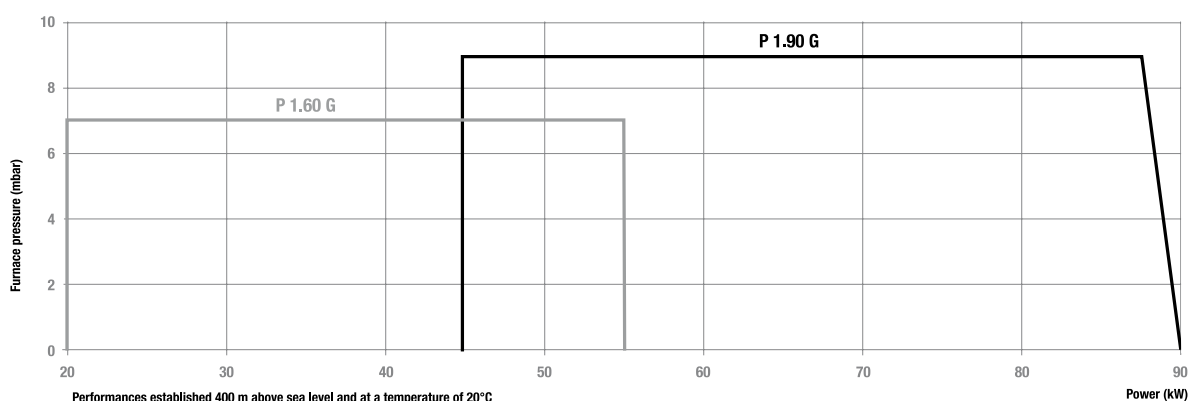


Type	Dimensions (mm)									
	A	C	D	ØG	H	J	K	L	M	R
P 1.60 G	229	297 ... 337	237	80	70 ... 110	243	95	209	200	132
P 1.90 G	229	300 ... 355	237	90	70 ... 138	349	95	195	244	168

Range: P 1.60 G, P 1.90 G
20 ... 90 kW
1 stage



Working fields



Characteristics and equipment

Type	Prottron 1.60 G	Prottron 1.90 G
Operating range	20 - 55 kW	45 - 90 kW
Natural gas flow	1,96 ... 5,40 m³/h	4,41 ... 8,82 m³/h
Control box	TCG 161.01 with display	
Fan Motor	2800 rpm - 230 V - 50 Hz - 85 W	
Gas train	VR4625AA - ½"	MBDLE 407 B01 S22 - ¾"
Complete burner code	3 833 006	3 833 007

Options

Counter face plate	13 018 495
--------------------	------------

Documentation

Operating manual	EN	4200 1017 9700
Spare parts list	EN	4200 1017 9800
Electrical and hydraulic diagrams	EN	4201 1000 1600

Basic spare parts

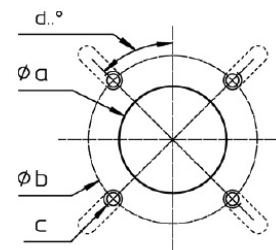
Ignition transformer		65 300 024
Ignition electrode		65 300 076
Baffle plate	P1.60 G	13 016 003
	P1.90 G	13 016 004
Control box		65 300 306
Flame detector		13 018 031

Description

- One stage forced draught burner for bakery oven and light industry process.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
- Maximum heat power: 130 and 180 kW.
- Adjustable combustion head length with sliding flange.
- Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Easy maintenance,
 - Limited number of tools and components,
 - Secured burner head adjustments,
- Quiet ventilation and reduced electrical consumption.
- Quick Start System®.
- Complete electrical equipment in the body of the burner with control panel.
- Single-phase electrical power supply 230V - 50Hz.
- Protection level IP 21.
- Maximum ambient air temperature 50°C.
- In compliance with the EN 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

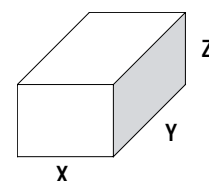
Ø a (mm)	b (mm)	c	d
120 ... 135	150 ... 180	M8	45°



Packaging

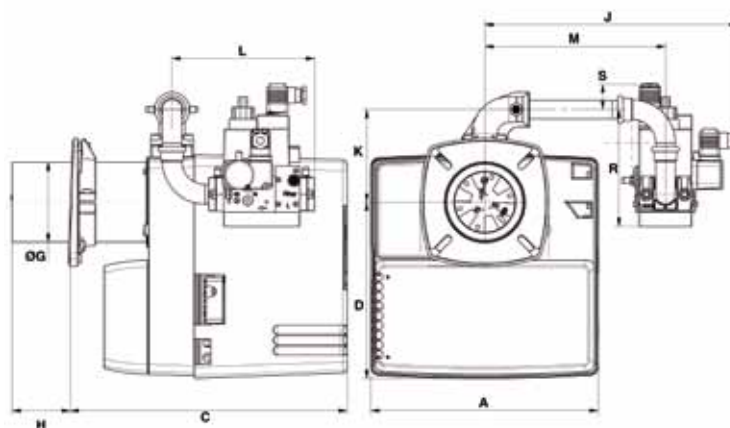
The complete burner with combustion head delivered in carton box with:

- Gas train and integrated filter,
- Boiler fixing accessories,
- Operating manual including electrical diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
P 02.120 G	400	400	760	20
P 02.160 G				23

Dimensions

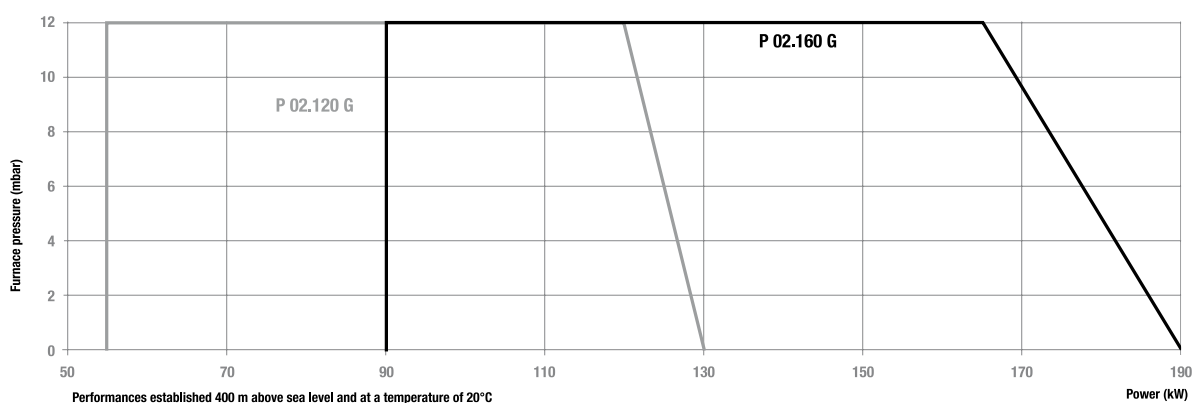


Type	Dimensions (mm)										
	A	C	D	ØG	H	J	K	L	M	R	S
P 02.120 G	327	365 ... 411	253	100	70 ... 270	365	133	205	260	168	17
P 02.160 G	327	365 ... 411	253	115	70 ... 270	365	133	365	260	168	17

Range: P 02.120 G, P 02.160 G
55 ... 180 kW
1 stage



Working fields



Characteristics and equipment

Type	Protron 02.120 G	Protron 02.160 G
Operating range	55 - 130 kW	90 - 180 kW
Natural gas flow	5,40 ... 12,75 m³/h	8,82 ... 17,64 m³/h
Control box	TCG 131.01	
Fan Motor	2800 rpm - 230 V - 50 Hz - 160 W	
Gas train	MBDLE 407 B01 S22 - 3/4"	
Complete burner code	3 833 008	3 833 009

Options

Counter face plate	13 018 496
--------------------	------------

Documentation

Operating manual	EN	4200 1018 0000
Spare parts list	EN	4200 1018 0100
Electrical and hydraulic diagrams	EN	4201 1000 0400

Basic spare parts

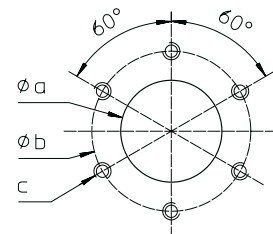
Ignition transformer	13 009 663
Ignition electrode	65 300 076
Baffle plate	P02.120 G 65 300 320
	P02.160 G 65 300 320
Control box	65 300 319
Flame detector	13 018 031

Description

- Two-stage progressive pneumatic low-NOx class 3 forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
- Maximum heat power: 2 850, 3 700, 4 100 and 4 600 kW.
- Minimum / maximum power ratio: 1/4.
- Air / gas ratio with pneumatic control technology.
- Two combustion head lengths.
- Escargot type architecture:
 - Optimal accessibility,
 - Easy maintenance,
 - Secured burner head adjustments.
- Closing of the air flap on burner shut-down.
- Gas train factory assembled and tested for tightness and electrical security.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP 51.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

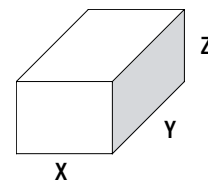
Ø a (mm)	b (mm)	c	d
360	430	M12	60°



Packaging

The complete burner with combustion head film-wrapped on a pallet with:

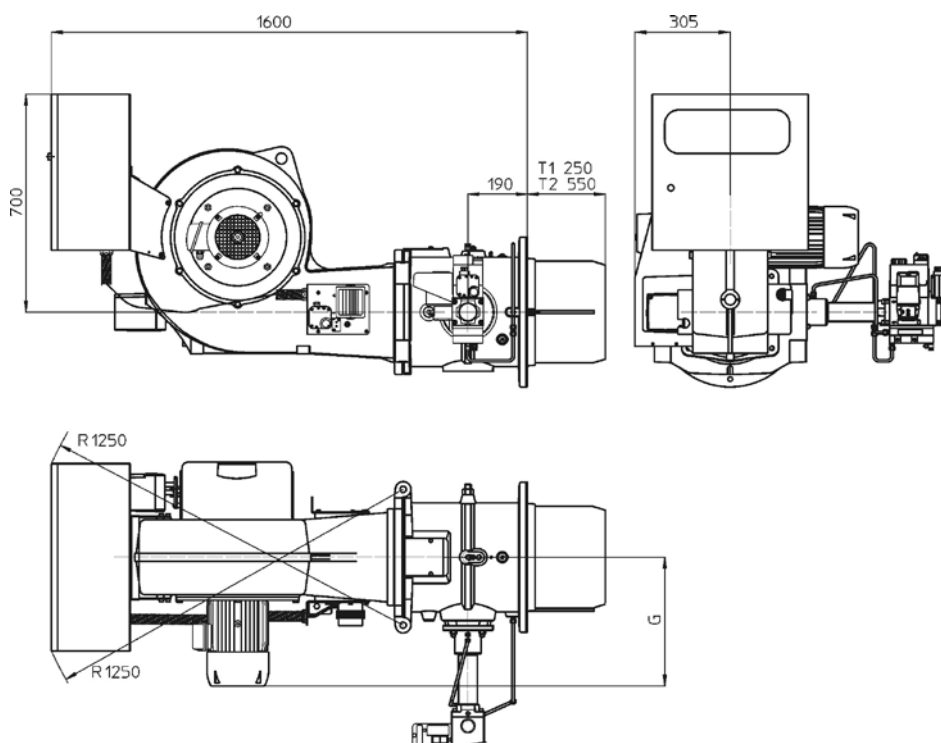
- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



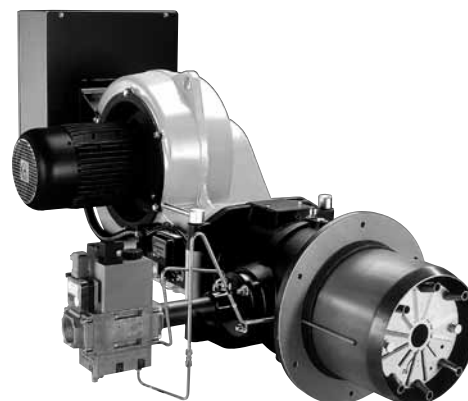
	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
Body	132	122	95	178 ... 204
Combustion heads KL	108	55	50	110 ... 112
KN	108	55	50	101

Dimensions

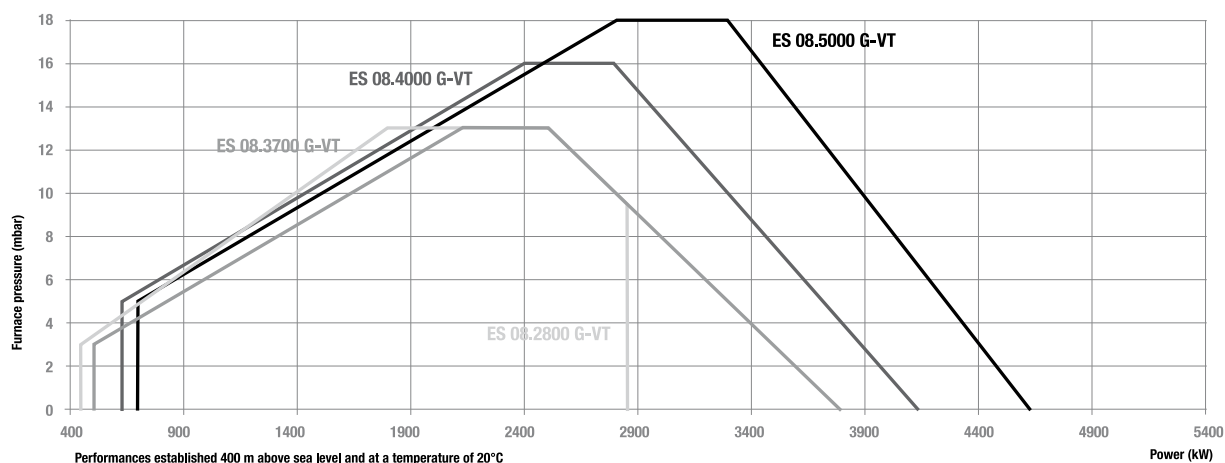
Type	Cote G (mm)
ES 08.2800 G-VT d1,1/4-Rp2	395
ES 08.3700 G-VT S80-DN80	395
ES 08.3700 G-VT S65-DN65	395
ES 08.3700 G-VT d2-Rp2	395
ES 08.4000 G-VT S65-DN65	425
ES 08.4000 G-VT d2-Rp2	425
ES 08.5000 G-VT S65-DN65	480
ES 08.5000 G-VT d2-Rp2	480



Range: ES 08.2800 G-VT, ES 08.3700 G-VT,
ES 08.4000 G-VT, ES 08.5000 G-VT
500 ... 4 600 kW
2 stage progressive pneumatic
Low NOx



Working fields



Characteristics and equipment

Type	ES 08.2800 G-VT		ES 08.3700 G-VT		ES 08.4000 G-VT		ES 08.5000 G-VT	
Operating range	500 - 2850 kW		500 - 3800 kW		600 - 4100 kW		700 - 4600 kW	
Natural gas flow	49 ... 279 m³/h		49 ... 363 m³/h		59 ... 392 m³/h		69 ... 450 m³/h	
Gas train	According to gas pressure and requested power							
Control box	LFL 1.333							
Fan Motor	2800 rpm - 230/400 V 50 Hz - 4 kW		2800 rpm - 230/400 V 50 Hz - 4 kW		2800 rpm - 230/400 V 50 Hz - 5,5 kW		2800 rpm - 230/400 V 50 Hz - 11 kW	
Noise level (dB)	85,14		85,14		86,96		88,47	
	KN	KL	KN	KL	KN	KL	KN	KL
Complete burner code								
s80-DN80	-	-	on request	on request	on request	on request	on request	on request
s65-DN65	-	-	on request	on request	on request	on request	on request	on request
d2-Rp2	-	-	on request	on request	on request	on request	on request	on request
d1,1/4-Rp2	on request	on request	-	-	-	-	-	-

Options

Counter face plate	13 018 500
Speed-controller	4TT 3 832 694
	5,5TT 3 832 695
	11TT 3 832 697

Basic spare parts

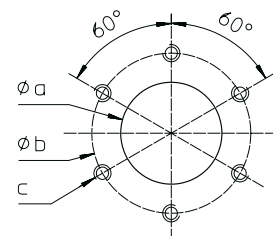
Ignition transformer	13 016 677
Ignition electrode	13 015 856
Baffle plate	ES 08.2800 G-VT 13 015 792
	ES 08.3700 G-VT 13 015 792
	ES 08.4000 G-VT 13 015 789
	ES 08.5000 G-VT 13 015 789
Control box	13 016 388
Flame detector	13 016 581

Description

- Two-stage progressive pneumatic low-NOx class 3 forced draught burner with speed control.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, propane, net calorific value 25,89 kWh/m³.
- Maximum heat power: 5 200 kW.
- Minimum / maximum power ratio: 1/8.
- Air / gas ratio with pneumatic control technology.
- Two combustion head lengths.
- Escargot type architecture:
 - Optimal accessibility,
 - Easy maintenance,
 - Secured burner head adjustments.
- Closing of the air flap on burner shut-down.
- Gas train factory assembled and tested for tightness and electrical security.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Speed controller mounted beside the switch cabinet.
- Three-phase electrical power supply.
- Protection level IP 51.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

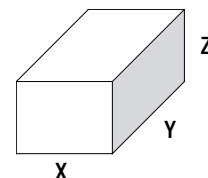
Ø a (mm)	b (mm)	c	d
360	430	M12	60°



Packaging

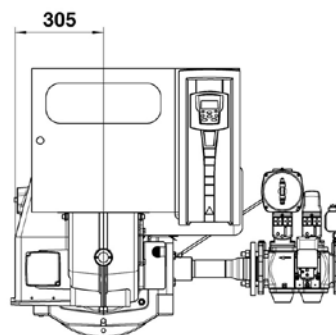
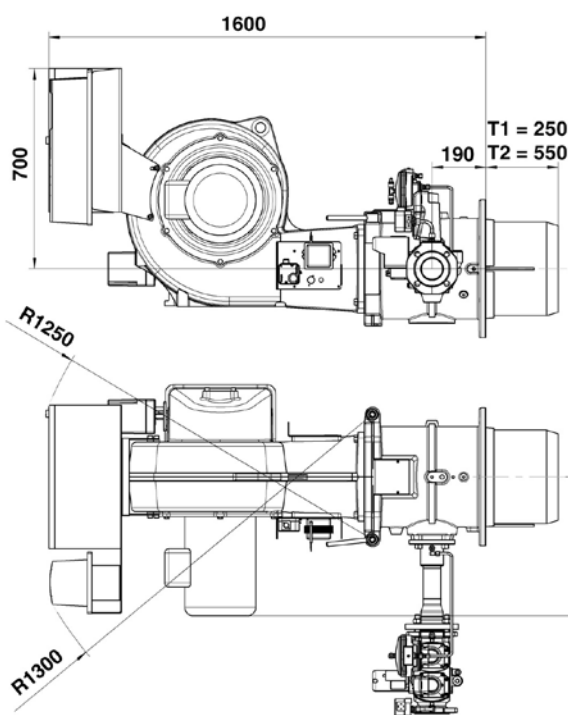
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
Body	132	122	95	178 ... 204
Combustion heads KL	108	55	50	110 ... 112
KN	108	55	50	101

Dimensions



Type	Cote G (mm)
ES 08.5200 G-VTD S65-DN65	480
ES 08.5200 G-VTD d2-Rp2	480

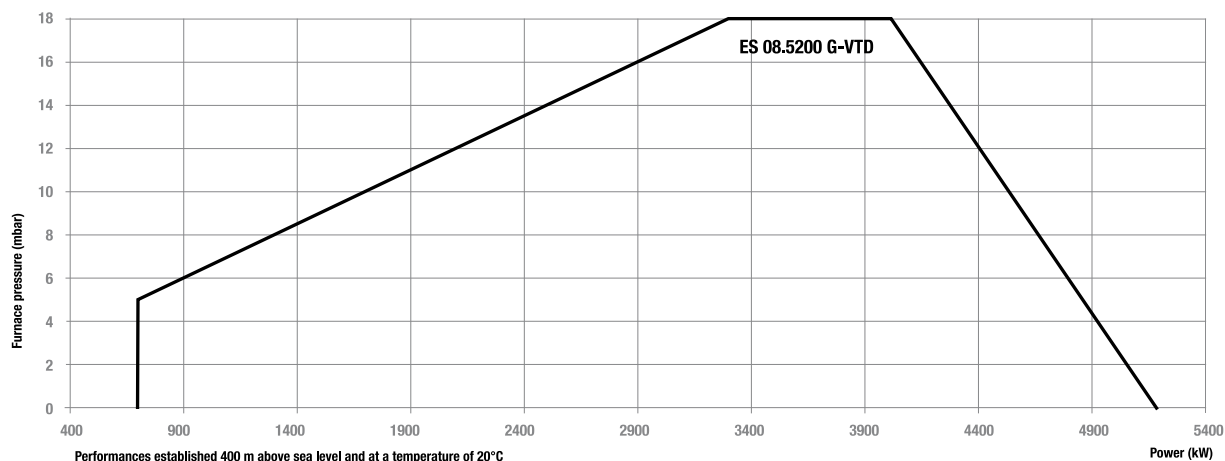
Range: ES 08.5200 G-VTD

700 ... 5200 kW

2 stage progressive pneumatic + fan speed control

Low NOx

Working field



Characteristics and equipment

Type	ES 08.5200 G-VTD	
Operating range	500 - 5200 kW	
Natural gas flow	49 ... 279 m³/h	
Gas train	According to gas pressure and requested power	
Control box	LFL 1.333	
Fan Motor	2800 rpm - 230/400 V - 50 Hz - 11 kW	
Noise level (dB)	93,1	
	KN	KL
Complete burner code s65-DN65	on request	on request
d2-Rp2	on request	on request

Options

Counter face plate	13 018 500
--------------------	------------

Basic spare parts

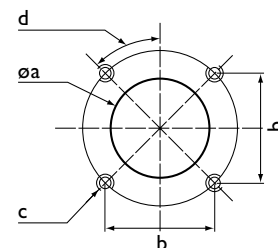
Ignition transformer	13 016 677
Ignition electrode	13 015 856
Baffle plate	ES 08.5200 G-VTD 13 015 789
Control box	13 016 388
Flame detector	13 016 581

Description

- Two-stage progressive mechanical forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 1 455, 2 250, 2 600 and 2 990 kW.
- Minimum / maximum power ratio: 1/5.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

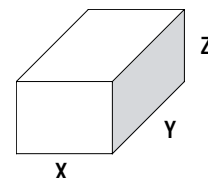
Ø a (mm)	b (mm)	c	d
170/300	240	M20	45°
240/300/350	240	M20	45°



Packaging

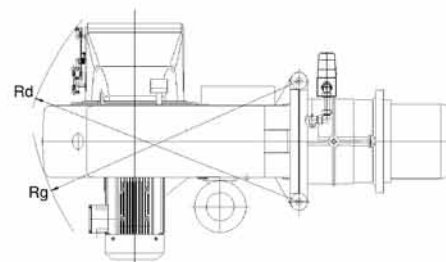
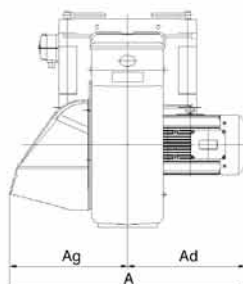
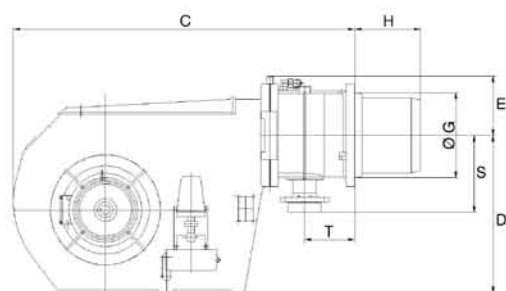
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 6.170/200 G-R	1300 ... 1600	1700	870	150 ... 190
EK 6.240/300 G-R	1450 ... 1750	1770	870	160 ... 200
EK 6.350 G-R	1450 ... 1750	1770	870	160 ... 200

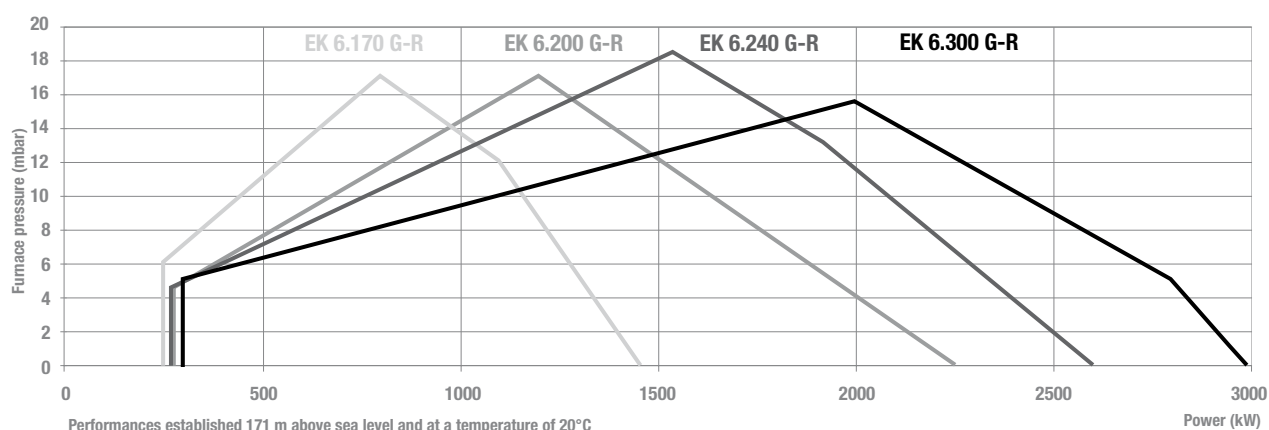
Dimensions



Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	H	Rd	Rg	S	T		
							KN	KM	KL					
EK 6.170 G-R	720	385	335	1180	523	197	242	230	330	430	937	937	260	141
EK 6.200 G-R														
EK 6.240 G-R	840	405	435											
EK 6.300 G-R														
EK 6.350 G-R														

**Range: EK 6.170 G-R, EK 6.200 G-R,
EK 6.240 G-R, EK 6.300 G-R , EK 6.350 G-R
250 ... 2990 kW
2 stage progressive mechanical
Natural gas**

Working fields



Characteristics and equipment

Type	EK 6.170 G-R	EK 6.200 G-R	EK 6.240 G-R	EK 6.300 G-R	EK 6.350 G-R
Operating range	250 - 1455 kW	280 - 2250 kW	270 - 2600 kW	300 - 2990 kW	330 - 3616 kW
Control box / flame detector	LFL 1.333/QRA 2				
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 3 kW		2800 rpm - 400/690 V - 50 Hz - 4 kW		
Emission grade (according to EN 676)	Class 2				
CE certificate	0085AQ 0779				N.A.
Complete burner code	1 006 244	1 006 255	1 006 266	1 006 277	
Gas train	refer to “Gas train” chapter				

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 953
	20 ... 30 dB(A)	1 148 747 759
Steam equipment (TRD)		1 011 732
Others	see chapter "Options"	

Documentation

Operating manual	EN	102 884 5807
Spare parts list	EN	EK 6.170 G-R
		EK 6.200 G-R
		EK 6.240 G-R
		EK 6.300 G-R
Electrical diagram	EN	170 884 8011

Basic spare parts

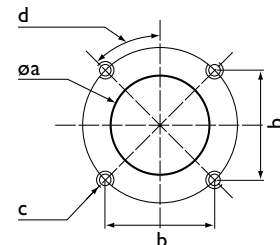
Ignition transformer		173 873 4223
Ignition electrode		172 874 2005
Baffle plate (kit)	EK 6.170 G-R	161 878 9886
	EK 6.200 G-R	161 878 9897
	EK 6.240 G-R	161 878 9900
	EK 6.300 G-R	161 878 9911
Control box		13 011 763
Flame detector		13 012 980

Description

- Two-stage progressive mechanical forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 3 765 and 4 200 kW.
- Minimum / maximum power ratio: 1/5.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

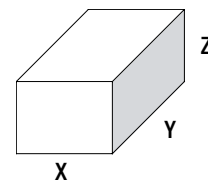
Ø a (mm)	b (mm)	c	d
350	320	M20	45°



Packaging

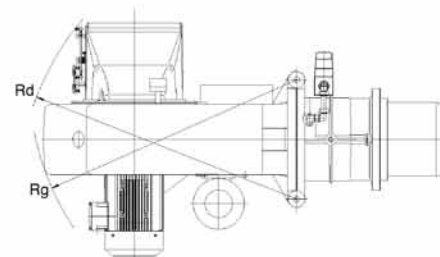
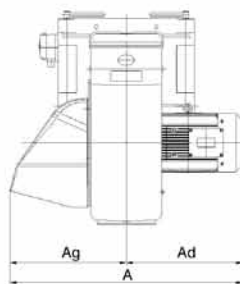
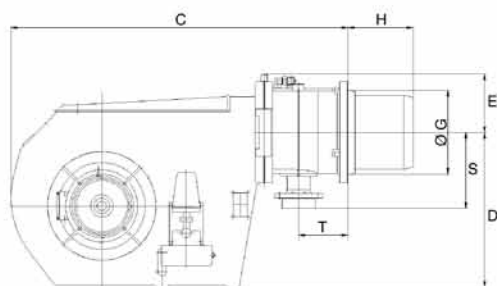
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 7.350 G-R	1550 ... 1850	1900	1050	270 ... 290
EK 7.450 G-R				280 ... 300

Dimensions



Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	H	Rd	Rg	S	T		
								KN	KM	KL				
EK 7.350 G-R	936	452	484	1400	642	258	350	270	370	470	1160	1115	315	206
EK 7.450 G-R														

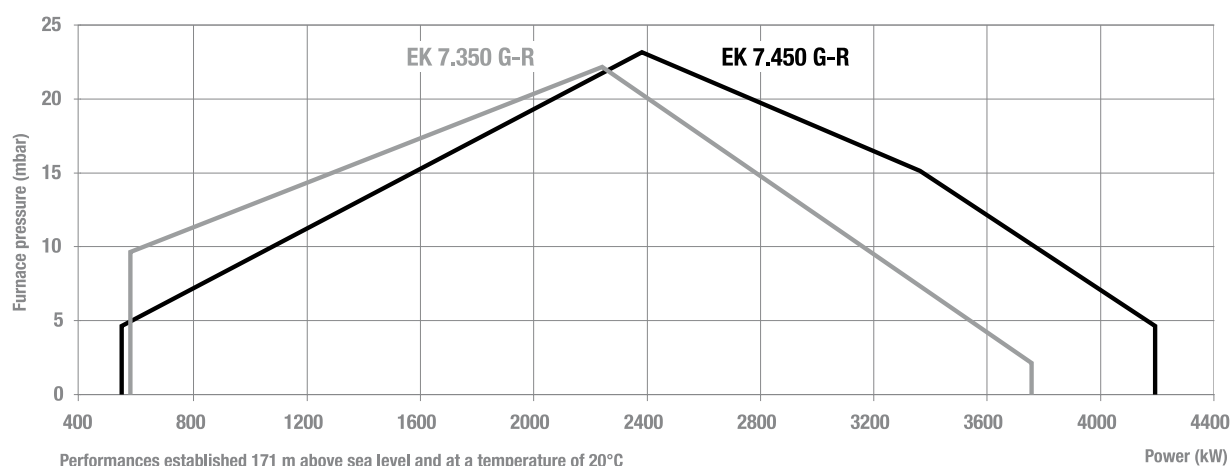
Range: EK 7.350 G-R, EK 7.450 G-R

555 ... 4200 kW

2 stage progressive mechanical

Natural gas

Working fields



Characteristics and equipment

Type	EK 7.350 G-R	EK 7.450 G-R
Operating range	585 - 3765 kW	555 - 4200 kW
Control box / flame detector	LFL 1.333/QRA 2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 5,5 kW	2800 rpm - 400/690 V - 50 Hz - 7,5 kW
Emission grade (according to EN 676)	Class 2	
CE certificate	0085AQ0779	
Complete burner code	1 011 550	1 011 561
Gas train	refer to "Gas train" chapter	

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 964
	20 ... 30 dB(A)	1 148 747 760
Steam equipment (TRD)		1 011 765
Others	see chapter "Options"	

Documentation

Operating manual	EN	102 884 5807
Spare parts list	EN	102 884 7007
		102 884 0544
Electrical and hydraulic diagrams	EN	

Basic spare parts

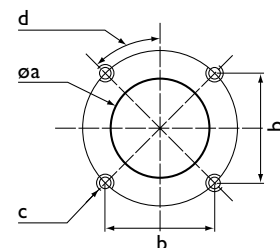
Ignition transformer		173 873 3651
Ignition electrode		172 874 2005
Baffle plate (kit)	EK 4.350	161 868 9889
	EK 7.450	161 879 5742
Control box		13 011 763
Flame detector		13 012 763

Description

- Two-stage progressive mechanical forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 5 815 and 7 310 kW.
- Minimum / maximum power ratio: 1/5.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

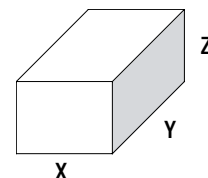
Ø a (mm)	b (mm)	c	d
400	360	M20	45°



Packaging

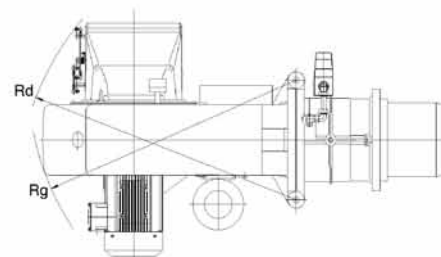
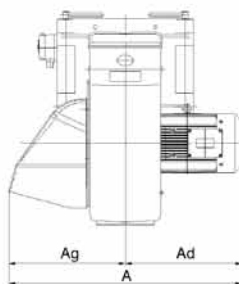
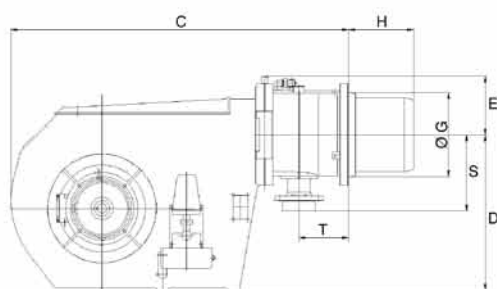
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 8.550 G-R	1750 ... 2080	2000	1090	340 ... 390
EK 8.700 G-R				370 ... 420

Dimensions



Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	H	Rd	Rg	S	T		
								KN	KM	KL				
EK 8.550 G-R	1051	555	496	1490	638	265	389	310	410	510	1205	1177	348	203
EK 8.700 G-R	1063		508								1265			

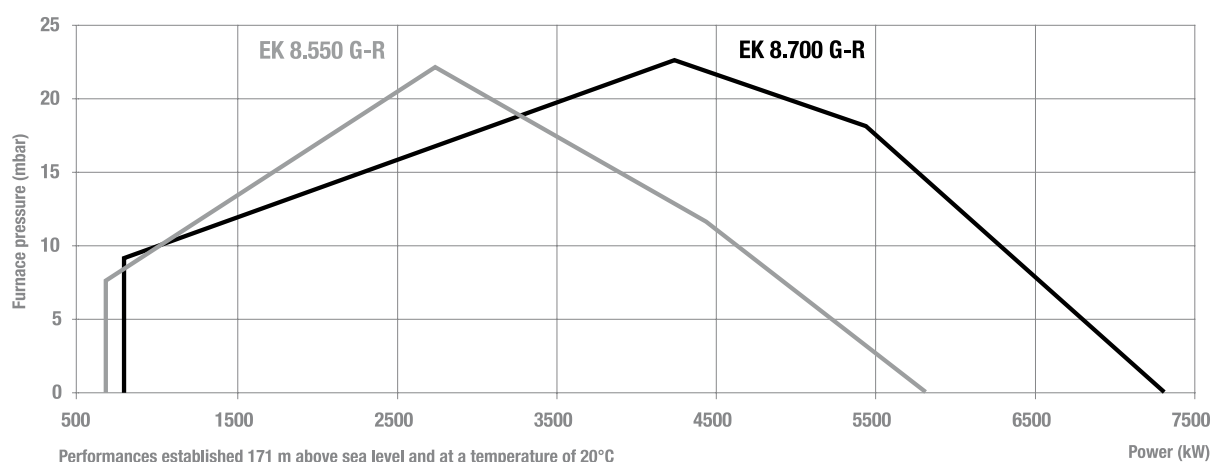
Range: EK 8.550 G-R, EK 8.700 G-R

685 ... 7310 kW

2 stage progressive mechanical

Natural gas

Working fields



Characteristics and equipment

Type	EK 8.550 G-R	EK 8.700 G-R
Operating range	685 - 5815 kW	800 - 7310 kW
Control box / flame detector	LFL 1.333/QRA 2	
Fan Motor	2800 rpm - 230/400 V - 50 Hz - 11 kW	2800 rpm - 230/400 V - 50 Hz - 15 kW
Emission grade (according to EN 676)	Class 2	
CE certificate	0085AQ0779	
Complete burner code	1 008 875	1 008 886
Gas train	refer to "Gas train" chapter	

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 975
	20 ... 30 dB(A)	1 148 747 771
Steam equipment (TRD)		1 011 798
Others	see chapter "Options"	

Documentation

Operating manual	EN	102 884 5807
Spare parts list	EN	EK 8.500 102 884 5818
		EK 8.700 102 884 7701
Electrical and hydraulic diagrams	EN	

Basic spare parts

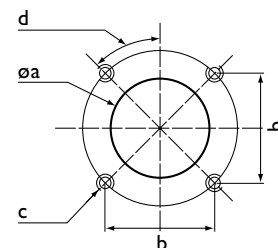
Ignition transformer	173 873 3651
Ignition electrode	172 874 2005
Baffle plate (kit)	161 861 1832
Control box	13 011 763
Flame detector	13 012 980

Description

- Two-stage progressive mechanical forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 8 545 and 10 910 kW.
- Minimum / maximum power ratio: 1/5.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

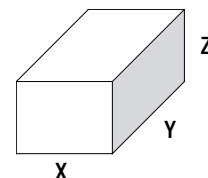
Ø a (mm)	b (mm)	c	d
475	410	M20	45°



Packaging

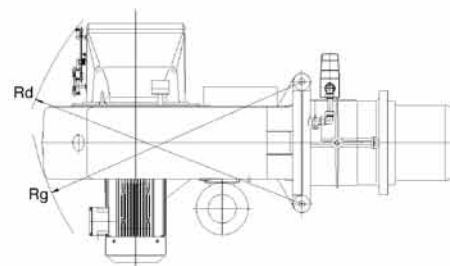
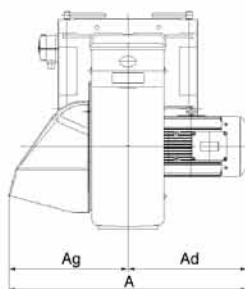
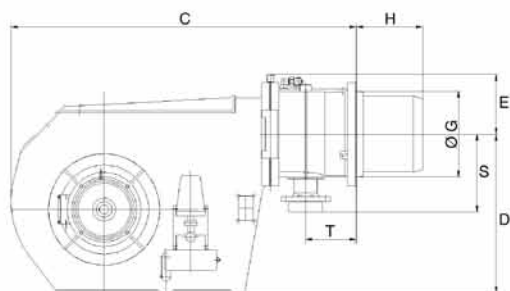
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 9.850 G-R	1920 ... 2300	2160	1290	470 ... 520
EK 9.1000 G-R	1950 ... 2400			510 ... 560

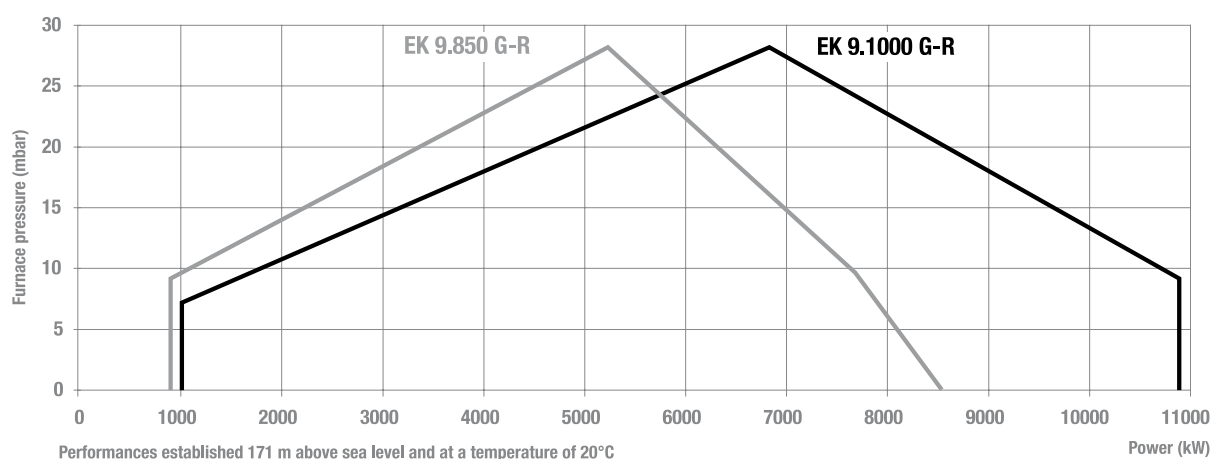
Dimensions



Type	Dimensions (mm)										Rd	Rg	S	T
	A	Ad	Ag	C	D	E	ØG	KN	KM	KL				
EK 9.850 G-R	1176	567	610	1608	830	308	460	350	450	550	1366	1283	383	173
EK 9.1000 G-R	1300	691										1346		

Range: EK 9.850 G-R, EK 9.1000 G-R
920 ... 10910 kW
2 stage progressive mechanical
Natural gas

Working fields



Characteristics and equipment

Type	EK 9.850 G-R	EK 9.1000 G-R
Operating range	920 - 8545 kW	1030 - 10910 kW
Control box / flame detector	LFL 1.333/QRA 2	
Fan Motor	2800 rpm - 230/400 V - 50 Hz - 18,5 kW	2800 rpm - 230/400 V - 50 Hz - 22 kW
Emission grade (according to EN 676)	Class 2	
CE certificate	0085AQ0779	
Complete burner code	1 008 955	1 008 966
Gas train	refer to "Gas train" chapter	

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 986
	20 ... 30 dB(A)	1 148 747 782
Steam equipment (TRD)		1 011 834
Others	see chapter "Options"	

Documentation

Operating manual	EN	102 884 5807
Spare parts list	EN	EK 9.850 102 884 7814
	EN	EK 9.1000 102 884 5829
Electrical and hydraulic diagrams	EN	

Basic spare parts

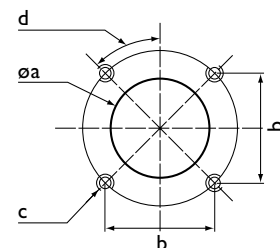
Ignition transformer		173 873 3651
Ignition electrode		172 874 2005
Baffle plate (kit)	EK 9.850	161 871 3777
	EK 9.1000	168 873 3015
Control box		13 011 763
Flame detector		13 012 980

Description

- Two-stage progressive mechanical class 3 low NO_x forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 1 550, 1 850, 2 280 and 2 800 kW.
- Minimum / maximum power ratio: 1/5.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

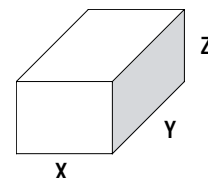
Ø a (mm)	b (mm)	c	d
290	240	M20	45°



Packaging

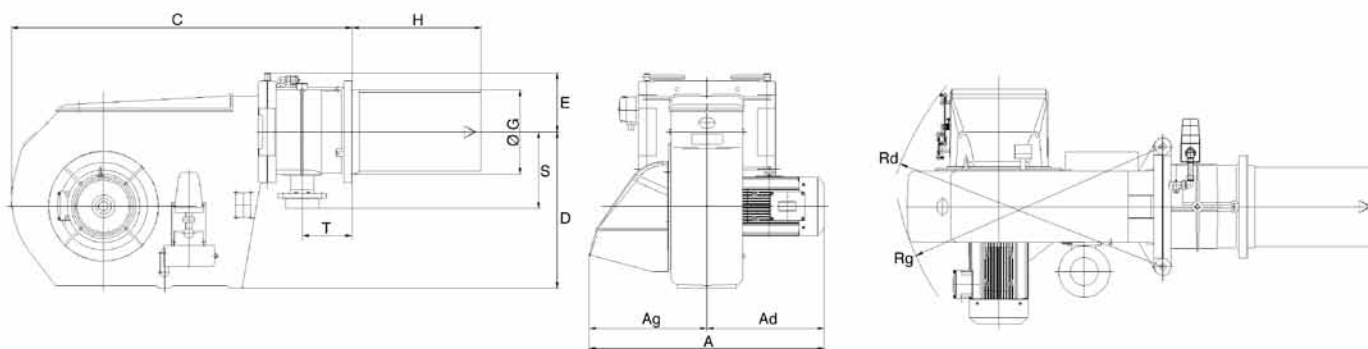
The complete burner with combustion head film-wrapped up on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 6.170/200 G-RU2	1300 ... 1600	1900	870	150 ... 190
EK 6.240/300 G-RU2	1450 ... 1750	2070	870	160 ... 200

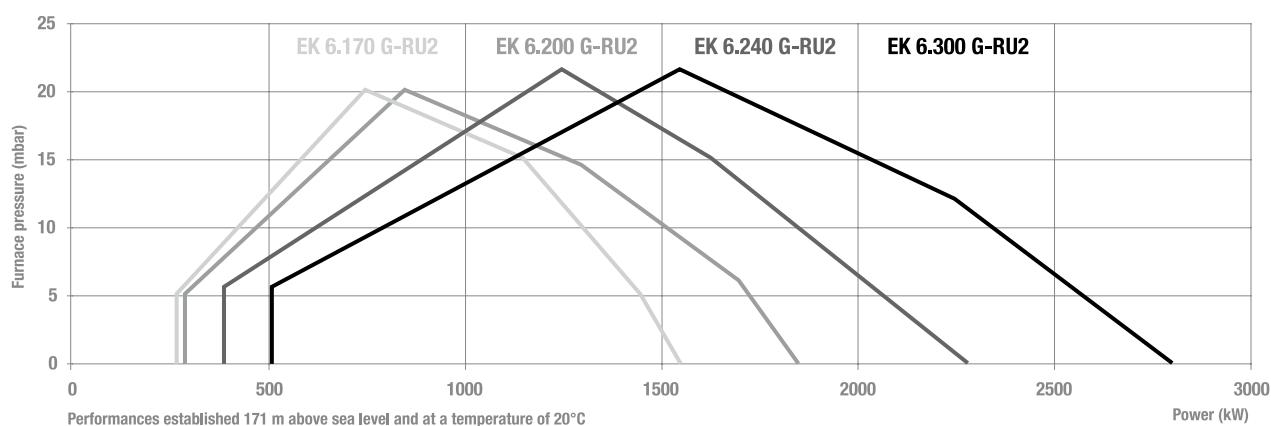
Dimensions



Type	Dimensions (mm)																									
	A	Ad	Ag	C	D	E	ØG		H		Rd	Rg	S	T												
								KN	KM	KL																
EK 6.170 G-RU2	720	385	335	1180	523	197	280	434	534	634	937	937	260	141												
EK 6.200 G-RU2								457	557	657	1007		298	114												
EK 6.240 G-RU2	840	405	435																							
EK 6.300 G-RU2																										

**Range: EK 6.170 G-RU2, EK 6.200 G-RU2,
EK 6.240 G-RU2, EK 6.300 G-RU2**
270 ... 2800 kW
2 stages progressive mechanical
Low NOx natural gas

Working fields



Characteristics and equipment

Type	EK 6.170 G-RU2	EK 6.200 G-RU2	EK 6.240 G-RU2	EK 6.300 G-RU2
Operating range	270 - 1550 kW	290 - 1850 kW	390 - 2280 kW	510 - 2800 kW
Control box / flame detector	LFL 1.333/QRA 2			
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 3 kW		2800 rpm - 400/690 V - 50 Hz - 4 kW	
Emission grade (according to EN 676)	Class 3			
CE certificate	0085AQ0779			
Complete burner code	1 011 867	1 011 878	1 011 889	1 011 890
Gas train	refer to "Gas train" chapter			

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 953
	20 ... 30 dB(A)	1 148 747 759
Steam equipment (TRD)		1 011 732
Others	see chapter "Options"	

Documentation

Operating manual	EN	102 884 5807
Spare parts list	EN	EK 6.170
		EK 6.200
		EK 6.240
		EK 6.300
Electrical diagram	EN	170 884 8011

Basic spare parts

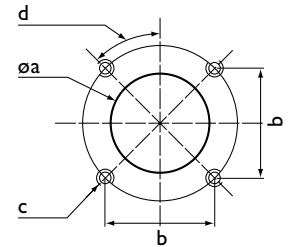
Ignition transformer		173 873 4223
Ignition electrode		172 874 2005
Baffle plate (kit)	EK 6.170	161 881 0388
	EK 6.200	161 881 0399
	EK 6.240	161 873 7108
	EK 6.300	161 877 0396
Control box		13 011 763
Flame detector		13 012 980

Description

- Two-stage progressive mechanical class 3 low NO_x forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 3 490 and 4 400 kW.
- Minimum / maximum power ratio: 1/5.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

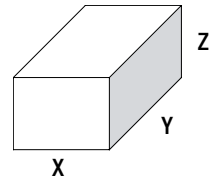
Ø a (mm)	b (mm)	c	d
350	320	M20	45°



Packaging

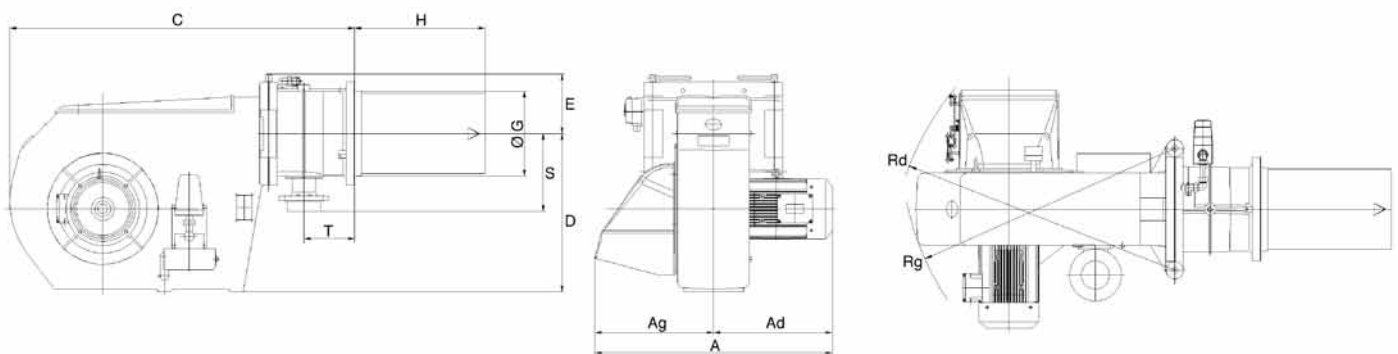
The complete burner with combustion head film-wrapped up on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 7.350 G-RU2	1550 ... 1850	2160	1050	270 ... 290
EK 7.450 G-RU2				280 ... 300

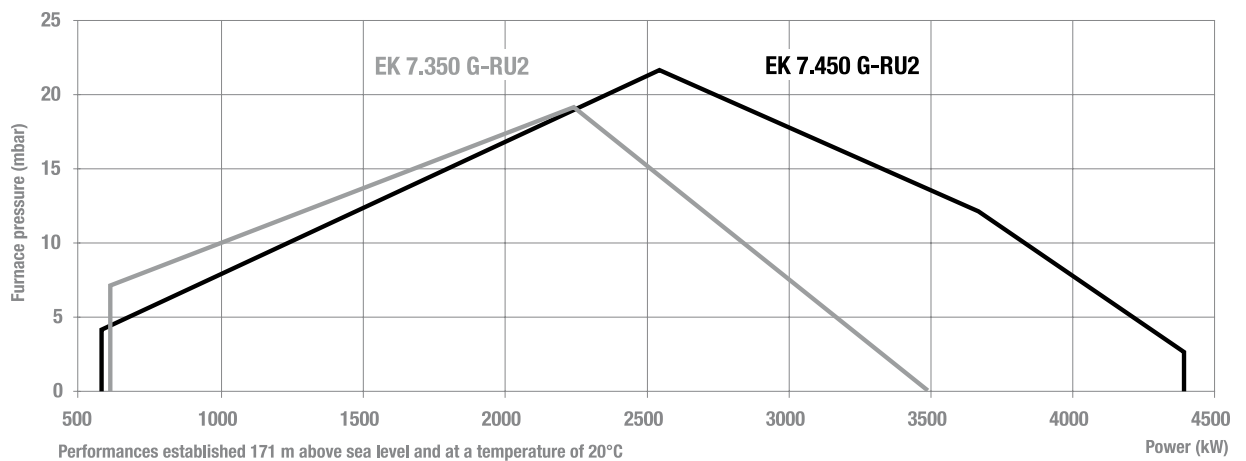
Dimensions



Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	KN	H	KL	Rd	Rg	S	T
EK 7.350 G-RU2	936	452	484	1400	642	258	350	530	630	730	1160	1115	315	206
EK 7.450 G-RU2														

Range: EK 7.350 G-RU2, EK 7.450 G-RU2
 585 ... 4400 kW
 2 stage progressive mechanical
 Low NOx natural gas

Working fields



Characteristics and equipment

Type	EK 7.350 G-RU2	EK 7.450 G-RU2
Operating range	615 - 3490 kW	585 - 4400 kW
Control box / flame detector	LFL 1.333/QRA 2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 5,5 kW	2800 rpm - 400/690 V - 50 Hz - 7,5 kW
Emission grade (according to EN 676)	Class 3	
CE certificate	0085AQ0779	
Complete burner code	1 011 903	1 011 914
Gas train	refer to "Gas train" chapter	

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 964
	20 ... 30 dB(A)	1 148 747 760
Steam equipment (TRD)		1 011 765
Others	see chapter "Options"	

Documentation

Operating manual	EN	102 884 5807
Spare parts list	EN	EK7.350 102 886 0617
		EK7.450
Electrical and hydraulic diagrams	EN	170 884 8022

Basic spare parts

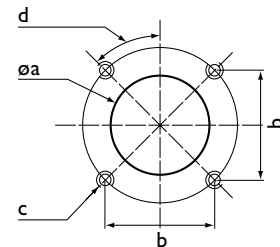
Ignition transformer		173 873 3651
Ignition electrode		172 874 2005
Baffle plate (kit)	EK 7.350	161 881 0402
	EK 7.450	161 881 0413
	EK 7.350	161 310 0804
	EK 7.450	161 811 0641
Control box		13 011 763
Flame detector		13 012 980

Description

- Two-stage progressive mechanical class 3 low NO_x forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 5 330 and 6 545 kW.
- Minimum / maximum power ratio: 1/5.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

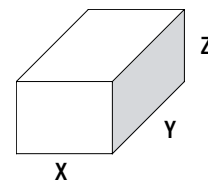
Ø a (mm)	b (mm)	c	d
400	360	M20	45°



Packaging

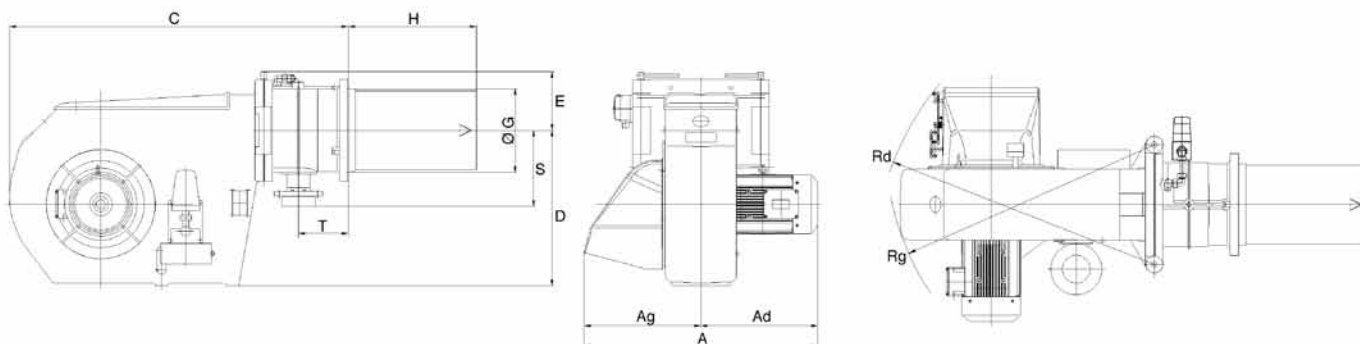
The complete burner with combustion head film-wrapped up on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 8.550 G-RU2	1750 ... 2080	2200	1090	340 ... 390
EK 8.700 G-RU2				370 ... 420

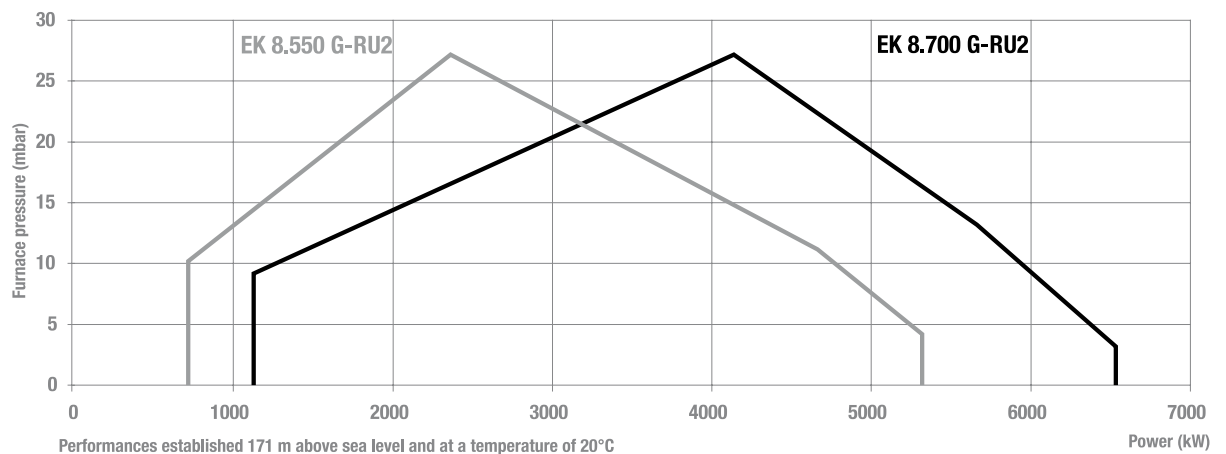
Dimensions



Type	Dimensions (mm)										Rd	Rg	S	T
	A	Ad	Ag	C	D	E	ØG	KN	KM	KL				
EK 8.550 G-RU2	1051	555	496	1490	638	265	389	500	600	700	1205	1177	348	203
EK 8.700 G-RU2	1063		508								1265			

Range: EK 8.550 G-RU2, EK8.700 G-RU2
 730 ... 6545 kW
 2 stage progressive mechanical
 Low NOx natural gas

Working fields



Characteristics and equipment

Type	EK 8.550 G-RU2	EK 8.700 G-RU2
Operating range	730 - 5330 kW	1140 - 6545 kW
Control box / flame detector	LFL 1.333/QRA 2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 11 kW	2800 rpm - 400/690 V - 50 Hz - 15 kW
Emission grade (according to EN 676)	Class 3	
CE certificate	0085AQ0779	
Complete burner code	1 011 925	1 011 936
Gas train	refer to "Gas train" chapter	

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 975
	20 ... 30 dB(A)	1 148 747 771
Steam equipment (TRD)		1 011 798
Others	see chapter "Options"	

Documentation

Operating manual	EN	102 884 5807
Spare parts list	EN	EK 8.550
		EK 8.700
Electrical and hydraulic diagrams	EN	170 884 8022

Basic spare parts

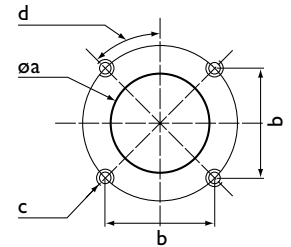
Ignition transformer		173 873 3651
Ignition electrode		172 874 2005
Baffle plate (kit)	EK8.550	161 881 0424
	EK8.700	161 881 0435
Motor	EK8.550	121 833 3755
	EK8.700	121 811 0663
Control box		13 011 763
Flame detector		13 012 980

Description

- Two-stage progressive mechanical class 3 low NO_x forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 7 950 and 10 275 kW.
- Minimum / maximum power ratio: 1/5.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

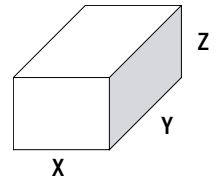
Ø a (mm)	b (mm)	c	d
475	410	M20	45°



Packaging

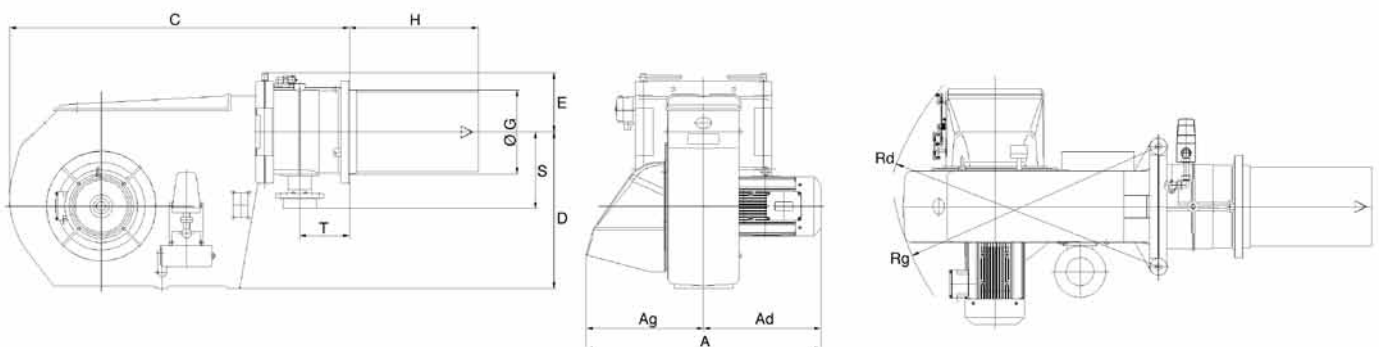
The complete burner with combustion head film-wrapped up on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



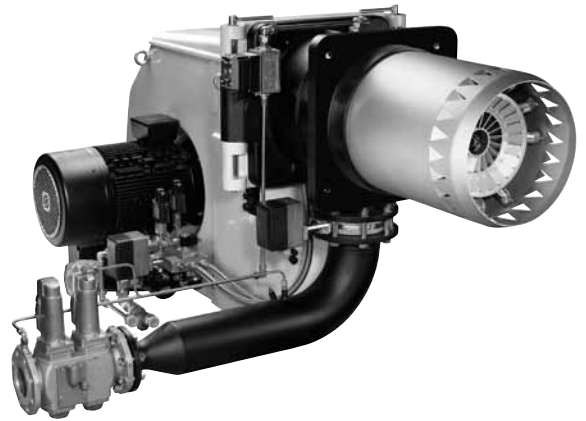
Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 9.850 G-RU2	1920 ... 2300	2360	1290	470 ... 520
EK 9.1000 G-RU2	1950 ... 2400			510 ... 560

Dimensions

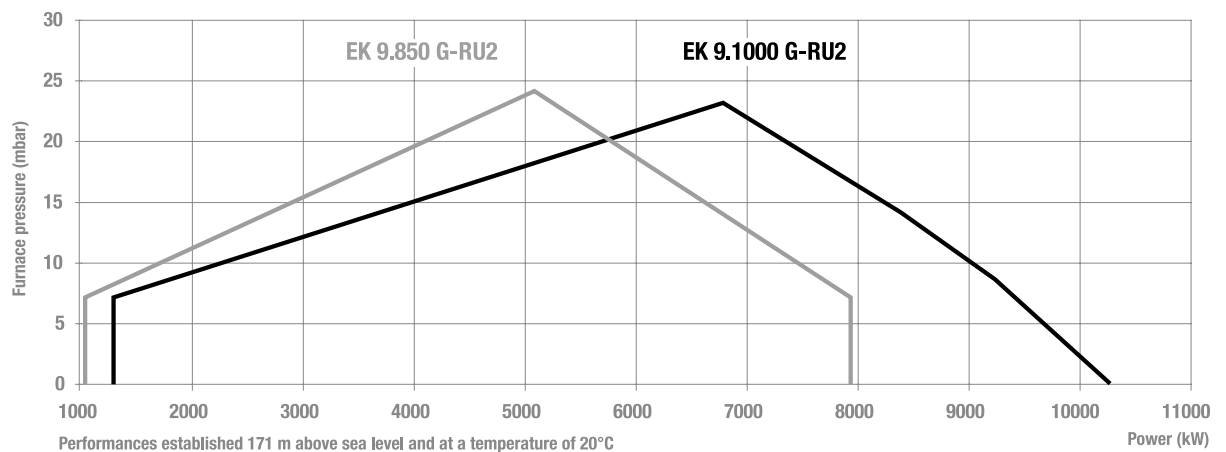


Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG				Rd	Rg	S	T
EK 9.850 G-RU2	1176	567	610	1608	830	308	460	550	650	750	1366	1283	383	173
EK 9.1000 G-RU2	1300	691										1346		

Range: EK 9.850 G-RU2, EK 9.1000 G-RU2
1055 ... 10275 kW
2 stage progressive mechanical
Low NOx natural gas



Working fields



Characteristics and equipment

Type	EK 9.850 G-RU2	EK 9.1000 G-RU2
Operating range	1055 - 7950 kW	1310 - 10275 kW
Control box / flame detector	LFL 1.333/QRA 2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 18,5 kW	2800 rpm - 400/690 V - 50 Hz - 22 kW
Emission grade (according to EN 676)	Class 3	
CE certificate	13 007 486	
Complete burner code	1 011 947	1 011 958
Gas train	refer to "Gas train" chapter	

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 986
	20 ... 30 dB(A)	1 148 747 782
Steam equipment (TRD)		1 011 834
Others	see chapter "Options"	

Documentation

Operating manual	EN	102 884 5807
Spare parts list	EN	EK 9.850 102 884 7814
	EN	EK 9.1000 102 884 5829
Electrical and hydraulic diagrams	EN	

Basic spare parts

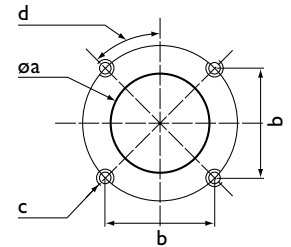
Ignition transformer		173 873 3651
Ignition electrode		172 874 2005
Baffle plate (kit)	EK 9.850	161 877 1184
	EK 9.1000	161 877 0421
Motor	EK 9.850	121 813 2930
	EK 9.1000	121 869 2382
Control box		13 011 763
Flame detector		13 012 980

Description

- Two-stage progressive pneumatic class 3 low NOx forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 1 550, 1 850, 2 280 and 2 800 kW.
- Minimum / maximum power ratio: 1/5.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

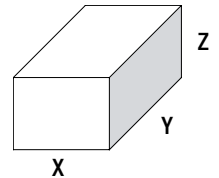
Ø a (mm)	b (mm)	c	d
290	240	M20	45°



Packaging

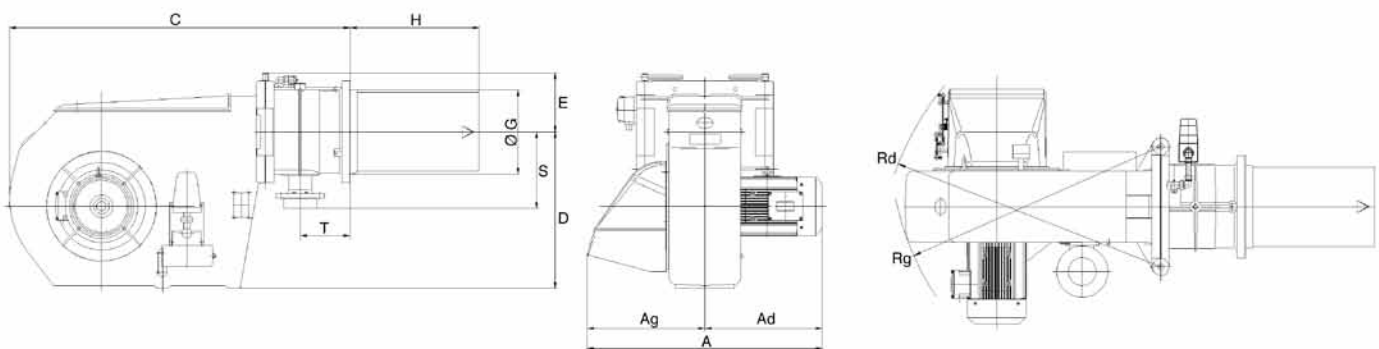
The complete burner with combustion head film-wrapped up on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 6.170/200 G-VU2	1300 ... 1600	1900	870	150 ... 190
EK 6.240/300 G-VU2	1450 ... 1750	2070	870	160 ... 200

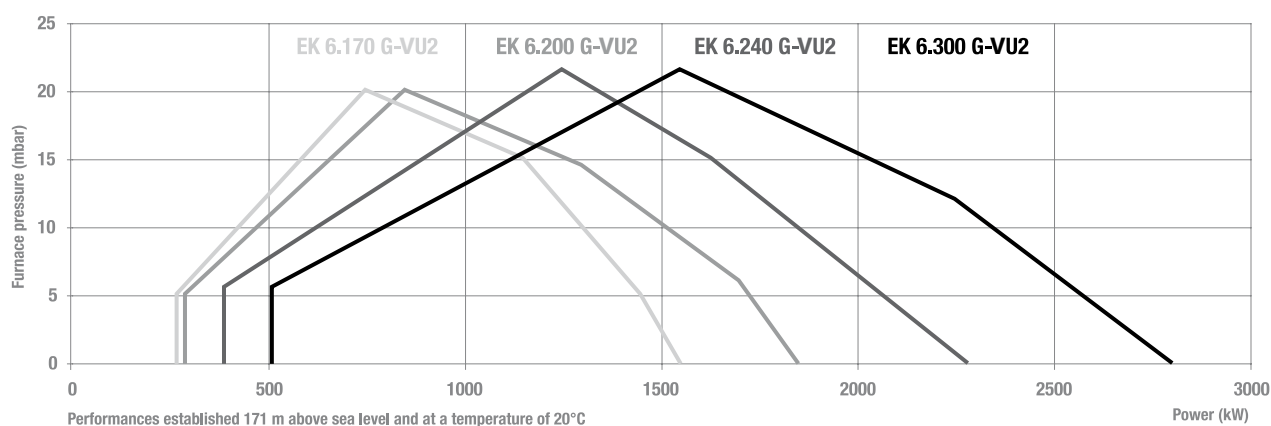
Dimensions



Type	Dimensions (mm)															
	A	Ad	Ag	C	D	E	ØG	H	Rd	Rg	S	T				
								KN	KM	KL						
EK 6.170 G-VU2	720	385	335	1180	523	197	280	434	534	634	937	937	260	141		
EK 6.200 G-VU2																
EK 6.240 G-VU2	840	405	435													
EK 6.300 G-VU2																

**Range: EK 6.170 G-VU2, EK 6.200 G-VU2,
EK 6.240 G-VU2, EK 6.300 G-VU2**
270 ... 2800 kW
2 stages progressive pneumatic
Low NOx natural gas

Working fields



Characteristics and equipment

Type	EK 6.170 G-VU2	EK 6.200 G-VU2	EK 6.240 G-VU2	EK 6.300 G-VU2
Operating range	270 - 1550 kW	290 - 1850 kW	390 - 2280 kW	510 - 2800 kW
Control box / flame detector	LFL 1.333/QRA 2			
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 3 kW		2800 rpm - 400/690 V - 50 Hz - 4 kW	
Emission grade (according to EN 676)	Class 3			
CE certificate	0085AQ0779			
Complete burner code	on request	on request	on request	on request
Gas train	refer to "Gas train" chapter			

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 953
	20 ... 30 dB(A)	1 148 747 759
Steam equipment (TRD)		1 011 732
Others	see chapter "Options"	

Documentation

Operating manual	EN	on request
Spare parts list	EN	EK 6.170
		EK 6.200
		EK 6.240
		EK 6.300
Electrical diagram	EN	

Basic spare parts

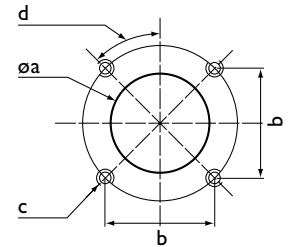
Ignition transformer		173 873 4223
Ignition electrode		172 874 2005
Baffle plate (kit)	EK 6.170	161 881 0388
	EK 6.200	161 881 0399
	EK 6.240	161 873 7108
	EK 6.300	161 877 0396
Control box		13 011 763
Flame detector		13 012 980

Description

- Two-stage progressive pneumatic class 3 low NOx forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 3 490 and 4 400 kW.
- Minimum / maximum power ratio: 1/5.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

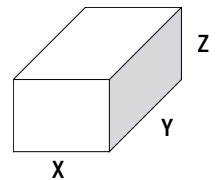
Ø a (mm)	b (mm)	c	d
350	320	M20	45°



Packaging

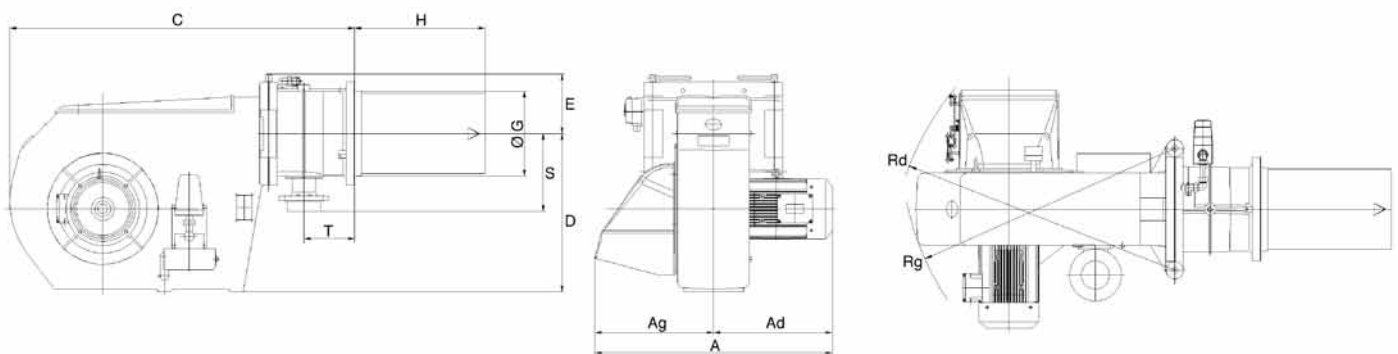
The complete burner with combustion head film-wrapped up on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 7.350 G-VU2	1550 ... 1850	2160	1050	270 ... 290
EK 7.450 G-VU2				280 ... 300

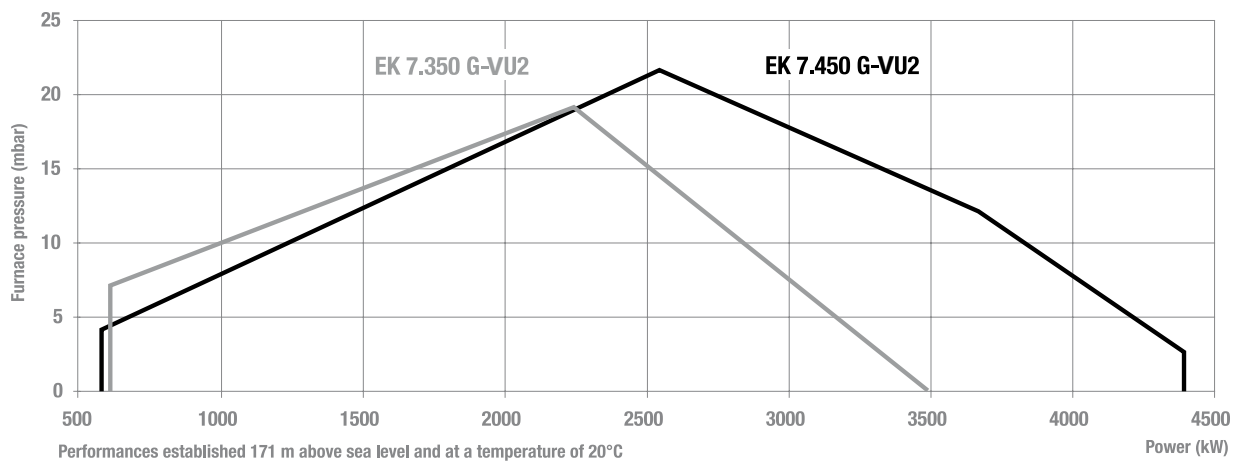
Dimensions



Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	KN	H	KL	Rd	Rg	S	T
EK 7.350 G-VU2	936	452	484	1400	642	258	350	530	630	730	1160	1115	315	206
EK 7.450 G-VU2														

Range: EK 7.350 G-VU2, EK 7.450 G-VU2
 585 ... 4400 kW
 2 stage progressive pneumatic
 Low NOx natural gas

Working fields



Characteristics and equipment

Type	EK 7.350 G-VU2	EK 7.450 G-VU2
Operating range	615 - 3490 kW	585 - 4400 kW
Control box / flame detector	LFL 1.333/QRA 2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 5,5 kW	2800 rpm - 400/690 V - 50 Hz - 7,5 kW
Emission grade (according to EN 676)	Class 3	
CE certificate	0085AQ0779	
Complete burner code	on request	on request
Gas train	refer to "Gas train" chapter	

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 964
	20 ... 30 dB(A)	1 148 747 760
Steam equipment (TRD)		1 011 765
Others	see chapter "Options"	

Documentation

Operating manual	EN	on request
Spare parts list	EN	EK7.350
		EK7.450
Electrical and hydraulic diagrams	EN	

Basic spare parts

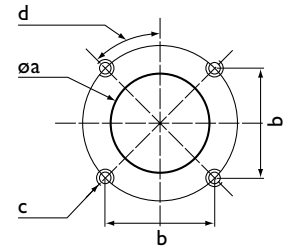
Ignition transformer		173 873 3651
Ignition electrode		172 874 2005
Baffle plate (kit)	EK 7.350	161 881 0402
	EK 7.450	161 881 0413
	EK 7.350	161 310 0804
	EK 7.450	161 811 0641
Control box		13 011 763
Flame detector		13 012 980

Description

- Two-stage progressive pneumatic class 3 low NOx forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 5 330 and 6 545 kW.
- Minimum / maximum power ratio: 1/5.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

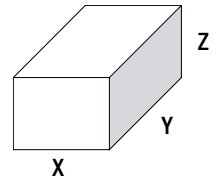
Ø a (mm)	b (mm)	c	d
400	360	M20	45°



Packaging

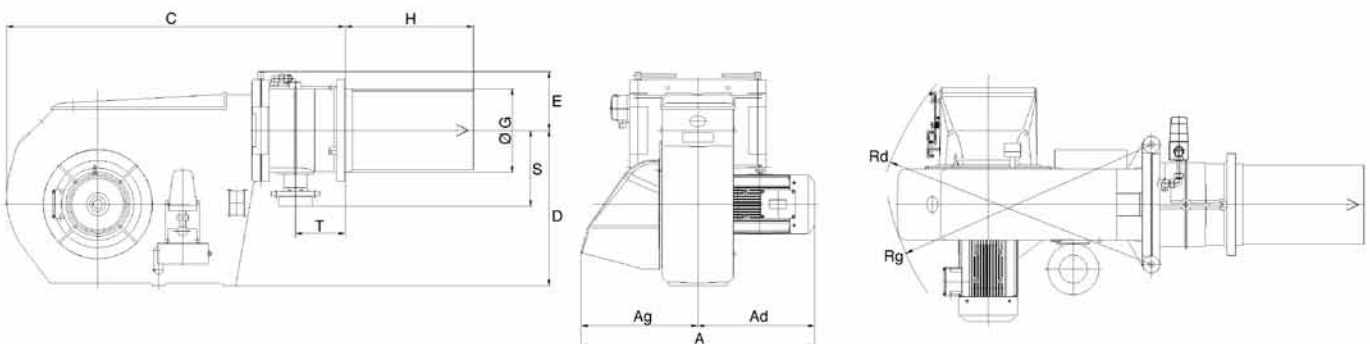
The complete burner with combustion head film-wrapped up on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 8.550 G-VU2	1750 ... 2080	2200	1090	340 ... 390
EK 8.700 G-VU2				370 ... 420

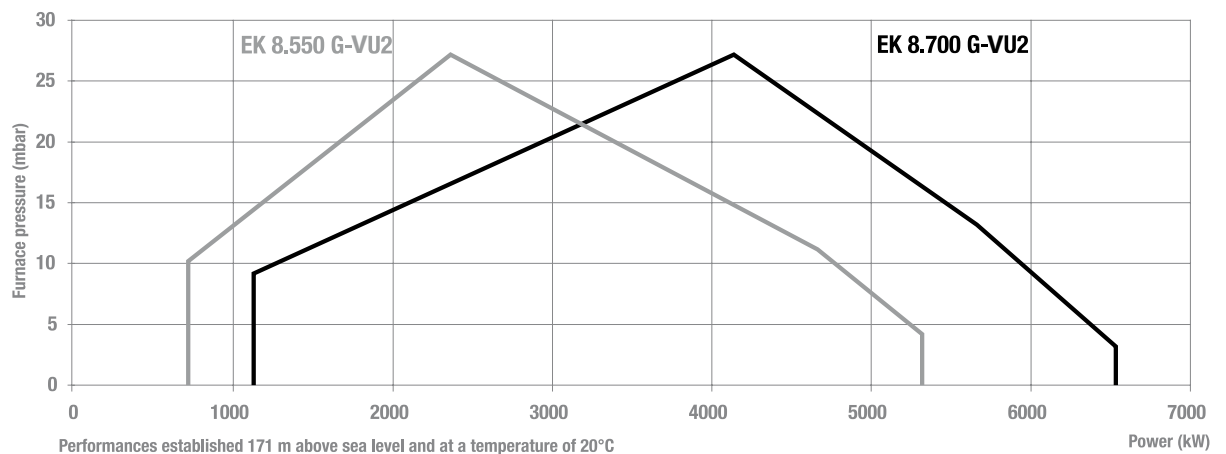
Dimensions



Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	H	Rd	Rg	S	T		
								KN	KM	KL				
EK 8.550 G-VU2	1051	555	496	1490	638	265	389	500	600	700	1205	1177	348	203
EK 8.700 G-VU2	1063		508								1265			

Range: EK 8.550 G-VU2, EK8.700 G-VU2
730 ... 6545 kW
2 stage progressive pneumatic
Low NOx natural gas

Working fields



Characteristics and equipment

Type	EK 8.550 G-VU2	EK 8.700 G-VU2
Operating range	730 - 5330 kW	1140 - 6545 kW
Control box / flame detector	LFL 1.333/QRA 2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 11 kW	2800 rpm - 400/690 V - 50 Hz - 15 kW
Emission grade (according to EN 676)	Class 3	
CE certificate	0085AQ0779	
Complete burner code	on request	on request
Gas train	refer to "Gas train" chapter	

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 975
	20 ... 30 dB(A)	1 148 747 771
Steam equipment (TRD)		1 011 798
Others	see chapter "Options"	

Documentation

Operating manual	EN	on request
Spare parts list	EN	EK 8.550
		EK 8.700
Electrical and hydraulic diagrams	EN	

Basic spare parts

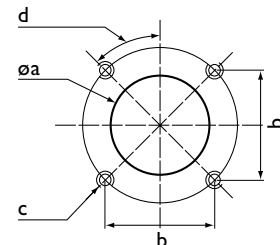
Ignition transformer		173 873 3651
Ignition electrode		172 874 2005
Baffle plate (kit)	EK8.550	161 881 0424
	EK8.700	161 881 0435
Motor	EK8.550	121 833 3755
	EK8.700	121 811 0663
Control box		13 011 763
Flame detector		13 012 980

Description

- Two-stage progressive pneumatic class 3 low NOx forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 7 950 and 10 275 kW.
- Minimum / maximum power ratio: 1/5.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

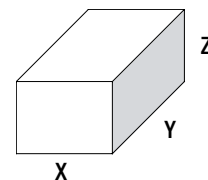
Ø a (mm)	b (mm)	c	d
475	410	M20	45°



Packaging

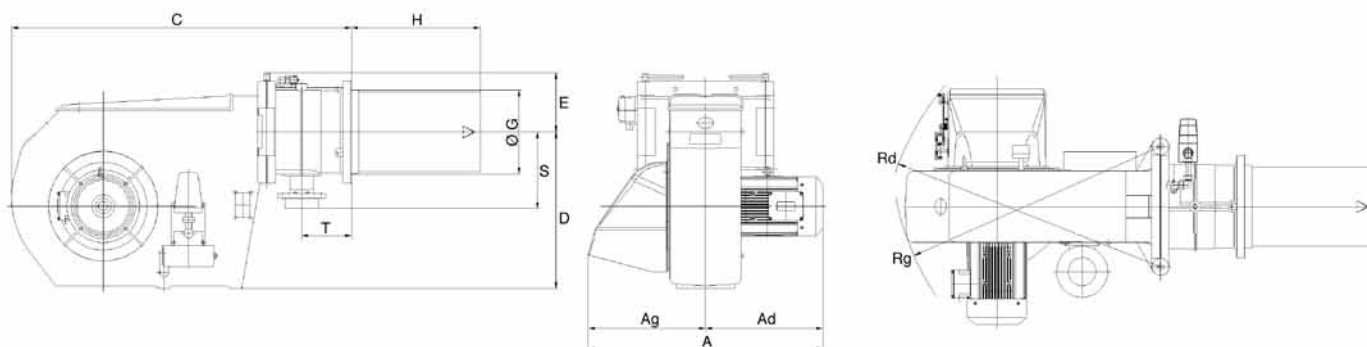
The complete burner with combustion head film-wrapped up on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



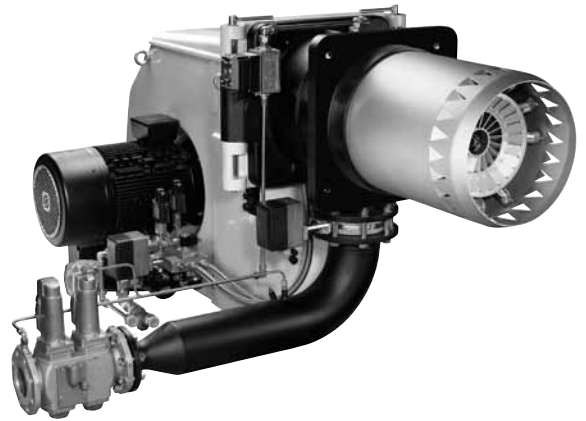
Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 9.850 G-VU2	1920 ... 2300	2360	1290	470 ... 520
EK 9.1000 G-VU2	1950 ... 2400			510 ... 560

Dimensions

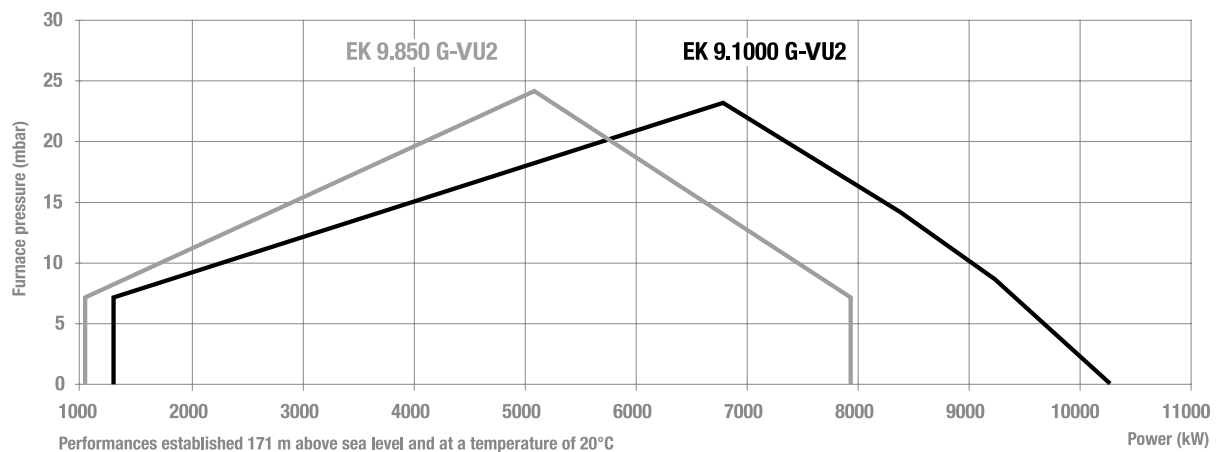


Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	KN	H	KL	Rd	Rg	S	T
									KM					
EK 9.850 G-VU2	1176	567	610	1608	830	308	460	550	650	750	1366	1283	383	173
EK 9.1000 G-VU2	1300	691										1346		

Range: EK 9.850 G-VU2, EK 9.1000 G-VU2
1055 ... 10275 kW
2 stage progressive pneumatic
Low NOx natural gas



Working fields



Characteristics and equipment

Type	EK 9.850 G-VU2	EK 9.1000 G-VU2
Operating range	1055 - 7950 kW	1310 - 10275 kW
Control box / flame detector	LFL 1.333/QRA 2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 18,5 kW	2800 rpm - 400/690 V - 50 Hz - 22 kW
Emission grade (according to EN 676)	Class 3	
CE certificate	13 007 486	
Complete burner code	on request	on request
Gas train	refer to "Gas train" chapter	

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 986
	20 ... 30 dB(A)	1 148 747 782
Steam equipment (TRD)		1 011 834
Others	see chapter "Options"	

Documentation

Operating manual	EN	on request
Spare parts list	EN	EK 9.850
	EN	EK 9.1000
Electrical and hydraulic diagrams	EN	

Basic spare parts

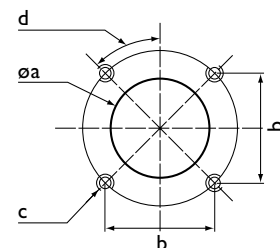
Ignition transformer		173 873 3651
Ignition electrode		172 874 2005
Baffle plate (kit)	EK 9.850	161 877 1184
	EK 9.1000	161 877 0421
Motor	EK 9.850	121 813 2930
	EK 9.1000	121 869 2382
Control box		13 011 763
Flame detector		13 012 980

Description

- Two-stage progressive electronic forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 1 455, 2 250, 2 600 and 2 990 kW.
- Minimum / maximum power ratio: 1/6.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

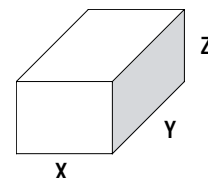
Ø a (mm)	b (mm)	c	d
290	240	M20	45°



Packaging

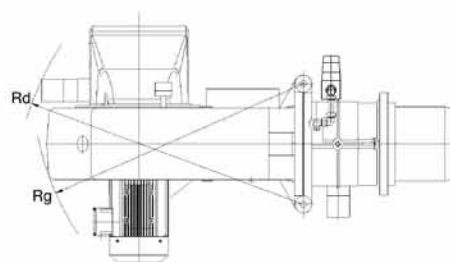
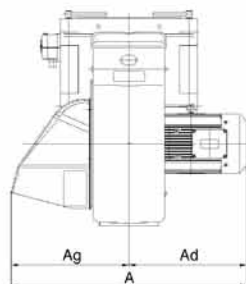
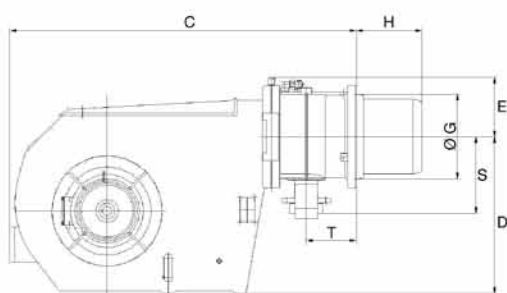
The complete burner with combustion head film-wrapped up on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 6.170/200 G-E/BCS	1300 ... 1600	1700	870	150 ... 190
EK 6.240/300 G-E/BCS	1450 ... 1750	1770	870	160 ... 200

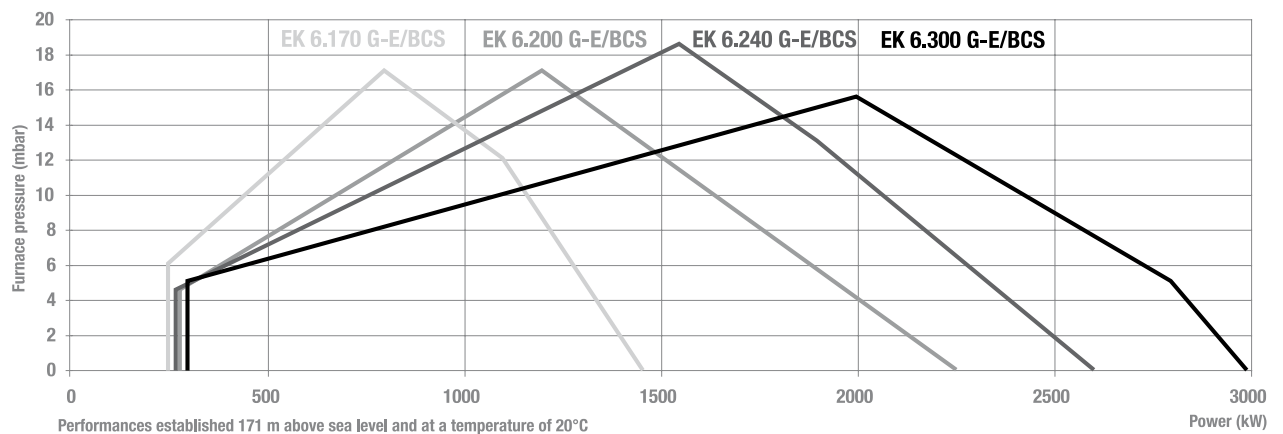
Dimensions



Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	H	Rd	Rg	S	T		
								KN	KM	KL				
EK 6.170 G-E/BCS	720	385	335	1230	523	197	280	230	330	430	1033	937	260	141
EK 6.200 G-E/BCS														
EK 6.240 G-E/BCS	840	405	435	1279	523	197	280	250	350	450	1080	937	298	114
EK 6.300 G-E/BCS														

**Range: EK 6.170 G-E/BCS, EK 6.200 G-E/BCS,
EK 6.240 G-E/BCS, EK 6.300 G-E/BCS**
250 .. 2990 kW
2 stage progressive electronic
Natural gas

Working fields



Characteristics and equipment

Type	EK 6.170 G-E/BCS	EK 6.200 G-E/BCS	EK 6.240 G-E/BCS	EK 6.300 G-E/BCS
Operating range	250 - 1455 kW	280 - 2250 kW	270 - 2600 kW	300 - 2990 kW
Control box / flame detector	BCS / FLW05 - QRA2			
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 3 kW		2800 rpm - 400/690 V - 50 Hz - 4 kW	
Emission grade (according to EN 676)	Class 2			
CE certificate	0085AQ0779			
Complete burner code	1 011 470	1 011 481	1 011 492	1 011 505
Gas train	refer to “Gas train” chapter			

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 953
	20 ... 30 dB(A)	1 148 747 759
Steam equipment (TRD)	on request	
Others	see chapter "Options"	

Documentation

Operating manual	EN	102 884 7972
Spare parts list	EN	EK6.170/200 102 885 9074
		EK6.200/300 102 885 9063
Electrical and hydraulic diagrams	EN	

Basic spare parts

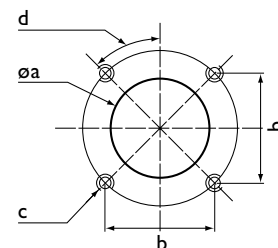
Ignition transformer		173 873 4223
Ignition electrode		172 874 2005
Baffle plate (kit)	EK 6.170	161 878 9886
	EK 6.200	161 878 9897
	EK 6.240	161 878 9900
	EK 6.300	161 878 9911
Control box		175 879 1079
Flame detector		175 879 5195

Description

- Two-stage progressive electronic forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 3 765 and 4 200 kW.
- Minimum / maximum power ratio: 1/6.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

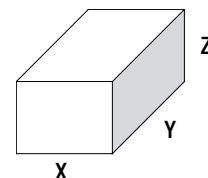
Ø a (mm)	b (mm)	c	d
350	320	M20	45°



Packaging

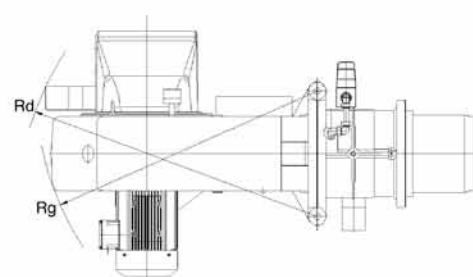
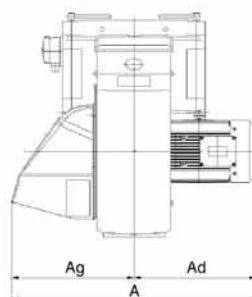
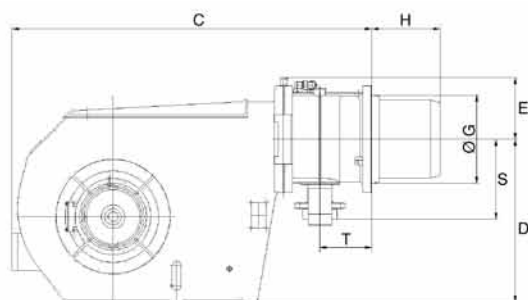
The complete burner with combustion head film-wrapped up on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 7.350 G-E/BCS	1550 ... 1850	1900	1050	270 ... 290
EK 7.450 G-E/BCS				280 ... 300

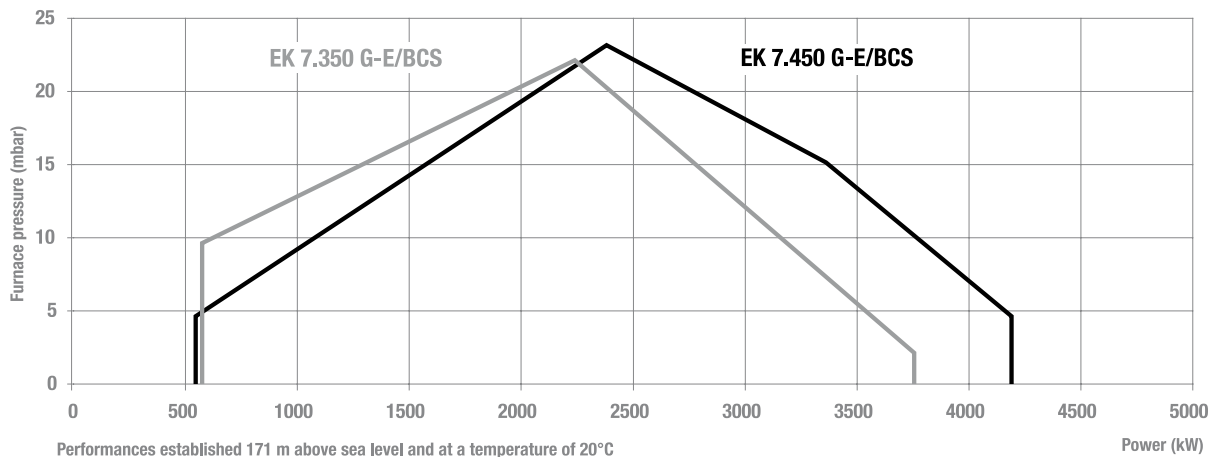
Dimensions



Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	KN	H	KL	Rd	Rg	S	T
EK 7.350 G-E/BCS	949	452	497	1400	642	258	350	270	370	470	1278	1115	315	206
EK 7.450 G-E/BCS														

Range: EK 7.350 G-E/BCS, EK7.450 G-E/BCS
555 ... 4200 kW
2 stage progressive electronic
Natural gas

Working fields



Characteristics and equipment

Type	EK 7.350 G-E/BCS	EK 7.450 G-E/BCS
Operating range	585 - 3765 kW	555 - 4200 kW
Control box / flame detector	BCS / FLW05 - QRA2	
Fan Motor	2800 rpm - 230/400 V - 50 Hz - 5,5 kW	2800 rpm - 230/400 V - 50 Hz - 7,5 kW
Emission grade (according to EN 676)	Class 2	
CE certificate	0085AQ0779	
Complete burner code	1 008 842	1 008 853
Gas train	refer to "Gas train" chapter	

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 964
	20 ... 30 dB(A)	1 148 747 760
Steam equipment (TRD)	on request	
Others	see chapter "Options"	

Documentation

Operating manual	EN	102 884 7972
Spare parts list	EN	EK7.350
		EK7.450
Electrical and hydraulic diagrams	EN	170 884 8500

Basic spare parts

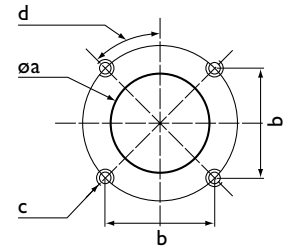
Ignition transformer		173 873 3651
Ignition electrode		172 874 2005
Baffle plate		161 881 0402
Motor	EK 7.350	333 310 0804
	EK 7.450	121 811 0641
Control box	BCS 300	175 879 1079
Flame detector		175 879 5095

Description

- Two-stage progressive electronic forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 5 815 and 7 310 kW.
- Minimum / maximum power ratio: 1/6.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

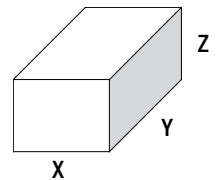
Ø a (mm)	b (mm)	c	d
400	360	M20	45°



Packaging

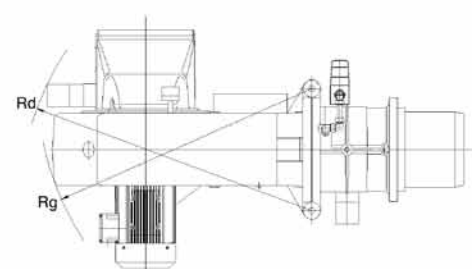
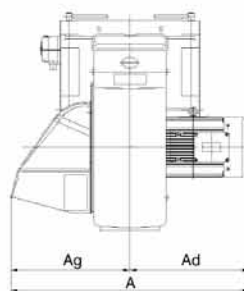
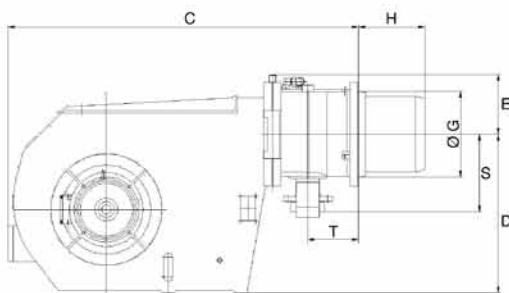
The complete burner with combustion head film-wrapped up on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 8.550 G-E/BCS	1750 ... 2080	2000	1090	340 ... 390
EK 8.700 G-E/BCS				370 ... 420

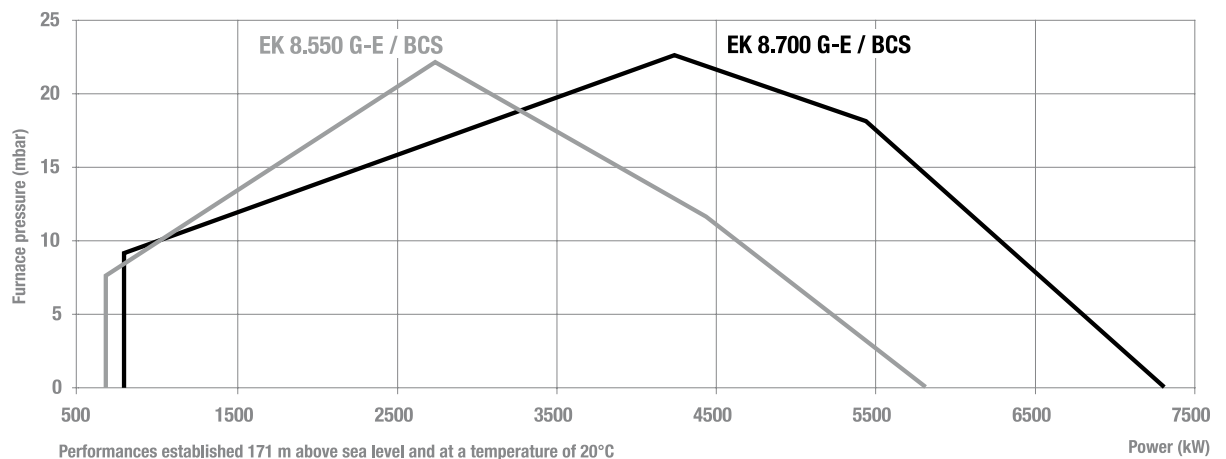
Dimensions



Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	H	Rd	Rg	S	T		
								KN	KM	KL				
EK 8.550 G-E/BCS	1062	555	507	1490	638	265	389	310	410	510	1319	1177	348	203
EK 8.700 G-E/BCS	1063		508								1343			

Range: EK 8.550 G-E/BCS, EK 8.700 G-E/BCS
685 ... 7310 kW
2 stage progressive electronic
Natural gas

Working fields



Characteristics and equipment

Type	EK 8.550 G-E/BCS	EK 8.700 G-E/BCS
Operating range	685 - 5815 kW	800 - 7310 kW
Control box / flame detector	BCS / FLW05 - QRA2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 11 kW	2800 rpm - 400/690 V - 50 Hz - 15 kW
Emission grade (according to EN 676)	Class 2	
CE certificate	0085AQ0779	
Complete burner code	1 008 911	1 008 922
Gas train	refer to "Gas train" chapter	

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 975
	20 ... 30 dB(A)	1 148 747 771
Steam equipment (TRD)	on request	
Others	see chapter "Options"	

Documentation

Operating manual	EN	102 884 7972
Spare parts list	EN	
Electrical and hydraulic diagrams	EN	170 884 8044

Basic spare parts

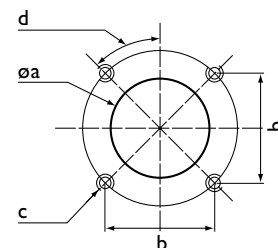
Ignition transformer	173 873 3651
Ignition electrode	172 874 2005
Baffle plate	161 861 1832
Control box	175 879 1079
Flame detector	13 012 980

Description

- Two-stage progressive electronic forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 8 545 and 10 910 kW.
- Minimum / maximum power ratio: 1/6.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

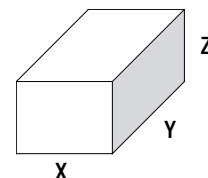
Ø a (mm)	b (mm)	c	d
475	410	M20	45°



Packaging

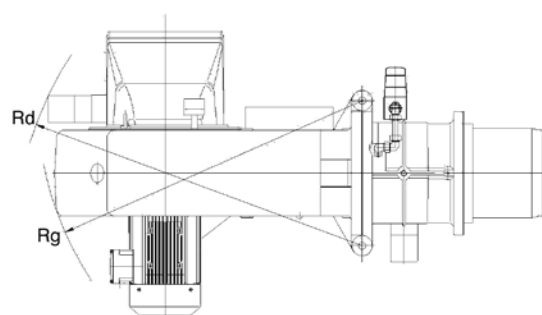
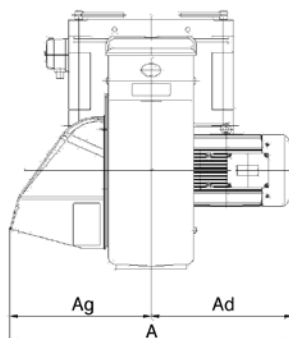
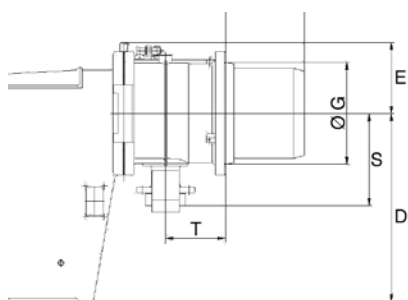
The complete burner with combustion head film-wrapped up on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 9.850 G-E/BCS	1920 ... 2300	2160	1290	470 ... 520
EK 9.1000 G-E/BCS	1950 ... 2400			510 ... 560

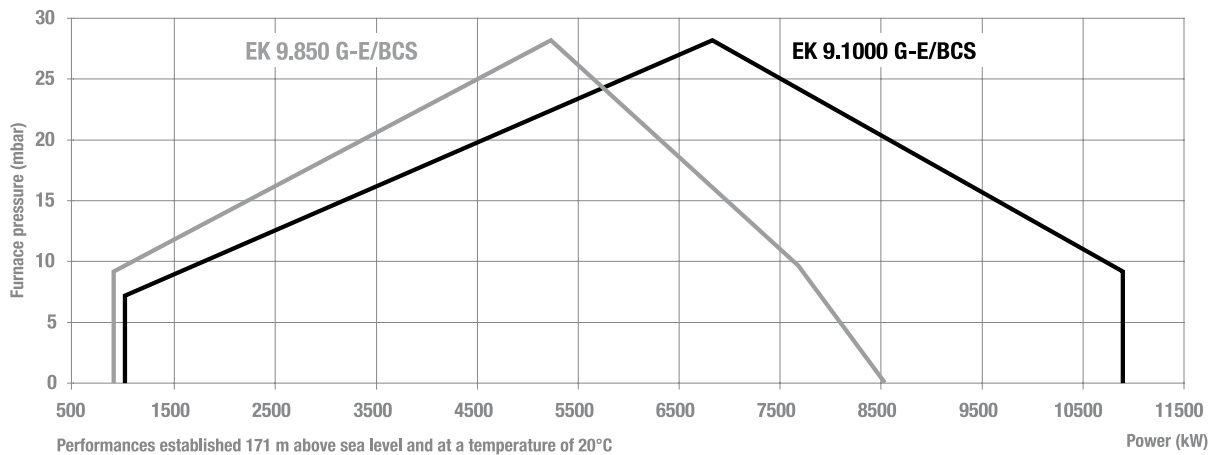
Dimensions



Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	H	Rd	Rg	S	T		
								KN	KM	KL				
EK 9.850 G-E/BCS	1176	567	610	1608	830	308	460	350	450	550	1450	1283	383	173
EK 9.1000 G-E/BCS	1300	691										1346		

Range: EK 9.850 G-E/BCS, EK 9.1000 G-E/BCS
920 - 10910 kW
2 stage progressive electronic
Natural gas

Working fields



Characteristics and equipment

Type	EK 9.850 G-E/BCS	EK 9.1000 G-E/BCS
Operating range	920 - 8545 kW	1030 - 10910 kW
Control box / flame detector	BCS / FLW05 - QRA2	
Fan Motor	2800 rpm - 230/400 V - 50 Hz - 18,5 kW	2800 rpm - 230/400 V - 50 Hz - 22 kW
Emission grade (according to EN 676)	Class 2	
CE certificate	0085AQ0779	
Complete burner code	1 008 955	1 008 966
Gas train	refer to "Gas train" chapter	

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 986
	20 ... 30 dB(A)	1 148 747 782
Steam equipment (TRD)		1 011 834
Others	see chapter "Options"	

Documentation

Operating manual	EN	102 884 5807
Spare parts list	EN	EK 9.850 102 884 7814
	EN	EK 9.1000 102 884 5829
Electrical and hydraulic diagrams	EN	

Basic spare parts

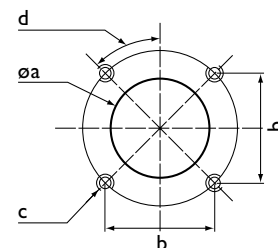
Ignition transformer		173 873 3651
Ignition electrode		172 874 2005
Baffle plate (kit)	EK 9.850	161 871 3777
	EK 9.1000	168 873 3015
Control box		13 011 763
Flame detector		13 012 980

Description

- Two-stage progressive electronic class 3 low NOx forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 1 550, 1 850, 2 280 and 2 800 kW.
- Minimum / maximum power ratio: 1/6.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

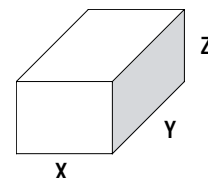
Ø a (mm)	b (mm)	c	d
290	240	M20	45°



Packaging

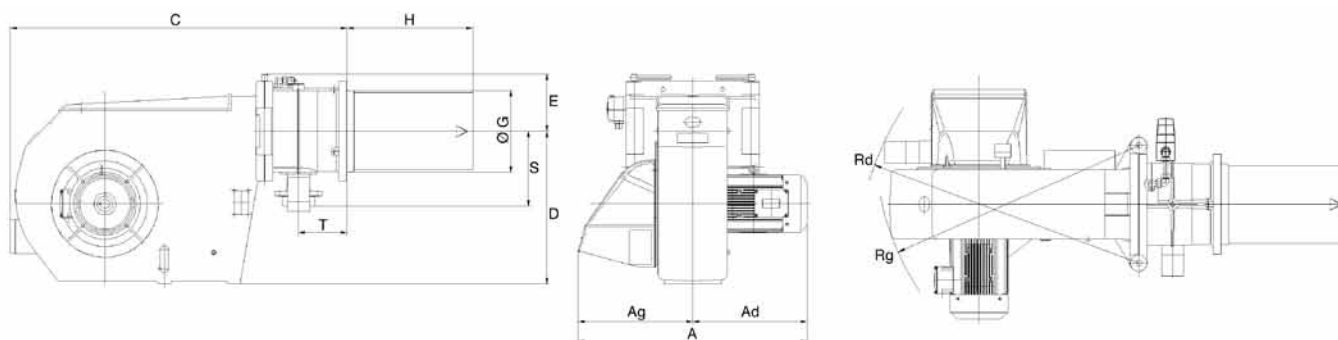
The complete burner with combustion head film-wrapped up on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 6.170/200 G-EU2/BCS	1300 ... 1600	1900	870	150 ... 190
EK 6.240/300 G-EU2/BCS	1450 ... 1750	2070	870	160 ... 200

Dimensions

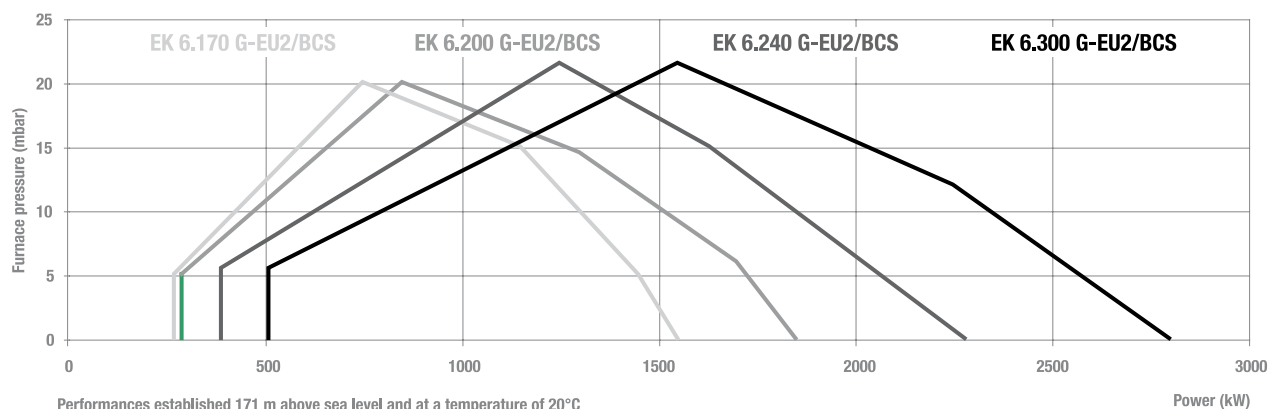


Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	KN	KM	KL	Rd	Rg	S	T
EK 6.170 G-EU2/BCS	720	385	335	1230	523	197	280	434	534	634	1033	937	260	141
EK 6.200 G-EU2/BCS														
EK 6.240 G-EU2/BCS	840	405	435	1279	523	197	280	457	557	657	1080	937	298	114
EK 6.300 G-EU2/BCS														

Range: EK 6.170 G-EU2/BCS,
EK 6.200 G-EU2/BCS, EK 6.240 G-EU2/BCS,
EK 6.300 G-EU2/BCS
270 ... 2800 kW
2 stage progressive electronic
Low NOx natural gas



Working fields



Characteristics and equipment

Type	EK 6.170 G-EU2/BCS	EK 6.200 G-EU2/BCS	EK 6.240 G-EU2/BCS	EK 6.300 G-EU2/BCS
Operating range	270 - 1550 kW	290 - 1850 kW	390 - 2280 kW	510 - 2800 kW
Control box / flame detector	BCS / FLW05 - QRA2			
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 3 kW		2800 rpm - 400/690 V - 50 Hz - 4 kW	
Emission grade (according to EN 676)	Class 3			
CE certificate	0085AQ0779			
Complete burner code	1 011 550	1 011 561	1 011 572	1 011 583
Gas train	refer to "Gas train" chapter			

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 953
	20 ... 30 dB(A)	1 148 747 759
Steam equipment (TRD)	on request	
Others	see chapter "Options"	

Documentation

Operating manual	EN	102 884 7972
Spare parts list	EN	EK6.170/200 102 885 8253
		EK6.240/300 102 885 6008
Electrical and hydraulic diagrams	EN	

Basic spare parts

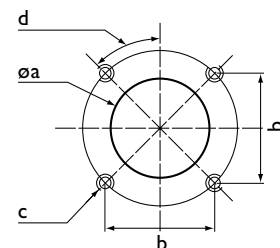
Ignition transformer	173 873 4223
Ignition electrode	172 874 2005
Baffle plate (kit)	EK 6.170/200 161 881 0399
	EK 6.240/300 161 877 0396
Control box	175 879 1079
Flame detector	175 879 5195

Description

- Two-stage progressive electronic class 3 low NOx forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
Propane, net calorific value 25,89 kWh/m³.
- Maximum heat power: 3 490 and 4 400 kW.
- Minimum / maximum power ratio: 1/6.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

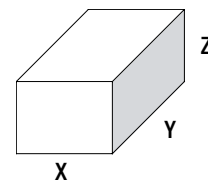
Ø a (mm)	b (mm)	c	d
350	320	M20	45°



Packaging

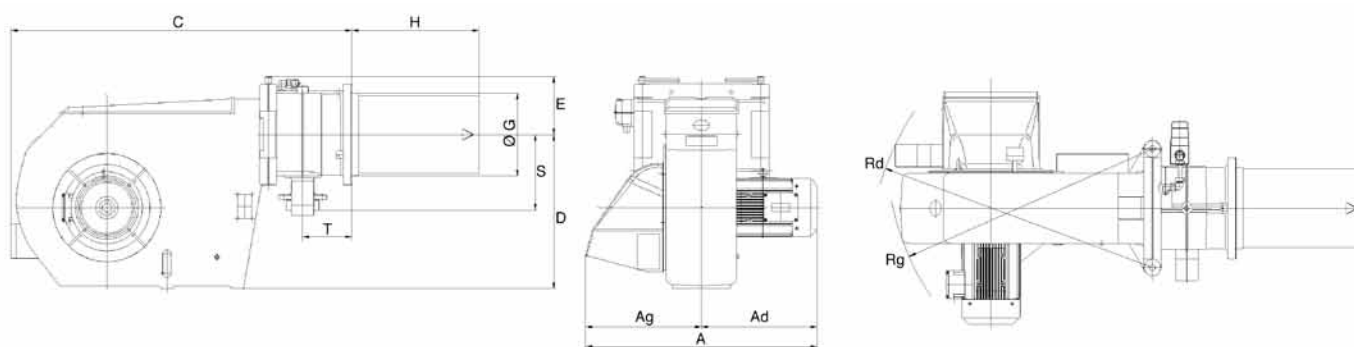
The complete burner with combustion head film-wrapped up on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 7.350 G-EU2/BCS	1550 ... 1850	2160	1050	270 ... 290
EK 7.450 G-EU2/BCS				280 ... 300

Dimensions

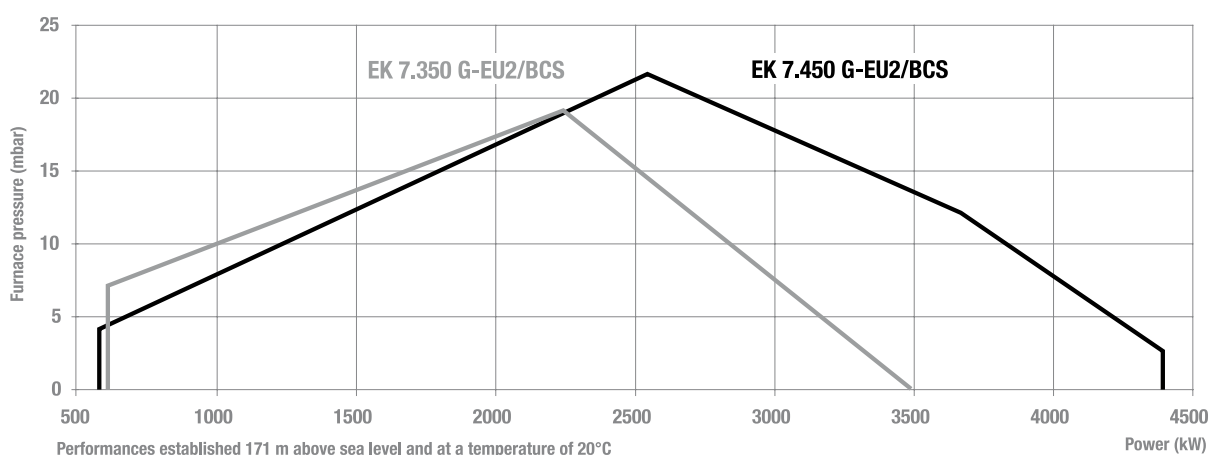


Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	H	Rd	Rg	S	T		
EK 7.350 G-EU2/BCS	949	452	497	1400	642	258	350	KN	KM	KL	1278	1115	315	206
EK 7.450 G-EU2/BCS								530	630	730				

Range: EK 7.350 G-EU2/BCS,
EK 7.450 G-EU2/BCS
585 ... 4400 kW
2 stage progressive electronic
Low NOx natural gas



Working fields



Characteristics and equipment

Type	EK 7.350 G-EU2/BCS	EK 7.450 G-EU2/BCS
Operating range	615 - 3490 kW	585 - 4400 kW
Control box / flame detector	BCS / FLW05 - QRA2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 5,5 kW	2800 rpm - 400/690 V - 50 Hz - 7,5 kW
Emission grade (according to EN 676)	Class 3	
CE certificate	0085AQ0779	
Complete burner code	1 011 152	1 011 163
Gas train	refer to "Gas train" chapter	

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 964
	20 ... 30 dB(A)	1 148 747 760
Steam equipment (TRD)	on request	
Others	see chapter "Options"	

Documentation

Operating manual	EN	102 884 7972
Spare parts list	EN	EK7.350 102 885 1014
		EK7.450 102 884 9638
Electrical and hydraulic diagrams	EN	

Basic spare parts

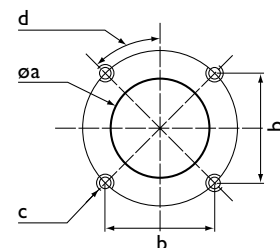
Ignition transformer		173 873 3651
Ignition electrode		172 874 2005
Baffle plate	EK 7.350	161 881 0402
	EK 7.450	161 881 0413
Control box		175 879 7044
Flame detector		175 879 5195

Description

- Two-stage progressive electronic class 3 low NOx forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 5 330 and 6 545 kW.
- Minimum / maximum power ratio: 1/6.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

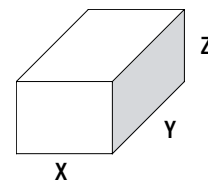
Ø a (mm)	b (mm)	c	d
400	360	M20	45°



Packaging

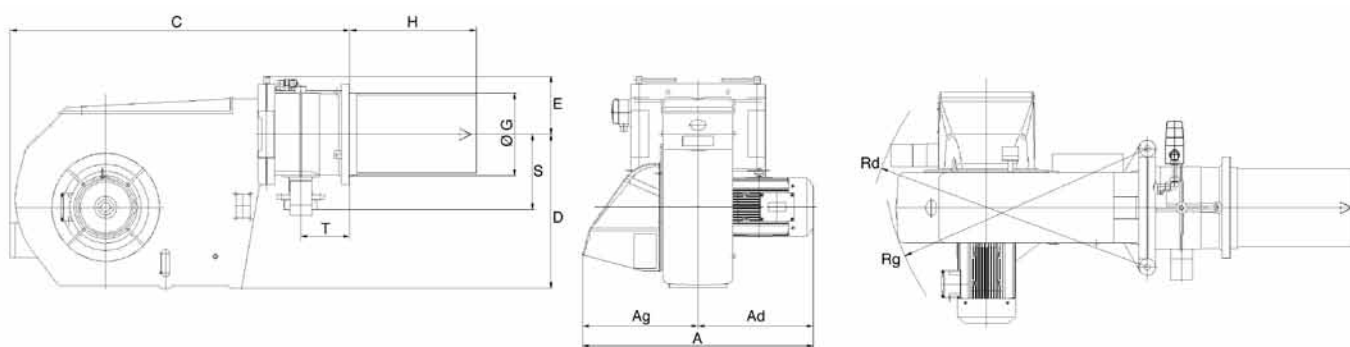
The complete burner with combustion head film-wrapped up on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 8.550 G-EU2/BCS	1750 ... 2080	2200	1090	340 ... 390
EK 8.700 G-EU2/BCS				370 ... 420

Dimensions

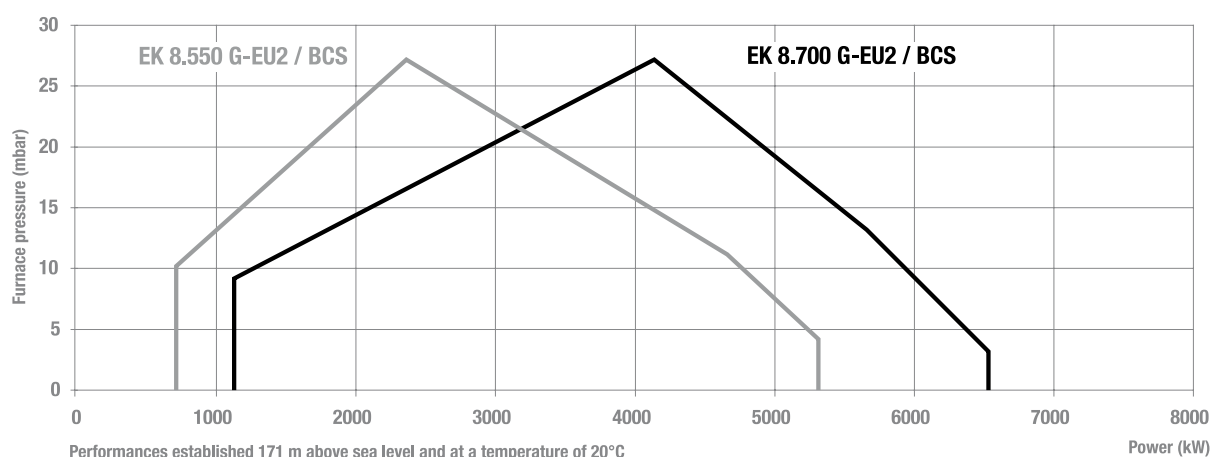


Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	H	Rd	Rg	S	T		
								KN	KM	KL				
EK 8.550 G-EU2/BCS	1071	555	516	1490	638	265	389	500	600	700	1263	1177	348	203
EK 8.700 G-EU2/BCS	1063		508								1343			

Range: EK 8.550 G-EU2/BCS,
EK8.700 G-EU2/BCS
730 ... 6545 kW
2 stage progressive electronic
Low NOx natural gas



Working fields



Characteristics and equipment

Type	EK 8.550 G-EU2/BCS	EK 8.700 G-EU2/BCS
Operating range	730 - 5330 kW	1140 - 6545 kW
Control box / flame detector	BCS / FLW05 - QRA2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 11 kW	2800 rpm - 400/690 V - 50 Hz - 15 kW
Emission grade (according to EN 676)	Class 3	
CE certificate	0085AQ0779	
Complete burner code	1 011 174	1 011 185
Gas train	refer to "Gas train" chapter	

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 975
	20 ... 30 dB(A)	1 148 747 771
Steam equipment (TRD)	on request	
Others	see chapter "Options"	

Documentation

Operating manual	EN	102 884 7972
Spare parts list	EN	102 885 8424
Electrical and hydraulic diagrams	EN	

Basic spare parts

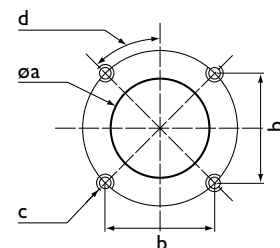
Ignition transformer		173 873 3651
Ignition electrode		172 874 2005
Baffle plate	EK8.550	161 881 0424
	EK8.700	161 881 0435
Control box		175 879 7044
Flame detector		175 879 5195

Description

- Two-stage progressive electronic class 3 low NOx forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 7 950 and 10 275 kW.
- Minimum / maximum power ratio: 1/6.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shut-down.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply.
- Protection level IP 41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

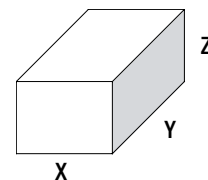
Ø a (mm)	b (mm)	c	d
475	410	M20	45°



Packaging

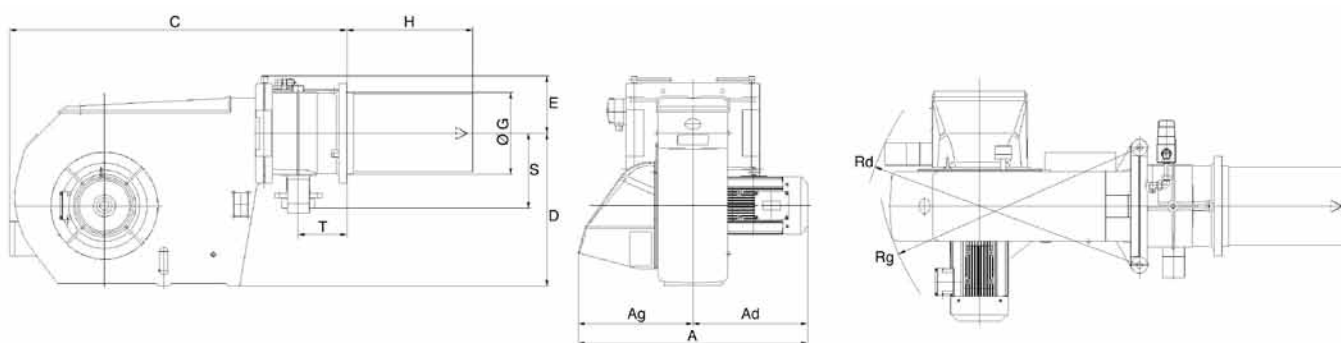
The complete burner with combustion head film-wrapped up on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 9.850 G-EU2/BCS	1920 ... 2300	2360	1290	470 ... 520
EK 9.1000 G-EU2/BCS	1950 ... 2400			510 ... 560

Dimensions

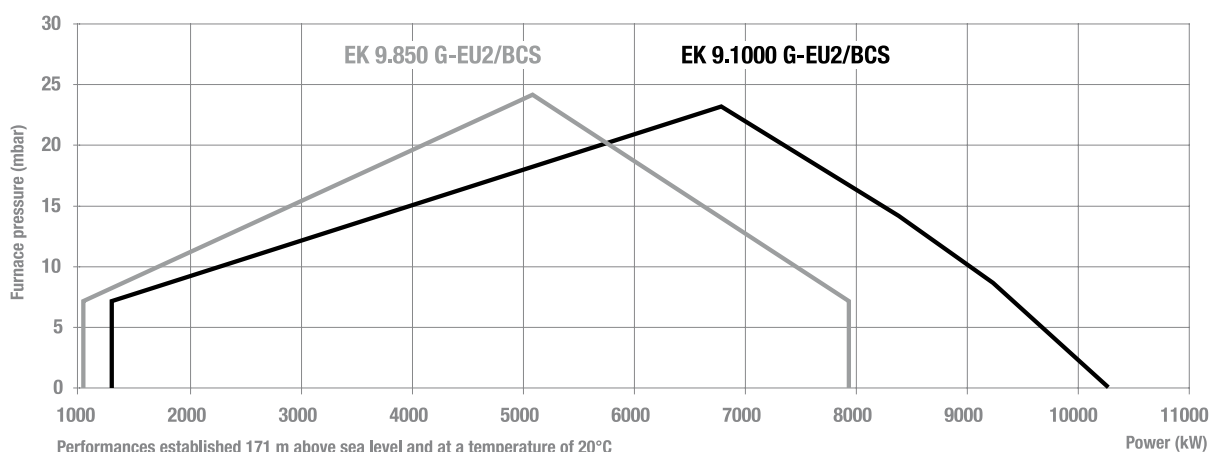


Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG		H		Rd	Rg	S	T
								KN	KM	KL				
EK 9.850 G-EU2/BCS	1176	567	610	1608	830	308	460	550	650	750	1450	1283	383	173
EK 9.1000 G-EU2/BCS	1300	691										1346		

Range: EK 9.850 G-EU2/BCS,
EK 9.1000 G-EU2/BCS
1055 - 10275 kW
2 stage progressive electronic
Low NOx natural gas



Working fields



Characteristics and equipment

Type	EK 9.850 G-EU2/BCS	EK 9.1000 G-EU2/BCS
Operating range	1055 - 7950 kW	1310 - 10275 kW
Control box / flame detector	BCS / FLW05 - QRA2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 18,5 kW	2800 rpm - 400/690 V - 50 Hz - 22 kW
Emission grade (according to EN 676)	Class 3	
CE certificate	0085AQ0779	
Complete burner code	1 011 196	1 011 209
Gas train	refer to "Gas train" chapter	

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 986
	20 ... 30 dB(A)	1 148 747 782
Steam equipment (TRD)	on request	
Others	see chapter "Options"	

Documentation

Operating manual	EN	102 884 7972
Spare parts list	EN	EK 9.850 102 885 2084
	EN	EK 9.1000
Electrical and hydraulic diagrams	EN	

Basic spare parts

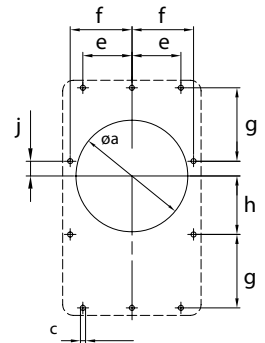
Ignition transformer	173 873 3651
Ignition electrode	172 874 2005
Baffle plate	161 877 1184
Control box	175 879 7044
Flame detector	175 879 1595

Description

- Two-stage progressive electronic class 3 low NOx forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
- Maximum heat power: 12 000 and 14 000 kW.
- Minimum / maximum power ratio: 1/7 (1/8 with frequency inverter).
- Air / gas ratio with choice of two different digital control boxes: BCS or Etamatic.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Optimal accessibility and burner head adjustments preserved during maintenance.
- Maximum compactness, minimum weight.
- Closing of the air damper on burner shut-down.
- Control box: on request, in or out the body of the burner.
- Enumerated connection terminals in the body of the burner.
- Communication by bus with Etamatic (in progress for BCS).
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions: see Options chapter).
- Three-phase electrical power supply.
- Protection level IP 40 (IP 54 as option).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

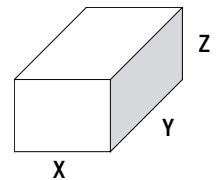
Ø a (mm)	c	e	f	g	h	j
525	M20	230	290	345	275	70



Packaging

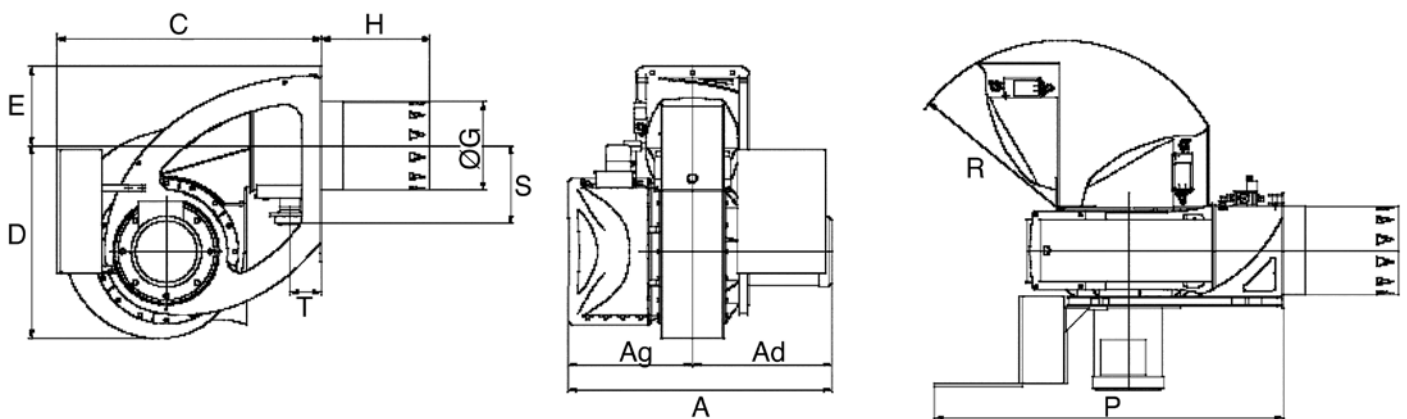
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



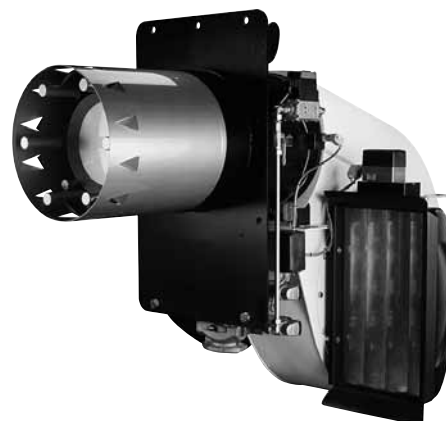
Dimensions (mm)			Gross weight (kg)
X	Y	Z	
1505	2125	1545	640 ... 690 + 100 (transport rack)

Dimensions

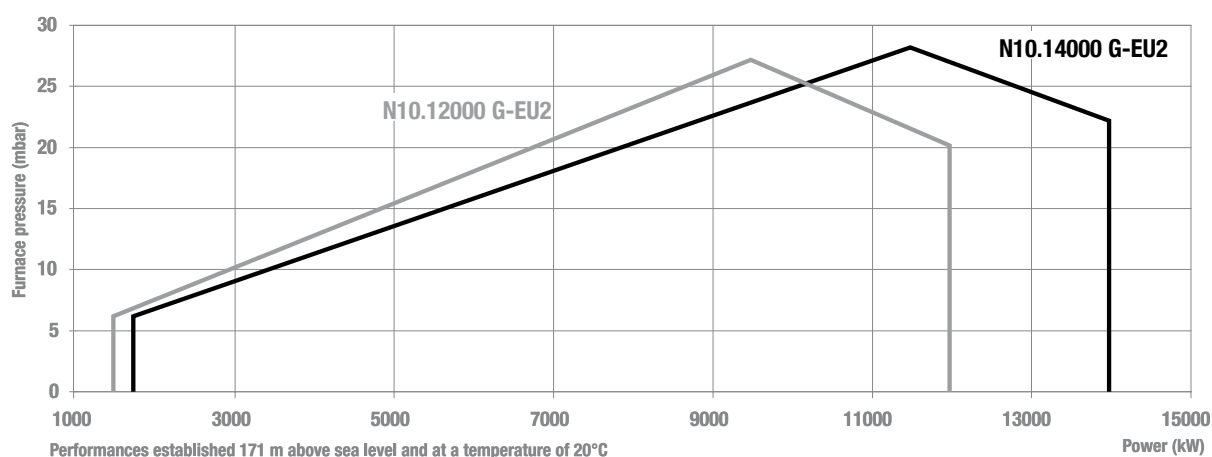


Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	KN	H	KL	Rd	Rg	S	T
N10.12000 G-EU2	1505	795	710	1505	1095	450	504	620	720	820	1990	1000	442	180
N10.14000 G-EU2														

Range: N10.12000 G-EU2,
N10.14000 G-EU2
1 500 ... 14 000 kW
2 stage progressive electronic
Low NOx natural gas



Working fields



Characteristics and equipment

Type	N10.12000 G-EU2	N10.14000 G-EU2
Operating range	1500 - 12000 kW	1750 - 14000 kW
Control box / flame detector	BCS or Etamatic	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 37 kW	2800 rpm - 400/690 V - 50 Hz - 45 kW
Emission grade (according to EN 676)	Class 3	
Acoustics (according to ISO 3744)	< 97 dB(A)	
CE certificate	Homologation in progress	
Complete burner code with BCS	in progress	
with Etamatic	in progress	
Gas train natural gas up to 300 mbar	refer to "Gas train" chapter	

Options

Sound proofing box	15 ... 20 dB(A)	on request
	20 ... 30 dB(A)	on request
Steam equipment (TRD)	on request	
Others	see chapter "Options"	

Basic spare parts

Ignition transformer		173 873 4223
Baffle plate	Newtron 10.12000	161 883 8244
	Newtron 10.14000	161 885 2120
Control box	BCS 300	175 879 1079
Flame detector	BCS / FLW05 module	175 879 5195
Control box	Etamatic	175 884 3765
Flame sensor	QRA2	175 810 6258

Documentation

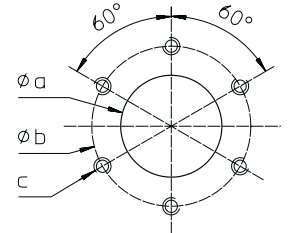
Operating manual	EN	102 885 3463
Spare parts list	EN	Newtron 10.12000 14 003 763
	EN	Newtron 10.14000 14 003 774
Exploded view and spare parts for gas train	EN	102 884 9558
Connection terminals wiring	BCS	170 885 4944
	Etamatic	170 884 5625

Description

- Two-stage progressive pneumatic and low NOx class 3 in gas and three stages in oil dual fuel forced draught burner.
- Fuels:
 - natural gas, net calorific value 8,83 ... 10,53 kWh/m³,
 - light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Maximum heat power: 2 850, 3 700, 4 000 and 4 600 kW.
- Minimum / maximum power ratio: 1/4 in gas and 1/3 in oil.
- Air / gas ratio with pneumatic control technology in gas.
- Two combustion head lengths.
- Secured burner head adjustments during maintenance.
- Escargot type architecture:
 - Optimal accessibility,
 - Easy maintenance,
 - Separated Motor-pump,
 - Secured burner head adjustments.
- Closing of the air flap on burner shut-down.
- Gas train factory assembled and tested for tightness and electrical security.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP 51.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

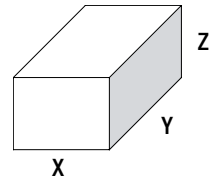
Ø a (mm)	b (mm)	c	d
360	430	M12	60°



Packaging

The complete burner with combustion head is delivered in one single box on a pallet complete with:

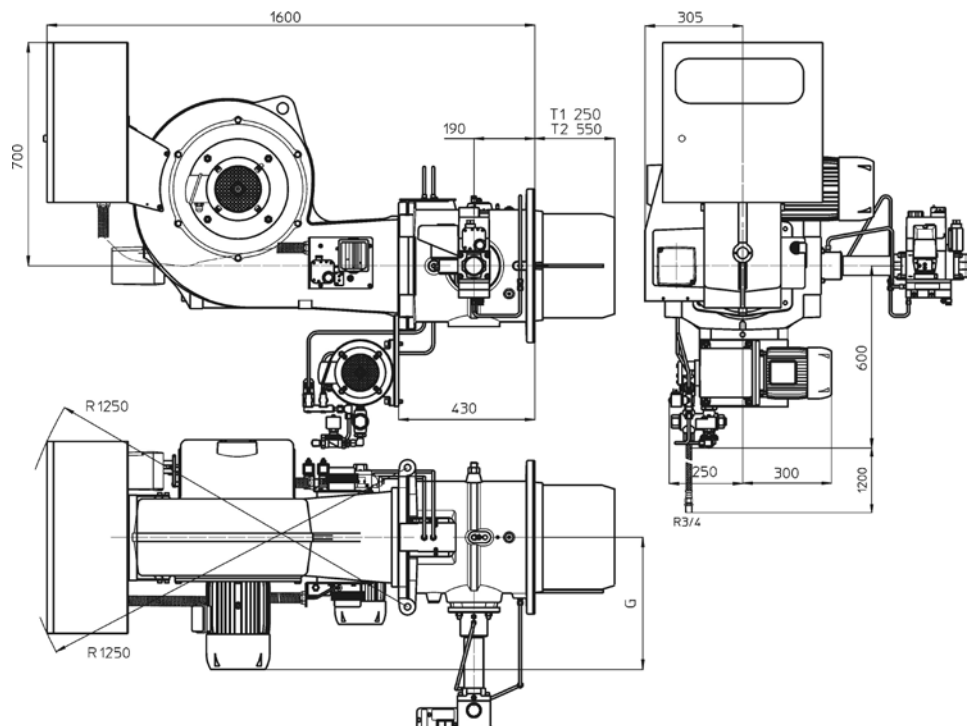
- Gas train and filter,
- Hoses and nozzles,
- Boiler fixing accessories,
- Directions for use including electrical diagram and spare parts list.



	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
Body	132	122	95	178 ... 204
Combustion heads KL	108	55	50	110 ... 112
KN	108	55	50	101

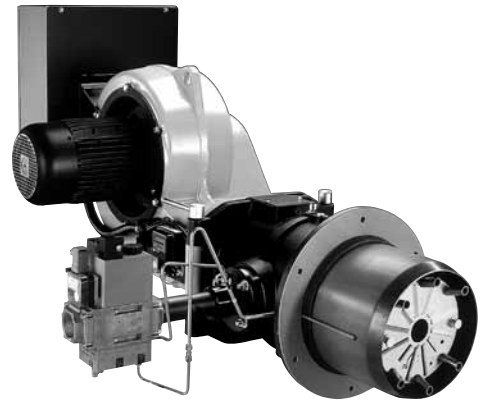
Dimensions

Type	Cote G (mm)
ES 08.2800 GL-VTZ3 d1,1/4-Rp2	395
ES 08.3700 GL-VTZ3 S80-DN80	395
ES 08.3700 GL-VTZ3 S65-DN65	395
ES 08.3700 GL-VTZ3 d2-Rp2	395
ES 08.4000 GL-VTZ3 S65-DN65	425
ES 08.4000 GL-VTZ3 d2-Rp2	425
ES 08.5000 GL-VTZ3 S65-DN65	480
ES 08.5000 GL-VTZ3 d2-Rp2	480

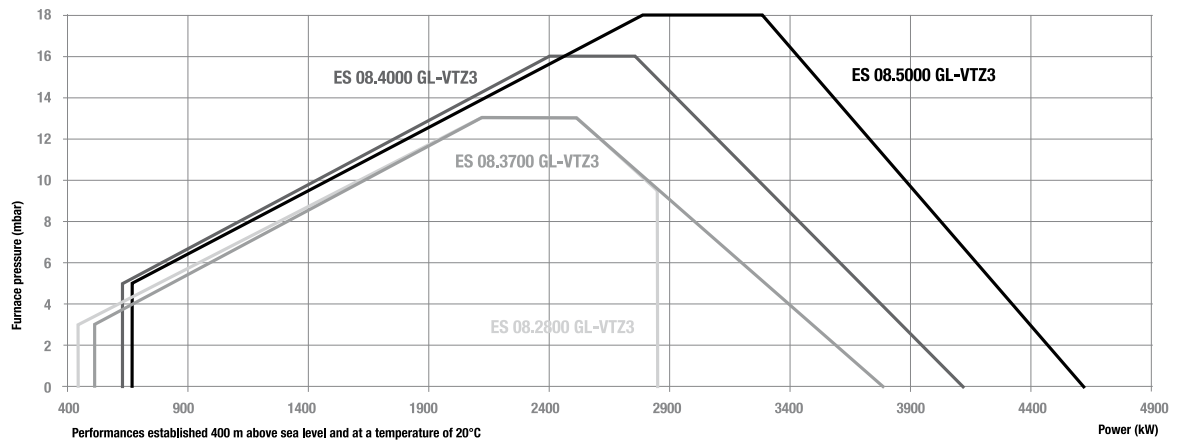


Dual fuel ES 08 GL-VTZ3

Range: ES 08.2800 GL-VTZ3,
ES 08.3700 GL-VTZ3, ES 08.4000 GL-VTZ3,
ES 08.5000 GL-VTZ3
500 ... 4600 kW
2 stage progressive pneumatic in gas (Low NOx)
3 stages in oil



Working fields



Characteristics and equipment

Type	ES 08.2800 GL-VTZ3		ES 08.3700 GL-VTZ3		ES 08.4000 GL-VTZ3		ES 08.5000 GL-VTZ3	
Operating range	500 - 2850 kW		500 - 3800 kW		600 - 4100 kW		700 - 4600 kW	
Gas train and nozzle	According to gas pressure and requested power							
Fuel flow	49 ... 279 m³/h		49 ... 363 m³/h		59 ... 392 m³/h		69 ... 450 m³/h	
Control box	LFL 1.33							
Fan Motor	2800 rpm - 230/400 V 50 Hz - 4 kW		2800 rpm - 230/400 V 50 Hz - 4 kW		2800 rpm - 230/400 V 50 Hz - 5,5 kW		2800 rpm - 230/400 V 50 Hz - 11 kW	
Noise level (dB)	85,14		85,14		86,96		88,47	
Pump	NVBGRPIC							
	KN	KL	KN	KL	KN	KL	KN	KL
Complete burner code								
s80-DN80	on request	on request	on request	on request	on request	on request	on request	on request
s65-DN65	on request	on request	on request	on request	on request	on request	on request	on request
d2-Rp2	on request	on request	on request	on request	on request	on request	on request	on request
d1,1/4-Rp2	on request	on request	on request	on request	on request	on request	on request	on request

Options

Counter face plate		13 018 500
Speed-controller	4TT	3 832 694
	5,5TT	3 832 695
	11TT	3 832 697

Basic spare parts

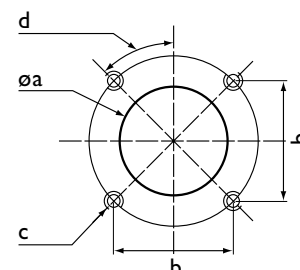
Ignition transformer	13 016 677
Ignition electrode	
Baffle plate	ES 08.2800 GL-VTZ3
	ES 08.3700 GL-VTZ3
	ES 08.4000 GL-VTZ3
	ES 08.5000 GL-VTZ3
Control box	13 016 388
Flame detector	13 015 690

Description

- Two-stage progressive mechanical dual fuel forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Maximum heat power by gas: 1675, 2075, 2590 and 2890 kW.
- Minimum / maximum power ratio: gas 1/4, fuel oil 1/3.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air-damper on burner shutdown.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267, EN 676 norms and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

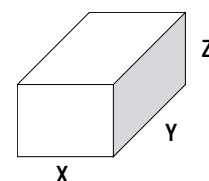
Ø a (mm)	b (mm)	c	d
290	240	M20	45°



Packaging

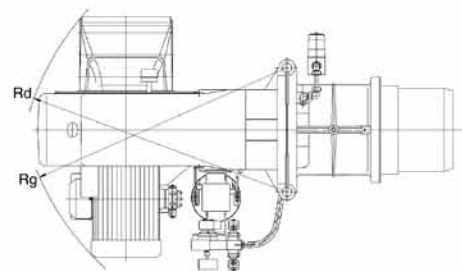
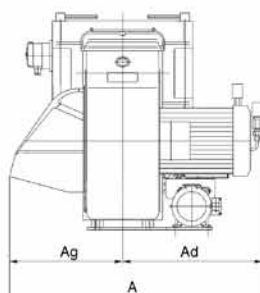
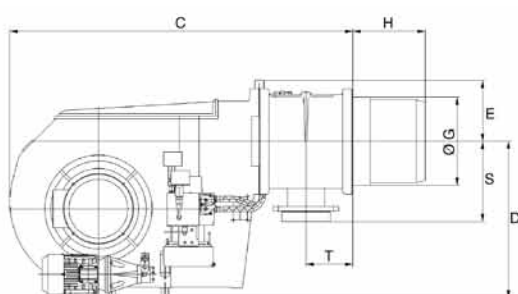
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 6.170/200 GL-R	1300 ... 1600	1700	870	250 ... 290
EK 6.240/300 GL-R	1450 ... 1750	1770	870	255 ... 290

Dimensions



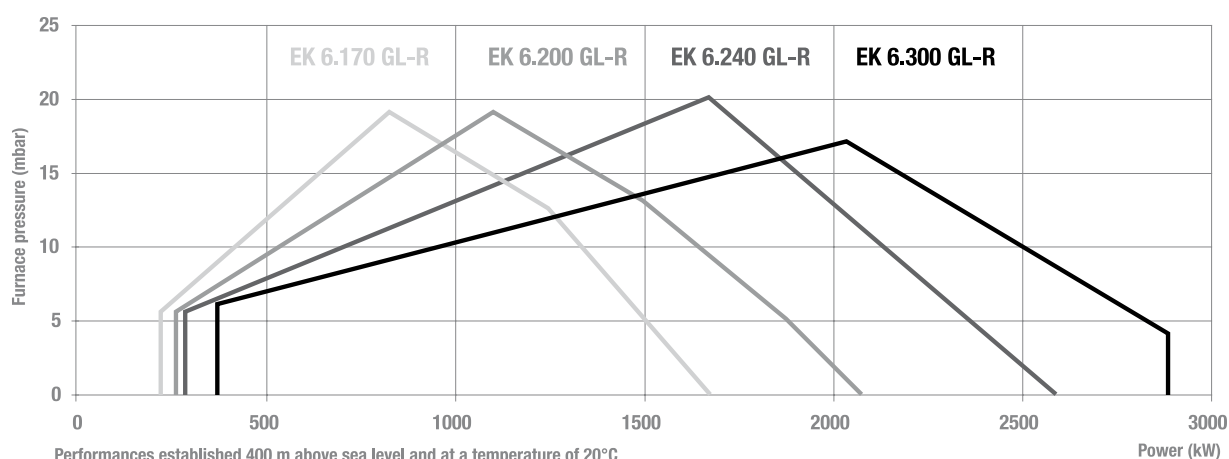
Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	KN	KM	KL	Rd	Rg	S	T
EK 6.170 GL-R	864	530	334	1180	531	197	280	230	330	430	937	964	260	141
EK 6.200 GL-R			432					250	350	450	1007		298	114
EK 6.240 GL-R	962	530	432	1180	531	197	280	230	330	430	937	964	260	141
EK 6.300 GL-R			432					250	350	450	1007		298	114

Dual fuel EK6 GL-R

Range: EK 6.170 GL-R, EK 6.200 GL-R,
EK 6.240 GL-R, EK 6.300 GL-R
225 ... 2890 kW
2 stage progressive mechanical
Natural gas - Light oil



Working fields



Characteristics and equipment

Type	EK 6.170 GL-R	EK 6.200 GL-R	EK 6.240 GL-R	EK 6.300 GL-R
Operating range	225 - 1675 kW	265 - 2075 kW	290 - 2590 kW	375 - 2890 kW
Control box / flame detector	LFL 1.333 / QRA2			
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 3 kW		2800 rpm - 400/690 V - 50 Hz - 4 kW	
Pump	SMG1945 - 520 l/h		SMG16026 - 735 l/h	
Motor pump	2800 rpm - 400/690 V - 50 Hz - 0,75 kW		2800 rpm - 400/690 V - 50 Hz - 1,1 kW	
Emission grade (according to EN 267 / 676)	Class 2 / Class 2			
CE certificate	0085AQ0412			
Complete burner code	1 006 324	1 006 335	1 006 346	1 006 357
Gas train natural gas up to 300 mbar	refer to “Gas train” chapter			

Options

Steam equipment (TRD)	
extra equipment	1 013 498
Others	see Options chapter

Documentation

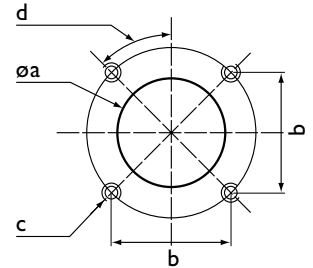
Operating manual	EN	102 884 6537
Spare parts list	EN	102 880 7830
	EK 6.170	
	EK 6.200	
	EK 6.240	140 031 8048
	EK 6.300	102 885 1592
Electrical and hydraulic diagrams	EN	170 884 8113

Description

- Two-stage progressive mechanical dual fuel forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Maximum heat power by gas: 3640 and 4535 kW.
- Minimum / maximum power ratio: gas 1/4, fuel oil 1/3.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air-damper on burner shutdown.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267, EN 676 norms and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

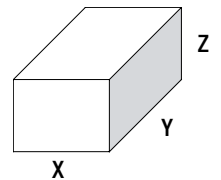
Ø a (mm)	b (mm)	c	d
350	320	M20	45°



Packaging

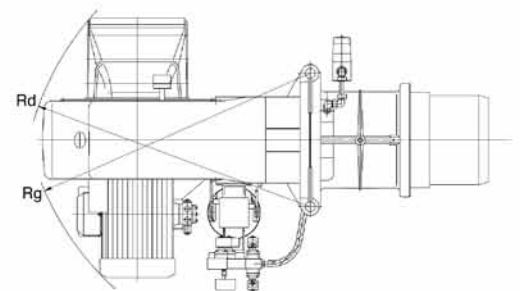
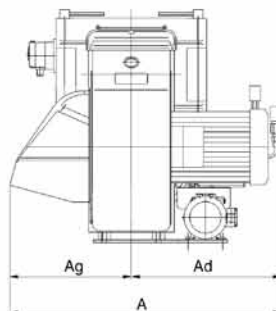
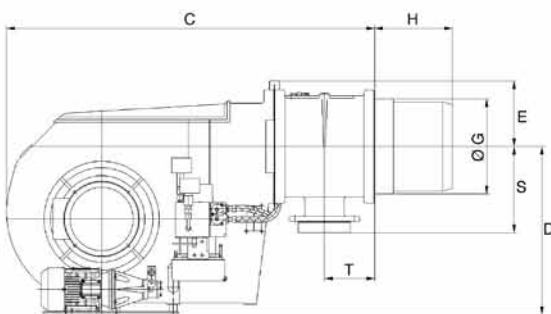
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 7.350 GL-R	1500 ... 1850	1900	1050	350 ... 370
EK 7.450 GL-R				360 ... 380

Dimensions



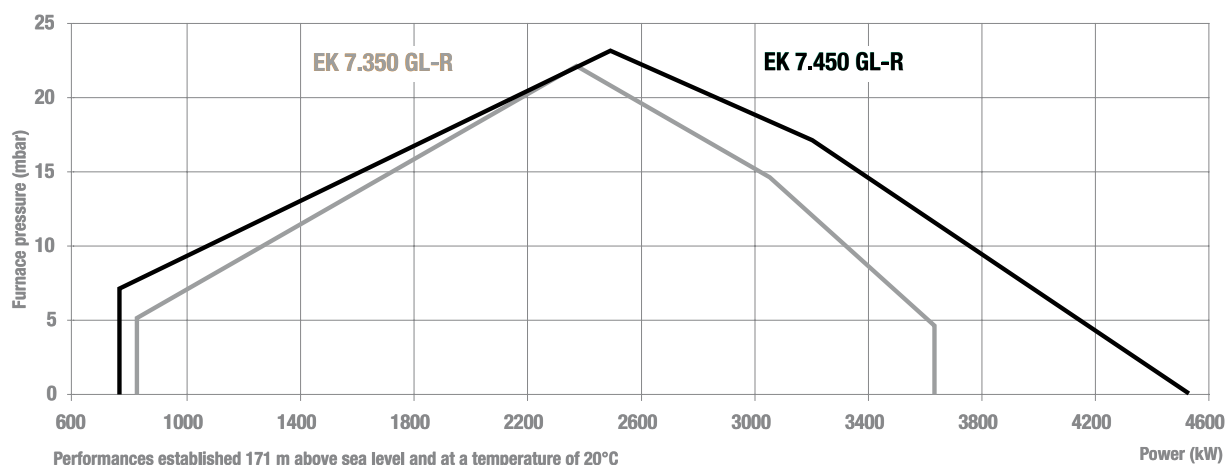
Type	Dimensions (mm)												S	T
	A	Ad	Ag	C	D	E	ØG	KN	KM	KL	Rd	Rg		
EK 7.350 GL-R	1064	580	484	1400	654	242	350	270	370	470	1133	1158 1213	315	206
EK 7.450 GL-R														

Dual fuel EK7 GL-R

Range: EK 7.350 GL-R, EK 7.450 GL-R
830 ... 4530 kW
2 stage progressive mechanical
Natural gas - Light oil



Working fields



Characteristics and equipment

Type	EK 7.350 GL-R	EK 7.450 GL-R
Operating range	830 - 3640 kW	770 - 4530 kW
Control box / flame detector	LFL 1.333 / QRA2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 5,5 kW	2800 rpm - 400/690 V - 50 Hz - 7,5 kW
Pump	SMG 1946 - 900 l/h	SMG 1629 - 1200 l/h
Motor pump	2800 rpm - 400/690 V - 50 Hz - 1,5 kW	2800 rpm - 400/690 V - 50 Hz - 2,2 kW
Emission grade (according to EN 267 / 676)	Class 2 / Class 2	
CE certificate	0085AQ0412	
Complete burner code	1 009 232	1 009 243
Gas train natural gas up to 300 mbar	refer to "Gas train" chapter	

Options

Steam equipment (TRD) extra equipment	1 013 501
Others	see Options chapter

Documentation

Operating manual	EN	102 884 6537
Spare parts list	EN	EK 7.350 102 884 7132
	EK 7.450	102 885 0204
Electrical and hydraulic diagrams	EN	170 884 8124

Basic spare parts

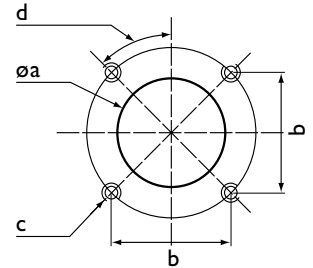
Ignition transformer	173 873 3651
Ignition electrodes	172 874 2005
Baffle plate	EK 7.350 161 879 4750
	EK 7.450 131 880 2186
Pump	13 011 763
Control box	13 012 980
Flame detector	

Description

- Two-stage progressive mechanical dual fuel forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Maximum heat power by gas: 5815 and 7110 kW.
- Minimum / maximum power ratio: gas 1/4, fuel oil 1/3.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air-damper on burner shutdown.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267, EN 676 norms and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

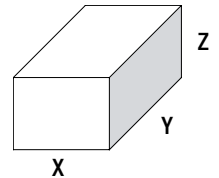
Ø a (mm)	b (mm)	c	d
400	360	M20	45°



Packaging

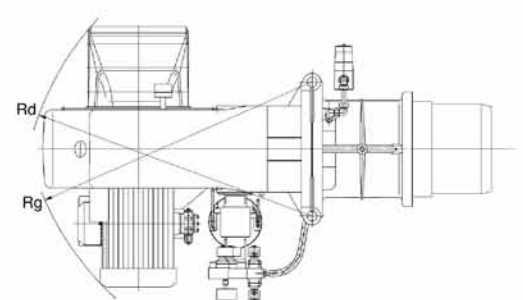
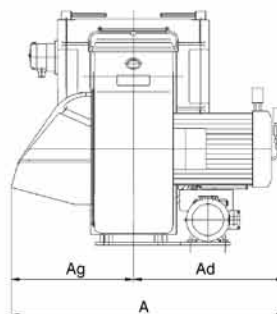
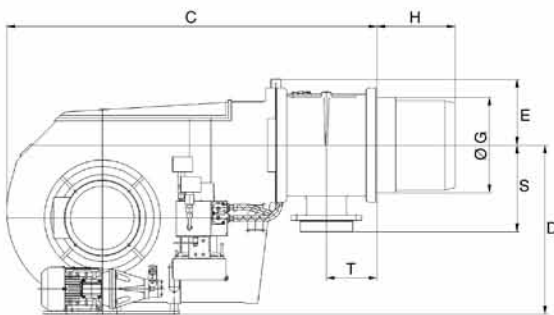
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 8.550 GL-R	1750 ... 2080	2000	1090	440 ... 490
EK 8.700 GL-R				470 ... 520

Dimensions



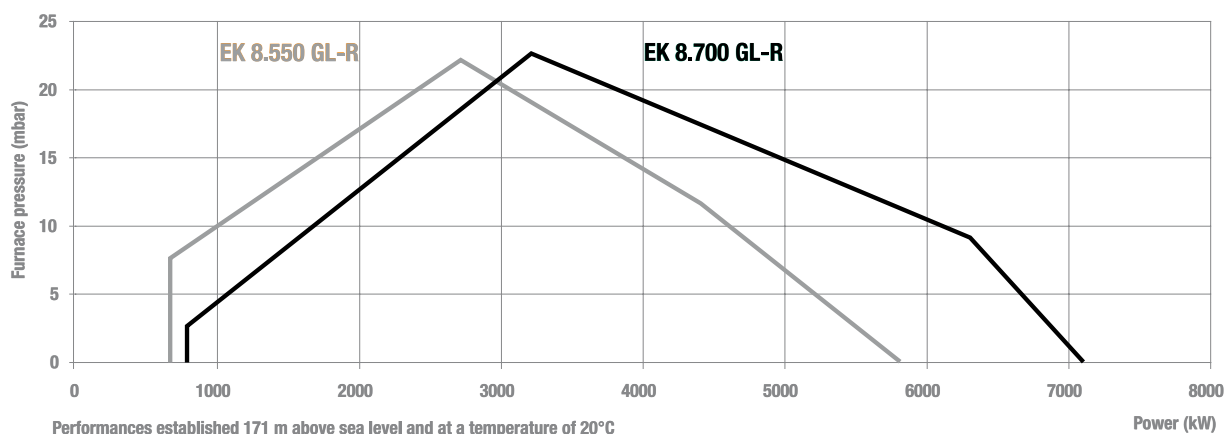
Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	KN	H	KL	Rd	Rg	S	T
EK 8.550 GL-R	1103	607	496	1490	680	265	389	310	410	510	1174	1202	348	203
EK 8.700 GL-R	1115		508								1258			

Dual fuel EK8 GL-R

Range: EK 8.550 GL-R, EK 8.700 GL-R
680 ... 7110 kW
2 stage progressive mechanical
Natural gas - Light oil



Working fields



Characteristics and equipment

Type	EK 8.550 GL-R	EK 8.700 GL-R
Operating range	680 - 5815 kW	800 - 7110 kW
Control box / flame detector	LFL 1.333 / QRA2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 11 kW	2800 rpm - 400/690 V - 50 Hz - 15 kW
Pump	SMG 1629 - 1200 l/h	SMG 1630 - 1700 l/h
Motor pump	2800 rpm - 400/690 V - 50 Hz - 2,2 kW	2800 rpm - 400/690 V - 50 Hz - 3 kW
Emission grade (according to EN 267 / 676)	Class 2 / Class 2	
CE certificate	0085AQ0412	
Complete burner code	1 009 298	1 009 301
Gas train natural gas up to 300 mbar	refer to "Gas train" chapter	

Options

Steam equipment (TRD) extra equipment	1 013 512
Others	see Options chapter

Documentation

Operating manual	EN	102 884 6537
Spare parts list	EN	EK 8.550 102 884 7029
		EK 8.700
Electrical and hydraulic diagrams	EN	170 884 8124

Basic spare parts

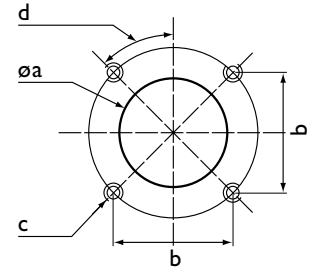
Ignition transformer		173 873 3651
Ignition electrodes	gas	172 874 2005
	oil	172 870 3262
Baffle plate	EK 8.550	161 871 0449
	EK 8.700	
Control box		13 011 763
Flame detector		13 012 980

Description

- Two-stage progressive mechanical dual fuel forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Maximum heat power by gas: 8180 and 11200 kW.
- Minimum / maximum power ratio: gas 1/4, fuel oil 1/3.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air-damper on burner shutdown.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267, EN 676 norms and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

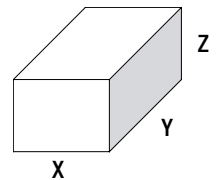
Ø a (mm)	b (mm)	c	d
475	410	M20	45°



Packaging

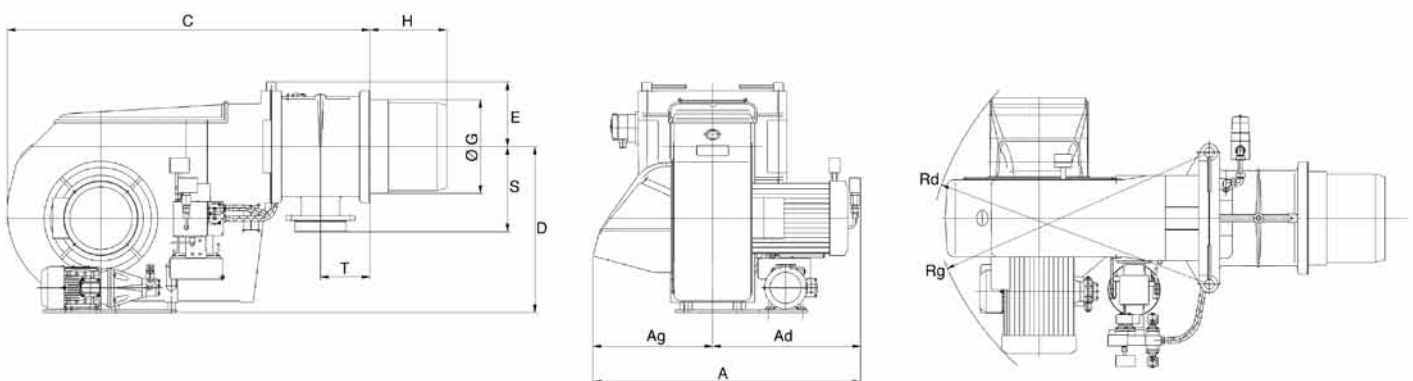
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 9.850 GL-R	1920 ... 2300	2160	1290	590 ... 640
EK 9.1000 GL-R	1950 ... 2400			630 ... 680

Dimensions



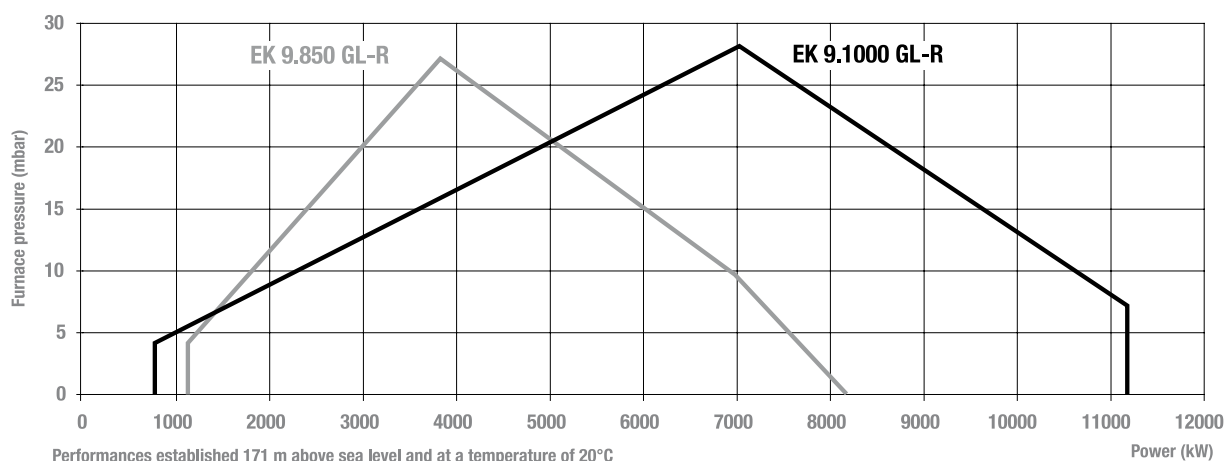
Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	KN	H	KL	Rd	Rg	S	T
EK 9.850 GL-R	1228	618	610	1608	842	305	460	350	450	550	1366	1369	383	173
EK 9.1000 GL-R	1301	691												

Dual fuel EK9 GL-R

Range: EK 9.850 GL-R, EK 9.1000 GL-R
1150 ... 11200 kW
2 stage progressive mechanical
Natural gas - Light oil



Working fields



Characteristics and equipment

Type	EK 9.850 GL-R	EK 9.1000 GL-R
Operating range	1150 - 8180 kW	795 - 11200 kW
Control box / flame detector	LFL 1.333 / QRA2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 18,5 kW	2800 rpm - 400/690 V - 50 Hz - 22 kW
Pump	SMG 1631 - 2250 l/h	
Motor pump	2800 rpm - 400/690 V - 50 Hz - 4 kW	
Emission grade (according to EN 267 / 676)	Class 2 / Class 2	
CE certificate	0085AQ0412	
Complete burner code	1 009 378	1 009 389
Gas train natural gas up to 300 mbar	refer to "Gas train" chapter	

Options

Steam equipment (TRD) extra equipment	1 013 523
Others	see Options chapter

Documentation

Operating manual	EN	102 884 6537
Spare parts list	EN	EK 9.850 102 885 2802
		EK 9.1000 102 885 3985
Electrical and hydraulic diagrams	EN	170 884 8124

Basic spare parts

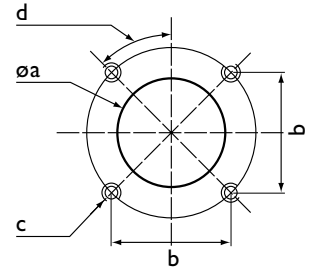
Ignition transformer		173 873 3651
Ignition electrodes	gas	172 874 2005
	oil	172 870 3262
Baffle plate	EK 9.850	161 869 2348
	EK 9.1000	161 871 0449
Control box		13 011 763
Flame detector		13 012 980

Description

- Two stage progressive mechanical dual fuel forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, low NOx class 3.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg, low NOx class 2.
- Maximum heat power by gas: 1450, 1710, 2010 and 2450 kW.
- Minimum / maximum power ratio: gas 1/4, fuel oil 1/3.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air-damper on burner shutdown.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267, EN 676 norms and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

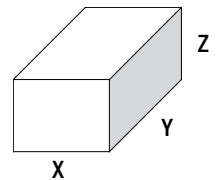
Ø a (mm)	b (mm)	c	d
290	240	M20	45°



Packaging

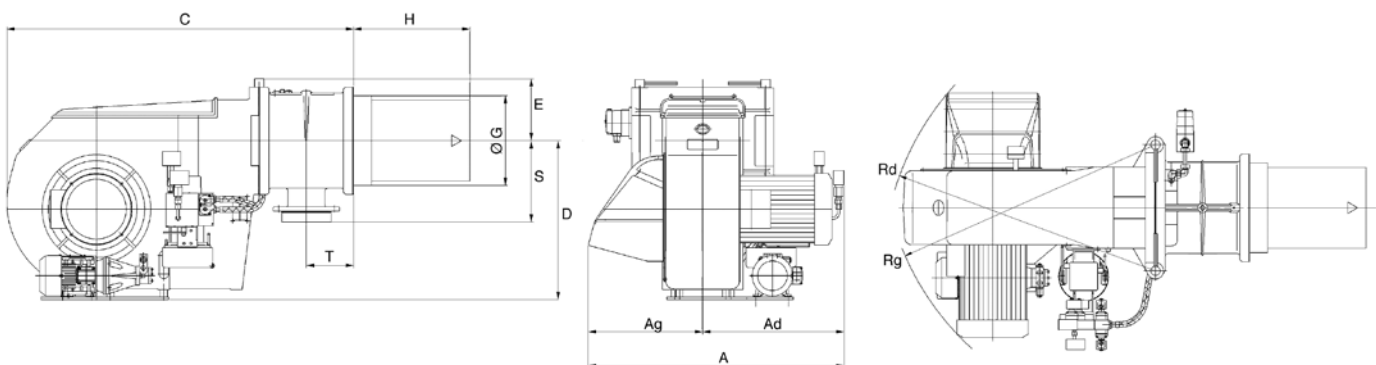
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter,
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 6.170/200 GL-RU	1300 ... 1600	1900	870	250 ... 290
EK 6.240/300 GL-RU	1450 ... 1750	1970	870	255 ... 290

Dimensions



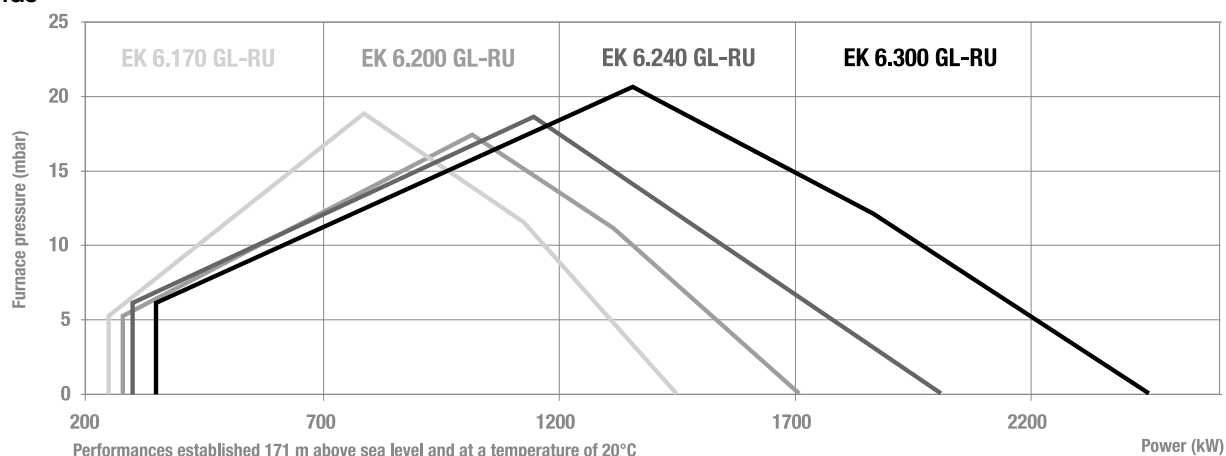
Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	KN	KM	KL	Rd	Rg	S	T
EK 6.170 GL-RU	864	530	334	1180	531	197	280	434	534	634	937	974	260	141
EK 6.200 GL-RU			432					457	557	657	1007		298	114
EK 6.240 GL-RU	962	530	432	0	531	197	280	434	534	634	937	974	260	141
EK 6.300 GL-RU			432					457	557	657	1007		298	114

Dual fuel EK6 GL-RU

Range: EK 6.170 GL-RU, EK 6.200 GL-RU,
EK 6.240 GL-RU, EK 6.300 GL-RU
250 ... 2450 kW
2 stage progressive mechanical
Low NOx natural gas - Light oil



Working fields



Characteristics and equipment

Type	EK 6.170 GL-RU	EK 6.200 GL-RU	EK 6.240 GL-RU	EK 6.300 GL-RU
Operating range	250 - 1450 kW	280 - 1710 kW	300 - 2010 kW	350 - 2450 kW
Control box / flame detector	LFL1.333 / QRA2			
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 3 kW		2800 rpm - 400/690 V - 50 Hz - 4 kW	
Pump	SMG 1945 - 520 l/h		SMG 16026 - 735 l/h	
Motor pump	2800 rpm - 400/690 V - 50 Hz - 0,75 kW		2800 rpm - 400/690 V - 50 Hz - 1,1 kW	
Emission grade (according to EN 267 / 676)	Light oil class 2 / Gas class 3			
CE certificate	0085AQ0412			
Complete burner code	1 006 368	1 006 379	1 006 380	1 006 391
Gas train natural gas up to 300 mbar	refer to “Gas train” chapter			

Options

Steam equipment (TRD) extra equipment	1 013 498
Others	see Options chapter

Documentation

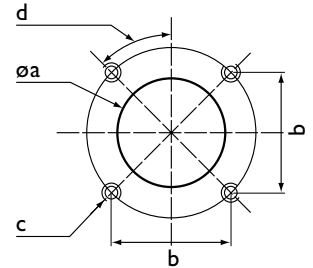
Operating manual	EN	102 884 6537
Spare parts list	EN	102 880 8015
	EK 6.170	
	EK 6.200	
	EK 6.240	
	EK 6.300	
Electrical and hydraulic diagrams	EN	170 884 8113

Description

- Two stage progressive mechanical dual fuel forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, low NOx class 3.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg, low NOx class 2.
- Maximum heat power by gas: 3460 kW.
- Minimum / maximum power ratio: gas 1/4, fuel oil 1/3.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air-damper on burner shutdown.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

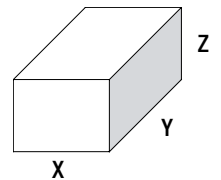
Ø a (mm)	b (mm)	c	d
350	320	M20	45°



Packaging

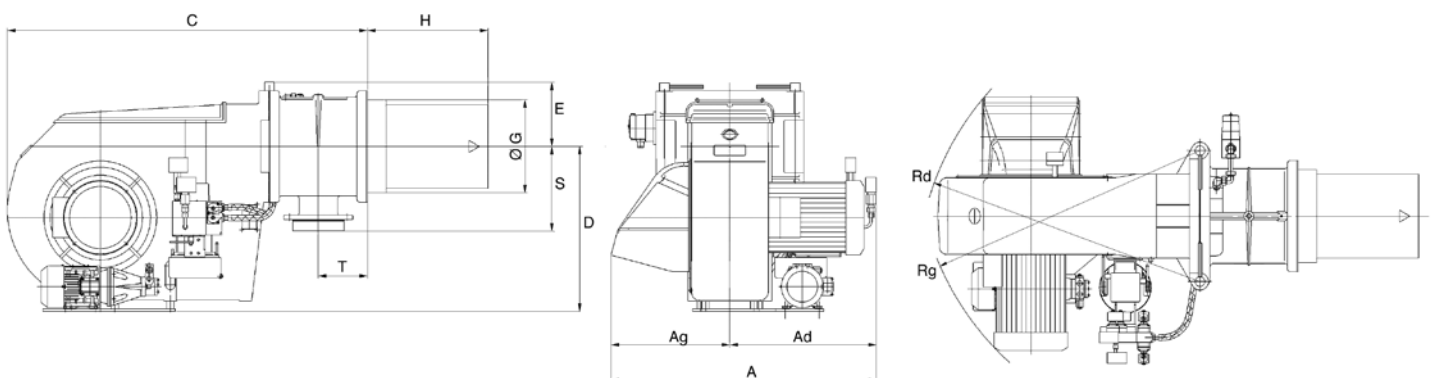
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 7.450 GL-RU	1550 ... 1850	2160	1050	360 ... 380

Dimensions

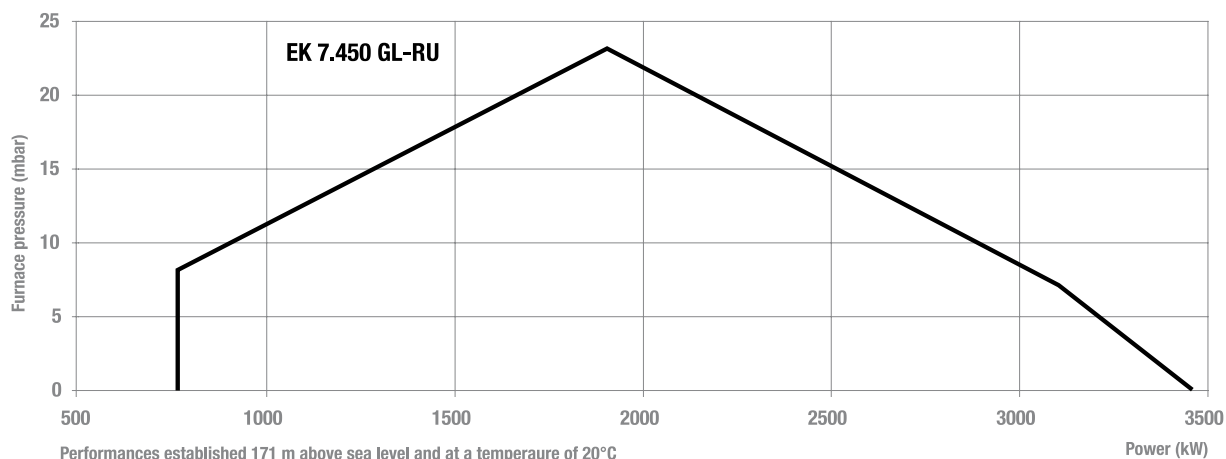


Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG		H		Rd	Rg	S	T
								KN	KM	KL				
EK 7.450 GL-RU	1064	580	484	1400	654	242	350	530	630	730	1133	1213	315	206

Range: EK 7.450 GL-RU
770 ... 3460 kW
2 stage progressive mechanical
Low NOx natural gas - Light oil



Working field



Characteristics and equipment

Type	EK 7.450 GL-RU
Operating range	770 - 3460 kW
Control box / flame detector	LFL 1.333 / QRA2
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 7,5 kW
Pump	SMG 19065 - 900 l/h
Motor pump	2800 rpm - 400/690 V - 50 Hz - 1,5 kW
Emission grade (according to EN 267 / 676)	Light oil class 2 / Gas class 3
CE certificate	0085AQ0412
Complete burner code	1 009 254
Gas train natural gas up to 300 mbar	refer to "Gas train" chapter

Options

Steam equipment (TRD) extra equipment	1 013 501
Others	see Options chapter

Documentation

Operating manual	EN	102 884 6537
Spare parts list	EN	102 879 9733
Electrical and hydraulic diagrams	EN	170 884 8124

Basic spare parts

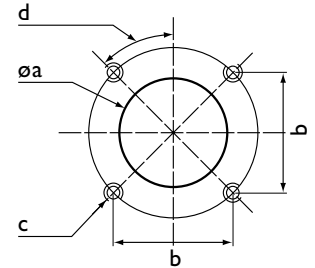
Ignition transformer		173 873 3651
Ignition electrodes	gas	172 874 2005
	oil	172 870 3262
Baffle plate	EK 7.450	161 880 8468
Control box		13 011 763
Flame detector		13 012 980

Description

- Two-stage progressive mechanical dual fuel forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, low NOx class 3.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg low NOx class2.
- Maximum heat power by gas: 4360 and 5240 kW.
- Minimum / maximum power ratio: gas 1/4, fuel oil 1/3.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Closing of the air-damper on burner shutdown.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267, EN 676 norms and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

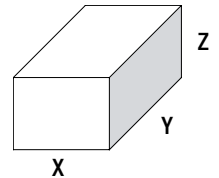
Ø a (mm)	b (mm)	c	d
400	360	M20	45°



Packaging

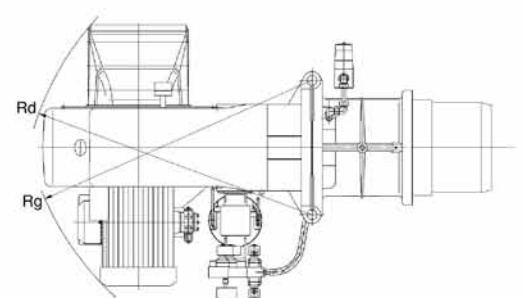
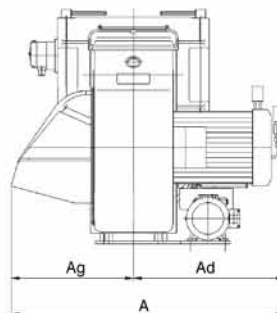
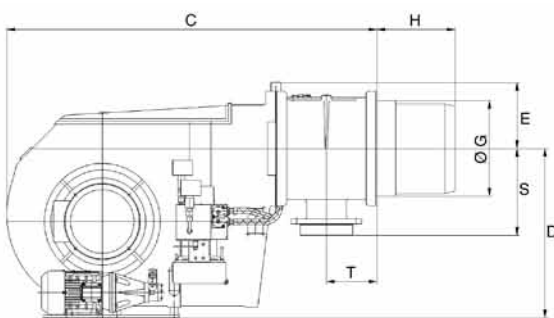
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 8.550 GL-RU	1750 ... 2080	2190	1090	440 ... 490
EK 8.700 GL-RU				470 ... 520

Dimensions

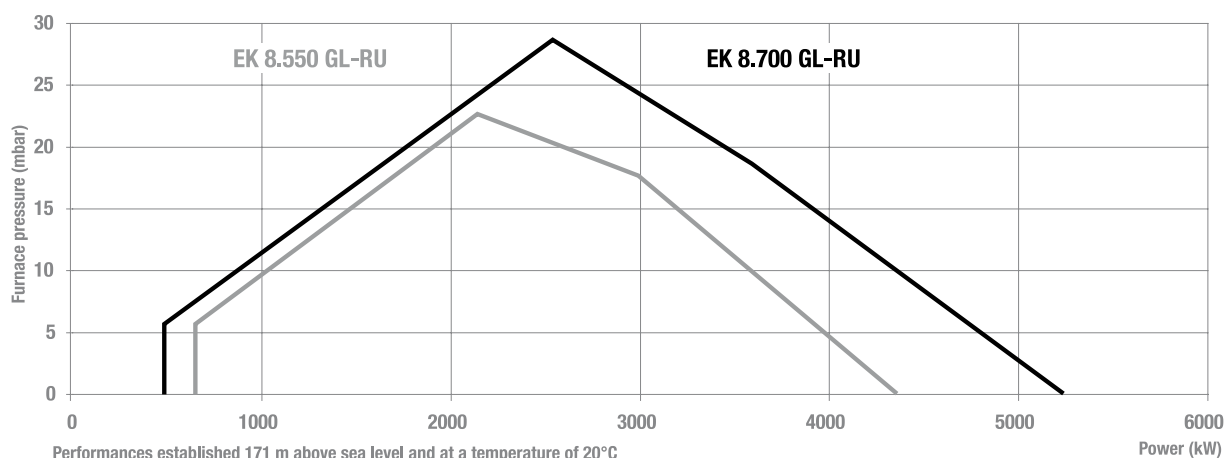


Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	KN	H	KL	Rd	Rg	S	T
EK 8.550 GL-RU	1103	607	496	1490	680	265	389	500	600	700	1174	1177	348	203
EK 8.700 GL-RU	1115		508								1258	1202		

Range: EK 8.550 GL-RU, EK 8.700 GL-RU
660 ... 5240 kW
2 stage progressive mechanical
Low NOx natural gas - Light oil



Working fields



Characteristics and equipment

Type	EK 8.550 GL-RU	EK 8.700 GL-RU
Operating range	660 - 4360 kW	495 - 5240 kW
Control box / flame detector	LFL 1.333 / QRA2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 11 kW	2800 rpm - 400/690 V - 50 Hz - 15 kW
Pump	SMG 1946 - 900 l/h	SMG 1629 - 1200 l/h
Motor pump	2800 rpm - 400/690 V - 50 Hz - 1,5 kW	2800 rpm - 400/690 V - 50 Hz - 2,2 kW
Emission grade (according to EN 267 / 676)	Light oil class 2 / Gas class 3	
CE certificate	0085AQ0412	
Complete burner code	1 009 312	1 009 323
Gas train natural gas up to 300 mbar	refer to "Gas train" chapter	

Options

Steam equipment (TRD) extra equipment	1 013 512
Others	see Options chapter

Documentation

Operating manual	EN	102 884 6537
Spare parts list	EN	EK 8.550
		EK 8.700
Electrical and hydraulic diagrams	EN	170 884 8124

Basic spare parts

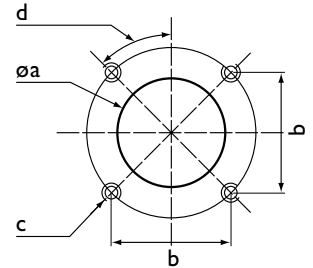
Ignition transformer		173 873 3651
Ignition electrodes	gas	172 874 2005
	oil	172 870 3262
Baffle plate	EK 8.550	
	EK 8.700	161 861 1854
Control box		13 011 763
Flame detector		13 012 980

Description

- Two-stage progressive mechanical dual fuel forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, low NOx class 3.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg low NOx class 2.
- Maximum heat power by gas: 7000 and 9200 kW.
- Minimum / maximum power ratio: gas 1/6, fuel oil 1/3.
- Secured burner head adjustments during maintenance.
- Three flame tube lengths.
- Closing of the air-damper on burner shutdown.
- Security box and base delivered separately for integration to external switch cabinet.
- Enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267, EN 676 norms and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

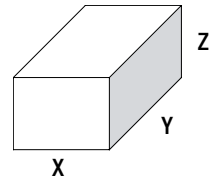
Ø a (mm)	b (mm)	c	d
475	410	M20	45°



Packaging

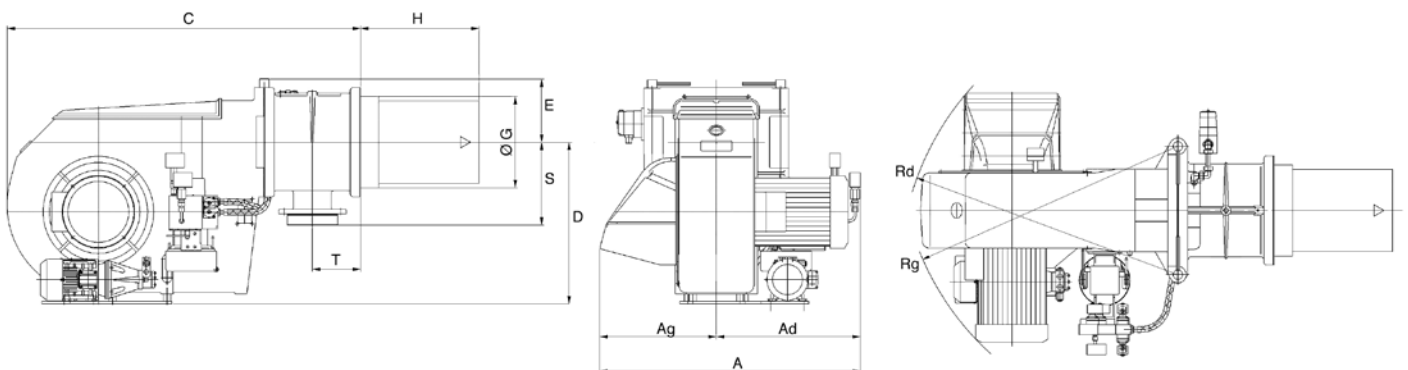
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 9.850 GL-RU	1920 ... 2300	2410	1290	590 ... 640
EK 9.1000 GL-RU	1950 ... 2400			630 ... 680

Dimensions

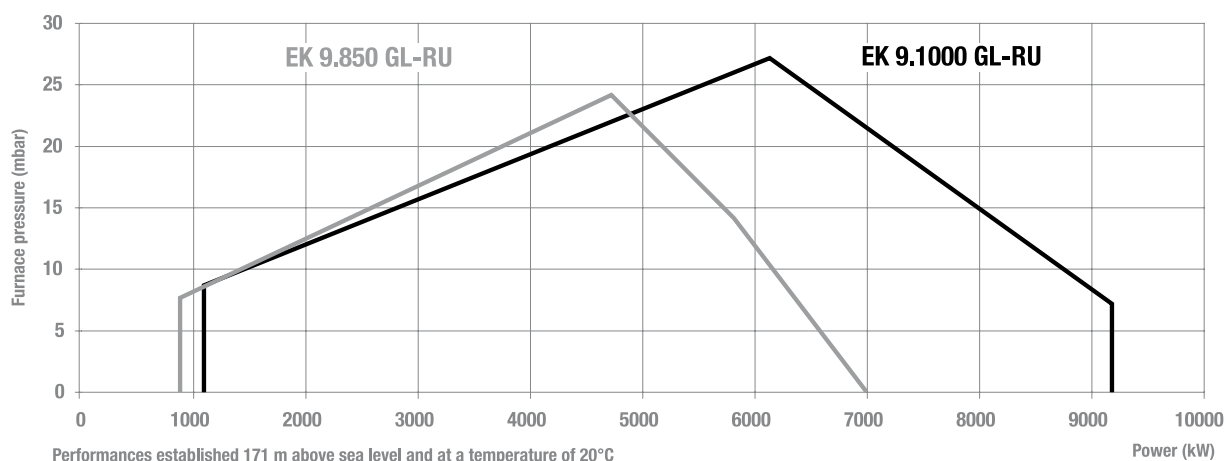


Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG				Rd	Rg	S	T
								KN	KM	KL				
EK 9.850 GL-RU	1228	618	610	1608	842	305	460	600	700	800	1366	1309 1369	383	173
EK 9.1000 GL-RU	1301	691												

Range: EK 9.850 GL-RU, EK 9.1000 GL-RU
900 ... 9200 kW
2 stage progressive mechanical
Low NOx natural gas - Light oil



Working fields



Characteristics and equipment

Type	EK 9.850 GL-RU	EK 9.1000 GL-RU
Operating range	900 - 7000 kW	1110 - 9200 kW
Control box / flame detector	BCS / FLW05 - QRA2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 18,5 kW	2800 rpm - 400/690 V - 50 Hz - 22 kW
Pump	SMG 1631 - 2250 l/h	
Motor pump	2800 rpm - 400/690 V - 50 Hz - 4 kW	
Emission grade (according to EN 267 / 676)	Light oil class 2 / Gas class 3	
CE certificate	0085AQ0412	
Complete burner code	1 009 390	1 009 403
Gas train natural gas up to 300 mbar	refer to "Gas train" chapter	

Options

Steam equipment (TRD) extra equipment	1 013 523
Others	see Options chapter

Documentation

Operating manual	EN	102 884 6537
Spare parts list	EN	EK 9.850 EK 9.1000
Electrical and hydraulic diagrams	EN	170 884 8124

Basic spare parts

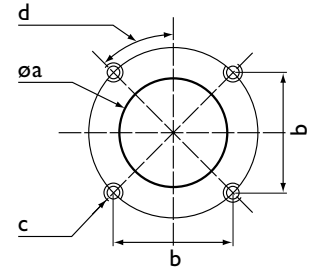
Ignition transformer	173 873 3651
Ignition electrodes	gas 172 874 2005 oil 172 870 3262
Baffle plate	EK 9.850 EK 9.1000
Control box	13 011 763
Flame detector	13 012 980

Description

- Two-stage progressive electronic dual fuel forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Maximum heat power by gas: 1675, 2075, 2590 and 2890 kW.
- Minimum / maximum power ratio: gas 1/6, fuel oil 1/3.
- Secured burner head adjustments during maintenance.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Closing of the air-damper on burner shutdown.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267, EN 676 norms and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

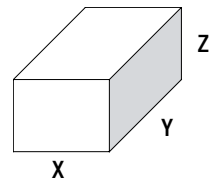
Ø a (mm)	b (mm)	c	d
270	240	M20	45°



Packaging

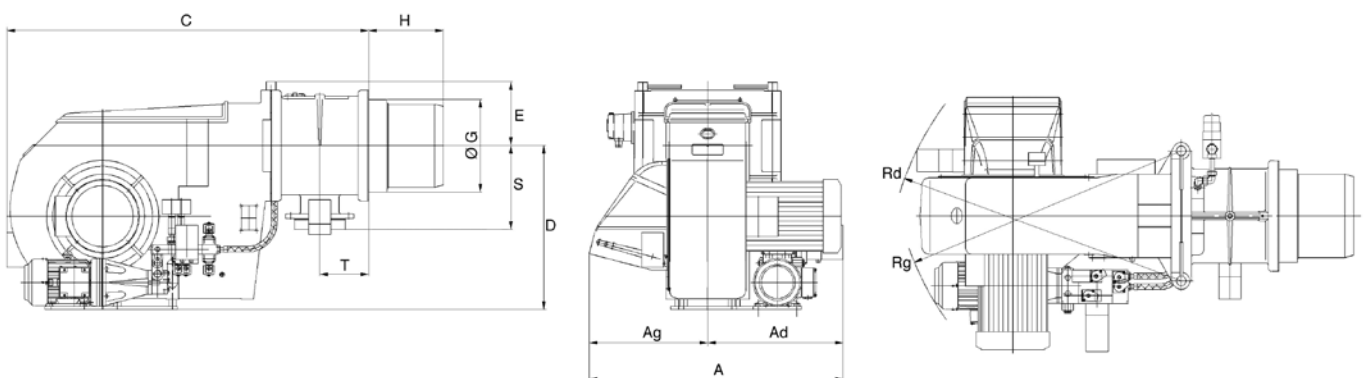
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 6.170/200 GL-E/BCS	1300 ... 1600	1700	870	230 ... 270
EK 6.240/300 GL-E/BCS	1450 ... 1750	1770	870	235 ... 270

Dimensions

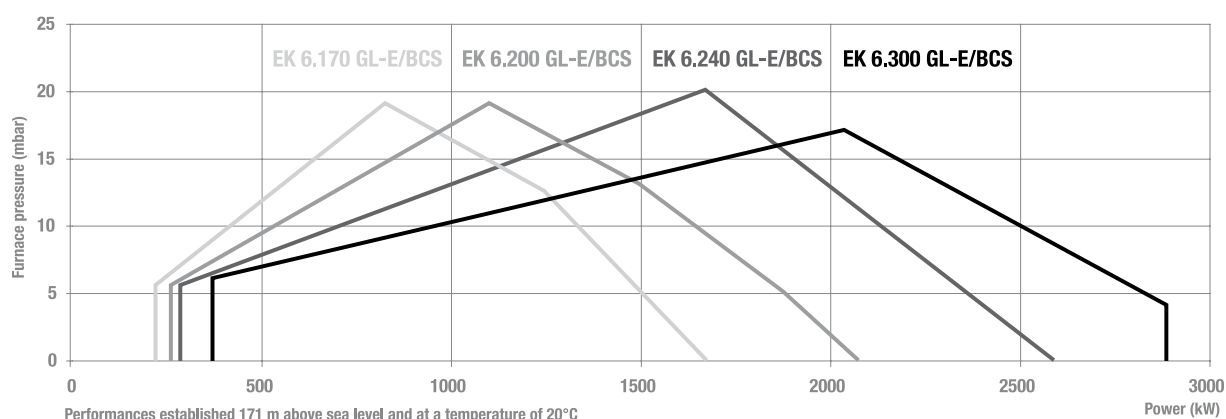


Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	H	Rd	Rg	S	T		
								KN	KM	KL				
EK 6.170 GL-E/BCS	823	489	334	1230	531	197	280	230	330	430	1033	974	260	141
EK 6.200 GL-E/BCS														
EK 6.240 GL-E/BCS	962	530	432	1180				250	350	450	1080		298	114
EK 6.300 GL-E/BCS														

Range: EK 6.170 GL-E/BCS,
EK 6.200 GL-E/BCS, EK 6.240 GL-E/BCS,
EK 6.300 GL-E/BCS
225 ... 2890 kW
2 stage progressive electronic
Natural gas - Light oil



Working fields



Characteristics and equipment

Type	EK 6.170 GL-E/BCS	EK 6.200 GL-E/BCS	EK 6.240 GL-E/BCS	EK 6.300 GL-E/BCS
Operating range	225 - 1675 kW	265 - 2075 kW	290 - 2590 kW	375 - 2890 kW
Control box / flame detector	BCS / FLW05 - QRA2			
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 3 kW		2800 rpm - 400/690 V - 50 Hz - 4 kW	
Pump	SMG 1945 - 520 l/h		SMG 16026 - 735 l/h	
Motor pump	2800 rpm - 400/690 V - 50 Hz - 0,75 kW		2800 rpm - 400/690 V - 50 Hz - 1,1 kW	
Emission grade (according to EN 267 / 676)	Class 2 / Class 2			
CE certificate	0085AQ0412			
Complete burner code	1 005 092	1 005 105	1 005 116	1 003 176
Gas train natural gas up to 300 mbar	refer to “Gas train” chapter			

Options

Steam equipment (TRD)	
extra equipment	1 007 703
Potentiometer	175 879 5264
Manometer (kit for oil)	109 879 6676
Others	see Options chapter

Basic spare parts

Ignition transformer	EBI	173 873 4223
	ZM20/14	173 873 3651
Ignition electrode		172 874 2005
Baffle plate	EK 6.170	161 879 9915
	EK 6.200	161 879 9926
	EK 6.240	161 879 7908
	EK 6.300	161 879 7919
Control box		13 011 763
Flame detector		13 012 980

Documentation

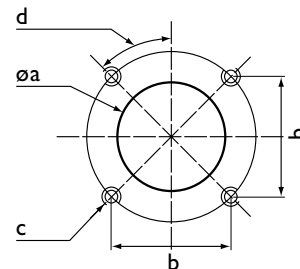
Operating manual	EN	102 885 5947
Spare parts list	EN	EK 6.170
		EK 6.200
		EK 6.240
		EK 6.300
Electrical and hydraulic diagrams	EN	170 884 8464

Description

- Two-stage progressive electronic dual fuel forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Maximum heat power by gas: 3640 and 4535 kW.
- Minimum / maximum power ratio: gas 1/6, fuel oil 1/3.
- Secured burner head adjustments during maintenance.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Closing of the air-damper on burner shutdown.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267, EN 676 norms and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

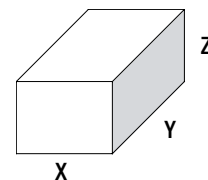
Ø a (mm)	b (mm)	c	d
350	320	M20	45°



Packaging

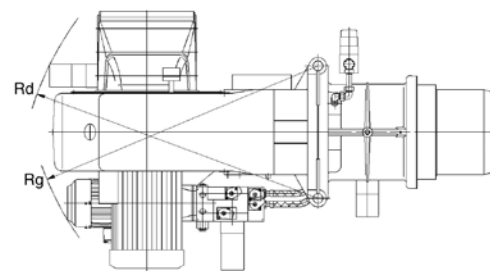
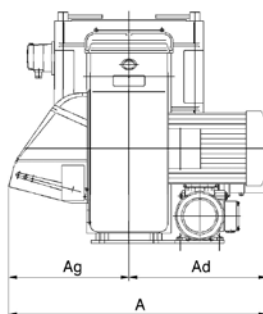
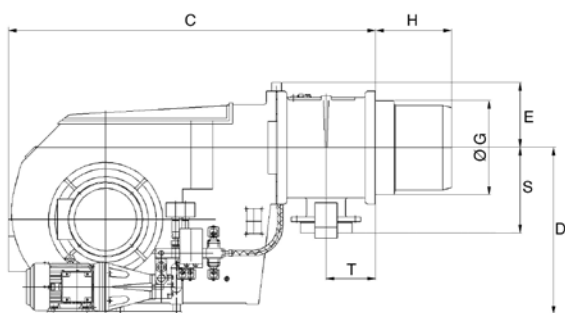
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 7.350 GL-E/BCS	1550 ... 1850	1900	1050	330 ... 350
EK 7.450 GL-E/BCS				340 ... 360

Dimensions

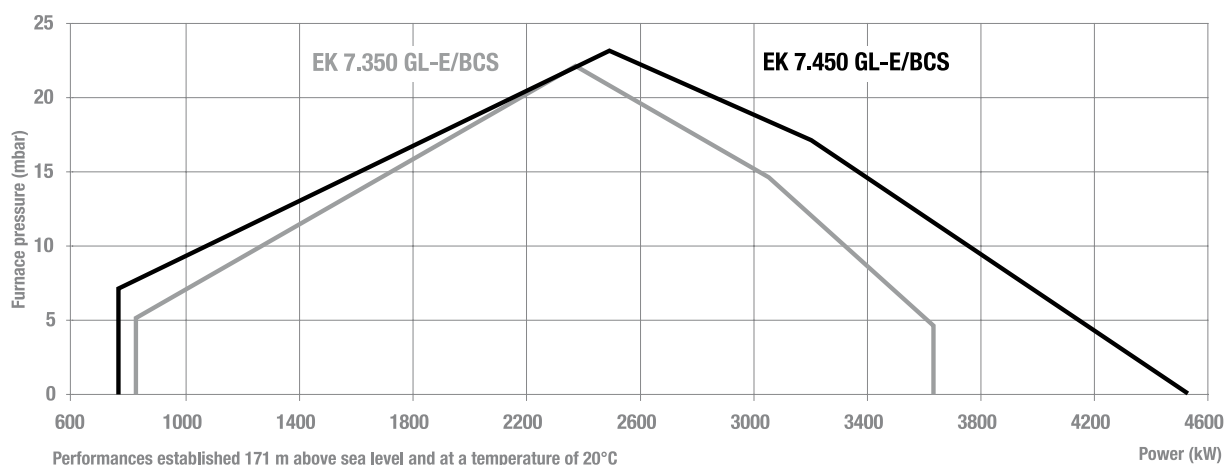


Type	Dimensions (mm)												
	A	Ad	Ag	C	D	E	ØG	KN	H	KL	Rd	Rg	T
EK 7.350 GL-E/BCS	1028	544	484	1424	654	242	350	270	370	470	1190	1158	315
EK 7.450 GL-E/BCS	1052	568										1213	
													206

Range: EK 7.350 GL-E/BCS,
EK 7.450 GL-E/BCS
830 ... 4530 kW
2 stage progressive electronic
Natural gas - Light oil



Working fields



Characteristics and equipment

Type	EK 7.350 GL-E/BCS	EK 7.450 GL-E/BCS
Operating range	830 - 3640 kW	770 - 4530 kW
Control box / flame detector	BCS / FLW05 - QRA2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 5,5 kW	2800 rpm - 400/690 V - 50 Hz - 7,5 kW
Pump	SMG 1946 - 900 l/h	SMG 1629 - 1200 l/h
Motor pump	2800 rpm - 400/690 V - 50 Hz - 1,5 kW	2800 rpm - 400/690 V - 50 Hz - 2,2 kW
Emission grade (according to EN 267 / 676)	Class 2 / Class 2	
CE certificate	0085AQ0412	
Complete burner code	1 004 588	1 004 599
Gas train natural gas up to 300 mbar	refer to "Gas train" chapter	

Options

Steam equipment (TRD) extra equipment	1 007 769
Potentiometer	175 881 8779
Manometer (kit for oil)	109 879 6676
Others	see Options chapter

Basic spare parts

Ignition transformer	173 873 3651
Ignition electrodes	gas 172 874 2005
	oil 172 874 3262
Baffle plate	EK 7.350 161 879 4749
	EK 7.450 161 879 4750
Control box	175 879 1079
Flame detector	175 810 6258

Documentation

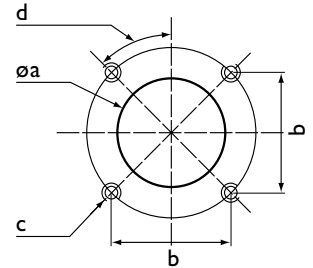
Operating manual	EN	102 885 5947
Spare parts list	EN	EK 7.350
		EK 7.450
Electrical and hydraulic diagrams	EN	170 884 8088

Description

- Two-stage progressive electronic dual fuel forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Maximum heat power by gas: 5815 and 7110 kW.
- Minimum / maximum power ratio: gas 1/6, fuel oil 1/3.
- Secured burner head adjustments during maintenance.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Closing of the air-damper on burner shutdown.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267, EN 676 norms and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

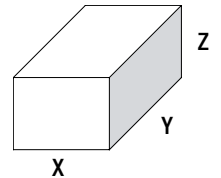
Ø a (mm)	b (mm)	c	d
400	360	M20	45°



Packaging

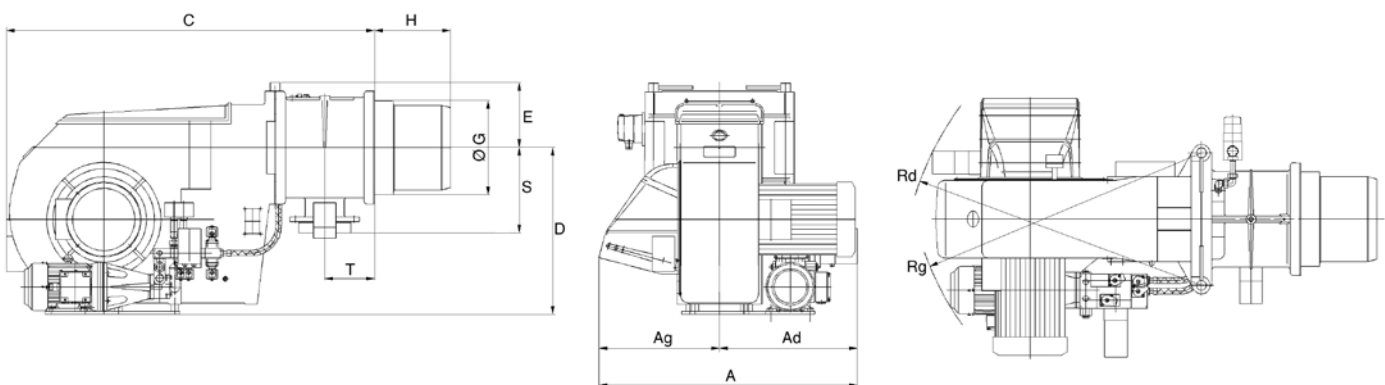
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 8.550 GL-E/BCS	1750 ... 2080	2000	1090	420 ... 470
EK 8.700 GL-E/BCS				450 ... 500

Dimensions

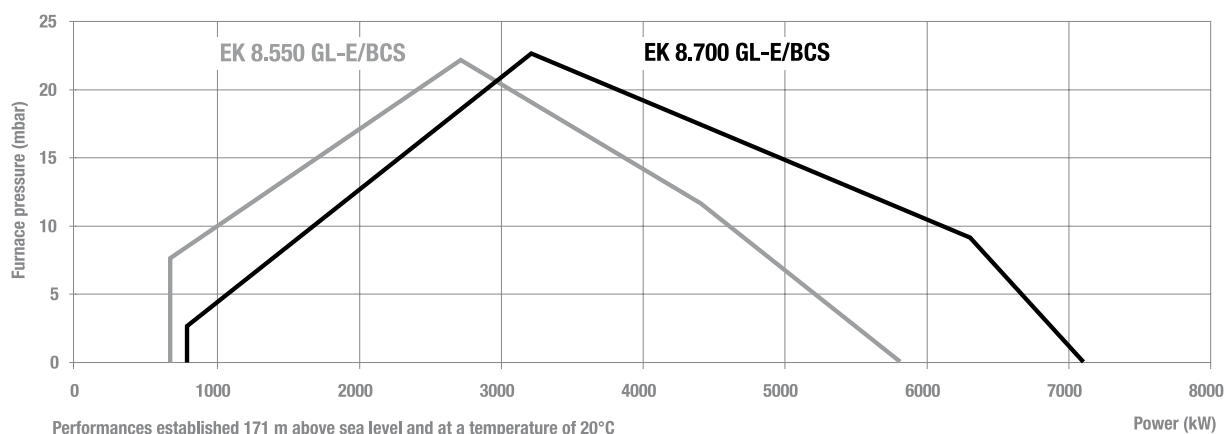


Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	H	Rd	Rg	S	T		
								KN	KM	KL				
EK 8.550 GL-E/BCS	1055	563	492	1505	680	265	389	310	410	510	1226	1202	348	203
EK 8.700 GL-E/BCS	1071		508	1595							1309			

**Range: EK 8.550 GL-E/BCS,
EK 8.700 GL-E/BCS
680 ... 7110 kW
2 stage progressive electronic
Natural gas - Light oil**



Working fields



Characteristics and equipment

Type	EK 8.550 GL-E / BCS	EK 8.700 GL-E / BCS
Operating range	680 - 5815 kW	800 - 7110 kW
Control box / flame detector	BCS / FLW05 - QRA2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 11 kW	2800 rpm - 400/690 V - 50 Hz - 15 kW
Pump	SMG 1629 - 1200 l/h	SMG 1630 - 1700 l/h
Motor pump	2800 rpm - 400/690 V - 50 Hz - 2,2 kW	2800 rpm - 400/690 V - 50 Hz - 3 kW
Emission grade (according to EN 267 / 676)	Class 2 / Class 2	
CE certificate	0085AQ0412	
Complete burner code	1 004 602	1 004 613
Gas train natural gas up to 300 mbar	refer to "Gas train" chapter	

Options

Steam equipment (TRD) extra equipment	1 007 816
Potentiometer	175 881 8779
Manometer (kit for oil)	109 879 6676
Others	see Options chapter

Documentation

Operating manual	EN	102 885 5947
Spare parts list	EN	EK 8.550
		EK 8.700
Electrical and hydraulic diagrams	EN	170 884 8088

Basic spare parts

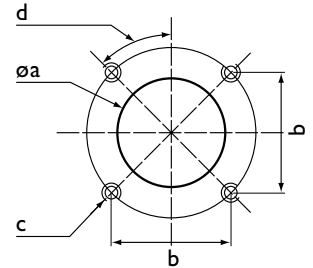
Ignition transformer		173 873 3651
Ignition electrodes	gas	172 874 2005
	oil	172 874 3262
Baffle plate	EK 8.550	161 871 0449
	EK 8.700	161 859 6989
Control box		175 879 1079
Flame detector		13 012 980

Description

- Two-stage progressive electronic dual fuel forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Maximum heat power by gas: 8180 and 11200 kW.
- Minimum / maximum power ratio: gas 1/6, fuel oil 1/3.
- Secured burner head adjustments during maintenance.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Closing of the air-damper on burner shutdown.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267, EN 676 norms and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

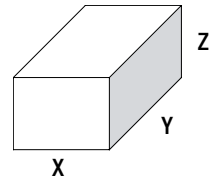
Ø a (mm)	b (mm)	c	d
475	410	M20	45°



Packaging

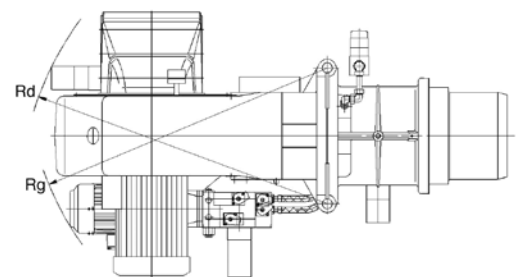
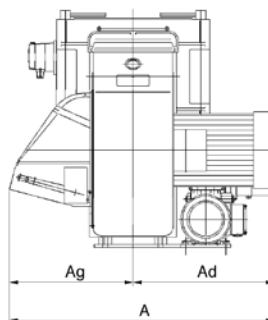
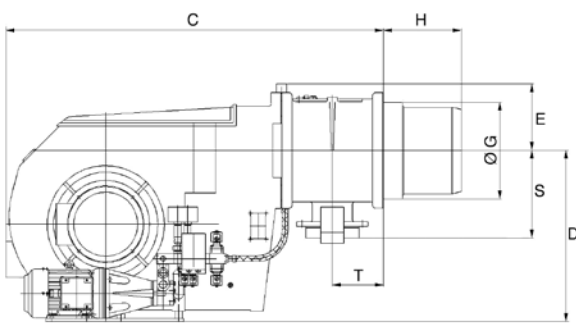
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 9.850 GL-E/BCS	1920 ... 2300	2160	1290	570 ... 620
EK 9.1000 GL-E/BCS	1950 ... 2400			610 ... 660

Dimensions

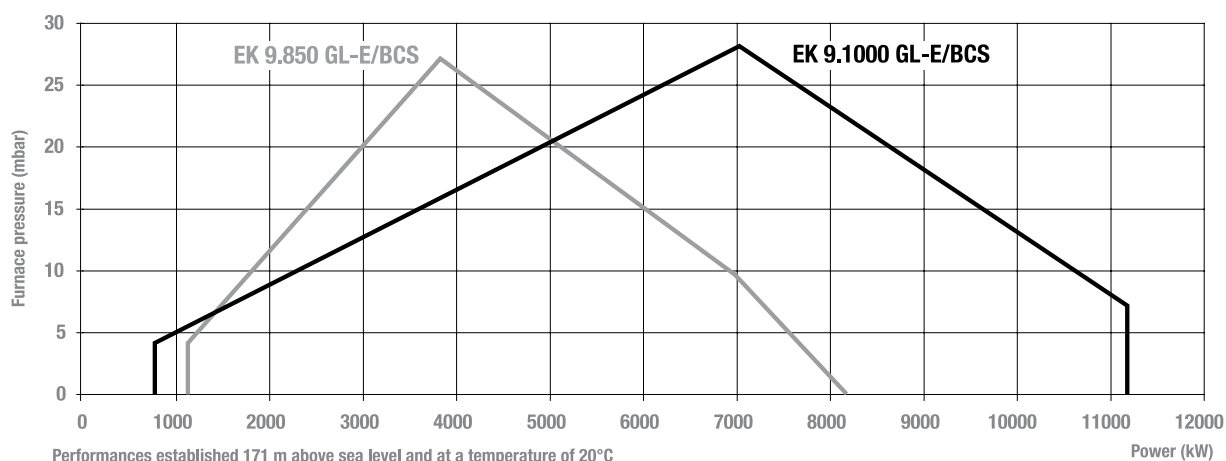


Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	KN	H	KL	Rd	Rg	S	T
EK 9.850 GL-E/BCS	1232	622	610	1617	842	305	460	350	450	550	1402	1369	383	173
EK 9.1000 GL-E/BCS	1300	690												

Range: EK 9.850 GL-E/BCS,
EK 9.1000 GL-E/BCS
1150 ... 11200 kW
2 stage progressive electronic
Natural gas - Light oil



Working fields



Characteristics and equipment

Type	EK 9.850 GL-E/BCS	EK 9.1000 GL-E/BCS
Operating range	1150 - 8180 kW	795 - 11200 kW
Control box / flame detector	BCS / FLW05 - QRA2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 18,5 kW	2800 rpm - 400/690 V - 50 Hz - 22 kW
Pump	SMG 1631 - 2250 l/h	
Motor pump	2800 rpm - 400/690 V - 50 Hz - 4 kW	
Emission grade (according to EN 267 / 676)	Class 2 / Class 2	
CE certificate	0085AQ0412	
Complete burner code	1 004 624	1 004 635
Gas train natural gas up to 300 mbar	refer to "Gas train" chapter	

Options

Steam equipment (TRD) extra equipment	1 007 850
Potentiometer	175 881 8779
Manometer (kit for oil)	109 879 6676
Others	see Options chapter

Documentation

Operating manual	EN	102 885 5947
Spare parts list	EN	EK 9.850 EK 9.1000
Electrical and hydraulic diagrams	EN	170 884 8088

Basic spare parts

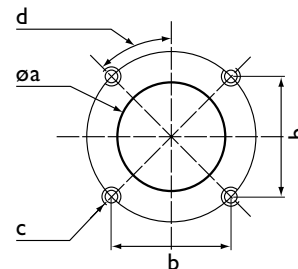
Ignition transformer		173 873 3651
Ignition electrodes	gas	172 874 2005
	oil	172 874 3262
Baffle plate	EK 9.850	161 869 2348
	EK 9.1000	161 871 0449
Control box		175 879 1079
Flame detector		13 012 980

Description

- Two stage progressive electronic dual fuel forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, low NOx class 3.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg, low NOx class 2.
- Maximum heat power by gas: 1450, 1710, 2010 and 2450 kW.
- Minimum / maximum power ratio: gas 1/6, fuel oil 1/3.
- Secured burner head adjustments during maintenance.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Closing of the air-damper on burner shutdown.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267, EN 676 norms and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/ECw
 - Gas appliances 90/396/EC

Connecting flange

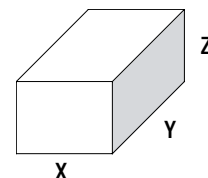
Ø a (mm)	b (mm)	c	d
290	240	M20	45°



Packaging

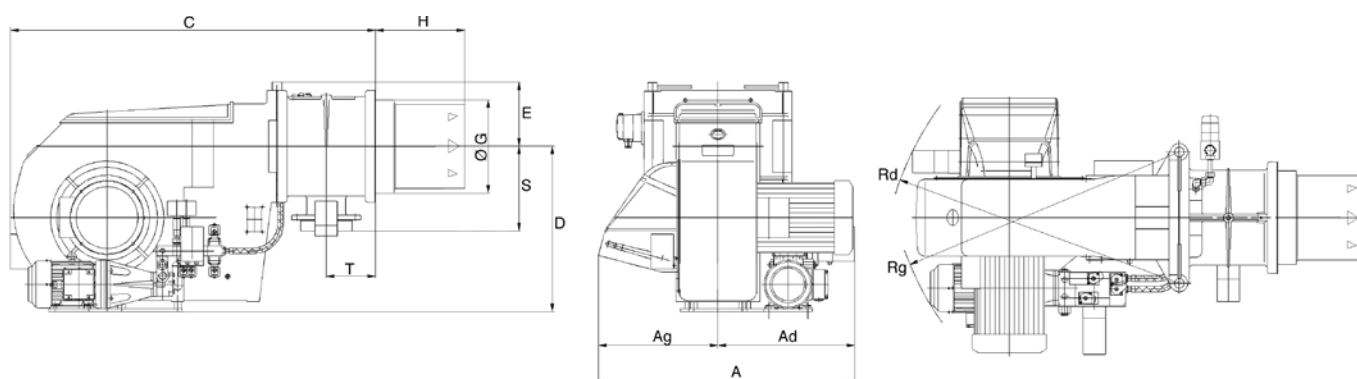
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 6.170/200 GL-EU/BCS	1300 ... 1600	1900	870	230 ... 270
EK 6.240/300 GL-EU/BCS	1450 ... 1750	1970	870	235 ... 270

Dimensions

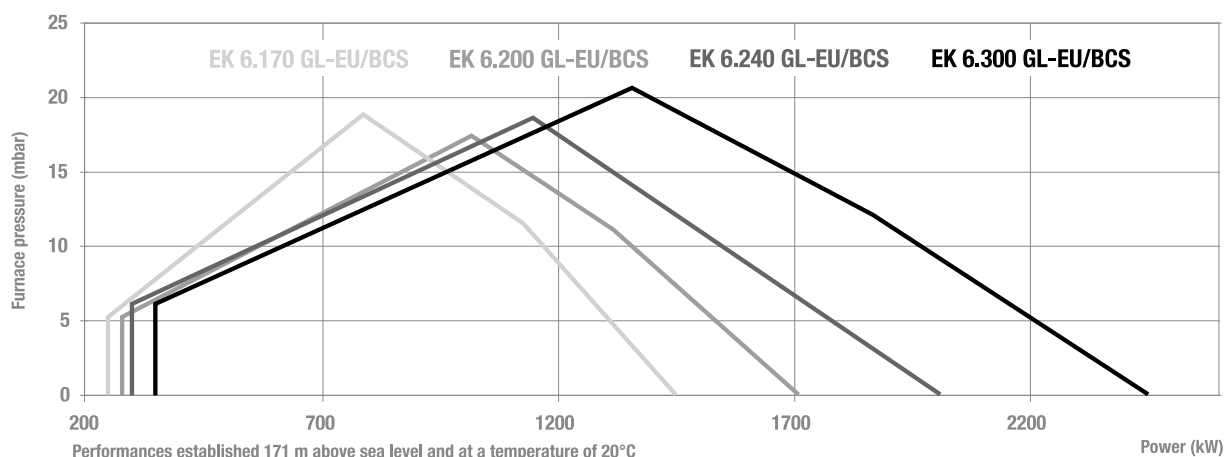


Type	Dimensions (mm)														
	A	Ad	Ag	C	D	E	ØG	H	Rd	Rg	S	T			
								KN	KM	KL					
EK 6.170 GL-EU/BCS	823	489	334	1230	531	197	280	434	534	634	1033	974	260	141	
EK 6.200 GL-EU/BCS															
EK 6.240 GL-EU/BCS	921		432	1279											
EK 6.300 GL-EU/BCS															

Range: EK 6.170 GL-EU/BCS,
EK 6.200 GL-EU/BCS, EK 6.240 GL-EU/BCS,
EK 6.300 GL-EU/BCS
250 ... 2450 kW
2 stage progressive electronic
Low NOx natural gas - Light oil



Working field



Characteristics and equipment

Type	EK 6.170 GL-EU/BCS	EK 6.200 GL-EU/BCS	EK 6.240 GL-EU/BCS	EK 6.300 GL-EU/BCS
Operating range	250 - 1450 kW	280 - 1710 kW	300 - 2010 kW	350 - 2450 kW
Control box / flame detector	BCS / FLW05 - QRA2			
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 3 kW		2800 rpm - 400/690 V - 50 Hz - 4 kW	
Pump	SMG 1945 - 520 l/h		SMG 16026 - 735 l/h	
Motor pump	2800 rpm - 400/690 V - 50 Hz - 0,75 kW		2800 rpm - 400/690 V - 50 Hz - 1,1 kW	
Emission grade (according to EN 267 / 676)	Light oil class 2 / Gas class 3			
CE certificate	0085AQ0412			
Complete burner code	1 003 187	1 003 198	1 003 569	1 005 570
Gas train natural gas up to 300 mbar	refer to “Gas train” chapter			

Options

Steam equipment (TRD) extra equipment	1 007 703
Potentiometer	175 879 5264
Manometer (kit for oil)	109 879 6676
Others	see Options chapter

Basic spare parts

Ignition transformer	ZM20/14	173 873 3651
	EBI	173 873 4223
Ignition electrode		172 874 2005
Baffle plate	EK 6.170	161 880 0522
	EK 6.200	161 880 0533
	EK 6.240	161 879 8525
	EK 6.300	161 879 8536
Control box		175 879 1079
Flame detector		13 012 980

Documentation

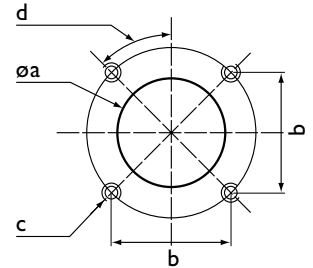
Operating manual	EN	102 885 5947
Spare parts list	EN	EK 6.170
		EK 6.200
		EK 6.240
		EK 6.300
Electrical and hydraulic diagrams	EN	170 884 8468

Description

- Two stage progressive electronic dual fuel forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, low NOx class 3.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg, low NOx class 2.
- Maximum heat power by gas: 3460 kW.
- Minimum / maximum power ratio: gas 1/6, fuel oil 1/3.
- Secured burner head adjustments during maintenance.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Closing of the air-damper on burner shutdown.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

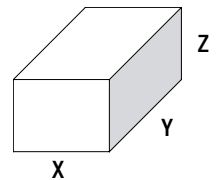
Ø a (mm)	b (mm)	c	d
350	320	M20	45°



Packaging

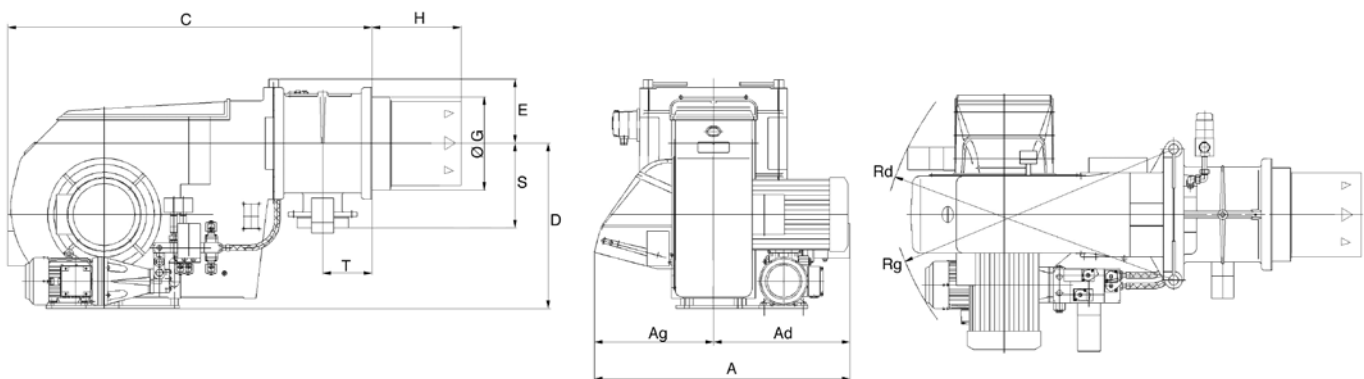
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 7.450 GL-EU/BCS	1550 ... 1850	2160	1050	340 ... 360

Dimensions

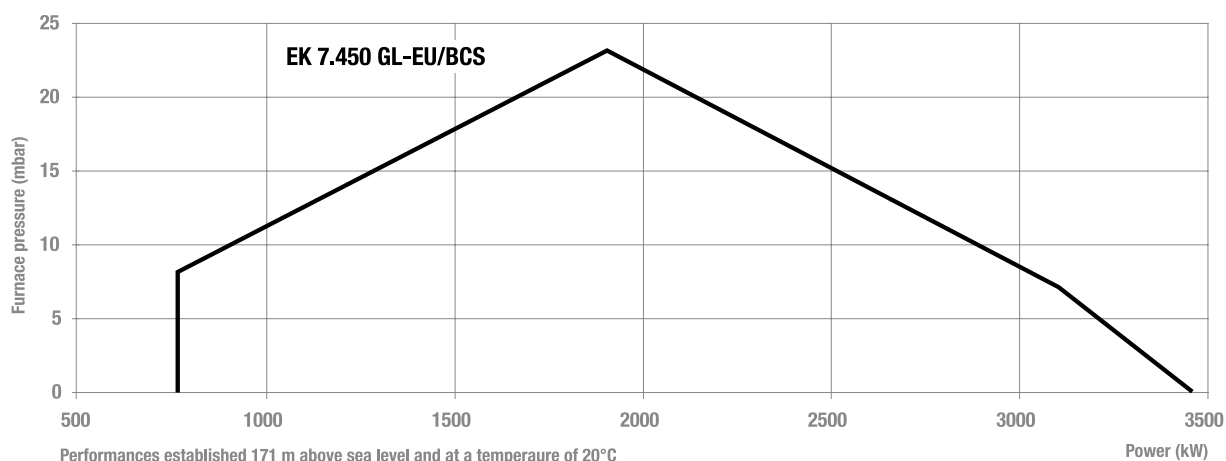


Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG		H		Rd	Rg	S	T
								KN	KM	KL				
EK 7.450 GL-EU /BCS	1028	544	484	1424	654	242	360	500	600	700	1190	1158	315	206

Range: EK 7.450 GL-EU/BCS
770 ... 3460 kW
2 stage progressive electronic
Low NOx natural gas - Light oil



Working fields



Characteristics and equipment

Type	EK 7.450 GL-EU / BCS
Operating range	770 - 3460 kW
Control box / flame detector	BCS / FLW05 - QRA2
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 7,5 kW
Pump	SMG 19065 - 900 l/h
Motor pump	2800 rpm - 400/690 V - 50 Hz - 1,5 kW
Emission grade (according to EN 267 / 676)	Light oil class 2 / Gas class 3
CE certificate	0085AQ0412
Complete burner code	1 004 657
Gas train natural gas up to 300 mbar	refer to "Gas train" chapter

Options

Steam equipment (TRD) extra equipment	1 007 769
Potentiometer	175 881 8779
Manometer (kit for oil)	109 879 6676
Others	see Options chapter

Documentation

Operating manual	EN	102 885 5947
Spare parts list	EN	EK 7.450
Electrical and hydraulic diagrams	EN	170 884 8088

Basic spare parts

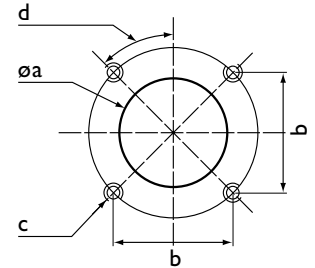
Ignition transformer	ZM20/14	173 873 3651
Ignition electrodes	gas	172 874 2005
	oil	172 870 3262
Baffle plate	EK 7.450	161 880 8468
Control box		175 879 1079
Flame detector		13 012 980

Description

- Two-stage progressive electronic dual fuel forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, low NOx class 3.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg low NOx class2.
- Maximum heat power by gas: 4360 and 5240 kW.
- Minimum / maximum power ratio: gas 1/6, fuel oil 1/3.
- Secured burner head adjustments during maintenance.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Closing of the air-damper on burner shutdown.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267, EN 676 norms and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

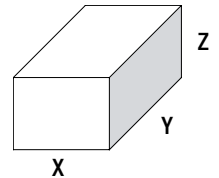
Ø a (mm)	b (mm)	c	d
400	360	M20	45°



Packaging

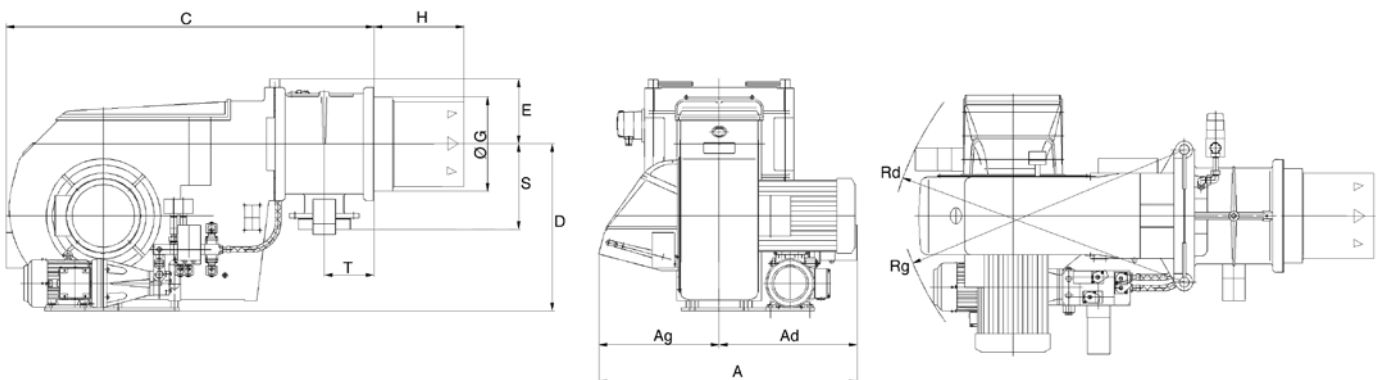
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 8.550 GL-EU/BCS	1750 ... 2080	2190	1090	420 ... 470
EK 8.700 GL-EU/BCS				450 ... 500

Dimensions

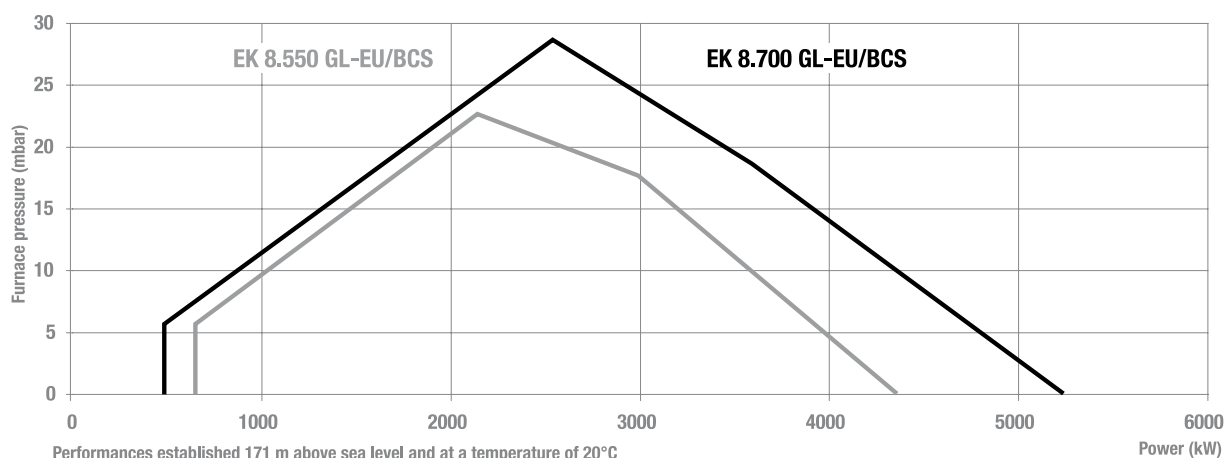


Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	H	Rd	Rg	S	T		
								KN	KM	KL				
EK 8.550 GL-EU/BCS	1061	569	492	1505	680	265	389	500	600	700	1226	1177	348	203
EK 8.700 GL-EU/BCS	1077		508	1595							1309	1202		

Range: EK 8.550 GL-EU/BCS,
EK 8.700 GL-EU/BCS
660 ... 5240 kW
2 stage progressive electronic
Low NOx natural gas - Light oil



Working fields



Characteristics and equipment

Type	EK 8.550 GL-EU / BCS	EK 8.700 GL-EU / BCS
Operating range	660 - 4360 kW	495 - 5240 kW
Control box / flame detector	BCS 300 / QRA2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 11 kW	2800 rpm - 400/690 V - 50 Hz - 15 kW
Pump	SMG 1946 - 900 l/h	SMG 1629 - 1200 l/h
Motor pump	2800 rpm - 400/690 V - 50 Hz - 1,5 kW	2800 rpm - 400/690 V - 50 Hz - 2,2 kW
Emission grade (according to EN 267 / 676)	Light oil class 2 / Gas class 3	
CE certificate	0085AQ0412	
Complete burner code	1 004 668	1 004 679
Gas train natural gas up to 300 mbar	refer to "Gas train" chapter	

Options

Steam equipment (TRD) extra equipment	1 007 816
Potentiometer	175 881 8779
Manometer (kit for oil)	109 879 6676
Others	see Options chapter

Documentation

Operating manual	EN	102 885 5947
Spare parts list	EN	EK 8.550 EK 8.700
Electrical and hydraulic diagrams	EN	170 884 8088

Basic spare parts

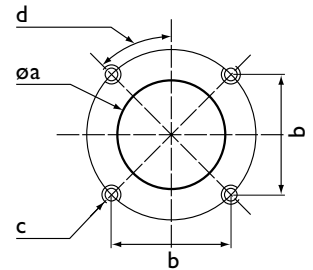
Ignition transformer	ZM20/14	173 873 3651
Ignition electrodes	gas	172 874 2005
	oil	172 870 3262
Baffle plate	EK 8.550	161 871 0438
	EK 8.700	161 861 1854
Control box		175 879 1079
Flame detector		13 012 980

Description

- Two-stage progressive electronic dual fuel forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, low NOx class 3.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg low NOx class 2.
- Maximum heat power by gas: 7000 and 9200 kW.
- Minimum / maximum power ratio: gas 1/6, fuel oil 1/3.
- Secured burner head adjustments during maintenance.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Closing of the air-damper on burner shutdown.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267, EN 676 norms and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

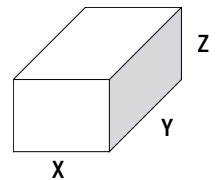
Ø a (mm)	b (mm)	c	d
475	410	M20	45°



Packaging

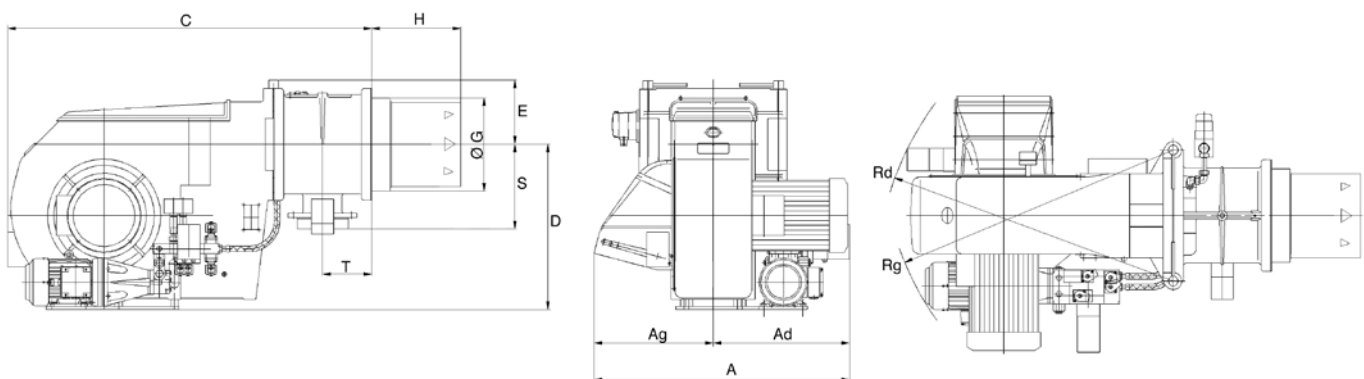
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 9.850 GL-EU/BCS	1920 ... 2300	2410	1290	570 ... 620
EK 9.1000 GL-EU/BCS	1950 ... 2400			610 ... 660

Dimensions

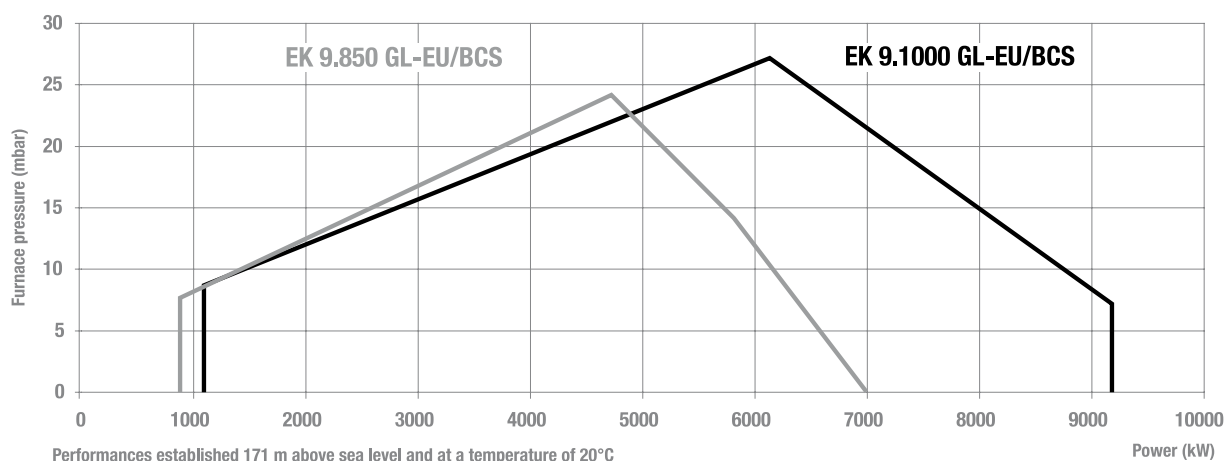


Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	KN	H	KL	Rd	Rg	S	T
EK 9.850 GL-EU/BCS	1217	607	610	1617	842	305	460	600	700	800	1402	1309 1369	383	173
EK 9.1000 GL-EU/BCS	1300	690												

Range: EK 9.850 GL-EU/BCS,
EK 9.1000 GL-EU/BCS
900 ... 9200 kW
2 stage progressive electronic
Low NOx natural gas - Light oil



Working fields



Characteristics and equipment

Type	EK 9.850 GL-EU/BCS	EK 9.1000 GL-EU/BCS
Operating range	900 - 7000 kW	1110 - 9200 kW
Control box / flame detector	BCS 300 / QRA2	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 18,5 kW	2800 rpm - 400/690 V - 50 Hz - 22 kW
Pump	SMG 1630 - 2250 l/h	SMG 1631 - 2250 l/h
Motor pump	2800 rpm - 400/690 V - 50 Hz - 3 kW	2800 rpm - 400/690 V - 50 Hz - 4 kW
Emission grade (according to EN 267 / 676)	Light oil class 3 / Gas class 3	
CE certificate	0085AQ0412	
Complete burner code	1 004 680	1 007 691
Gas train natural gas up to 300 mbar	refer to "Gas train" chapter	

Options

Steam equipment (TRD) extra equipment	1 007 850
Potentiometer	175 881 8779
Manometer (kit for oil)	109 879 6676
Others	see Options chapter

Documentation

Operating manual	EN	102 885 5947
Spare parts list	EN	EK 9.850 EK 9.1000 102 884 8260
Electrical and hydraulic diagrams	EN	170 884 8088

Basic spare parts

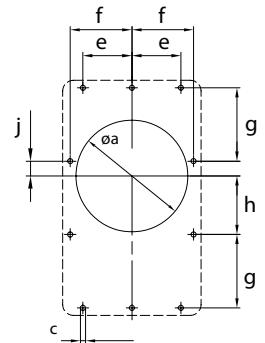
Ignition transformer	ZM20/14	173 873 3651
Ignition electrodes	gas	172 874 2005
	oil	172 870 3262
Baffle plate	EK 9.850	
	EK 9.1000	161 859 6989
Control box		175 879 1079
Flame detector		13 012 980

Description

- Two-stage progressive electronic dual fuel forced draught burner.
- Low NOx class 3 in gas.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
- Maximum heat power: 12 000 and 14 000 kW.
- Minimum / maximum power ratio:
 - natural gas, 1/7 (1/8 with frequency inverter),
 - light oil, 1/3,5.
- Air / gas ratio with choice of two different digital control boxes: BCS or Etamatic.
- Three flame tube lengths.
- Burner head adjustments preserved during maintenance.
- Optimal accessibility and burner head adjustments preserved during maintenance.
- Maximum compactness, minimum weight.
- Closing of the air damper on burner shut-down.
- Control box: on request, in or out the body of the burner.
- Enumerated connection terminals in the body of the burner.
- Communication by bus with Etamatic (in progress for BCS).
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions: see options chapter).
- Three-phase electrical power supply.
- Protection level IP 40 (IP 54 as option).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267, EN 676 norms and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

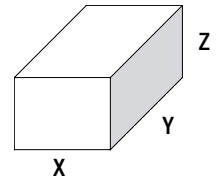
Ø a (mm)	c	e	f	g	h	j
525	M20	230	290	345	275	70



Packaging

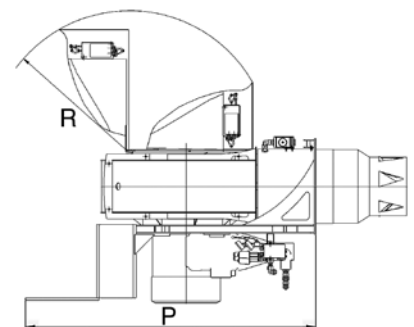
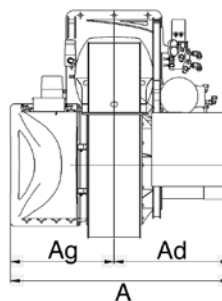
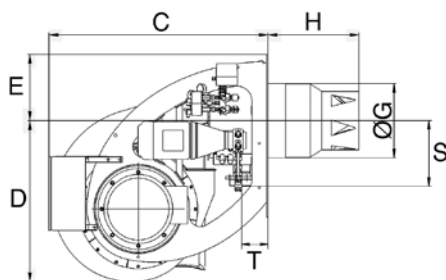
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



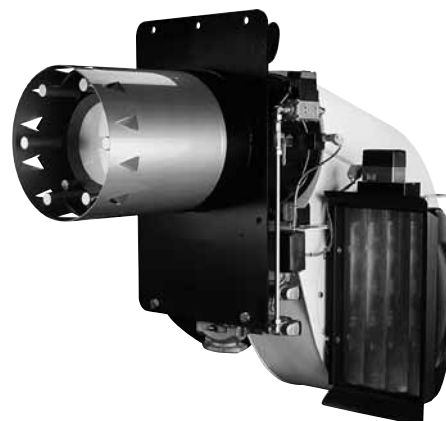
Dimensions (mm)			Gross weight (kg)
X	Y	Z	
1505	2125	1545	740 ... 760 + 100 (transport rack)

Dimensions

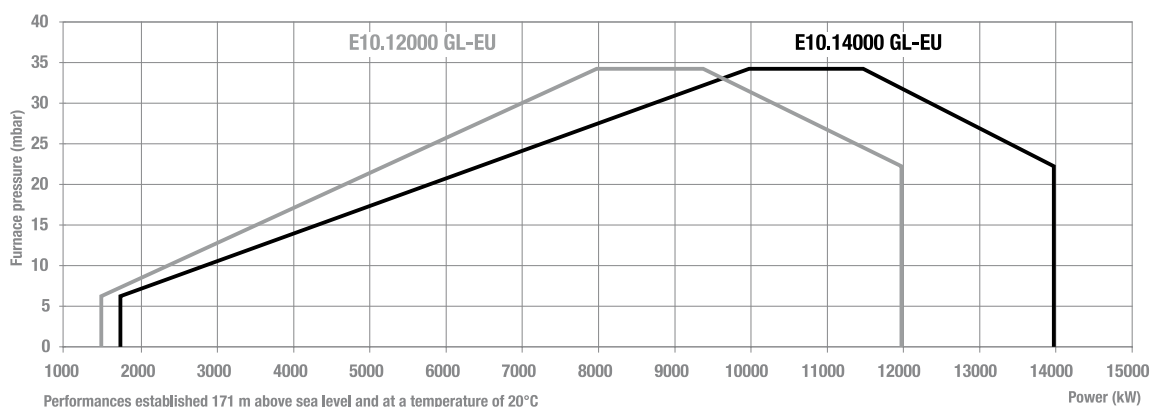


Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	H			Rd	Rg	S	T
N10.12000 GL-EU	1505	795	710	1505	1095	450	504	620	720	820	1990	1000	442	100
N10.14000 GL-EU														

**Range: N10.12000 GL-EU,
N10.14000 GL-EU
1500 ... 14 000 kW
2 stage progressive electronic
Low NOx natural gas - Light oil**



Working fields



Characteristics and equipment

Type	N10.12000 GL-EU	N10.14000 GL-EU
Operating range	1500 - 12000 kW	1750 - 14000 kW
Control box / flame detection	BCS or Etamatic	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 37 kW	2800 rpm - 400/690 V - 50 Hz - 45 kW
Pump	2700 l/h	4000 l/h
Motor pump	2800 rpm - 240/400 V - 50 Hz - 3 kW	2800 rpm - 240/400 V - 50 Hz - 5,5 kW
Emission grade (according to EN 676)	class 3 / in gas	
Acoustics (according to ISO 3744)	<97 dB(A)	
CE certificate	Homologation in progress	
Complete burner code	with BCS with Etamatic	in progress in progress
Gas train natural gas up to 300 mbar	refer to "Gas train" chapter	

Options

Sound proofing box	15 ... 20 dB(A)	on request
	20 ... 30 dB(A)	on request
Steam equipment (TRD)		on request
Other accessories	see Options chapter	

Basic spare parts

Ignition transformer	ZM20/14	173 873 3651
	ZE 30/7.5	130 027 36
Ignition electrode		172 874 2005
Control box	BCS	175 879 1079
	Etamatic	175 884 3765
Flame detector	D-LX100 (BCS)	175 881 1778
	FFS06 (Etamatic)	175 873 4132

Documentation

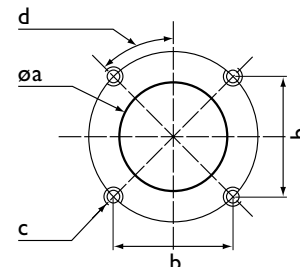
Operating manual	EN	102 885 3485
Spare parts list	EN	14 004 170
Spare parts for hydraulic	EN	102 884 5294
Explosion-view and spare parts for gas train	EN	102 884 9558
Connection terminals wiring	BCS	170 885 4933
	Etamatic	170 884 5614

Description

- Two stage progressive electronic low NOx dual fuel forced draught burner.
- Free flame low NOx class 3 technology.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Minimum / maximum power ratio: gas 1/6, fuel oil 1/3.
- Secured burner head adjustments during maintenance.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Closing of the air-damper on burner shutdown.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267, EN 676 norms and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

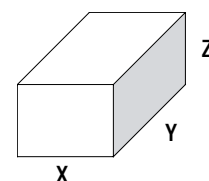
Ø a (mm)	b (mm)	c	d
290	240	M20	45°



Packaging

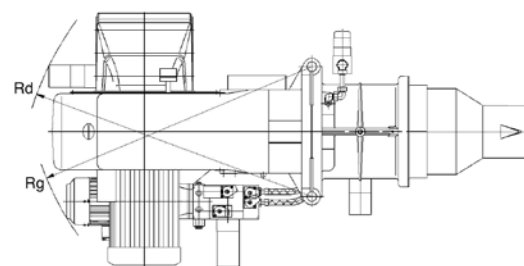
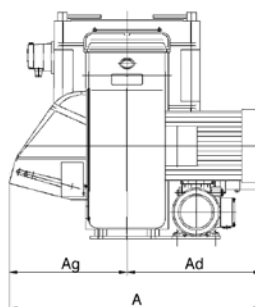
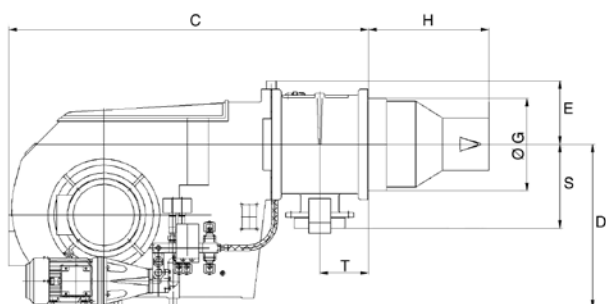
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 6.170/200 GL-EF2/BCS	1300 ... 1600	1920	870	230 ... 270
EK 6.240/300 GL-EF2/BCS	1450 ... 1750	1990	870	235 ... 270

Dimensions

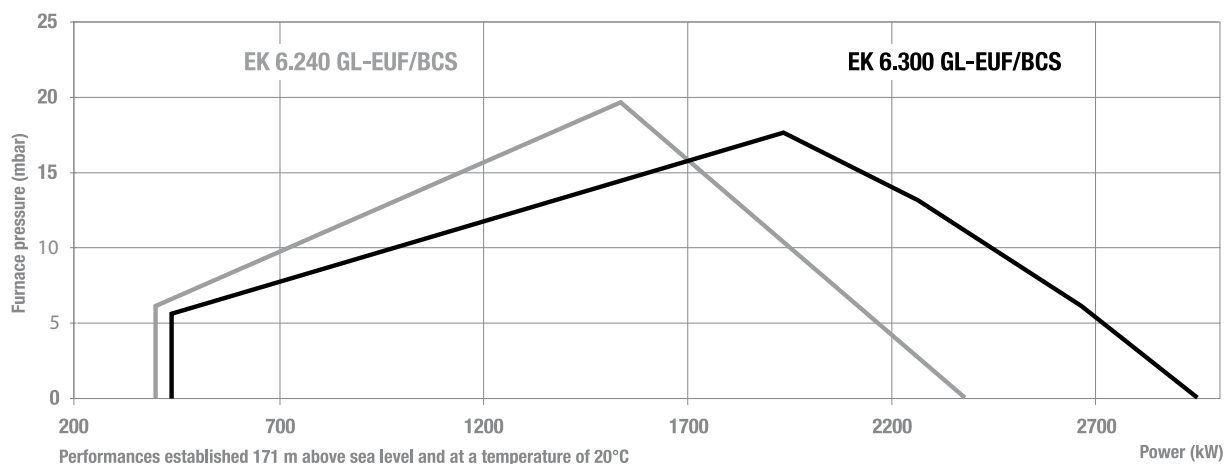


Type	Dimensions (mm)														
	A	Ad	Ag	C	D	E	ØG	KN			H	Rd	Rg	S	T
									KM	KL					
EK 6.240 GL-EF2/BCS	921	489	432	1279	531	197	280	450	550	650	1080	974	298	114	
EK 6.300 GL-EF2/BCS															

**Range: EK 6.240 GL-EF2/BCS,
EK 6.300 GL-EF2/BCS
400 ... 2950 kW
2 stage progressive electronic
Low NOx natural gas - Low NOx light oil**



Working fields



Characteristics and equipment

Type	EK 6.240 GL-EF2/BCS	EK 6.300 GL- EF2/BCS
Operating range	250 - 2100 kW	370 - 3240 kW
Fuel flow	30 - 177 kg/h	43 - 273 kg/h
Nozzle	according to required power	
Fuel connection	1/2" - DN 16 - 1500 mm	1/2" - DN 20 - 1500 mm
Control box / flame detector	BCS 300 / FLW05 + FFS06	
Fan Motor	3000/3600 rpm - 400/690 V - 50 Hz - 3 kW	3000/3600 rpm - 400/690 V - 50 Hz - 4 kW
Pump	SMG 1945 - 520 l/h	SMG 16026 - 735 l/h
Motor Pump	0,75 kW	1,1 kW
Emission grade (according to EN 676)	Class 3 - NOx < 120 mg/kWh	
Acoustics (according to ISO 3744)	82 ... 85 dB(A)	82 ... 85 dB(A)
Complete burner code	on request	on request
Gas train natural gas up to 300 mbar	refer to "Gas train" chapter	

Options

Steam equipment (TRD) extra equipment	1 007 703
Potentiometer	175 881 8779
Manometer (kit for oil)	109 879 6676
Others	see Options chapter

Documentation

Operating manual	EN	on request
Spare parts list	EN	EK 6.240 EK 6.300
Electrical and hydraulic diagrams	EN	on request

Basic spare parts

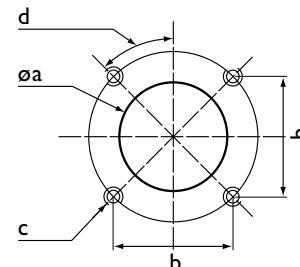
Ignition transformer	ZM20/14	173 873 3651
	EBI	173 873 4223
Ignition electrodes	gas	172 873 2987
	oil	172 870 3262
Control box		175 879 1079
Flame detector		175 873 4132

Description

- Two stage progressive electronic low NOx dual fuel forced draught burner.
- Free flame low NOx class 3 technology.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Minimum / maximum power ratio: gas 1/6, fuel oil 1/3.
- Secured burner head adjustments during maintenance.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Closing of the air-damper on burner shutdown.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

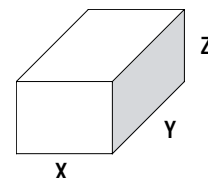
Ø a (mm)	b (mm)	c	d
350	320	M20	45°



Packaging

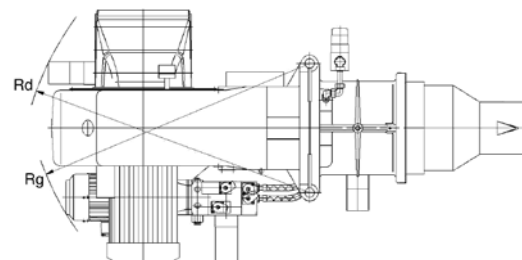
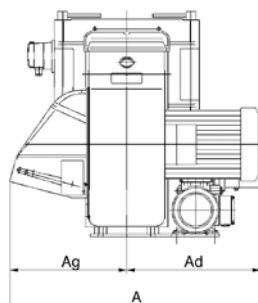
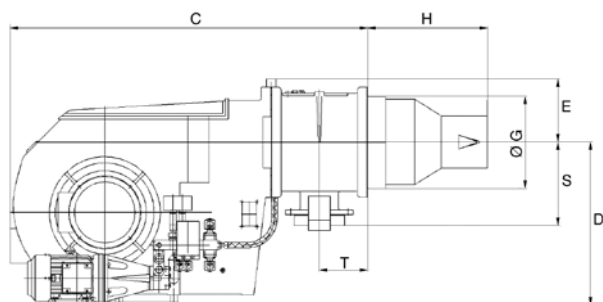
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 7.350 GL-EF2/BCS	1550 ... 1850	2130	1050	340 ... 360
EK 7.450 GL-EF2/BCS				350 ... 370

Dimensions

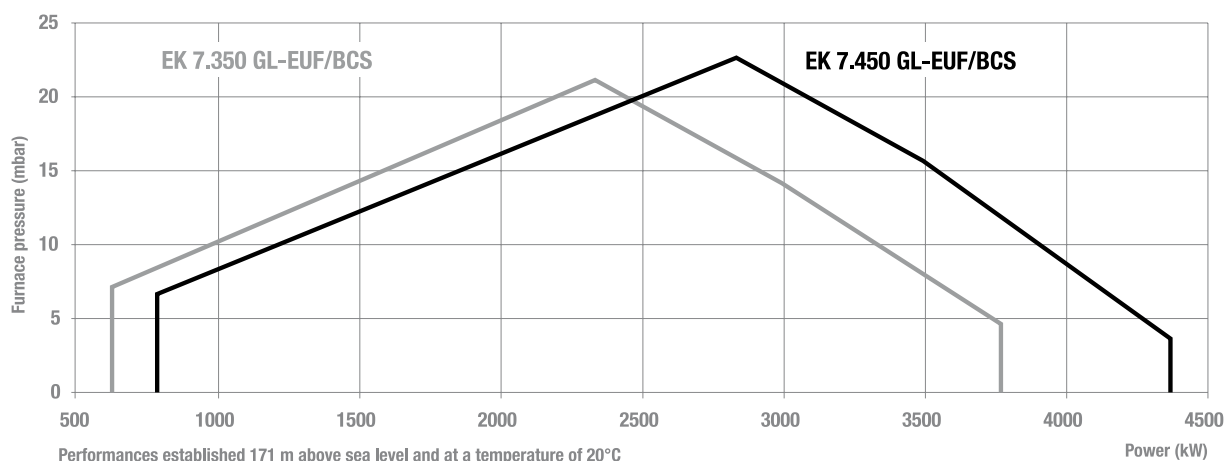


Type	Dimensions (mm)												
	A	Ad	Ag	C	D	E	ØG	KN	KM	KL	Rd	Rg	T
EK 7.350 GL-EF2/BCS	1028	544	484	1424	654	242	350	500	600	700	1190	1158	315
EK 7.450 GL-EF2/BCS	1052	568										1213	
													206

**Range: EK 7.350 GL-EF2/BCS,
EK 7.450 GL-EF2/BCS
630 ... 4375 kW
2 stages progressive electronic
Low NOx natural gas - Low NOx light oil**



Working fields



Characteristics and equipment

Type	EK 7.350 GL-EF2/BCS	EK 7.450 GL-EF2/BCS
Operating range	500 - 4400 kW	630 - 5350 kW
Fuel flow	56 - 371 kg/h	76 - 451 kg/h
Nozzle	according to required power	
Fuel connection	3/4" - DN 20 - 1500 mm	3/4" - DN 20 - 1500 mm
Control box / flame detector	BCS 300 / FLW05 + FFS06	
Fan Motor	3000/3600 rpm - 400/690 V - 50 Hz - 5,5 kW	3000/3600 rpm - 400/690 V - 50 Hz - 7,5 kW
Pump	SMG 16026 - 735 l/h	SMG 19065 - 900 l/h
Motor Pump	1,1 kW	1,5 kW
Emission grade (according to EN 676)	Class 3 - NOx < 120 mg/kWh	
Acoustics (according to ISO 3744)	82 ... 85 dB(A)	82 ... 85 dB(A)
Complete burner code	on request	on request
Gas train natural gas up to 300 mbar	refer to "Gas train" chapter	

Options

Steam equipment (TRD) extra equipment	1 007 769
Potentiometer	175 881 8779
Manometer (kit for oil)	109 879 6676
Others	see Options chapter

Basic spare parts

Ignition transformer	ZM20/14	173 873 3651
	EBI	173 873 4223
Ignition electrodes	gas	172 873 3586
	oil	172 870 3262
Control box		175 879 1079
Flame detector		175 873 4132

Documentation

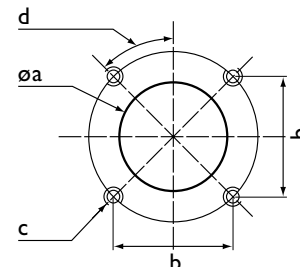
Operating manual	EN	on request
Spare parts list	EN	EK 7.350 EK 7.450
Electrical and hydraulic diagrams	EN	on request

Description

- Two-stage progressive electronic low NOx dual fuel forced draught burner.
- Free flame low NOx class 3 technology.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg..
- Minimum / maximum power ratio: gas 1/6, fuel oil 1/3.
- Secured burner head adjustments during maintenance.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Secured head adjustments during maintenance.
- Closing of the air-damper on burner shutdown.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267, EN 676 norms and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

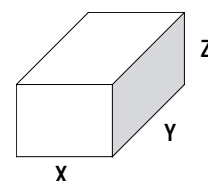
Ø a (mm)	b (mm)	c	d
400	360	M20	45°



Packaging

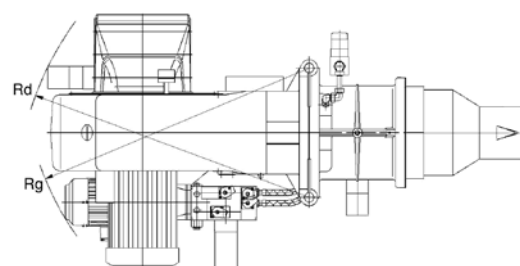
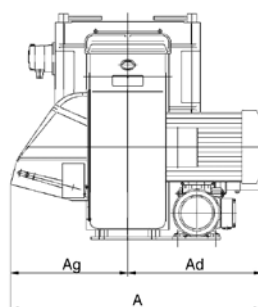
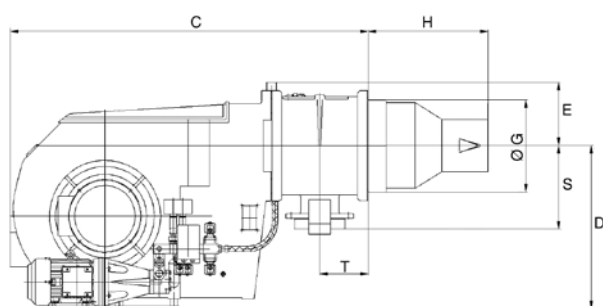
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 8.550 GL-EF2/BCS	1750 ... 2080	2210	1090	420 ... 470
EK 8.700 GL-EUF/BCS				450 ... 500

Dimensions



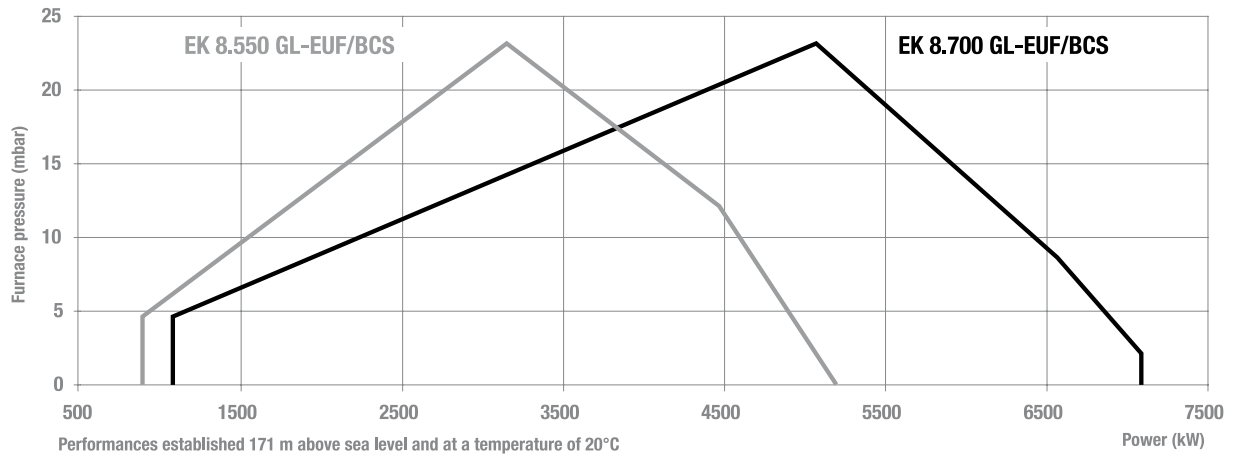
Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	KN	H	KL	Rd	Rg	S	T
EK 8.550 GL-EF2/BCS	1055	563	492	1505	680	265	389	520	620	720	1226	1202	348	203
EK 8.700 GL-EUF/BCS	1071		508	1595							1309			

Dual fuel EK8 GL-EF2/BCS / GL-EUF/BCS

Range: EK 8.550 GL-EF2/BCS,
EK 8.700 GL-EUF/BCS
900 ... 7100 kW
2 stage progressive electronic
Low NOx natural gas - Low NOx light oil



Working fields



Characteristics and equipment

Type	EK 8.550 GL-EF2/BCS	EK 8.700 GL-EUF/BCS
Operating range	650 - 6500 kW	1090 - 7100 kW
Fuel flow	55 - 548 kg/h	92 - 599 kg/h
Nozzle	according to required power	
Fuel connection	1/2" - DN 25 - 1500 mm	1" S25-S25-DN25 - 1500 mm
Control box / flame detector	BCS 300 / FLW05 + FFS06	
Fan Motor	2930/3530 rpm - 400/690 V - 50 Hz - 15 kW	2800 rpm - 400/690 V - 50 Hz - 15 kW
Pump	SMG 1630 - 1700 l/h	SMG 1630 - 1700 l/h
Motor Pump	2800 rpm - 400/690 V - 50 Hz - 3 kW	2800 rpm - 400/690 V - 50 Hz - 3 kW
Emission grade (according to EN 676)	Class 3 - NOx < 120 mg/kWh	
Acoustics (according to ISO 3744)	82 ... 85 dB(A)	82 ... 85 dB(A)
Complete burner code	on request	1 005 285
Gas train natural gas up to 300 mbar	refer to "Gas train" chapter	

Options

Steam equipment (TRD)	
extra equipment	1 007 816
Potentiometer	175 881 8779
Manometer (kit for oil)	109 879 6676
Others	see Options chapter

Documentation

Operating manual	EN	102 885 9856
Spare parts list	EN	EK 8.550 on request
		EK 8.700 on request
Electrical and hydraulic diagrams	EN	170 884 8180

Basic spare parts

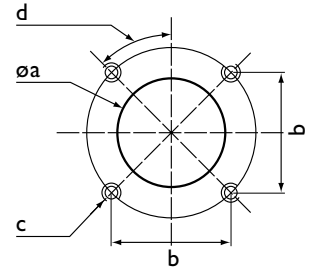
Ignition transformer	ZM20/14	173 873 3651
	ZE 30/7.5	333 326 3064
Ignition electrodes	gas	172 872 8652
		172 872 8641
		172 872 8550
	oil	172 870 3262
Control box		175 879 1079
Flame detector		175 873 4132

Description

- Two-stage progressive electronic low NOx dual fuel forced draught burner.
- Free flame low NOx class 3 technology.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³.
light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Maximum heat power by gas: 8480 and 9820 kW.
- Minimum / maximum power ratio: gas 1/6, fuel oil 1/3.
- Secured burner head adjustments during maintenance.
- Air / gas ratio with digital control technology.
- Three flame tube lengths.
- Closing of the air-damper on burner shutdown.
- Security box and enumerated connection terminals in the body of the burner.
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions : see Gas train chapter).
- Three-phase electrical power supply
- Protection level IP41.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267, EN 676 norms and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

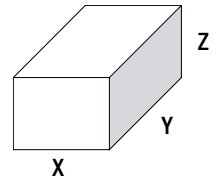
Ø a (mm)	b (mm)	c	d
475	410	M20	45°



Packaging

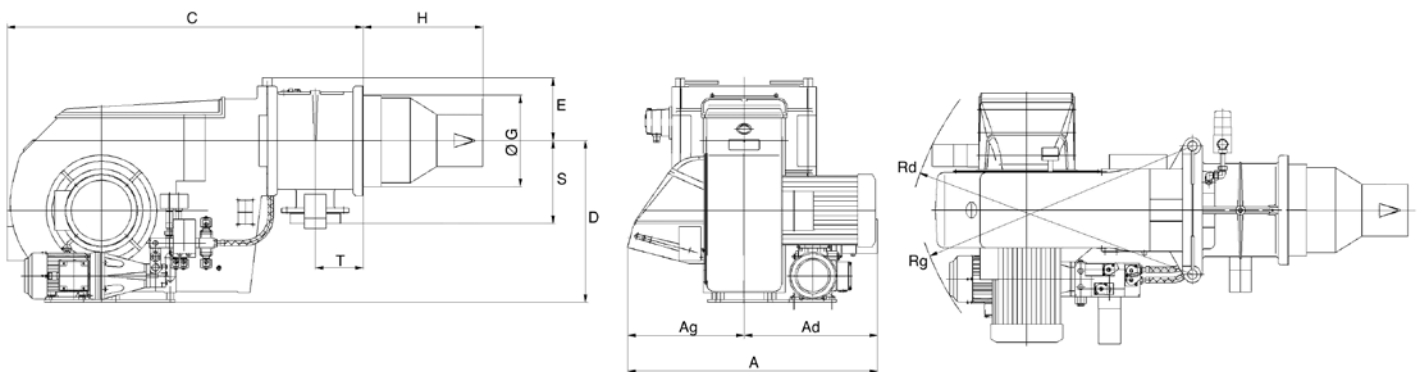
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 9.850 GL-EUF/BCS	1920 ... 2300	2400	1290	570 ... 620
EK 9.1000 GL-EUF/BCS	1950 ... 2400			610 ... 660

Dimensions

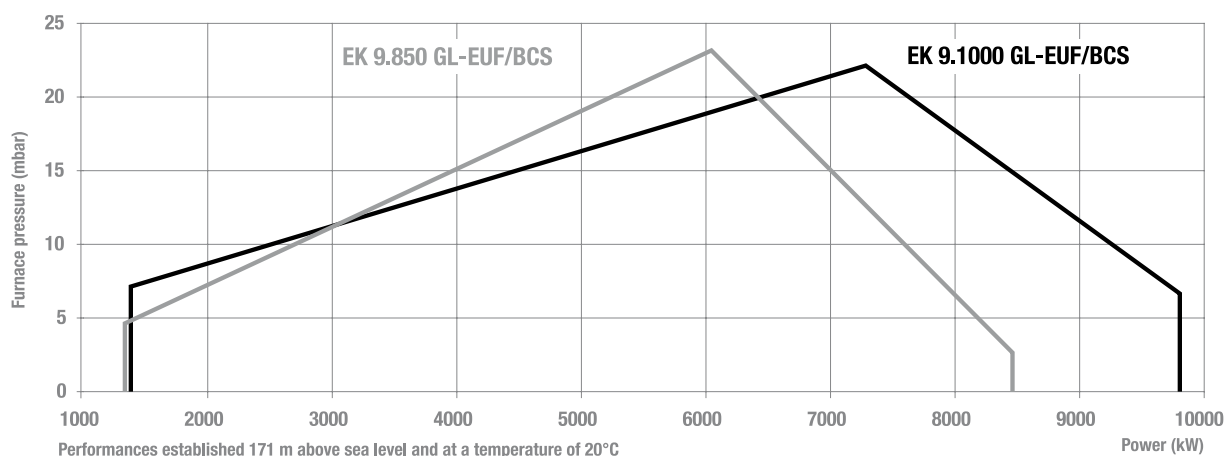


Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	KN	H	KL	Rd	Rg	S	T
EK 9.850 GL-EUF/BCS	1232	622	610	1617	842	305	460	590	690	790	1402	1369	383	173
EK 9.1000 GL-EUF/BCS	1300	690												

Range: EK 9.... GL-EUF/BCS
 EK 9.850 GL-EUF/BCS,
 EK 9.1000 GL-EUF/BCS
 1350 ... 9820 kW
 2 stage progressive electronic
 Low NOx natural gas - Low NOx light oil



Working fields



Characteristics and equipment

Type	EK 9.850 GL-EUF / BCS	EK 9.1000 GL-EUF / BCS
Operating range	1350 - 8480 kW	1400 - 9820 kW
Control box / flame detector	BCS 300 / FLW05 + FFS06	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 18,5 kW	2800 rpm - 400/690 V - 50 Hz - 22 kW
Pump	SMG 1631 - 2250 l/h	
Motor pump	2800 rpm - 400/690 V - 50 Hz - 4 kW	
Emission grade (according to EN 267 / 676)	Light oil class 3 / Gas class 3	
CE certificate	0085AQ0412	
Complete burner code	1 005 296	1 005 309
Gas train natural gas up to 300 mbar	refer to "Gas train" chapter	

Options

Steam equipment (TRD) extra equipment	1 007 850
Potentiometer	175 881 8779
Manometer (kit for oil)	109 879 6676
Others	see Options chapter

Documentation

Operating manual	EN	102 882 9856
Spare parts list	EN	EK 9.850
		EK 9.1000
Electrical and hydraulic diagrams	EN	170 884 8180

Basic spare parts

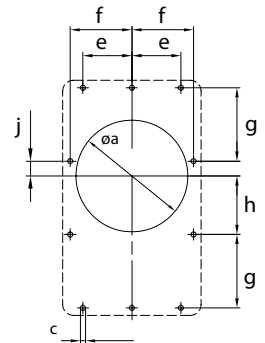
Ignition transformer	ZM20/14	173 873 3651
	ZE 30/7.5	333 326 3064
Ignition electrodes	gas	172 872 8652
		172 872 8641
		172 872 8550
	oil	172 870 3262
Control box		175 879 1079
Flame detector		175 873 4132

Description

- Two-stage progressive electronic low NOx dual fuel forced draught burner.
- Free flame low NOx class 3 technology.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
- Maximum heat power: 12 000 and 14 000 kW.
- Minimum / maximum power ratio:
 - natural gas, 1/7 (1/8 with frequency inverter),
 - light oil, 1/3,5.
- Air / gas ratio with choice of two different digital control boxes: BCS or Etamatic.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Optimal accessibility and burner head adjustments preserved during maintenance.
- Maximum compactness, minimum weight.
- Closing of the air damper on burner shut-down.
- Control box: on request, in or out the body of the burner.
- Enumerated connection terminals in the body of the burner.
- Communication by bus with Etamatic (in progress for BCS).
- Gas train factory assembled and tested for tightness and electrical security (definition, description and dimensions: see options chapter).
- Three-phase electrical power supply.
- Protection level IP 40 (IP 54 as option).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267, EN 676 norms and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC

Connecting flange

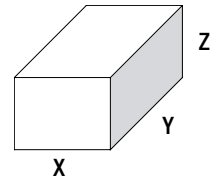
Ø a (mm)	c	e	f	g	h	j
525	M20	230	290	345	275	70



Packaging

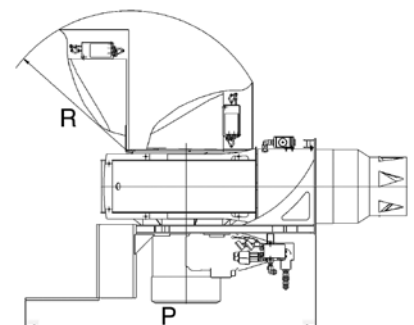
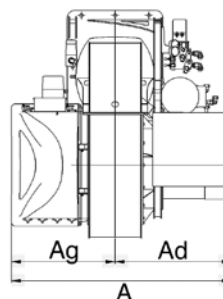
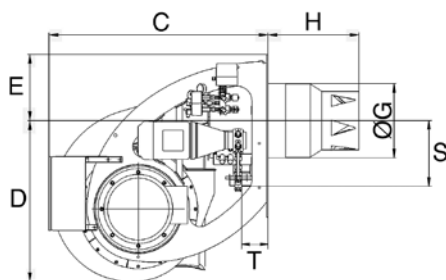
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for Gas train and filter
- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



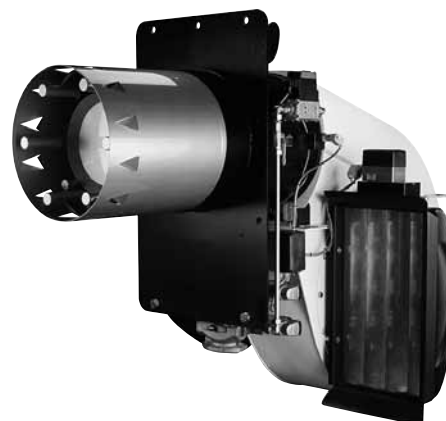
Dimensions (mm)			Gross weight (kg)
X	Y	Z	
1505	2125	1545	740 ... 760 + 100 (transport rack)

Dimensions

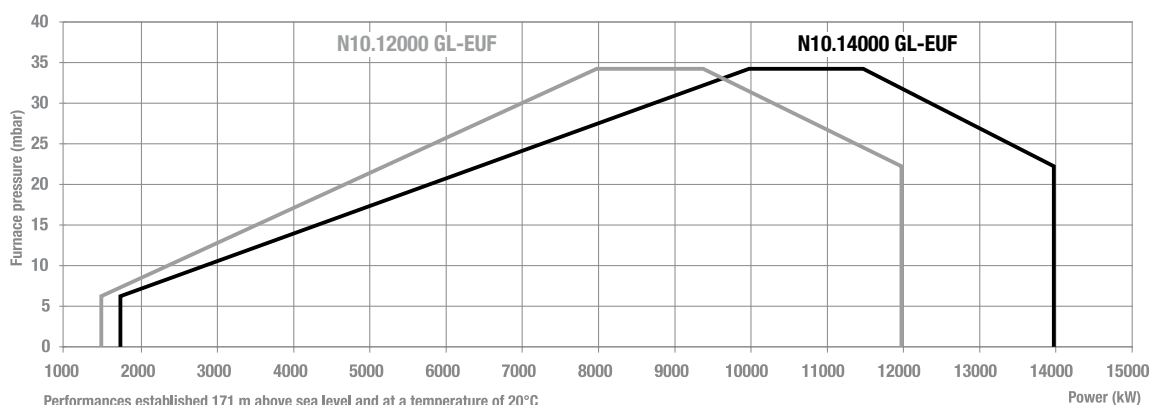


Type	Dimensions (mm)													
	A	Ad	Ag	C	D	E	ØG	H			Rd	Rg	S	T
							KN	KM	KL					
N10.12000 GL-EUF	1505	795	710	1505	1095	450	504	620	720	820	1990	1000	442	100
N10.14000 GL-EUF														

Range: N10.12000 GL-EUF,
N10.14000 GL-EUF
1500 ... 14 000 kW
2 stage progressive electronic
Low NOx natural gas - Low NOx light oil



Working fields



Characteristics and equipment

Type	N10.12000 GL-EUF	N10.14000 GL-EUF
Operating range	1500 - 12000 kW	1750 - 14000 kW
Control box / flame detection	BCS or Etamatic	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 37 kW	2800 rpm - 400/690 V - 50 Hz - 45 kW
Pump	2700 l/h	4000 l/h
Motor pump	2800 rpm - 240/400 V - 50 Hz - 3 kW	2800 rpm - 240/400 V - 50 Hz - 5,5 kW
Emission grade (according to EN 676)	Light oil class 3 / Gas class 3	
Acoustics (according to ISO 3744)	<97 dB(A)	
CE certificate	Homologation in progress	
Complete burner code	with BCS with Etamatic	in progress in progress
Gas train natural gas up to 300 mbar	refer to "Gas train" chapter	

Options

Sound proofing box	15 ... 20 dB(A)	on request
	20 ... 30 dB(A)	on request
Steam equipment (TRD)	on request	
Other accessories	see Options chapter	

Basic spare parts

Ignition transformer	ZM20/14	173 873 3651
	ZE 30/7.5	130 027 36
Ignition electrode		172 874 2005
Control box	BCS	175 879 1079
	Etamatic	175 884 3765
Flame detector	D-LX100 (BCS)	175 881 1778
	FFS06 (Etamatic)	175 873 4132

Documentation

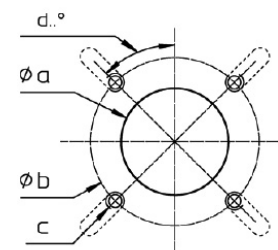
Operating manual	EN	102 885 3485
Spare parts list	EN	14 004 170
Spare parts for hydraulic	EN	102 884 5294
Spare parts for gas train	EN	102 884 9558
Connection terminals wiring	BCS	170 885 4933
	Etamatic	170 884 5614

Description

- One-stage forced draught burner for bakery oven and light industry process.
- Fuel: light oil, viscosity 6 mm²/s by 20°C
net calorific value 11,86 kWh/kg.
- Maximum heat power: 55 and 95 kW.
- Adjustable combustion head length with sliding flange.
- Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Easy maintenance,
 - Limited number of tools and components,
 - Secured burner head adjustments,
- Quiet ventilation and reduced electrical consumption.
- Quick Start System®.
- Complete electrical equipment in the body of the burner with control panel.
- Single-phase electrical power supply 230V - 50Hz.
- Protection level IP 21.
- Maximum ambient air temperature 50°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

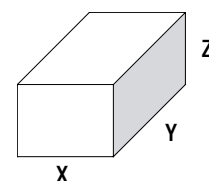
Type	Ø a (mm)	b (mm)	c	d
P 1.60 L	85 ... 104	150 ... 170	M8	45°
P 1.90 L	95 ... 104	150 ... 170	M8	45°



Packaging

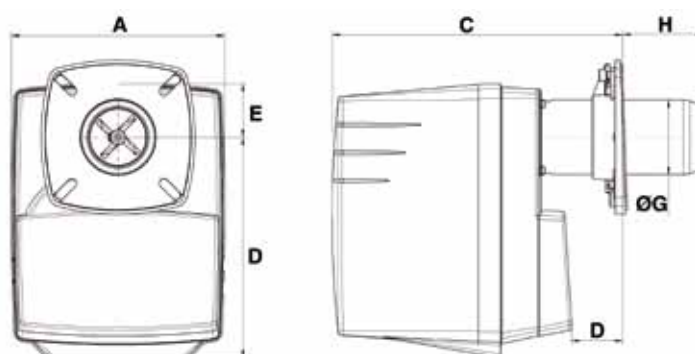
The complete burner with combustion head delivered in carton box with:

- Flexible hoses and nozzles,
- Boiler fixing accessories,
- Operating manual including electrical diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
P 1.60 L	260	300	640	11
P 1.90 L				12

Dimensions

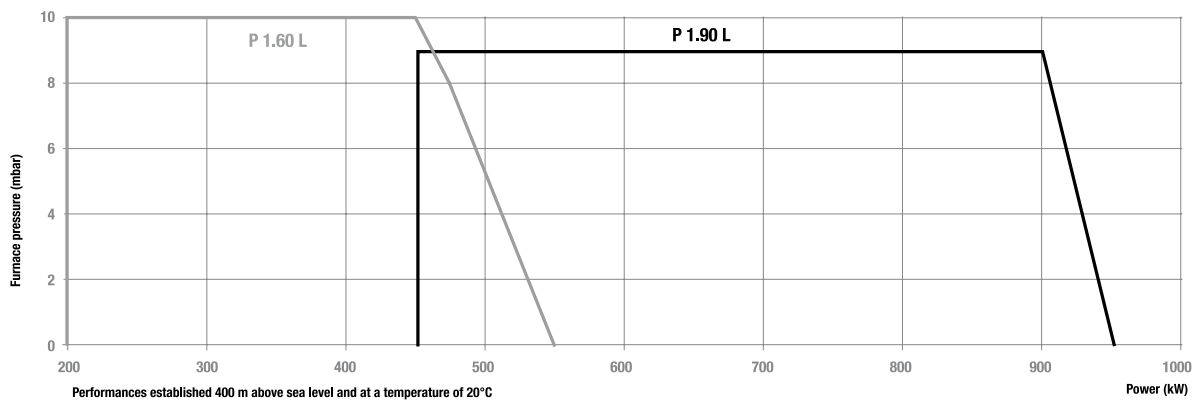


Type	Dimensions (mm)					
	A	C	D	E	ØG	H
P 1.60 L	229	297 ... 337	237	58	80	70 ... 120
P 1.90 L	229	300 ... 355	237	58	90	70 ... 138

Range: P 1.60 L, P 1.90 L
20 ... 95 kW
1 stage
Light oil



Working fields



Characteristics and equipment

Type	Protron 1.60 L	Protron 1.90 L
Operating range	20 - 55 kW	45 - 95 kW
Fuel flow	1,70 ... 4,66 kg/h	3,81 ... 8,05 kg/h
Nozzle	1,00 gal/h - 45°S	1,50 gal/h - 45°S
Control box	TCH 161.01 with display	
Fan Motor	2800 rpm - 230 V - 50 Hz - 110 W	
Pump	AS 47D	
Complete burner code	3 833 002	3 833 003

Options

Counter face plate	13 018 495
Security valve (for permanent ventilation)	3 832 706

Documentation

Operating manual	EN	4200 1017 9200
Spare parts list	EN	4200 1017 9500
Electrical and hydraulic diagrams	EN	4201 1000 0301

Basic spare parts

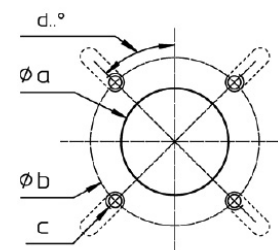
Ignition transformer	65 300 024
Ignition electrode	13 015 848
Baffle plate P1.60 L	13 015 744
P1.90 L	13 015 799
Control box	65 300 304
Flame detector	13 015 692

Description

- One stage forced draught burner for bakery oven and light industry process.
- Fuel: light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
- Maximum heat power: 140 and 175 kW.
- Adjustable combustion head length with sliding flange.
- Cubic type architecture:
 - Optimal accessibility,
 - Maximum compactness, minimum weight,
 - Easy maintenance,
 - Limited number of tools and components,
 - Secured burner head adjustments,
- Quiet ventilation and reduced electrical consumption.
- Quick Start System®.
- Complete electrical equipment in the body of the burner with control panel.
- Single-phase electrical power supply 230V - 50Hz.
- Protection level IP 21.
- Maximum ambient air temperature 50°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

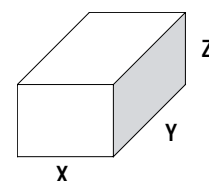
Ø a (mm)	b (mm)	c	d
120 ... 135	150 ... 180	M8	45°



Packaging

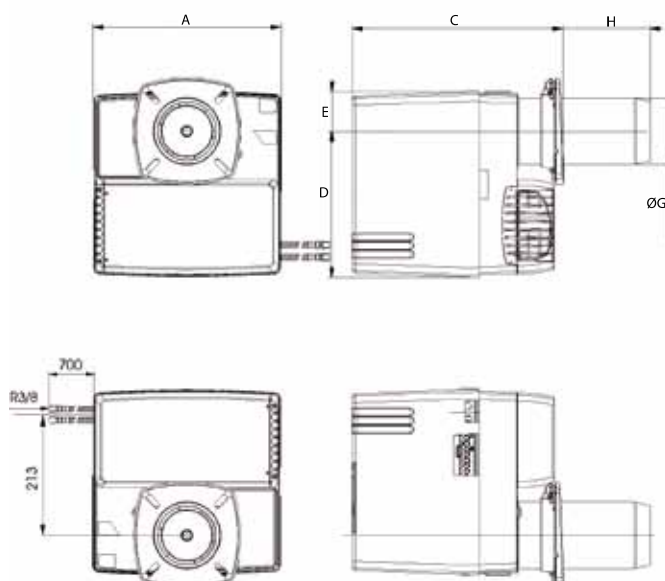
The complete burner with combustion head delivered in carton box with:

- Flexible hoses and nozzles,
- Boiler fixing accessories,
- Operating manual including electrical diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
P 02.120 L	400	400	760	19
P 02.160 L				19

Dimensions

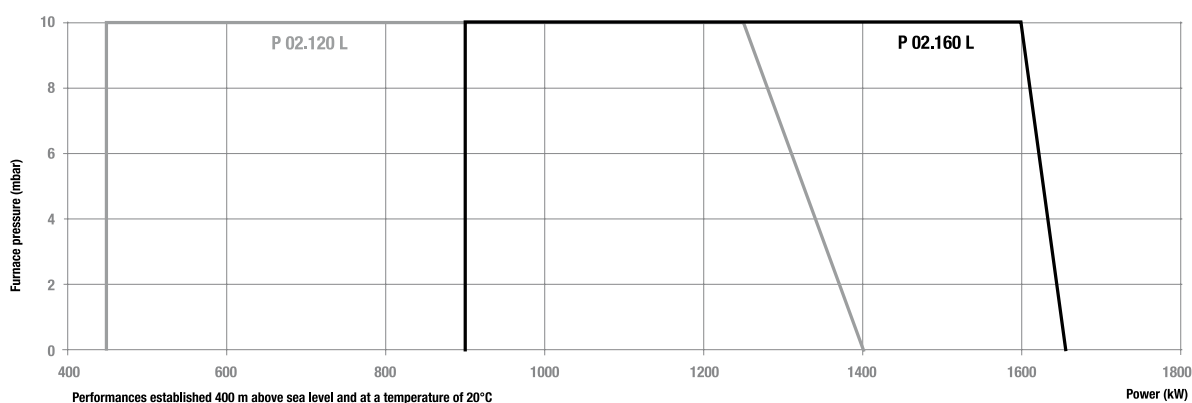


Type	Dimensions (mm)					
	A	C	D	E	ØG	H
P 02.120 L	327	365 ... 411	253	69	100	105 ... 270
P 02.160 L	327	365 ... 411	253	69	115	110 ... 270

Range: P 02.120 L, P 02.160 L
45 ... 175 kW
1 stage
Light oil



Working fields



Characteristics and equipment

Type	Protron 02.120 L	Protron 02.160 L
Operating range	45 - 140 kW	90 - 175 kW
Fuel flow	3,81 ... 11,86 kg/h	7,62 ... 14,83 kg/h
Nozzle	2,00 gal/h - 45°S	2,75 gal/h - 45°S
Control box	TCH 131.01	
Fan Motor	2800 rpm - 230 V - 50 Hz - 160 W	
Pump	AS 47D	
Complete burner code	3 833 004	3 833 005

Options

Counter face plate	13 018 496
Security valve (for permanent ventilation)	3 832 706

Documentation

Operating manual	EN	4200 1017 9400
Spare parts list	EN	4200 1017 9600
Electrical and hydraulic diagrams	EN	4201 1000 0600

Basic spare parts

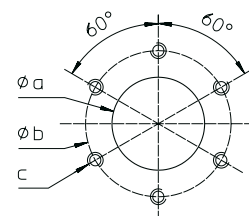
Ignition transformer	13 016 671
Ignition electrode	13 015 847
Baffle plate	P02.120 L 13 015 799
	P02.160 L 13 015 751
Control box	65 300 343
Flame detector	13 015 692

Description

- Three or two stages with one ignition stage forced draught burner.
- Fuel: light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
- Maximum heat power: 3 300, 3 700, 4 200 and 5 000 kW.
- 1st/3rd stage ratio: 1/3 with two nozzles and two pressures.
- Two combustion head lengths.
- Escargot type architecture:
 - Optimal accessibility,
 - Easy maintenance,
 - Secured burner head adjustments,
- Closing of the air flap on burner shut-down.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP 51.
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

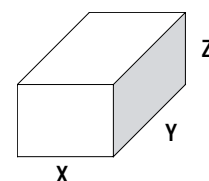
Ø a (mm)	b (mm)	c	d
360	430	M12	60°



Packaging

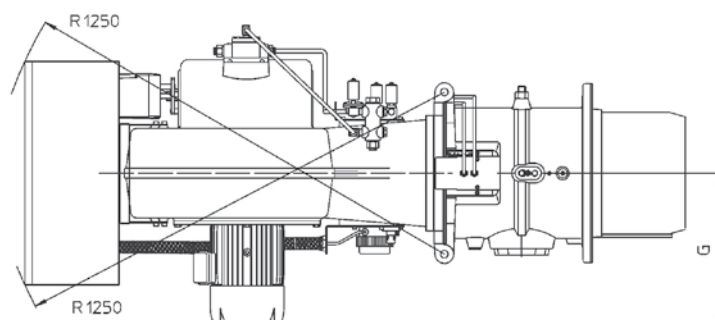
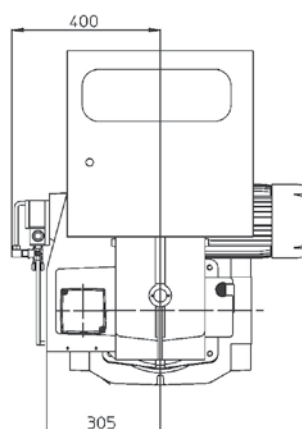
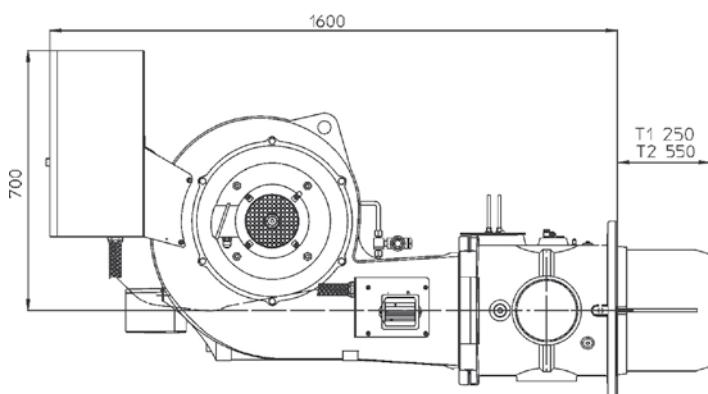
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for hoses and nozzles,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



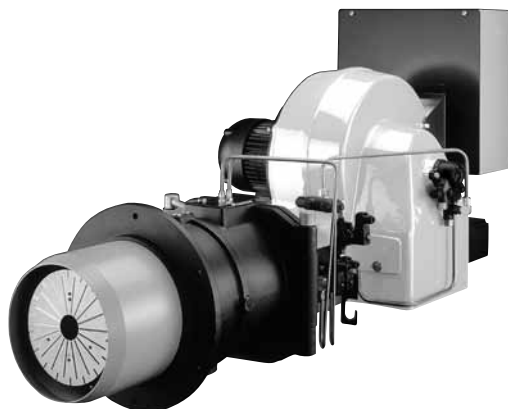
Dimensions (mm)			Gross weight (kg)
X	Y	Z	
1040	1550	750	125 ... 160

Dimensions

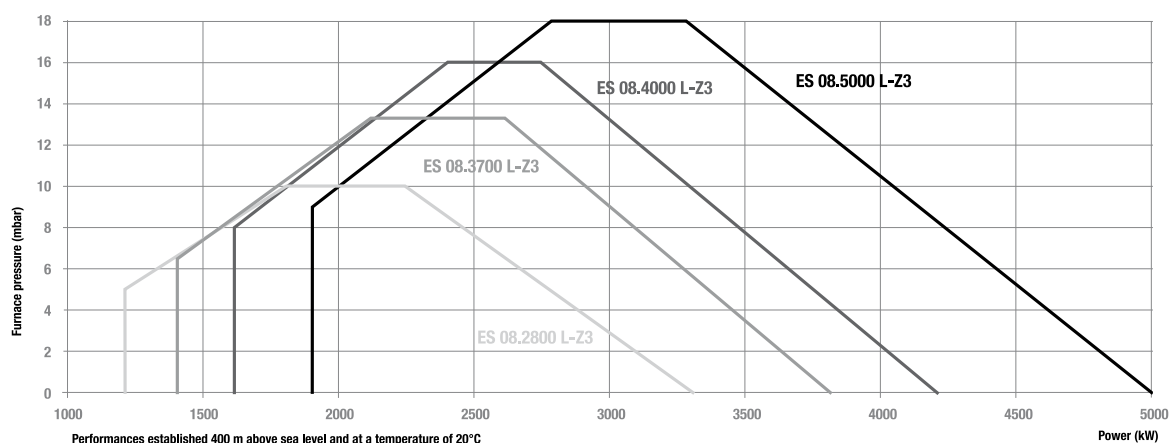


Type	Cote G (mm)
ES 08.2800 L-Z3	370
ES 08.3700 L-Z3	395
ES 08.4000 L-Z3	425
ES 08.5000 L-Z3	480

**Range: ES 08.2800 L-Z3,
ES 08.3700 L-Z3, ES 08.4000 L-Z3, ES 08.5000 L-Z3**
1200 ... 5000 kW
3 stages
Light oil



Working fields



Characteristics and equipment

Type	ES 08.2800 L-Z3		ES 08.3700 L-Z3		ES 08.4000 L-Z3		ES 08.5000 L-Z3	
Operating range	1200 - 3300 kW		1400 - 3800 kW		1600 - 4100 kW		1900 - 5000 kW	
Nozzles	According to requested power							
Fuel flow	101 ... 278 kg/h		118 ... 312 kg/h		135 ... 354 kg/h		160 ... 422 kg/h	
Control box	LAL 1.25							
Fan Motor	2800 rpm - 230/400 V 50 Hz - 3 kW		2800 rpm - 230/400 V 50 Hz - 4 kW		2800 rpm - 230/400 V 50 Hz - 5,5 kW		2800 rpm - 230/400 V 50 Hz - 11 kW	
Noise level (dB)	85,14		85,14		86,96		88,47	
Pump	NVBGRPIC							
	KN	KL	KN	KL	KN	KL	KN	KL
Complete burner code	on request	on request	on request	on request	on request	on request	on request	on request

Options

Counter face plate	13 018 500
Potentiometer (1x1000Ω, I max. 50 mA)	13 018 502
Potentiometer (1x1000Ω, I max. 0,1 mA)	13 018 504
Potentiometer (2x1000Ω, I max. 50 mA)	13 018 503
Potentiometer (2x1000Ω, I max. 0,1 mA)	13 018 505
Digital power regulation (hot water, immersion probe)	13 008 099
Digital power regulation (hot water, strap-on probe)	13 008 100
Digital power regulation (hot air)	13 008 101
Digital power regulation (steam)	13 008 103
Speed-controller	3 832 693
	4TT 3 832 694
	5,5TT 3 832 695
	11TT 3 832 697

Basic spare parts

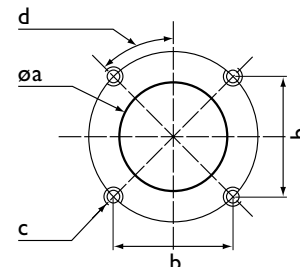
Ignition transformer	13 016 673
Ignition electrode	13 015 851
Baffle plate	ES 08.2800 L-Z3 13 015 797
	ES 08.3700 L-Z3 13 015 794
	ES 08.4000 L-Z3 13 015 791
	ES 08.5000 L-Z3 13 015 791
Control box	13 016 385
Flame detector	13 015 687

Description

- Two-stage progressive mechanical forced draught burner.
- Fuel: light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Max heat power: 1 800, 2 300, 2 500 and 3 250 kW.
- Modulating ratio: 1/3.
- 3 flame tube lengths.
- Secured burner head adjustments during maintenance.
- Enumerated connection terminals in the body of the burner.
- Security box and base unmounted.
- Three-phase electrical power supply.
- Protection level IP 41.
- Max. ambient air temperature 60°C.
- In compliance with the EN 267 standards and European Guidelines such as :
 - Low voltage 73/23/EC
 - EMC 2004/108/EC

Connecting flange

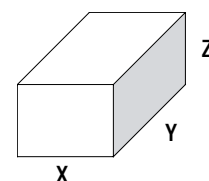
Ø a (mm)	b (mm)	c	d
290	240	M20	45°



Packaging

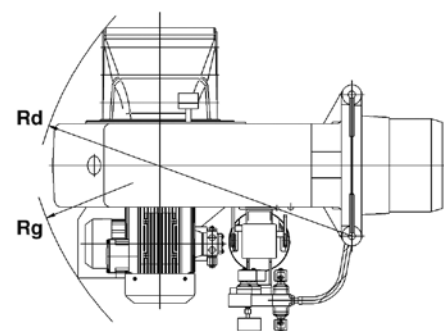
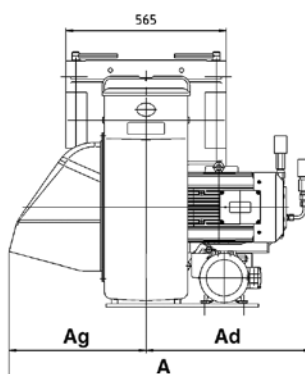
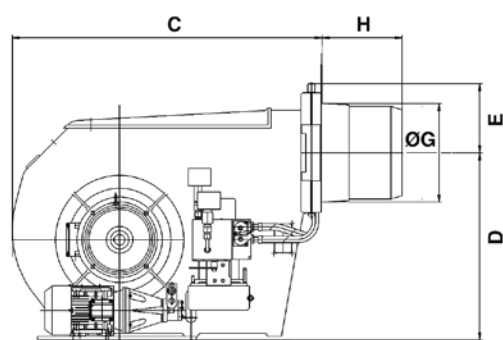
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 6.170/200 L-R	960	1300	860	180
EK 6.240/300 L-R	1060	1350		190

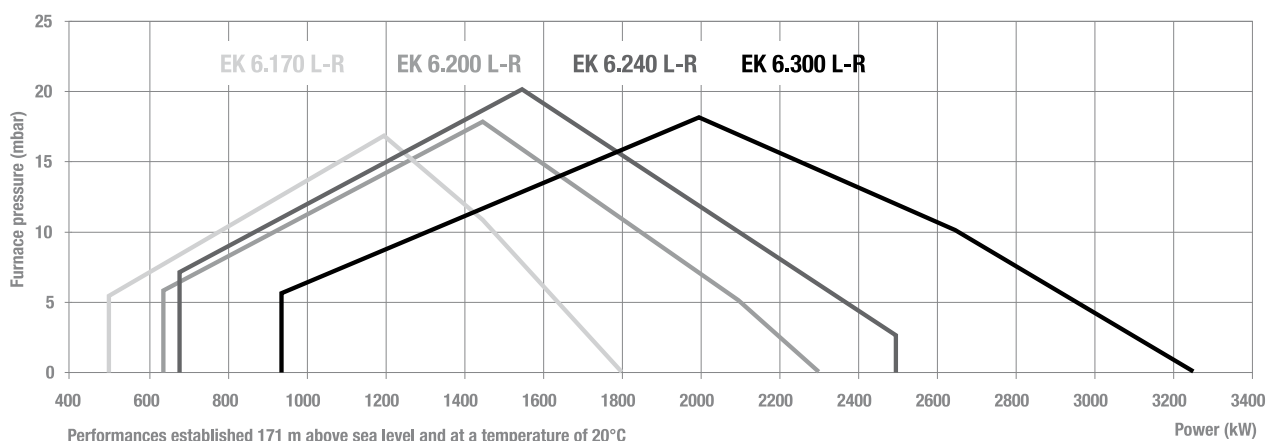
Dimensions



Type	Dimensions (mm)									
	A	Ad	Ag	C	D	E	ØG	H	Rd	Rg
EK 6.170 L-R	864	530	334	945	531	189	280	230	937	974
EK 6.200 L-R			432					250	1007	
EK 6.240 L-R	962	530	432	945	531	189	280	230	937	974
EK 6.300 L-R			432					250	1007	

Range: EK 6.170 L-R, EK 6.200 L-R, EK 6.240 L-R,
EK 6.300 L-R
500 ... 3 250 kW
2 stage progressive mechanical
Light oil

Working fields



Characteristics and equipment

Type	EK 6.170 L-R	EK 6.200 L-R	EK 6.240 L-R	EK 6.300 L-R
Operating range	500 - 1800 kW	640 - 2300 kW	680 - 2500 kW	940 - 3250 kW
Nozzle	according to required power			
Fuel flow	42 - 152 kg/h	54 - 194 kg/h	57 - 210 kg/h	79 - 280 kg/h
Fuel connection	1/2" - DN 16 - 1500 mm		1/2" - S20-S20-DN20 - 1500 mm	
Control box / flame detector	LAL 2.2 / QRB 3			
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 6,4 A - 3 kW		2800 rpm - 400/690 V - 50 Hz - 8,5 A - 4 kW	
Pump	SMG 1945 - 520 l/h		SMG 16026 - 735 l/h	
Pump Motor	0,75 kW		1,1 kW	
Emission grade (according to EN 676)	Class 1 - NOx < 250 mg/kWh			
Acoustics (according to ISO 3744)	82 ... 85 dB(A)		85 ... 88 dB(A)	
Complete burner code	1 006 200	1 006 211	1 006 222	1 006 233

Options

Soundproofing box	15 ... 20 dB(A)	1 148 747 884
	20 ... 30 dB(A)	1 148 747 680
Steam device (TRD)	on request	
Other accessories	see page xxx	

Basic spare parts

Pump	EK6.170/200	1 318 802 153
	EK6.240/300	1 318 802 164
Ignition transformer		1 738 779 199
Ignition electrode		1 728 742 005
Baffle plate	EK 6.170	1 618 798 116
	EK 6.200	1 618 800 317
	EK 6.240	1 618 798 105
	EK 6.300	1 618 798 116
Control box	LAL 2.2	13 009 187
Flame detector	QRB 3	1 758 039 047

Documentation

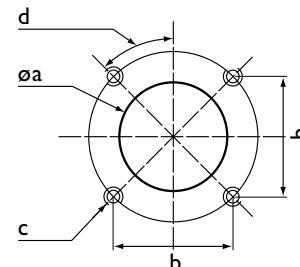
Operating manual		1 028 848 817
Spare parts lists	EK6.170	14 000 881
	EK6.200	14 000 892
	EK6.240	14 000 903
	EK6.300	14 000 914
Electrical and hydraulic diagrams		1 708 848 431

Description

- Two-stage progressive mechanical forced draught burner.
- Fuel: light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Max heat power: 4 500 and 5 300 kW.
- Modulating ratio: 1/3.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Enumerated connection terminals in the body of the burner.
- Security box and base unmounted.
- Three-phase electrical power supply.
- Protection level IP 20.
- Max. ambient air temperature 60°C.
- In compliance with the EN 267 standards and European Guidelines such as :
 - Low voltage 73/23/EC
 - EMC 2004/108/EC

Connecting flange

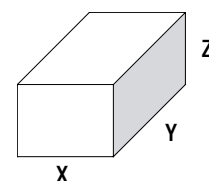
Ø a (mm)	b (mm)	c	d
360	320	M20	45°



Packaging

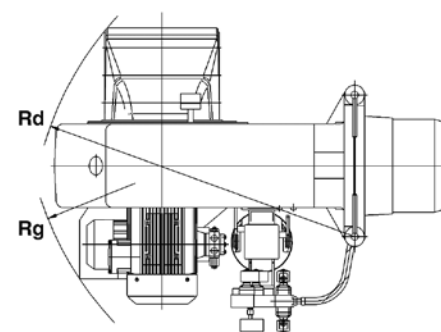
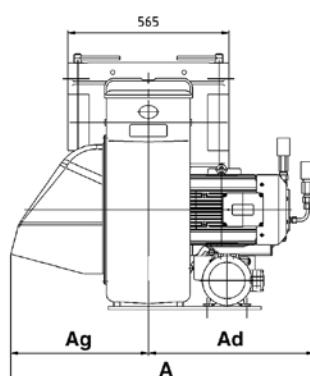
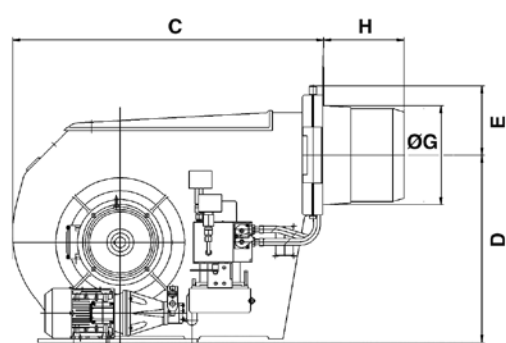
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 7.350 L-R	1150	1400	1040	220
EK 7.450 L-R		...1600		230

Dimensions



Type	Dimensions (mm)									
	A	Ad	Ag	C	D	E	ØG	H	Rd	Rg
EK 7.350 L-R	1062	580	482	1090	654	242	350	282	1133	1158
EK 7.450 L-R										1213

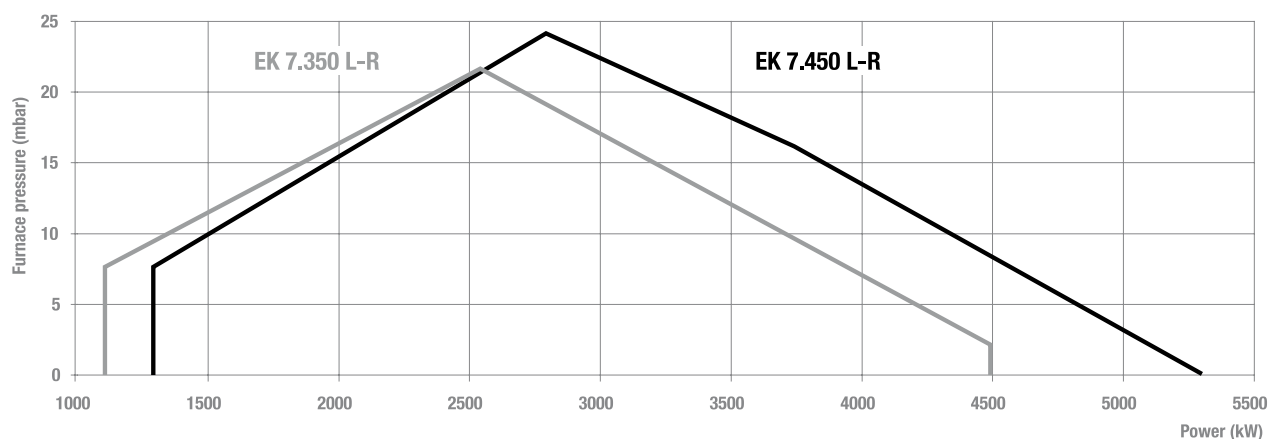
Range: EK 7.350 L-R, EK 7.450 L-R

1 115 ... 5 300 kW

2 stage progressive mechanical

Light oil

Working fields



Characteristics and equipment

Type	EK 7.350 L-R	EK 7.450 L-R
Operating range	1115 - 4500 kW	1300 - 5300 kW
Nozzle	according to required power	
Fuel flow	94 - 380 kg/h	110 - 447 kg/h
Fuel connection	S20-S20-DN20 - 1500 mm Rp 3/4"	
Control box / flame detector	LAL 2.2 / QRB 3	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 11,7 A - 5,5 kW	2800 rpm - 400/690 V - 50 Hz - 15,5 A - 7,5 kW
Pump	SMG 19065 - 900 l/h	SMG 1629 - 1200 l/h
Pump Motor	1,5 kW	2,2 kW
Emission grade (according to EN 676)	Class 1 - NOx < 250 mg/kWh	
Acoustics (according to ISO 3744)	86 ... 88 dB(A)	88 ... 92 dB(A)
Complete burner code	1 008 217	1 008 228

Options

Soundproofing box	15 ... 20 dB(A)	1 148 747 895
	20 ... 30 dB(A)	1 148 747 691
Steam device (TRD)	on request	
Others	see Options chapter	

Documentation

Operating manual	102 848 817
Spare parts list	EK7.350 1 028 847 676
	EK7.450 1 028 848 680
Electrical and hydraulic diagrams	1 708 848 226

Basic spare parts

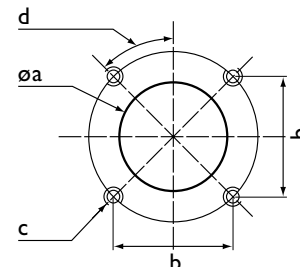
Pump	1 318 802 175
Ignition transformer	1 738 779 199
Ignition electrode	1 728 703 262
Baffle plate	EK 7.350 1 618 794 716
	EK 7.450 1 618 794 705
Control box	LAL 2.2 13 009 187
Flame detector	QRB 3 1 758 039 047

Description

- Two-stage progressive mechanical forced draught burner.
- Fuel: light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Max heat power: 6 050 and 7670 kW.
- Modulating ratio: 1/3.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Electrical connector block in the burner body.
- Security box and base unmounted.
- Three-phase electrical power supply.
- Protection level IP 41.
- Max. ambient air temperature 60°C.
- In compliance with the EN 267 standards and European Guidelines such as :
 - Low voltage 73/23/EC
 - EMC 2004/108/EC

Connecting flange

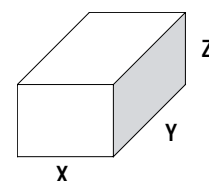
Ø a (mm)	b (mm)	c	d
400	360	M20	45°



Packaging

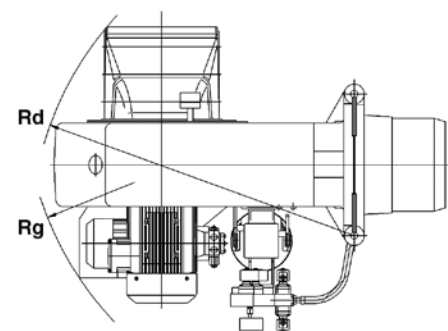
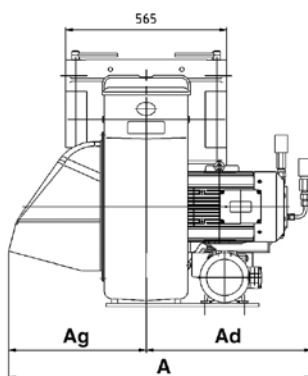
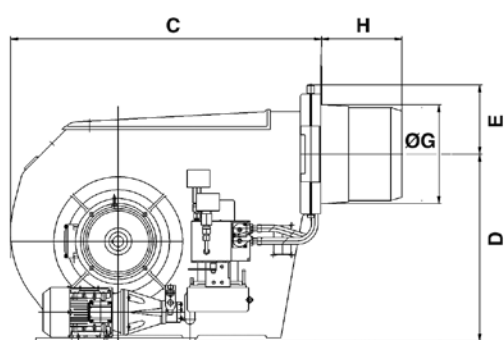
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 8.550 L-R	1200	1600	1080	310
EK 8.700 L-R		1700		325

Dimensions



Type	Dimensions (mm)									
	A	Ad	Ag	C	D	E	ØG	H	Rd	Rg
EK 8.550 L-R	1099	607	492	1131	680	265	389	362	1174	1202
EK 8.700 L-R	1115		508						1258	

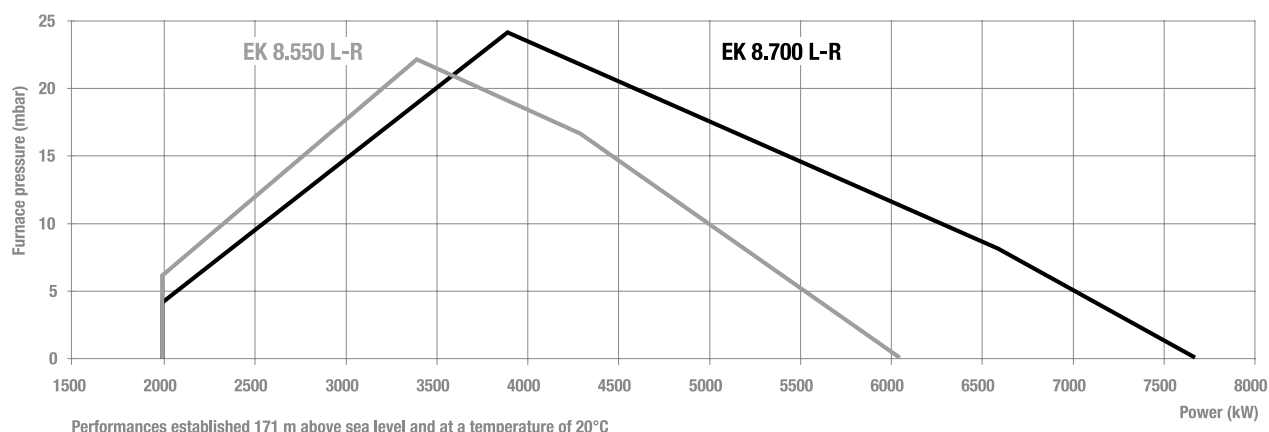
Range: EK 8.550 L-R, EK 8.700 L-R

2 000 ... 7 670 kW

2 stage progressive mechanical

Light oil

Working fields



Characteristics and equipment

Type	EK 8.550 L-R	EK 8.700 L-R
Operating range	2000 - 6049 kW	2000 - 7672 kW
Nozzle	according to required power	
Fuel flow	168 - 510 kg/h	168 - 647 kg/h
Fuel connection	3/4" S20-S20-DN20 - 1500 mm	1" S25-S25-DN25 - 1500 mm
Control box / flame detector	LAL 2.2 / QRB 3	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 22,5 A - 11 kW	2800 rpm - 400/690 V - 50 Hz - 30 A - 15 kW
Pump	SMG 1629 - 1200 l/h	SMG 1630 - 1700 l/h
Pump Motor	2,2 kW	3 kW
Emission grade (according to EN 676)	Class 1 - NOx < 250 mg/kWh	
Acoustics (according to ISO 3744)	89 ... 92 dB(A)	90 ... 94 dB(A)
Complete burner code	1 008 273	1 008 284

Options

Soundproofing box	15 ... 20 dB(A)	1 148 747 908
	20 ... 30 dB(A)	1 148 747 704
Steam device (TRD)	on request	
Others	see Options chapter	

Documentation

Operating manual	1 028 848 817
Spare parts list	EK8.550 1 028 849 650
	EK8.700 1 028 853 032
Electrical and hydraulic diagrams	1 708 848 226

Basic spare parts

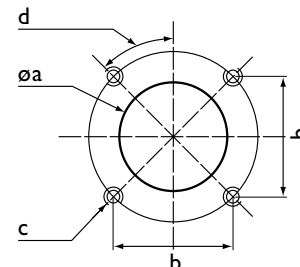
Pump	EK 8.550	1 318 802 186
	EK 8.700	1 318 802 197
Ignition transformer	1 738 779 199	
Ignition electrode	1 728 703 262	
Baffle plate	EK 8.550	1 618 725 426
	EK 8.700	1 428 711 817
Control box	LAL 2.2	13 009 187
Flame detector	QRB 3	1 758 039 047

Description

- Two-stage progressive mechanical forced draught burner.
- Fuel: light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Max heat power: 9 600 and 11 400 kW.
- Modulating ratio: 1/3.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Enumerated connection terminals in the body of the burner.
- Security box and base unmounted.
- Three-phase electrical power supply.
- Protection level IP 41.
- Max. ambient air temperature 60°C.
- In compliance with the EN 267 standards and European Guidelines such as :
 - Low voltage 73/23/EC
 - EMC 2004/108/EC

Connecting flange

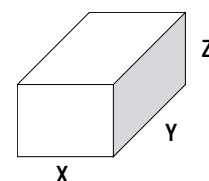
Ø a (mm)	b (mm)	c	d
475	410	M20	45°



Packaging

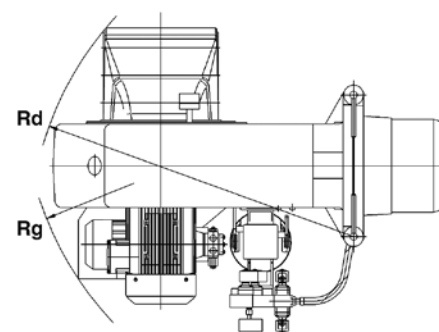
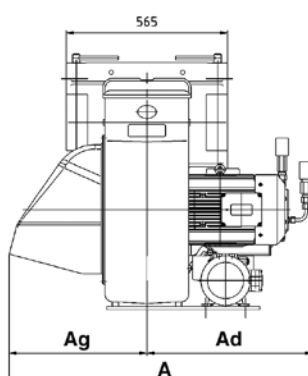
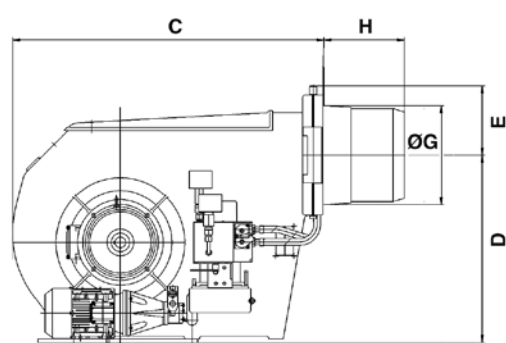
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 9.850 L-R	1330	1760	1290	575
EK 9.1000 L-R	1400			590

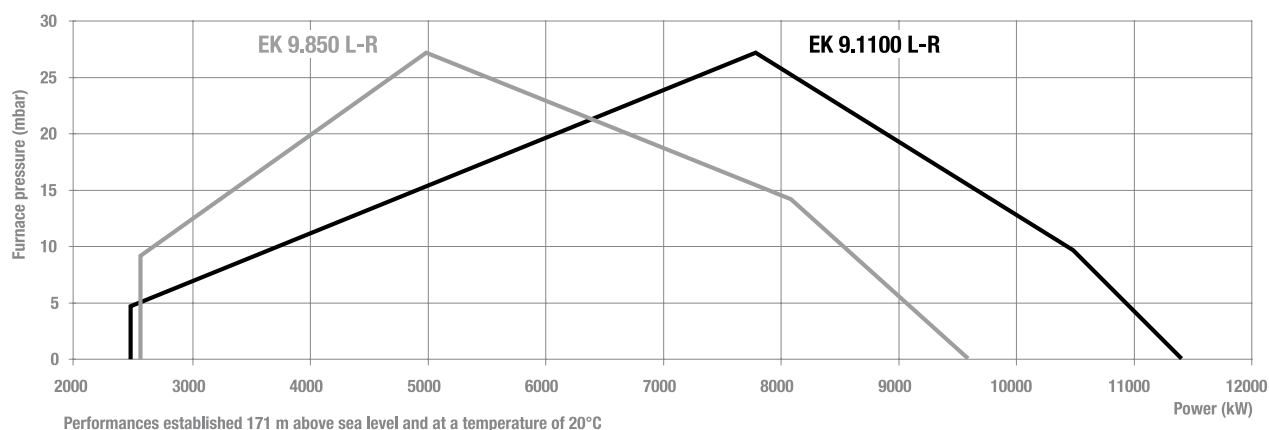
Dimensions



Type	Dimensions (mm)									
	A	Ad	Ag	C	D	E	ØG	H	Rd	Rg
EK 9.850 L-R	1228	618	610	1258	842	305	450	395	1366	1369
EK 9.1000 L-R	1300	691								

Range: EK 9.850 L-R, EK 9.1000 L-R
2 570 ... 11 400 kW
2 stage progressive mechanical
Light oil

Working fields



Characteristics and equipment

Type	EK 9.850 L-R	EK 9.1000 L-R
Operating range	2570 - 9600 kW	2490 - 11400 kW
Nozzle	according to required power	
Fuel flow	217 - 809 kg/h	210 - 962 kg/h
Fuel connection	1" S25-S25-DN25 - 1500 mm	
Control box / flame detector	LAL 2.2 / QRB 3	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 35 A - 18,5 kW	2800 rpm - 400/690 V - 50 Hz - 42,5 A - 22 kW
Pump	SMG 1631 - 2200 l/h	
Pump Motor	4 kW	
Emission grade (according to EN 676)	Class 1 - NOx < 250 mg/kWh	
Acoustics (according to ISO 3744)	94 ... 98 dB(A)	
Complete burner code	1 008 331	1 008 342

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 919
	20 ... 30 dB(A)	1 148 747 715
Steam device (TRD)	on request	
Others	see Options chapter	

Documentation

Operating manual	1 028 848 817
Spare parts list	EK9.850 1 028 858 684
	EK9.1000 1 028 850 271
Electrical and hydraulic diagrams	1 708 848 226

Basic spare parts

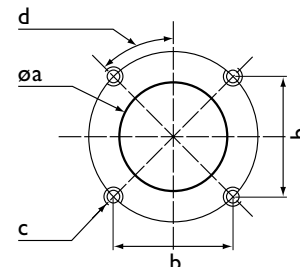
Pump	1 318 802 200
Ignition transformer	1 738 779 199
Ignition electrode	1 728 703 262
Baffle plate	1 618 692 337
	1 618 646 635
Control box	LAL 2.2 13 009 187
Flame detector	QRB 3 1 758 039 047

Description

- Two-stage progressive electronic forced draught burner.
- Fuel: light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Max. heat power: 1 800, 2 300, 2 500 and 3 250 kW.
- Modulating ratio: 1/3.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Security box and electrical connector block in the burner body.
- Three-phase electrical power supply.
- Protection level IP 41.
- Max. ambient air temperature 60°C.
- In compliance with the EN 267 standards and European Guidelines such as :
 - Low voltage 73/23/EC
 - EMC 2004/108/EC

Connecting flange

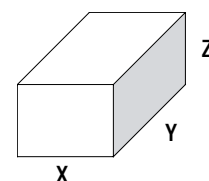
Ø a (mm)	b (mm)	c	d
290	240	M20	45°



Packaging

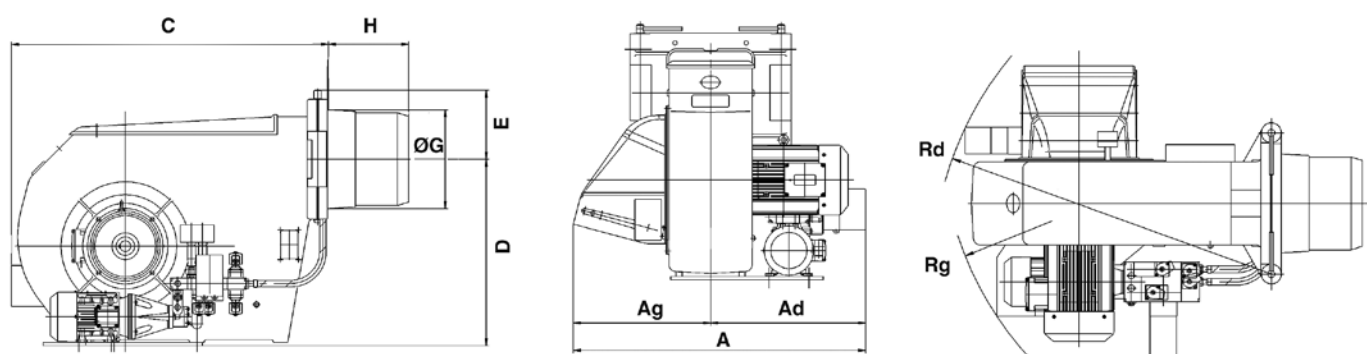
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 6.170/200 L-E/BCS	930	1450	860	180
EK 6.240/300 L-E/BCS	1030	1700		190

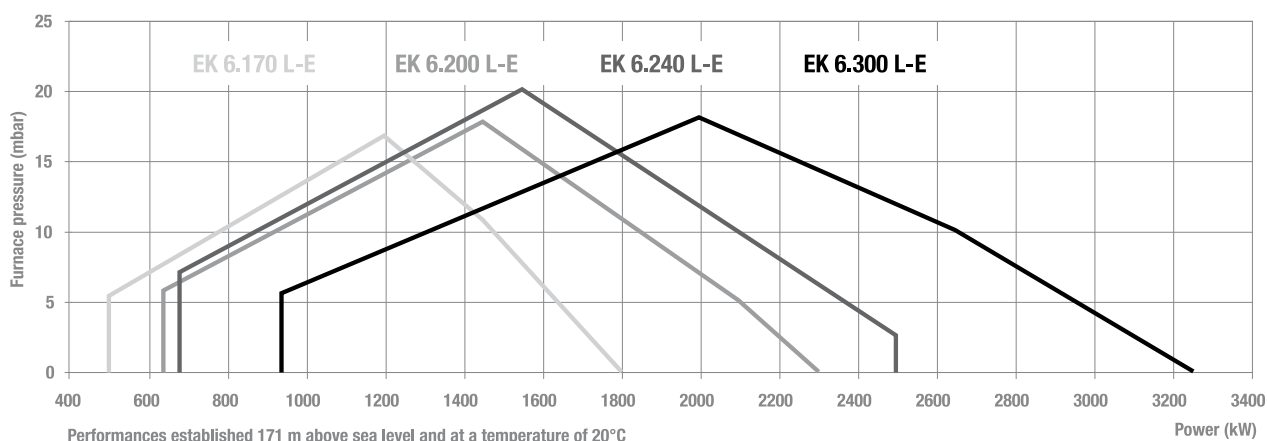
Dimensions



Type	Dimensions (mm)									
	A	Ad	Ag	C	D	E	ØG	H	Rd	Rg
EK 6.170 L-E/BCS	823	489	334	996	531	189	280	230	1035	974
EK 6.200 L-E/BCS			432	1045				250	1080	
EK 6.240 L-E/BCS	921	489	432	1045	531	189	280	230	1035	974
EK 6.300 L-E/BCS			432	1045				250	1080	

**Range: EK 6.170 L-E/BCS, EK 6.200 L-E/BCS,
EK 6.240 L-E/BCS, EK 6.300 L-E/BCS**
500 ... 3 250 kW
2 stage progressive electronic
Light oil

Working fields



Characteristics and equipment

Type	EK 6.170 L-E/BCS	EK 6.200 L-E/BCS	EK 6.240 L-E/BCS	EK 6.300 L-E/BCS
Operating range	500 - 1800 kW	640 - 2300 kW	680 - 2500 kW	940 - 3250 kW
Nozzle	according to required power			
Fuel flow	42 - 152 kg/h	54 - 194 kg/h	57 - 210 kg/h	79 - 280 kg/h
Fuel connection	1/2" - DN 16 - 1500 mm		1/2" - S20-S20-DN20 - 1500 mm	
Control box / flame detector	BCS 300 / FLW 05 - RAR 7			
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 6,4 A - 3 kW		2800 rpm - 400/690 V - 50 Hz - 8,5 A - 4 kW	
Pump	SMG 1945 - 520 l/h		SMG 16026 - 735 l/h	
Pump Motor	0,75 kW		1,1 kW	
Emission grade (according to EN 676)	Class 1 - NOx < 250 mg/kWh			
Acoustics (according to ISO 3744)	82 ... 85 dB(A)		85 ... 88 dB(A)	
Complete burner code	1 005 821	1 005 832	1 005 127	1 005 138

Options

Soundproofing box	15 ... 20 dB(A)	1 148 747 884
	20 ... 30 dB(A)	1 148 747 680
Steam device (TRD)	on request	
Others	see Options chapter	

Basic spare parts

Pump	EK6.170/200	1 318 802 153
	EK6.240/300	1 318 802 164
Ignition transformer		1 738 733 651
Ignition electrode		1 728 779 199
Baffle plate	EK 6.170	1 618 798 116
	EK 6.200	1 618 800 317
	EK 6.240	1 618 798 105
	EK 6.300	1 618 798 116
Control box	BCS 300	1 758 791 079
Flame detector	RAR 7	1 750 126 795

Documentation

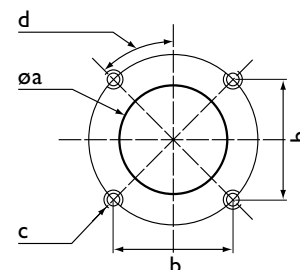
Operating manual		102.885.0566
Spare parts list	EK6.170	102.885.5969
	EK6.200	14 000 925
	EK6.240	14 000 936
	EK6.300	14 000 947
Electrical and hydraulic diagrams		170.884.8237

Description

- Two-stage progressive electronic forced draught burner.
- Fuel: light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Max. heat power: 1 800, 2 300, 2 500 and 3 250 kW.
- Modulating ratio: 1/3.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Security box and electrical connector block in the burner body.
- Three-phase electrical power supply.
- Protection level IP 41.
- Max. ambient air temperature 60°C.
- In compliance with the EN 267 standards and European Guidelines such as :
 - Low voltage 73/23/EC
 - EMC 2004/108/EC

Connecting flange

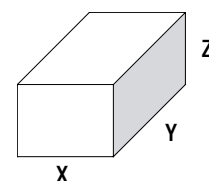
Ø a (mm)	b (mm)	c	d
360	320	M20	45°



Packaging

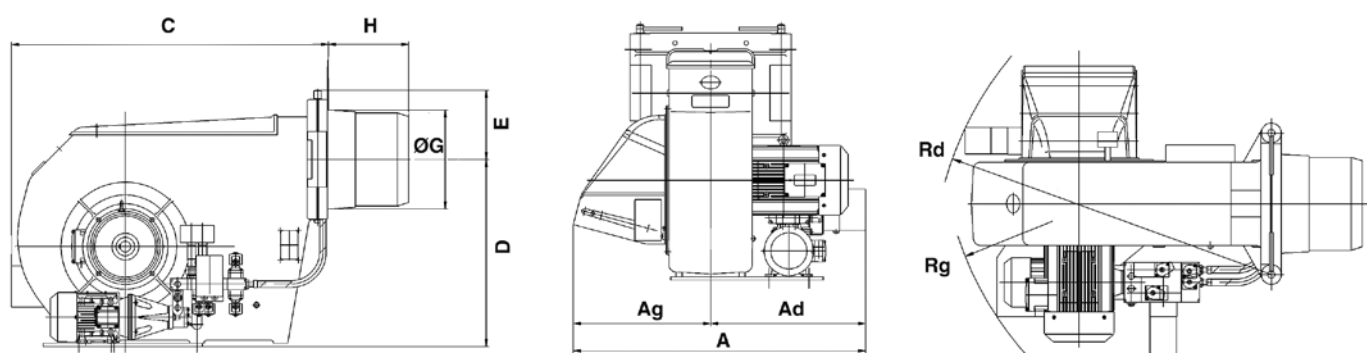
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 7.350 L-E/BCS	1150	1500	1040	220
EK 7.450 L-E/BCS				230

Dimensions



Type	Dimensions (mm)										
	A	Ad	Ag	C	D	E	ØG	KN	H KM	KL	Rd Rg
EK 7.350 L-E/BCS	1026	544	482	1112	654	242	350	282	382	482	1158
EK 7.450 L-E/BCS	1050	568									1213

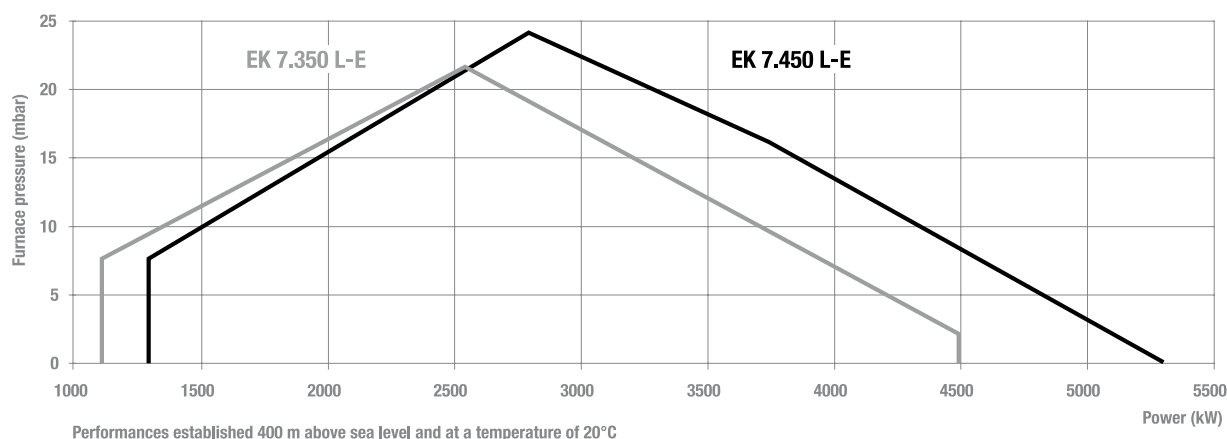
Range: EK 7.350 L-E/BCS, EK 7.450 L-E/BCS

1 115 ... 5 300 kW

2 stage progressive electronic

Light oil

Working fields



Characteristics and equipment

Type	EK 7.350 L-E/BCS	EK 7.450 L-E/BCS
Operating range	1115 - 4500 kW	1300 - 5300 kW
Nozzle	according to required power	
Fuel flow	94 - 380 kg/h	110 - 447 kg/h
Fuel connection	S20-S20-DN20 - 1500 mm, Rp 3/4"	
Control box / flame detector	BCS 300 / FLW 05 - RAR 7	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 11,7 A - 5,5 kW	2800 rpm - 400/690 V - 50 Hz - 15,5 A - 7,5 kW
Pump	SMG 19065 - 900 l/h	SMG 1629 - 1200 l/h
Pump Motor	1,5 kW	2,2 kW
Emission grade (according to EN 676)	Class 1 - NOx < 250 mg/kWh	
Acoustics (according to ISO 3744)	86 ... 88 dB(A)	88 ... 92 dB(A)
Complete burner code	1 004 760	1 004 771

Options

Sound proofing box	15 ... 20 dB(A)	1 148 747 895
	20 ... 30 dB(A)	1 148 747 691
Steam device (TRD)	on request	
Others	see Options chapter	

Documentation

Operating manual	1 028 850 566
Spare parts list	EK7.350 14 000 958
	EK7.450 14 000 969
Electrical and hydraulic diagrams	1 708 848 420

Basic spare parts

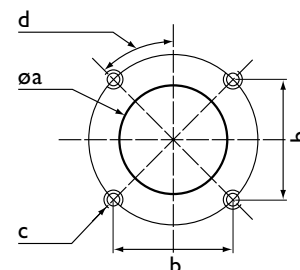
Pump	EK 7.350	1 318 802 175
	EK 7.450	1 318 803 186
Ignition transformer		1 738 733 651
Ignition electrode		1 728 703 262
Baffle plate	EK 7.350	1 618 794 716
	EK 7.450	1 618 794 705
Control box	BCS 300	1 758 791 079
Flame detector	RAR 7	1 750 126 795

Description

- Two-stage progressive electronic forced draught burner.
- Fuel: light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Max. heat power: 6050 and 7670 kW.
- Modulating ratio: 1/3.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Security box and electrical connector block in the burner body.
- Three-phase electrical power supply.
- Protection level IP 20.
- Max. ambient air temperature 60°C.
- In compliance with the EN 267 standards and European Guidelines such as :
 - Low voltage 73/23/EC
 - EMC 2004/108/EC

Connecting flange

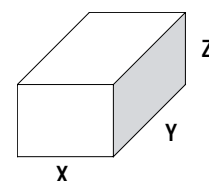
Ø a (mm)	b (mm)	c	d
400	360	M20	45°



Packaging

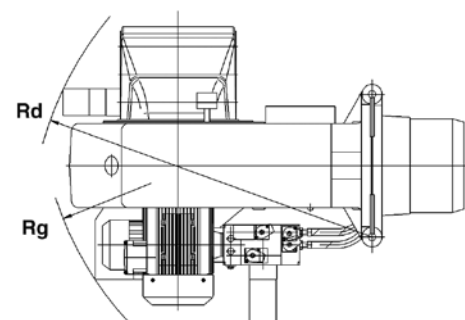
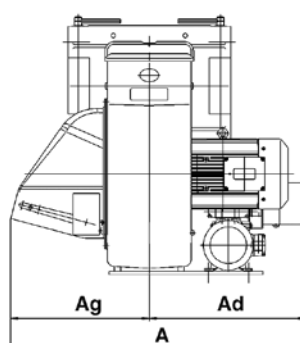
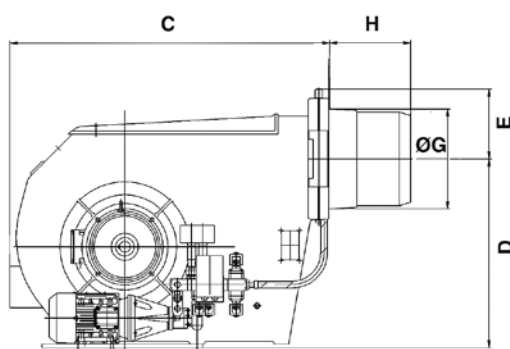
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 8.550 L-E/BCS	1220	1500	1080	310
EK 8.700 L-E/BCS				325

Dimensions



Type	Dimensions (mm)										Rd	Rg
	A	Ad	Ag	C	D	E	ØG	KN	KM	KL		
EK 8.550 L-E/BCS	1055	563	492	1144	680	265	389	362	462	562	1226	1202
EK 8.700 L-E/BCS	1071		508	1234							1309	

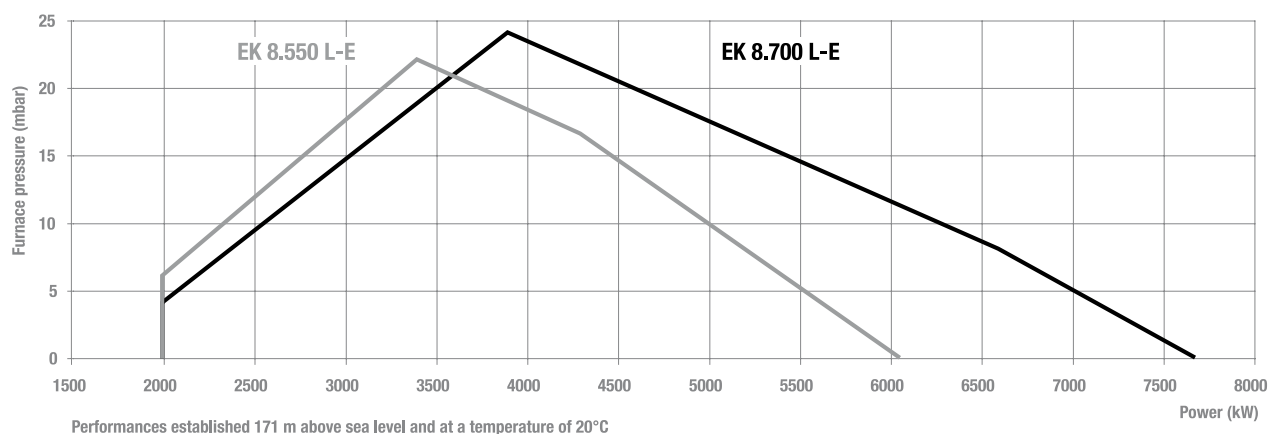
Range: EK 8.550 L-E/BCS, EK 8.700 L-E/BCS

2 000 ... 7 670 kW

2 stage progressive electronic

Light oil

Working fields



Characteristics and equipment

Type	EK 8.550 L-E/BCS	EK 8.700 L-E/BCS
Operating range	2000 - 6049 kW	2000 - 7672 kW
Nozzle	according to required power	
Fuel flow	168 - 510 kg/h	168 - 647 kg/h
Fuel connection	3/4" S20-S20-DN20 - 1500 mm	1" S25-S25-DN25 - 1500 mm
Control box / flame detector	BCS 300 / FLW 05 - RAR 7	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 22,5 A - 11 kW	2800 rpm - 400/690 V - 50 Hz - 30 A - 15 kW
Pump	SMG 1629 - 1200 l/h	SMG 1630 - 1700 l/h
Pump Motor	2,2 kW	3 kW
Emission grade (according to EN 676)	Class 1 - NOx < 250 mg/kWh	
Acoustics (according to ISO 3744)	89 ... 92 dB(A)	90 ... 94 dB(A)
Complete burner code	1 004 782	1 004 793

Options

Soundproofing box	15 ... 20 dB(A)	1 148 747 908
	20 ... 30 dB(A)	1 148 747 704
Steam device (TRD)	on request	
Others	see Options chapter	

Documentation

Operating manual	1 028 850 566
Spare parts list	EK8.550 14 000 980
	EK8.700 14 000 991
Electrical and hydraulic diagrams	1 708 848 420

Basic spare parts

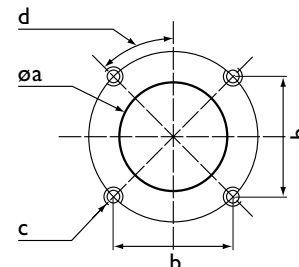
Pump	EK 8.550	1 318 802 186
	EK 8.700	1 318 802 197
Ignition transformer		1 738 733 651
Ignition electrode		1 728 703 262
Baffle plate	EK 8.550	1 618 725 426
	EK 8.700	1 428 711 817
Control box	BCS 300	1 758 791 079
Flame detector	RAR 7	1 750 126 795

Description

- Two-stage progressive electronic forced draught burner.
- Fuel: light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Max. heat power: 9600 and 11400 kW.
- Modulating ratio: 1/3.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Security box and electrical connector block in the burner body.
- Three-phase electrical power supply.
- Protection level IP 20.
- Max. ambient air temperature 60°C.
- In compliance with the EN 267 standards and European Guidelines such as :
 - Low voltage 73/23/EC
 - EMC 2004/108/EC

Connecting flange

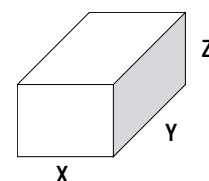
Ø a (mm)	b (mm)	c	d
475	410	M20	45°



Packaging

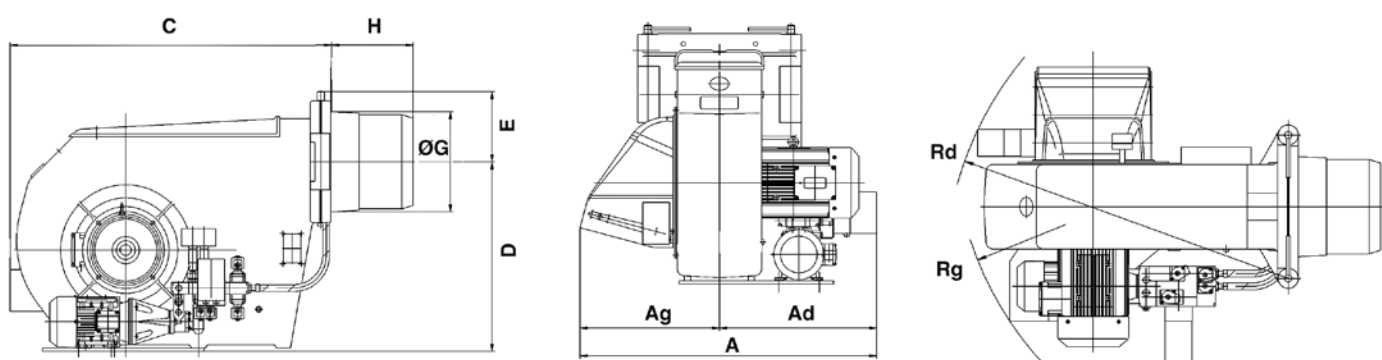
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 9.850 L-E/BCS	1330	1760	1290	575
EK 9.1000 L-E/BCS	1400			590

Dimensions



Type	Dimensions (mm)										
	A	Ad	Ag	C	D	E	ØG	KN	H KM	KL	Rd Rg
EK 9.850 L-E/BCS	1233	623	610	1267	842	305	450	395	495	595	1402
EK 9.1000 L-E/BCS	1300	690									

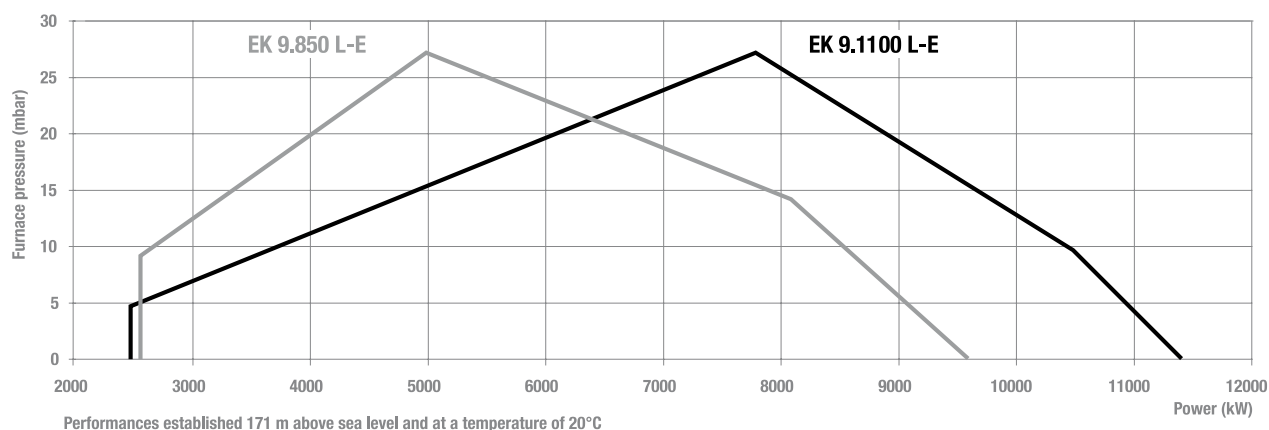
Range: EK 9.850 L-E/BCS, EK 9.1000 L-E/BCS

2 570 ... 11 400 kW

2 stage progressive electronic

Light oil

Working fields



Characteristics and equipment

Type	EK 9.850 L-E/BCS	EK 9.1000 L-E/BCS
Operating range	2570 - 9600 kW	2490 - 11400 kW
Nozzle	according to required power	
Fuel flow	217 - 809 kg/h	210 - 962 kg/h
Fuel connection	1" S25-S25-DN25 - 1500 mm	
Control box / flame detector	BCS 300 / FLW 05 - RAR 7	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 35 A - 18,5 kW	2800 rpm - 400/690 V - 50 Hz - 42,5 A - 22 kW
Pump	SMG 1631 - 2200 l/h	
Pump Motor	4 kW	
Emission grade (according to EN 676)	Class 1 - NOx < 250 mg/kWh	
Acoustics (according to ISO 3744)	94 ... 98 dB(A)	
Complete burner code	1 005 489	1 005 490

Options

Soundproofing box	15 ... 20 dB(A)	1 148 747 919
	20 ... 30 dB(A)	1 148 747 715
Steam device (TRD)	on request	
Others	see Options chapter	

Documentation

Operating manual	1 028 850 566
Spare parts list	EK9.850 14 001 002
	EK9.1000 1 028 850 555
Electrical and hydraulic diagrams	1 708 848 420

Basic spare parts

Pump	1 318 802 200
Ignition transformer	1 738 733 651
Ignition electrode	1 728 703 262
Baffle plate	EK 9.850 1 618 692 337
	EK 9.1000 1 618 646 635
Control box	BCS 300 1 758 791 079
Flame detector	RAR 7 1 750 126 795

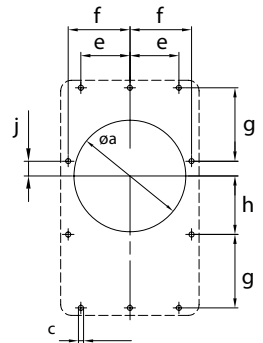
Description

- Two-stage progressive electronic forced draught burner.
- Fuel: light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
- Maximum heat power: 12 000 and 14 000 kW.
- Minimum / maximum power ratio: 1/3,5.
- Air / fuel ratio with choice of two different digital control boxes: BCS or Etamatic.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Optimal accessibility and burner head adjustments preserved during maintenance.
- Maximum compactness, minimum weight.
- Closing of the air damper on burner shut-down.
- Control box: on request, in or out the body of the burner.
- Enumerated connection terminals in the body of the burner.
- Communication by bus with Etamatic (in progress for BCS).
- Three-phase electrical power supply.
- Protection level IP 40 (IP 54 as option).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:

- Low voltage 73/23/EC
- EMC 2004/108/EC

Connecting flange

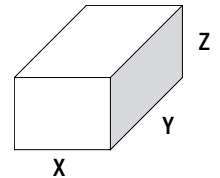
Ø a (mm)	c	e	f	g	h	j
525	M20	230	290	345	275	70



Packaging

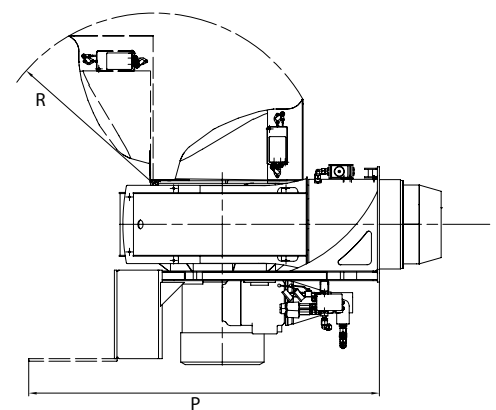
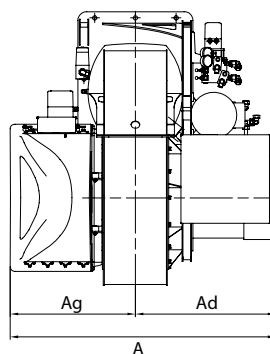
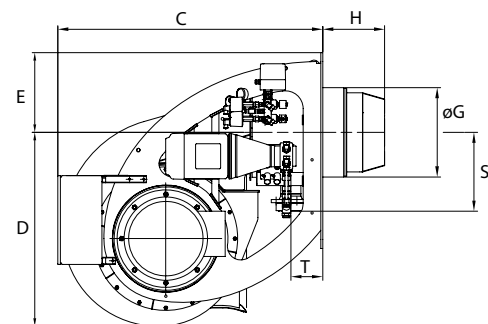
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)			Gross weight (kg)
X	Y	Z	
1505	2125	1545	630 ... 680 + 100 (transport rack)

Dimensions

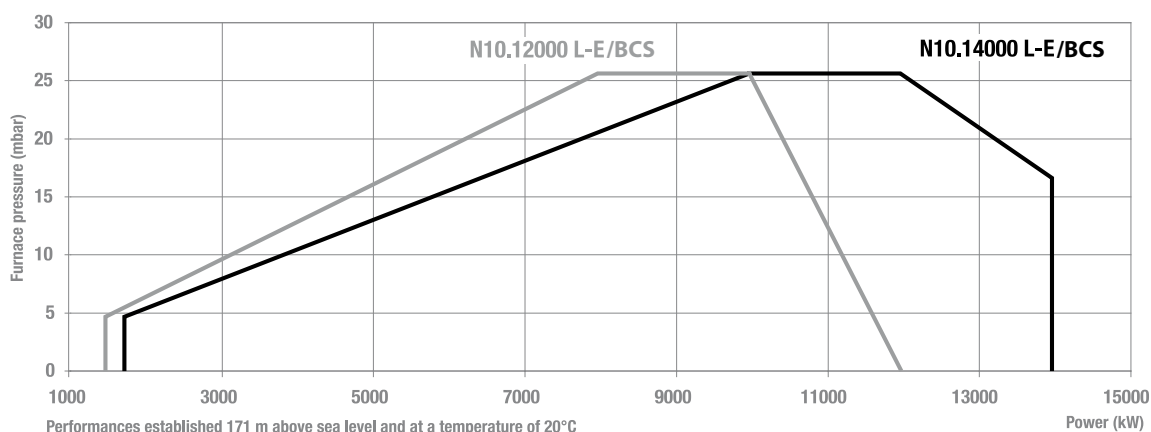


Type	Dimensions (mm)										Rd	Rg
	A	Ad	Ag	C	D	E	ØG	KN	H KM	KL		
N10.12000 L-E/BCS	1505	795	710	1500	1095	450	504	620	720	820	1980	1000
N10.14000 L-E/BCS												

**Range: N10.12000 L-E/BCS,
N10.14000 L-E/BCS
1500 ... 14 000 kW
2 stage progressive electronic
Light oil**



Working fields



Characteristics and equipment

Type	N10.12000 L-E/BCS	N10.14000 L-E/BCS
Operating range	1500 - 12000 kW	1750 - 14000 kW
Control box / flame detection	BCS or Etamatic	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 37 kW	2800 rpm - 400/690 V - 50 Hz - 45 kW
Pump	2700 l/h	4000 l/h
Motor pump	2800 rpm - 240/400 V - 50 Hz - 3 kW	2800 rpm - 240/400 V - 50 Hz - 5,5 kW
Emission grade (according to EN 267)	Class 1 - NOx < 250 mg/kWh	
Acoustics (according to ISO 3744)	<97 dB(A)	
CE certificate	Homologation in progress	
Complete burner code	with BCS with Etamatic	in progress in progress

Options

Sound proofing box	15 ... 20 dB(A)	on request
	20 ... 30 dB(A)	on request
Steam equipment (TRD)		on request
Others		see Options chapter

Documentation

Operating manual	EN	102 885 8162
Spare parts list	EN	14 005 182
Spare parts for hydraulic	EN	102 884 5294
Connection terminals wiring	BCS	170 885 4955
	Etamatic	170 884 5636

Basic spare parts

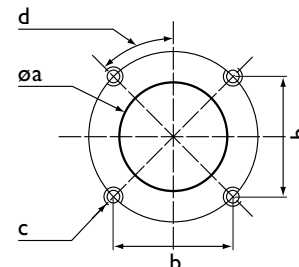
Ignition transformer		173 873 3651
Ignition electrode		
Control box	BCS 300	175 879 1079
Flame detector	BCS / FLW05 module	175 879 5195
Control box	Etamatic	175 884 3765

Description

- Two-stage progressive electronic class 3 low Nox forced draught burner. NO_x < 120 mg/kWh
- Fuel: light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Modulating ratio: 1/3.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Security box and electrical connector block in the burner body.
- Three-phase electrical power supply.
- Protection level IP 41.
- Max. ambient air temperature 60°C.
- In compliance with the EN 267 standards and European Guidelines such as :
 - Low voltage 73/23/EC
 - EMC 2004/108/EC

Connecting flange

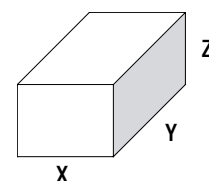
Ø a (mm)	b (mm)	c	d
290	240	M20	45°



Packaging

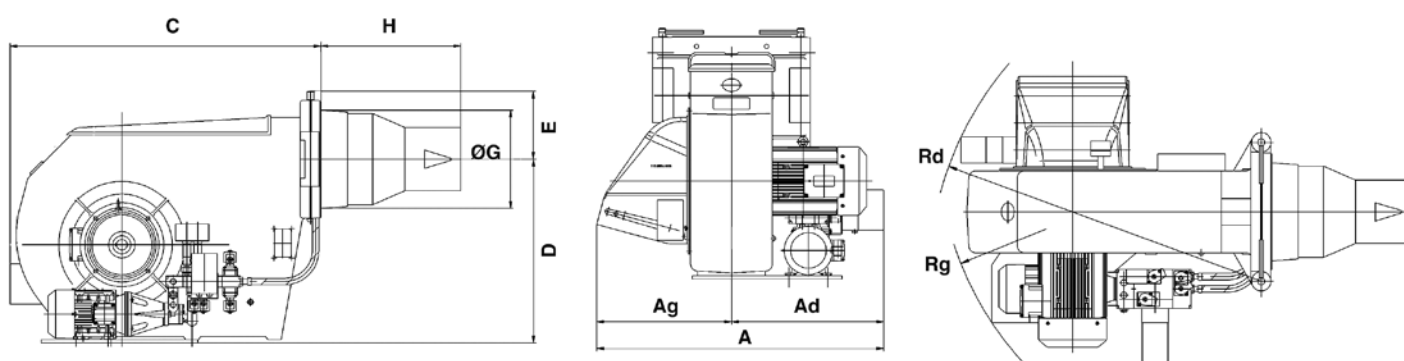
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 6.170/200 L-EF2/BCS	930	1650	860	180
EK 6.240/300 L-EF2/BCS	1030	1900		190

Dimensions

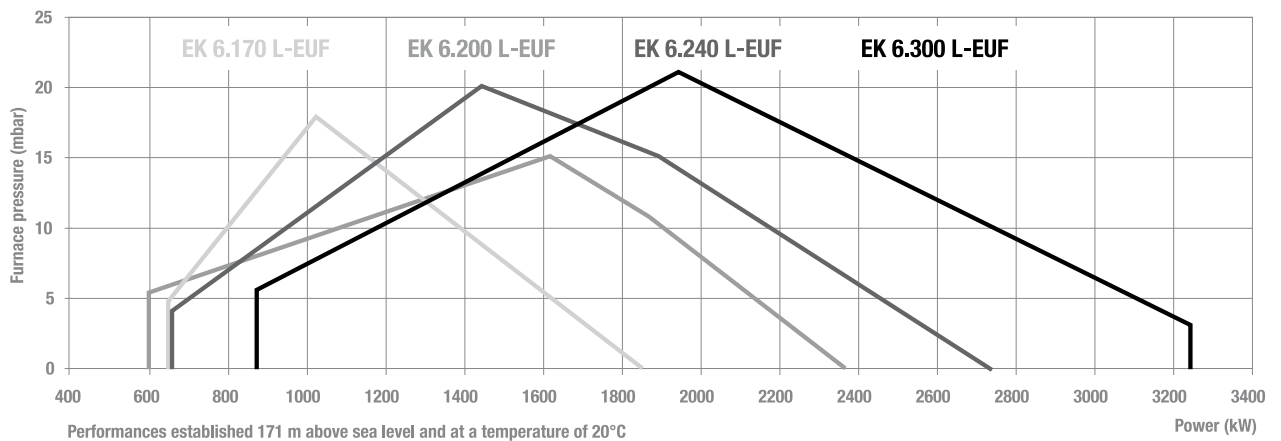


Type	Dimensions (mm)														
	A	Ad	Ag	C	D	E	ØG	KN	KM	KL	Rd	Rg			
EK 6.170 L-EF2/BCS	823	489	334	996	531	189	280	430	530	630	1035	974			
EK 6.200 L-EF2/BCS			432	1045				450	550	650	1080				
EK 6.240 L-EF2/BCS	921														
EK 6.300 L-EF2/BCS															

**Range: EK 6.170 L-EF2/BCS, EK 6.200 L-EF2/BCS,
EK 6.240 L-EF2/BCS, EK 6.300 L-EF2/BCS**
655 ... 3 250 kW
2 stage progressive electronic
Low NOx light oil



Working fields



Characteristics and equipment

Type	EK 6.170 L-EF2/BCS	EK 6.200 L- EF2/BCS	EK 6.240 L- EF2/BCS	EK 6.300 L- EF2/BCS
Operating range	615 - 1764 kW	635 - 2070 kW	665 - 2530 kW	847 - 2883 kW
Nozzle	according to required power			
Fuel flow	52 - 149 kg/h	53 - 175 kg/h	56 - 213 kg/h	71 - 243 kg/h
Fuel connection	1/2" - DN 20 - 1500 mm		1/2" - DN 20 - 1500 mm	
Control box / flame detector	BCS 300 / FLW 05 - RAR 7			
Fan Motor	3000 rpm - 400/690 V - 50 Hz - 3 kW		3000 rpm - 400/690 V - 50 Hz - 4 kW	
Pump	SMG 1945 - 520 l/h		SMG 16026 - 735 l/h	
Motor Pump	0,75 kW		1,1 kW	
Emission grade (according to EN 267)	Class 3 - NOx < 120 mg/kWh			
Acoustics (according to ISO 3744)	82 ... 85 dB(A)		85 ... 88 dB(A)	
Complete burner code	on request	on request	on request	on request

Options

Soundproofing box	15 ... 20 dB(A)	1 148 747 884
	20 ... 30 dB(A)	1 148 747 680
Steam device (TRD)	on request	
Others	see Options chapter	

Basic spare parts

Pump	EK6.170/200	1 318 802 153
	EK6.240/300	1 318 802 164
Ignition transformer		1 738 733 651
Ignition electrode		1 728 703 262
Control box	BCS 300	1 758 791 079
Flame detector	D-LX 100	1 758 811 778

Documentation

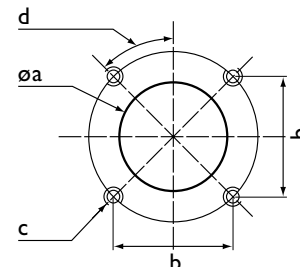
Operating manual	EK6.170	on request
	EK6.200	on request
	EK6.240	on request
	EK6.300	on request
Spare parts list	EK6.170	on request
	EK6.200	on request
	EK6.240	on request
	EK6.300	on request
Electrical and hydraulic diagrams		on request

Description

- Two-stage progressive electronic class 3 low Nox forced draught burner. NO_x < 120 mg/kWh
- Fuel: light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Max. heat power: 4 000 et 5 000 kW.
- Modulating ratio: 1/3.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Security box and electrical connector block in the burner body.
- Three-phase electrical power supply.
- Protection level IP 41.
- Max. ambient air temperature 60°C.
- In compliance with the EN 267 standards and European Guidelines such as :
 - Low voltage 73/23/EC
 - EMC 2004/108/EC

Connecting flange

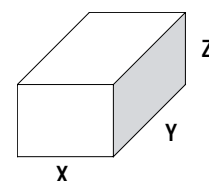
Ø a (mm)	b (mm)	c	d
360	320	M20	45°



Packaging

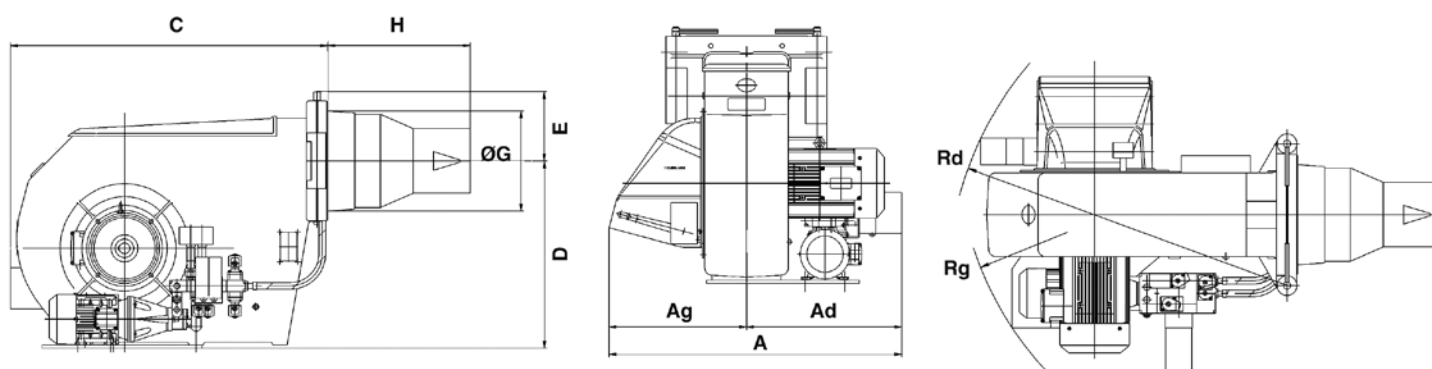
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 7.350 L-EUF/BCS	1150	1720	1040	220
EK 7.450 L-EUF/BCS				230

Dimensions

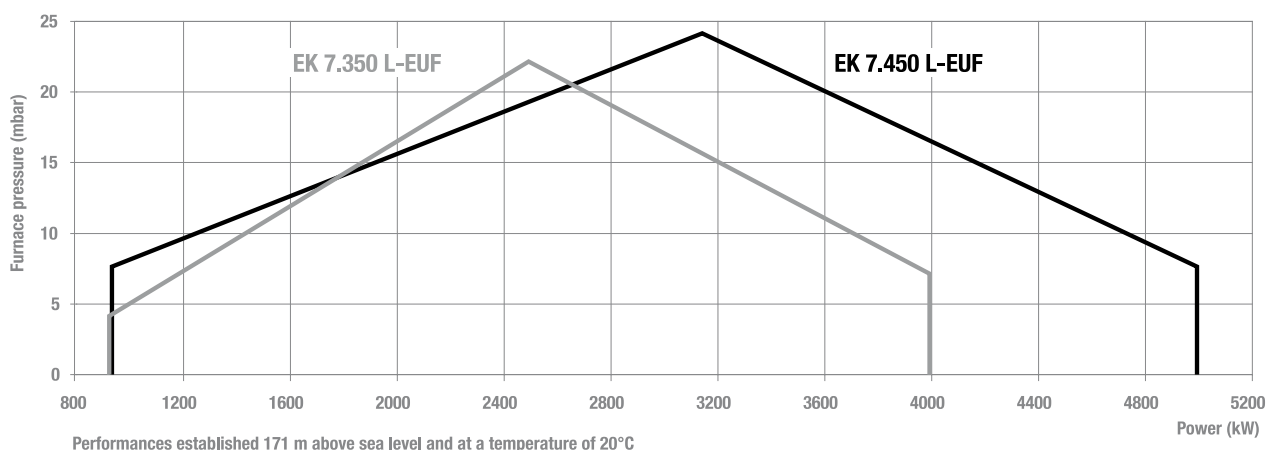


Type	Dimensions (mm)										Rd	Rg
	A	Ad	Ag	C	D	E	ØG	KN	KM	KL		
EK 7.350 L-EUF/BCS	1026	544	482	1112	654	242	350	500	600	700	1190	1158
EK 7.450 L-EUF/BCS	1050	568										1213

Range: EK 7.350 L-EUF/BCS, EK 7.450 L-EUF/BCS
930 ... 5 000 kW
2 stage progressive electronic
Low NOx light oil



Working fields



Characteristics and equipment

Type	EK 7.350 L-EUF/BCS	EK 7.450 L-EUF/BCS
Operating range	930 - 4000 kW	940 - 5000 kW
Nozzle	according to required power	
Fuel flow	78 - 340 kg/h	80 - 390 kg/h
Fuel connection	S20-S20-DN20 - 1500 mm, Rp 3/4"	
Control box / flame detector	BCS 300 / FLW 05 - RAR 7	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 11,7 A - 5,5 kW	2800 rpm - 400/690 V - 50 Hz - 15,5 A - 7,5 kW
Pump	SMG 19065 - 900 l/h	SMG 1629 - 1200 l/h
Pump Motor	1,5 kW	2,2 kW
Emission grade (according to EN 267)	Class 3 - NOx < 120 mg/kWh	
Acoustics (according to ISO 3744)	86 ... 88 dB(A)	88 ... 92 dB(A)
Complete burner code	1 005 207	1 005 218

Options

Soundproofing box	15 ... 20 dB(A)	1 148 747 895
	20 ... 30 dB(A)	1 148 747 691
Steam device (TRD)	on request	
Others	see Options chapter	

Documentation

Operating manual	EK7.350	14 001 101
	EK7.450	14 001 112
Spare parts list	EK7.350	14 001 123
	EK7.450	14 001 134
Electrical and hydraulic diagrams	1 708 848 420	

Basic spare parts

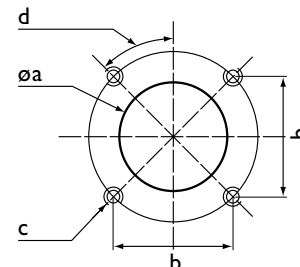
Pump	EK 7.350	1 318 802 175
	EK 7.450	1 318 803 186
Ignition transformer	1 738 733 651	
Ignition electrode	1 728 703 262	
Control box	BCS 300	1 758 791 079
Flame detector	D-LX 100	1 758 811 778

Description

- Two-stage progressive electronic class 3 low Nox forced draught burner. NO_x < 120 mg/kWh
- Fuel: light oil, viscosity 6 mm²/s at 20°C, net calorific value 11,86 kWh/kg.
- Max. heat power: 6 400 and 7 800 kW.
- Modulating ratio: 1/3.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Security box and electrical connector block in the burner body.
- Three-phase electrical power supply.
- Protection level IP 41.
- Max. ambient air temperature 60°C.
- In compliance with the EN 267 standards and European Guidelines such as :
 - Low voltage 73/23/EC
 - EMC 2004/108/EC

Connecting flange

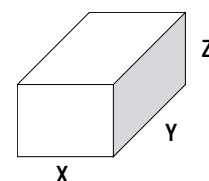
Ø a (mm)	b (mm)	c	d
400	360	M20	45°



Packaging

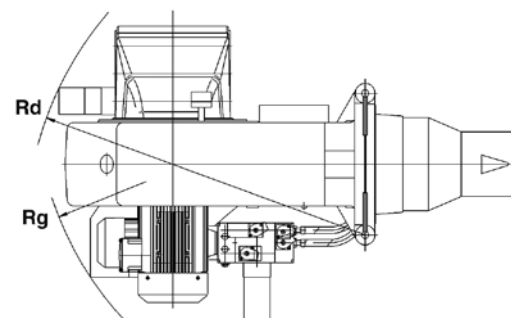
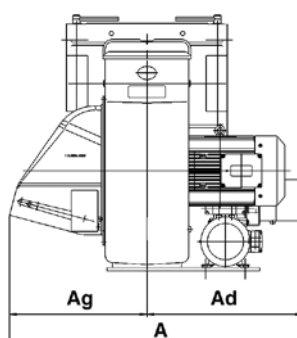
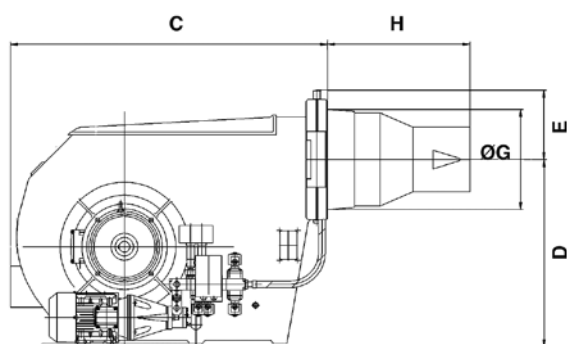
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 8.550 L-EUF/BCS	1220	1680	1080	310
EK 8.700 L-EUF/BCS				325

Dimensions



Type	Dimensions (mm)										Rd	Rg
	A	Ad	Ag	C	D	E	ØG	KN	KM	KL		
EK 8.550 L-EUF/BCS	1055	563	492	1144	680	265	389	540	640	740	1226	1202
EK 8.700 L-EUF/BCS	1071		508	1234							1309	

Range: EK 8.550 L-EUF/BCS, EK 8.700 L-EUF/BCS

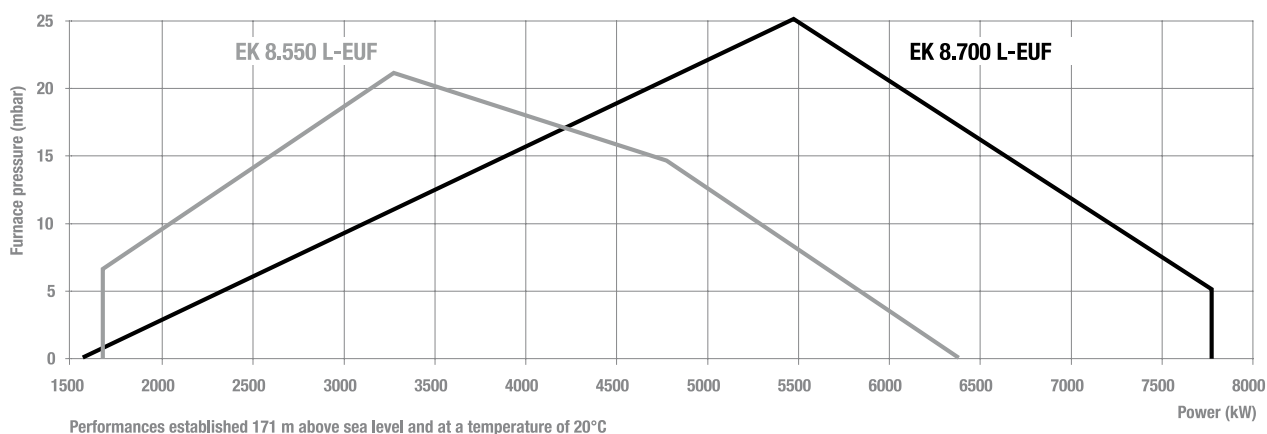
1 600 ... 7 800 kW

2 stage progressive electronic

Low NOx light oil



Working fields



Characteristics and equipment

Type	EK 8.550 L-EUF/BCS	EK 8.700 L-EUF/BCS
Operating range	1700 - 6400 kW	1600 - 7800 kW
Nozzle	according to required power	
Fuel flow	144 - 542 kg/h	135 - 660 kg/h
Fuel connection	3/4" S20-DN20 - 1500 mm	1" S25-S25-DN25 - 1500 mm
Control box / flame detector	BCS 300 / FLW 05 - RAR 7	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 22,5 A - 11 kW	2800 rpm - 400/690 V - 50 Hz - 30 A - 15 kW
Pump	SMG 1629 - 1200 l/h	SMG 1630 - 1700 l/h
Pump Motor	2,2 kW	3 kW
Emission grade (according to EN 267)	Class 3 - NOx < 120 mg/kWh	
Acoustics (according to ISO 3744)	89 ... 92 dB(A)	90 ... 94 dB(A)
Complete burner code	1 005 229	1 005 230

Options

Soundproofing box	15 ... 20 dB(A)	1 148 747 908
	20 ... 30 dB(A)	1 148 747 704
Steam device (TRD)	on request	
Others	see Options chapter	

Documentation

Operating manual	EK8.550	14 001 145
	EK8.700	14 001 156
Spare parts list	EK8.550	14 001 167
	EK8.700	14 001 178
Electrical and hydraulic diagrams	1 708 848 420	

Basic spare parts

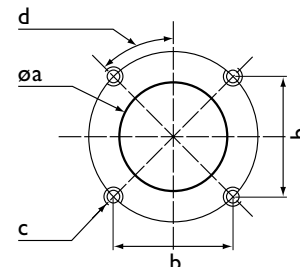
Pump	EK 8.550	1 318 802 186
	EK 8.700	1 318 802 197
Ignition transformer	1 738 733 651	
Ignition electrode	1 728 703 262	
Control box	BCS 300	1 758 791 079
Flame detector	RAR 7	1 750 126 795

Description

- Two-stage progressive electronic class 3 low Nox forced draught burner. NO_x < 120 mg/kWh
- Fuel: light oil, viscosity 6 mm²/s at 20°C, low calorific value 11,86 kWh/kg.
- Max heat power: 9 000 and 11 400 kW.
- Modulating ratio: 1/3.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Security box and electrical connector block in the burner body.
- Three-phase electrical power supply.
- Protection level IP 41.
- Max. ambient air temperature 60°C.
- In compliance with the EN 267 standards and European Guidelines such as :
 - Low voltage 73/23/EC
 - EMC 2004/108/EC

Connecting flange

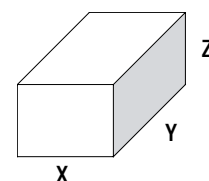
Ø a (mm)	b (mm)	c	d
475	410	M20	45°



Packaging

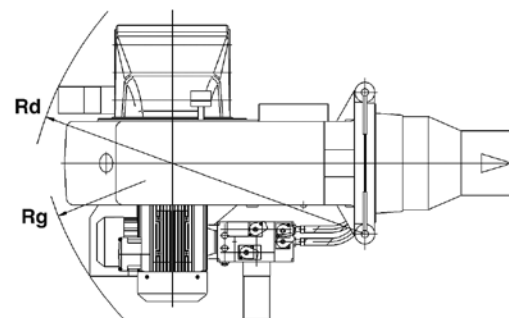
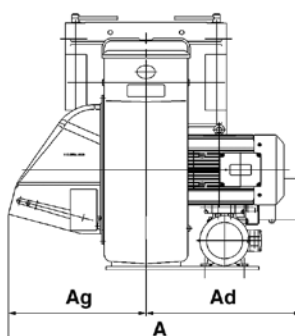
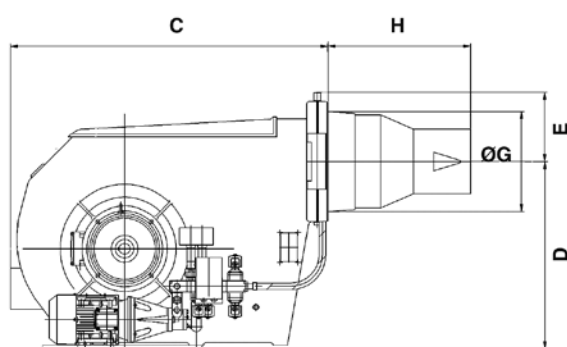
The complete burner with combustion head in a wooden box with:

- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Type	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
EK 9.850 L-EUF/BCS	1330	1890	1290	575
EK 9.1000 L-EUF/BCS	1400			590

Dimensions

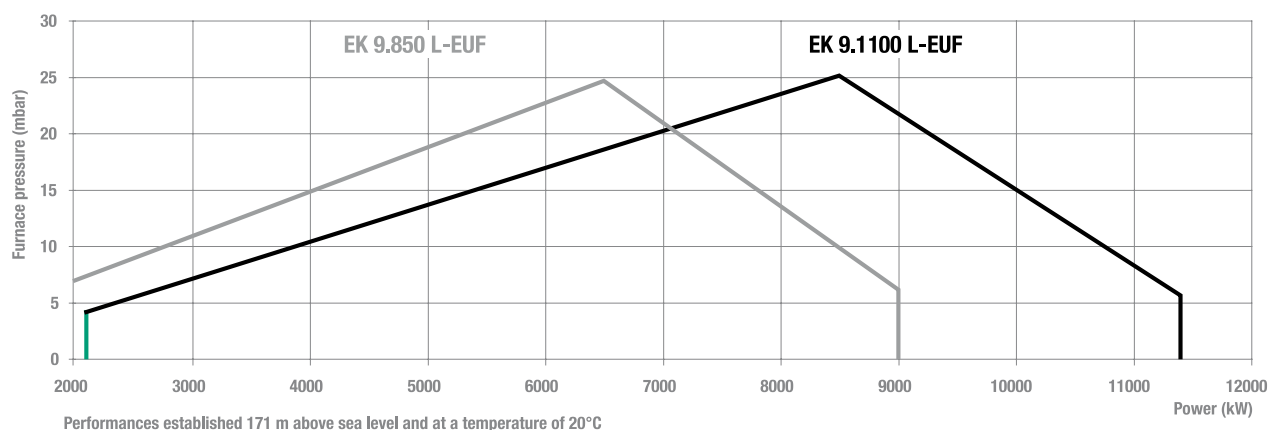


Type	Dimensions (mm)										Rd	Rg
	A	Ad	Ag	C	D	E	ØG	KN	H KM	KL		
EK 9.850 L-EUF/BCS	1233	623	610	1267	842	305	450	580	680	780	1402	1369
EK 9.1000 L-EUF/BCS	1300	690										

Range: EK 9.850 L-EUF/BCS, EK 9.1000 L-EUF/BCS
2 490 ... 11 400 kW
2 stage progressive electronic
Low NOx light oil



Working fields



Characteristics and equipment

Type	EK 9.850 L-EUF/BCS	EK 9.1000 L-EUF/BCS
Operating range	2570 - 9600 kW	2490 - 11400 kW
Nozzle	according to required power	
Fuel flow	152 - 759 kg/h	177 - 961 kg/h
Fuel connection	1" S25-S25-DN25 - 1500 mm	
Control box / flame detector	BCS 300 / FLW 05 - RAR 7	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 35 A - 18,5 kW	2800 rpm - 400/690 V - 50 Hz - 42,5 A - 22 kW
Pump	SMG 1631 - 2200 l/h	
Pump Motor	4 kW	
Emission grade (according to EN 267)	Class 3 - NOx < 120 mg/kWh	
Acoustics (according to ISO 3744)	94 ... 98 dB(A)	
Complete burner code	1 005 241	1 005 252

Options

Soundproofing box	15 ... 20 dB(A)	1 148 747 919
	20 ... 30 dB(A)	1 148 747 715
Steam device (TRD)	on request	
Others	see Options chapter	

Documentation

Operating manual	EK9.850	14 001 189
	EK9.1000	14 001 200
Spare parts list	EK9.850	14 001 211
	EK9.1000	14 001 222
Electrical and hydraulic diagrams	1 708 848 420	

Basic spare parts

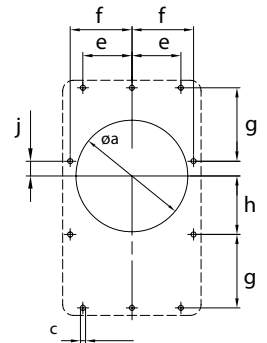
Pump		1 318 802 200
Ignition transformer		1 738 733 651
Ignition electrode		1 728 703 262
Control box	BCS 300	1 758 791 079
Flame detector	RAR 7	1 750 126 795

Description

- Two-stage progressive electronic class 3 low NOx forced draft burner. NOx < 120 mg/kWh
- Fuel: light oil, viscosity 6 mm²/s by 20°C, net calorific value 11,86 kWh/kg.
- Maximum heat power: 12 000 and 14 000 kW.
- Minimum / maximum power ratio: 1/3,5.
- Air / fuel ratio with choice of two different digital control boxes: BCS or Etamatic.
- Three flame tube lengths.
- Secured burner head adjustments during maintenance.
- Optimal accessibility and burner head adjustments preserved during maintenance.
- Maximum compactness, minimum weight.
- Closing of the air damper on burner shut-down.
- Control box: on request, in or out the body of the burner.
- Enumerated connection terminals in the body of the burner.
- Communication by bus with Etamatic (in progress for BCS).
- Three-phase electrical power supply.
- Protection level IP 40 (IP 54 as option).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - Low voltage 73/23/EC
 - EMC 2004/108/EC

Connecting flange

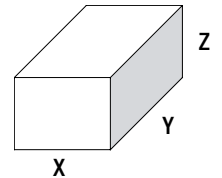
Ø a (mm)	c	e	f	g	h	j
525	M20	230	290	345	275	70



Packaging

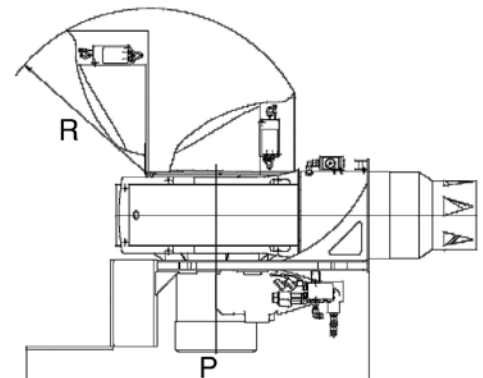
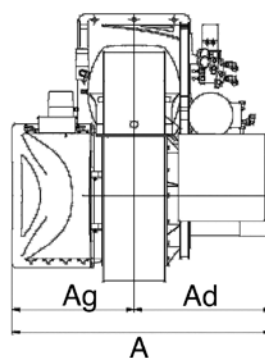
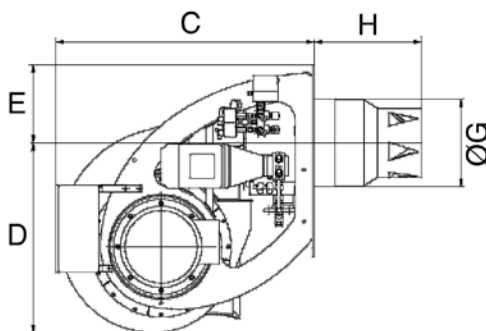
The complete burner with combustion head film-wrapped on a pallet with:

- 1 Carton Box for flexible hoses,
- 1 Carton Box for Boiler fixing accessories,
- Operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)			Gross weight (kg)
X	Y	Z	
1505	2125	1545	630 ... 680 + 100 (transport rack)

Dimensions

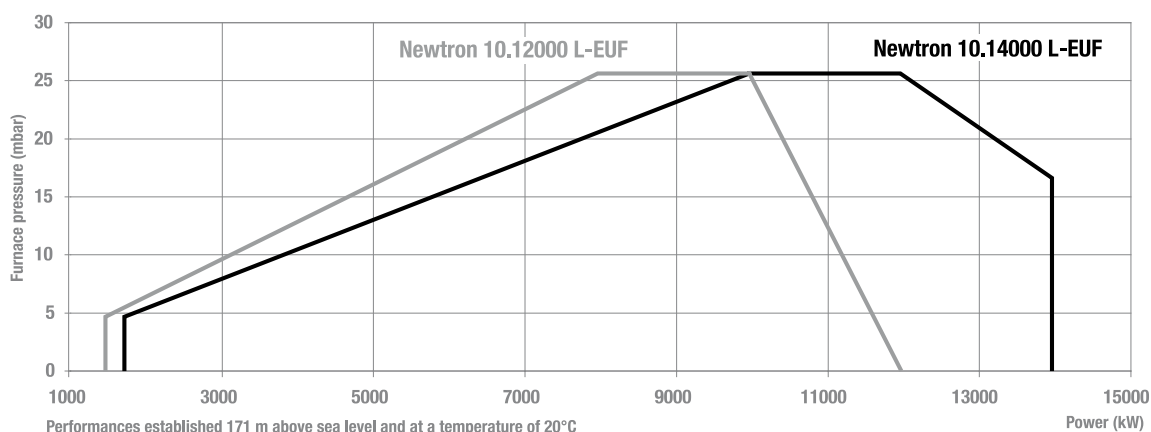


Type	Dimensions (mm)										Rd	Rg
	A	Ad	Ag	C	D	E	ØG	KN	KM	KL		
N10.12000 L-EUF/BCS	1505	795	710	1500	1095	450	504	620	720	820	1980	1000
N10.14000 L-EUF/BCS												

**Range: N10.12000 L-EUF/BCS,
N10.14000 L-EUF/BCS
1500 ... 14 000 kW
2 stage progressive electronic
Low NOx light oil**



Working fields



Characteristics and equipment

Type	N10.12000 L-EUF/BCS	N10.14000 L-EUF/BCS
Operating range	1500 - 12000 kW	1750 - 14000 kW
Control box / flame detection	BCS or Etamatic	
Fan Motor	2800 rpm - 400/690 V - 50 Hz - 37 kW	2800 rpm - 400/690 V - 50 Hz - 45 kW
Pump	2700 l/h	4000 l/h
Motor pump	2800 rpm - 240/400 V - 50 Hz - 3 kW	2800 rpm - 240/400 V - 50 Hz - 5,5 kW
Emission grade (according to EN 267)	Class 3 - NOx < 120 mg/kWh	
Acoustics (according to ISO 3744)	<97 dB(A)	
CE certificate	Homologation in progress	
Complete burner code with BCS	in progress	
Complete burner code with Etamatic	in progress	

Options

Sound proofing box	15 ... 20 dB(A)	on request
	20 ... 30 dB(A)	on request
Steam equipment (TRD)	on request	
Others	see Options chapter	

Documentation

Operating manual	EN	102 885 8162
Spare parts list	EN	14 005 182
Spare parts for hydraulic	EN	102 884 5294
Connection terminals wiring	BCS	170 885 4955
	Etamatic	170 884 5636

Basic spare parts

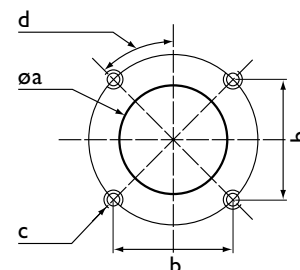
Ignition transformer		173 873 3651
Ignition electrode		
Control box	BCS 300	175 879 1079
Flame detector	BCS / FLW05 module	175 879 5195
Control box	Etamatic	175 884 3765

Description

- One stage forced draught burner.
- Fuel:
heavy oil, viscosity 15°E (115 mm²/s) at 50°C,
net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 136 and 227 kW.
- Two combustion head lengths.
- Gun type architecture.
- Pump mounted on the body.
- Electrical heavy oil heater.
- Closing of the air flap on burner shut-down.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Single-phase electrical power supply 230V - 50Hz.
- Protection level IP 42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

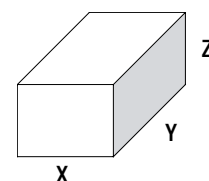
Connecting flange

Ø a (mm)	b (mm)	c	d
140	160	M8	45°



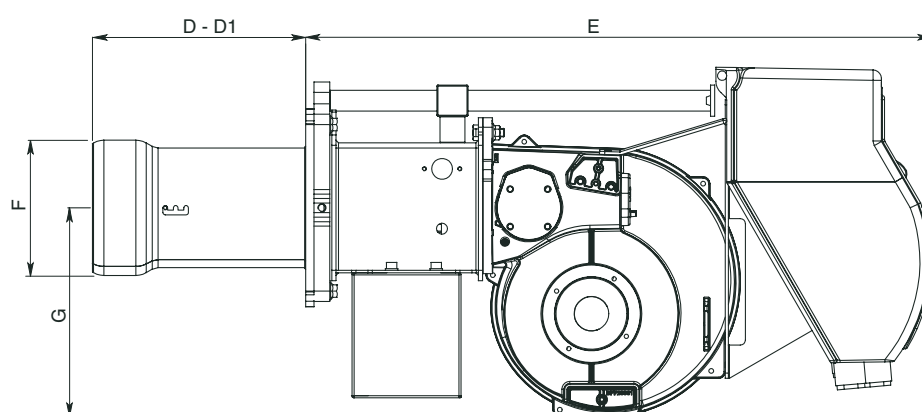
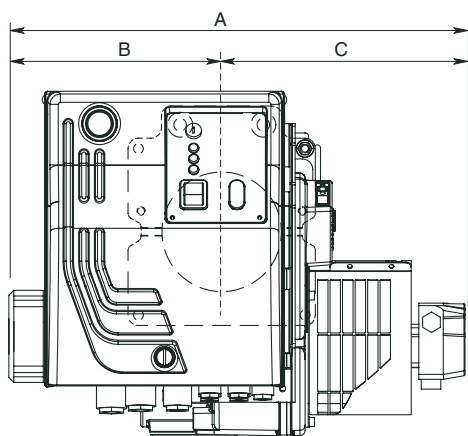
Packaging

The complete burner with combustion head is delivered in a single carton box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
900	780	700

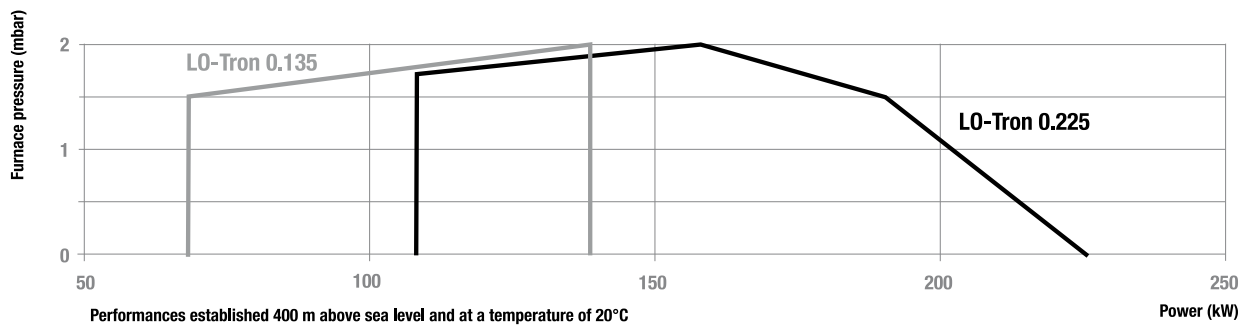
Dimensions



Type	Dimensions (mm)							
	A	B	C	D	D1	E	F	G
LO-Tron 0.135	420	190	230	205	325	601	130	201
LO-Tron 0.225								

Range: LO-Tron 0.135, LO-Tron 0.225
68 ... 227 kW
1 stage
Heavy oil 15°E at 50° C

Working fields



Characteristics and equipment

Type	LO-Tron 0.135		LO-Tron 0.225	
Operating range	68 - 136 kW		108 - 227 kW	
Nozzles	According to requested power			
Fuel flow	6 ... 12 kg/h		9,5 ... 20 kg/h	
Control box	GF3 S02			
Fan Motor	2800 rpm - 230 V - 50 Hz - 370 W			
Pump	D67C			
Resistance on pre-heaters	2 x 500 W		3 x 500 W	
	KN	KL	KN	KL
Complete burner code	on request	on request	on request	on request

Options

Forced oil preparation ring on request
(to prepare oil at 80°C and 3 bar):
Design of the system or supply the assembled skid
or the single components

Basic spare parts

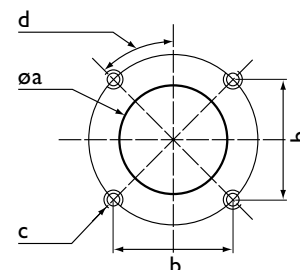
Ignition transformer	T107/4
Ignition electrode	E612 x 2
Baffle plate	LO-Tron 0.135 BFT05038
	LO-Tron 0.225 BFT05038
Control box	A135
Flame detector	A201

Description

- One stage forced draught burner.
- Fuel: heavy oil, viscosity 15°E (115 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 350 kW.
- Two combustion head lengths.
- Gun type architecture.
- Motor-pump separated.
- Electrical heavy oil heater.
- Closing of the air flap on burner shut-down.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP 42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

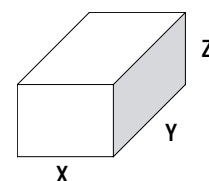
Connecting flange

Ø a (mm)	b (mm)	c	d
150	190	M8	45°



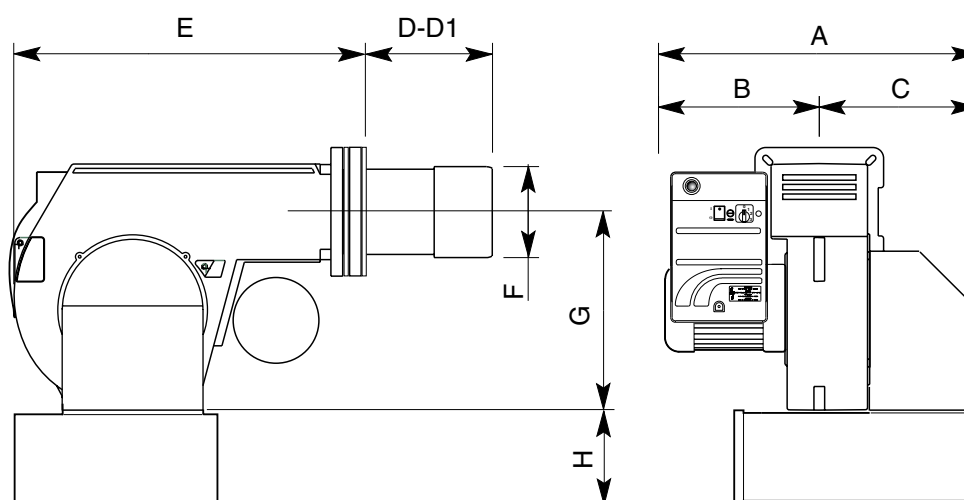
Packaging

The complete burner with combustion head is delivered in a single carton box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
900	780	700

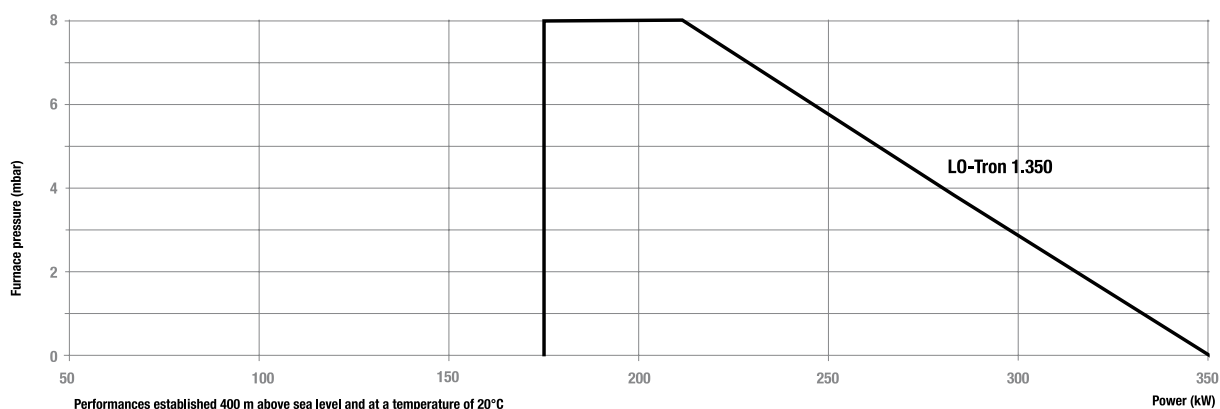
Dimensions



Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
LO-Tron 1.350	628	328	300	175	325	490	137	250	-

Range: LO-Tron 1.350
175 ... 350 kW
1 stage
Heavy oil 15°E at 50° C

Working fields



Characteristics and equipment

Type	LO-Tron 1.350	
Operating range	175 - 350 kW	
Nozzles	According to requested power	
Fuel flow	15 ... 30 kg/h	
Control box	GF3 S02	
Fan Motor	2800 rpm - 230 V - 50 Hz - 550 W	
Pump	E4 NC 1069	
Resistance on pre-heaters	1800 W	
	KN	KL
Complete burner code	on request	on request

Options

Forced oil preparation ring on request
 (to prepare oil at 80°C and 3 bar):
 Design of the system or supply the assembled skid
 or the single components

Basic spare parts

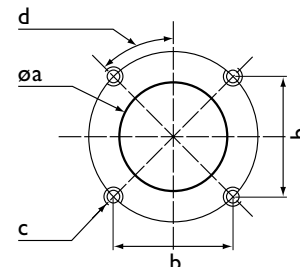
Ignition transformer	T107/4
Ignition electrode	E612 x 2
Baffle plate LO-Tron 1.350	BFD05014/051
Control box	A112/2
Flame detector	A207/1

Description

- One stage forced draught burner.
- Fuel: heavy oil, net calorific value 10,5...11,5 kWh/kg, viscosity at 50°C:
 - HO-Tron 0.135: 30°E (225 mm²/s),
 - HO-Tron 0.225: 100°E (760 mm²/s).
- Maximum heat power: 136 and 227 kW.
- Two combustion head lengths.
- Gun type architecture.
- Pump mounted on the body.
- Electrical heavy oil heater.
- Closing of the air flap on burner shut-down.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Single-phase electrical power supply 230V - 50Hz.
- Protection level IP 42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

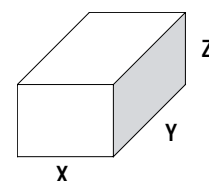
Connecting flange

Ø a (mm)	b (mm)	c	d
140	160	M8	45°



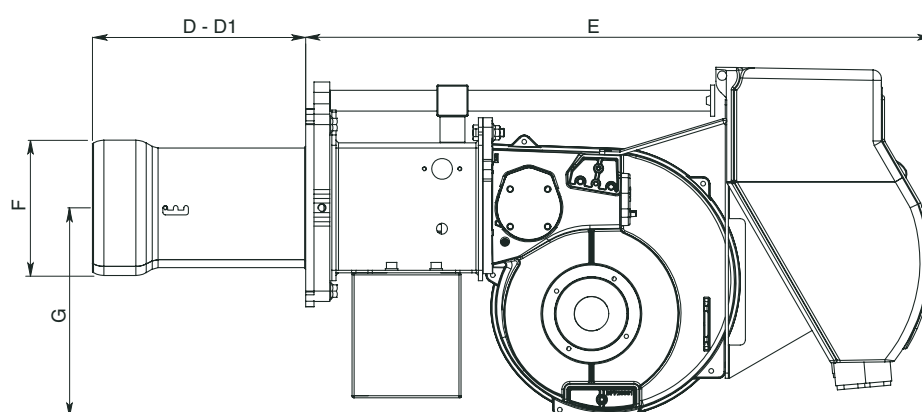
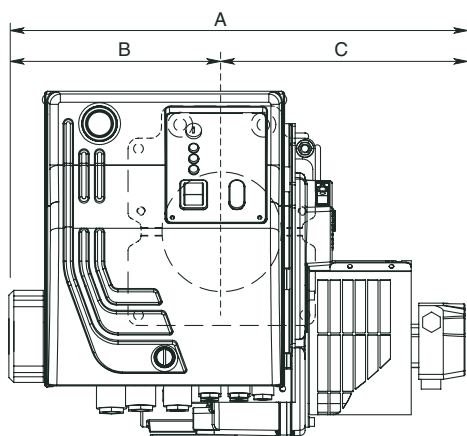
Packaging

The complete burner with combustion head is delivered in a single carton box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
900	780	700

Dimensions



Type	Dimensions (mm)							
	A	B	C	D	D1	E	F	G
HO-Tron 0.135	420	190	230	205	325	601	130	201
HO-Tron 0.225								

Range:

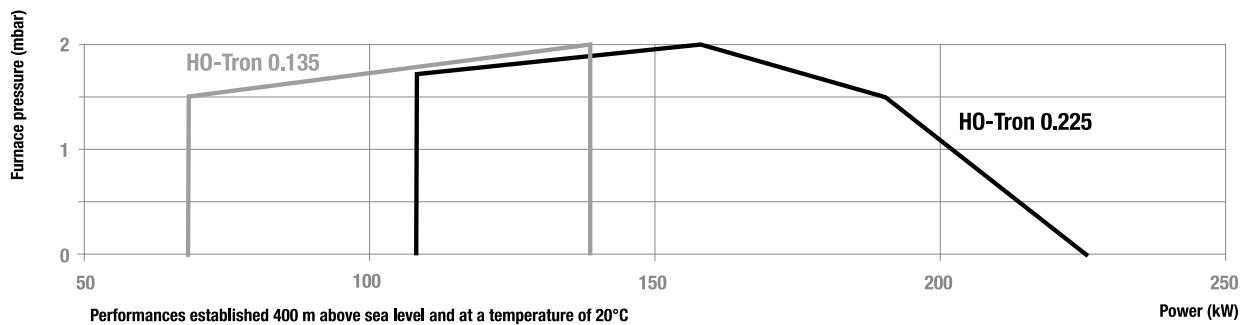
HO-Tron 0.135 (Heavy oil 30°E at 50°C)

HO-Tron 0.225 (Heavy oil 100°E at 50°C)

68 ... 227 kW

1 stage

Working fields



Characteristics and equipment

Type	HO-Tron 0.135		HO-Tron 0.225	
Operating range	68 - 136 kW		108 - 227 kW	
Nozzles	According to requested power			
Fuel flow	6 ... 12 kg/h		9,5 ... 20 kg/h	
Control box	GF3 S02			
Fan Motor	2800 rpm - 230 V - 50 Hz - 370 W			
Pump	D67C			
Resistance on pre-heaters			2 x 500 W	3 x 500 W
	KN	KL	KN	KL
Complete burner code	on request	on request	on request	on request

Options

Forced oil preparation ring on request
(to prepare oil at 80°C and 3 bar):
Design of the system or supply the assembled skid
or the single components

Basic spare parts

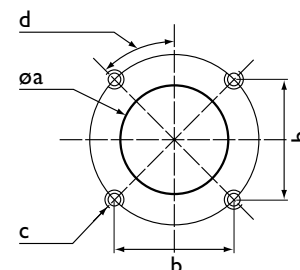
Ignition transformer	T107/4
Ignition electrode	E612 x 2
Baffle plate	HO-Tron 0.135 BFT05038
	HO-Tron 0.225 BFT05038
Control box	A135
Flame detector	A201

Description

- One stage forced draught burner.
- Fuel: heavy oil, viscosity 100°E (760 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 350 kW.
- Two combustion head lengths.
- Gun type architecture.
- Motor-pump separated.
- Electrical heavy oil heater for oil supply to the burner at 80°C and 3 bar.
- Additional heating on the pipes and the valves, into the pump and the nozzle holder.
- Closing of the air flap on burner shut-down.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP 42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

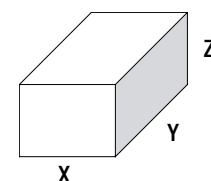
Connecting flange

Ø a (mm)	b (mm)	c	d
150 - 165	190	M8	45°



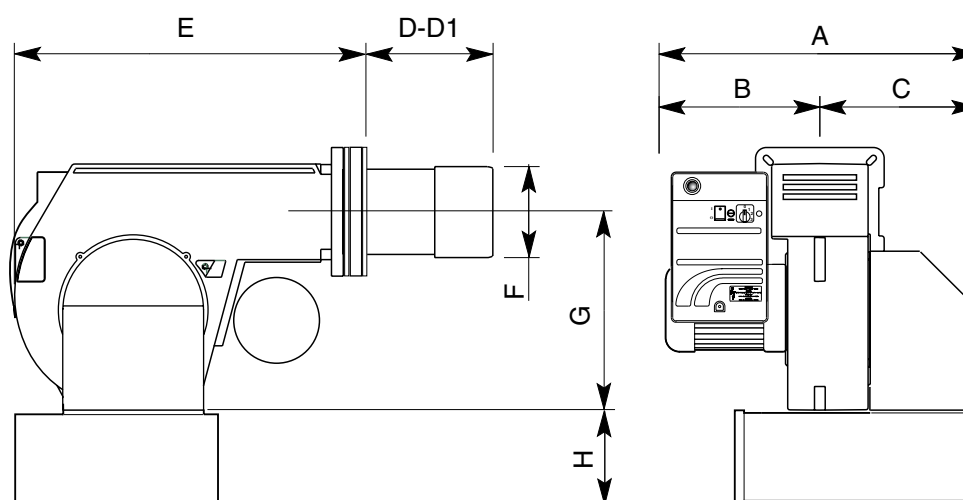
Packaging

The complete burner with combustion head is delivered in a single carton box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
900	780	700

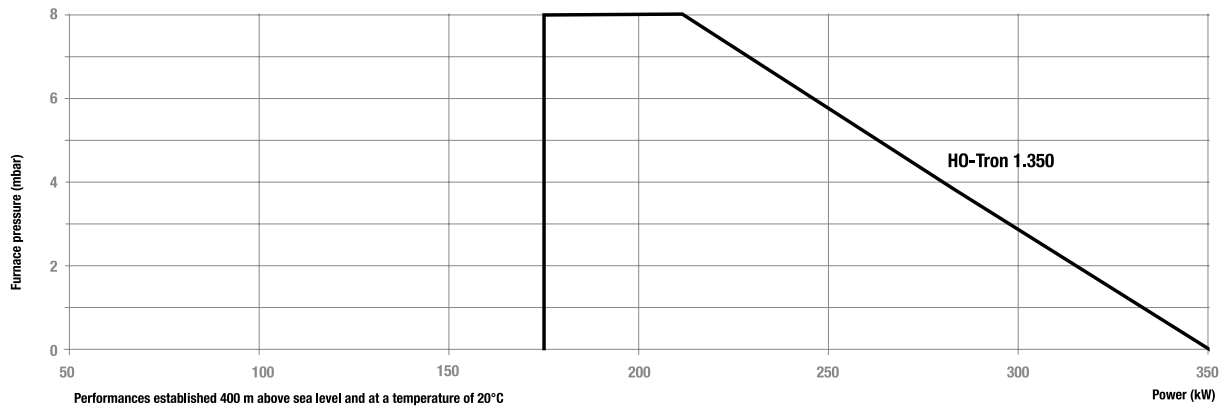
Dimensions



Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
HO-Tron 1.350	628	328	300	205	325	490	155	250	-

Range: HO-Tron 1.350
175 ... 350 kW
1 stage
Heavy oil 100°E at 50° C

Working field



Characteristics and equipment

Type	HO-Tron 1.350	
Operating range	175 - 350 kW	
Nozzles	According to requested power	
Fuel flow	15 ... 30 kg/h	
Control box	GF3 S02	
Fan Motor	2800 rpm - 230 V - 50 Hz - 550 W	
Pump	E4 NC 1069	
Resistance on pre-heaters	1800 W	
	KN	KL
Complete burner code	on request	on request

Options

Forced oil preparation ring on request
 (to prepare oil at 80°C and 3 bar):
 Design of the system or supply the assembled skid
 or the single components

Basic spare parts

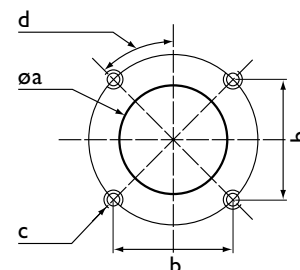
Ignition transformer		T107/4
Ignition electrode		E612 x 2
Baffle plate	HO-Tron 1.350	BFD05014/051
Control box		A112/2
Flame detector		A207/1

Description

- Two stages forced draught burner.
- Fuel: heavy oil, viscosity 15°E (115 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 580, 930 and 1 400 kW.
- Two combustion head lengths.
- Gun type architecture.
- Motor-pump separated.
- Electrical heavy oil heater.
- Closing of the air flap on burner shut-down.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP 42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

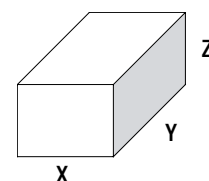
Connecting flange

Ø a (mm)	b (mm)	c	d
195	190	M10	45°



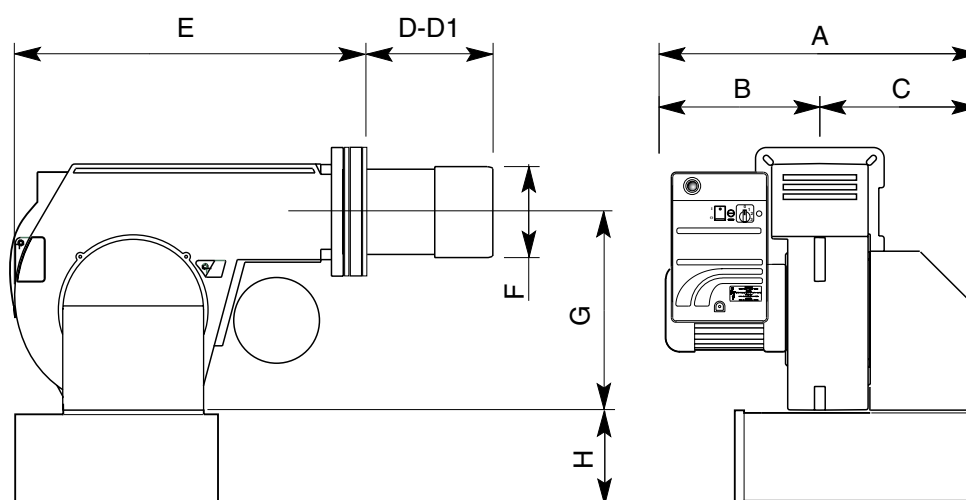
Packaging

The complete burner with combustion head is delivered in a single carton box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
1100	780	700

Dimensions

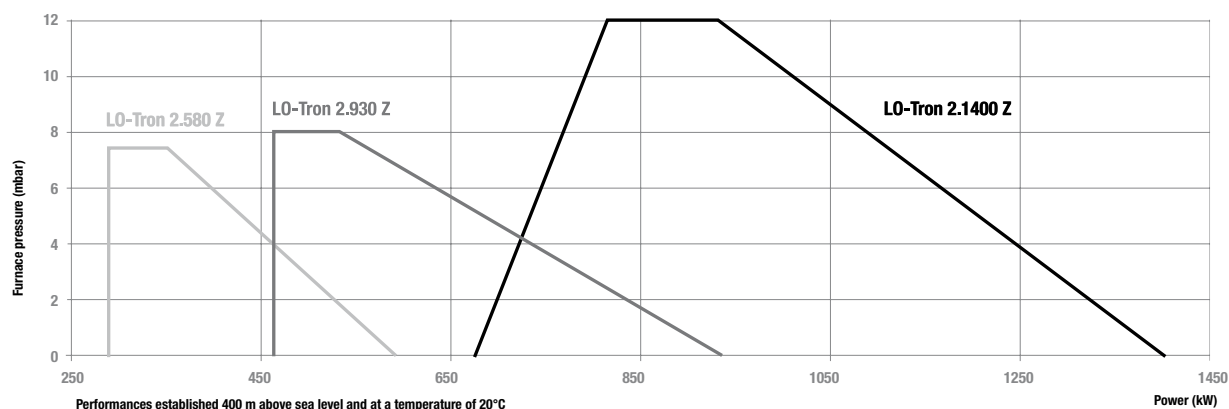


Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
LO-Tron 2.580 Z	740	370	370	170	310	600	185	385	225*
LO-Tron 2.930 Z									
LO-Tron 2.1400 Z									

* optional silencer

Range: LO-Tron 2.580 Z, LO-Tron 2.930 Z,
LO-Tron 2.1400 Z
290 ... 1400 kW
2 stages
Heavy oil 15°E at 50° C

Working fields



Characteristics and equipment

Type	LO-Tron 2.580 Z		LO-Tron 2.930 Z		LO-Tron 2.1400 Z	
Operating range	290 - 580 kW		465 - 930 kW		675 - 1400 kW	
Nozzles	According to requested power					
Fuel flow	25 ... 51 kg/h		41 ... 82 kg/h		60 ... 122 kg/h	
Control box	LMO 44					
Fan Motor	2800 rpm - 230 V - 50 Hz - 1,5 kW		2800 rpm - 230 V - 50 Hz - 1,5 kW		2800 rpm - 230 V - 50 Hz - 2,2 kW	
Pump	E4 NC 1069					
Resistance on pre-heaters	3 kW		4,65 kW		7,05 kW	
	KN	KL	KN	KL	KN	KL
Complete burner code	on request	on request	on request	on request	on request	on request

Options

Forced oil preparation ring (to prepare oil at 80°C and 3 bar):	on request
Design of the system or supply the assembled skid or the single components	
Silencer	on request

Basic spare parts

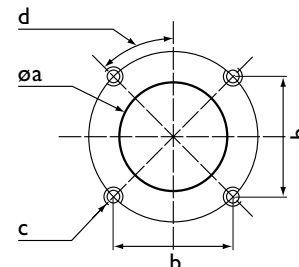
Ignition transformer	T101	
Ignition electrode	E612 x 2	
Baffle plate	LO-Tron 2.580	BFD05010/051
	LO-Tron 2.930	BFD05010/051
	LO-Tron 2.1400	BFD05009/051
Control box	A112/2	
Flame detector	A207/1	

Description

- Two stages forced draught burner.
- Fuel: heavy oil, viscosity 15°E (115 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 1 700 and 2 100 kW.
- Two combustion head lengths.
- Gun type architecture.
- Motor-pump separated.
- Electrical heavy oil heater.
- Closing of the air flap on burner shut-down.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

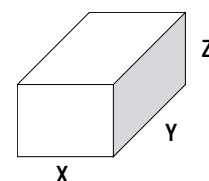
Ø a (mm)	b (mm)	c	d
260 ... 290	315	M14	45°



Packaging

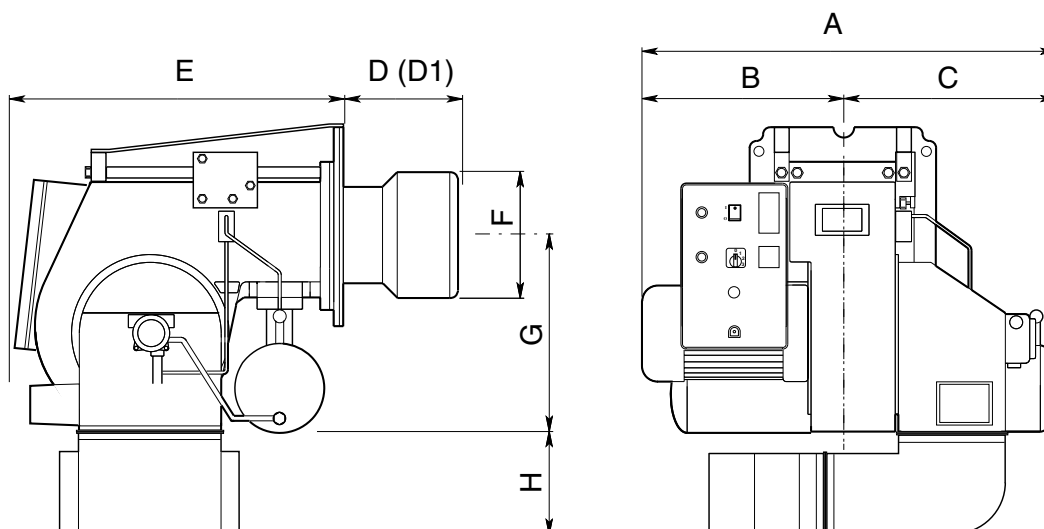
The complete burner with combustion head in a wooden box with:

- 1 Carton Box for flexible hoses,
- Operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
1370	1140	950

Dimensions



Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
LO-Tron 3.1700 Z	850	400	450	295	455	710	250	398	283*
LO-Tron 3.2100 Z							270		

* optional silencer

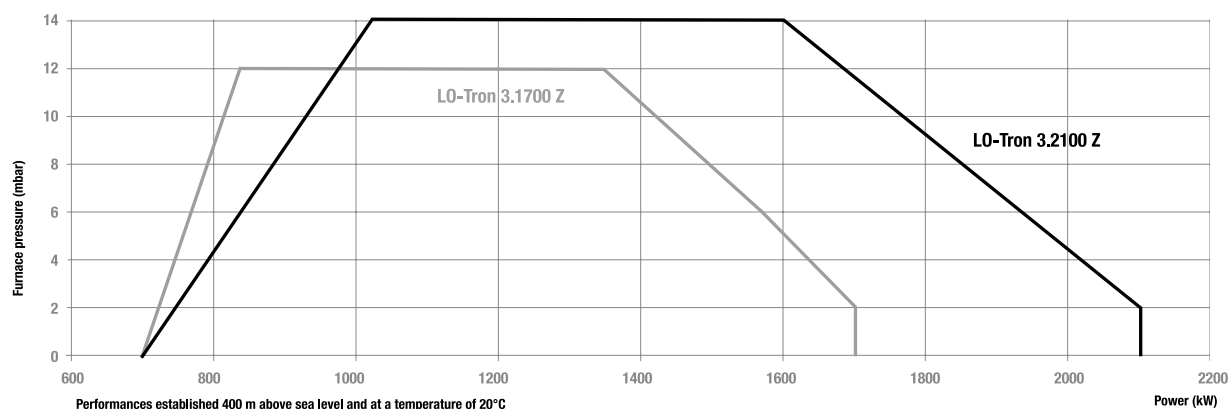
Range: LO-Tron 3.1700 Z, LO-Tron 3.2100 Z

700 ... 2100 kW

2 stages

Heavy oil 15°E at 50° C

Working fields



Characteristics and equipment

Type	LO-Tron 3.1700 Z		LO-Tron 3.2100 Z	
Operating range	700 - 1700 kW		700 - 2100 kW	
Nozzles	According to requested power			
Fuel flow	60 ... 148 kg/h		60 ... 184 kg/h	
Control box	LMO 44			
Fan Motor	2800 rpm - 230/400 V - 50 Hz - 3 kW		2800 rpm - 230/400 V - 50 Hz - 4 kW	
Pump	E4 NC 1069			
Resistance on pre-heaters	9 kW		10,5 kW	
	KN	KL	KN	KL
Complete burner code	on request	on request	on request	on request

Options

Forced oil preparation ring (to prepare oil at 80°C and 3 bar):	on request
Design of the system or supply the assembled skid or the single components	
Silencer	on request

Basic spare parts

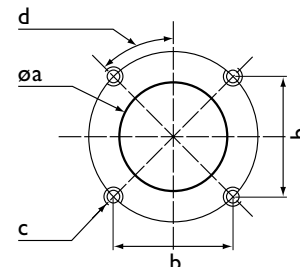
Ignition transformer	T101
Ignition electrode	E612 x 2
Baffle plate	LO-Tron 3.1700 BFD05025/2
	LO-Tron 3.2100 BFD05025/2
Control box	A112/2
Flame detector	A207/1

Description

- Two stages forced draught burner.
- Fuel: heavy oil, viscosity 15°E (115 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 3 000 kW.
- Two combustion head lengths.
- Gun type architecture.
- Motor-pump separated.
- Electrical heavy oil heater.
- Closing of the air flap on burner shut-down.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

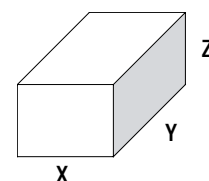
Ø a (mm)	b (mm)	c	d
300	400	M16	45°



Packaging

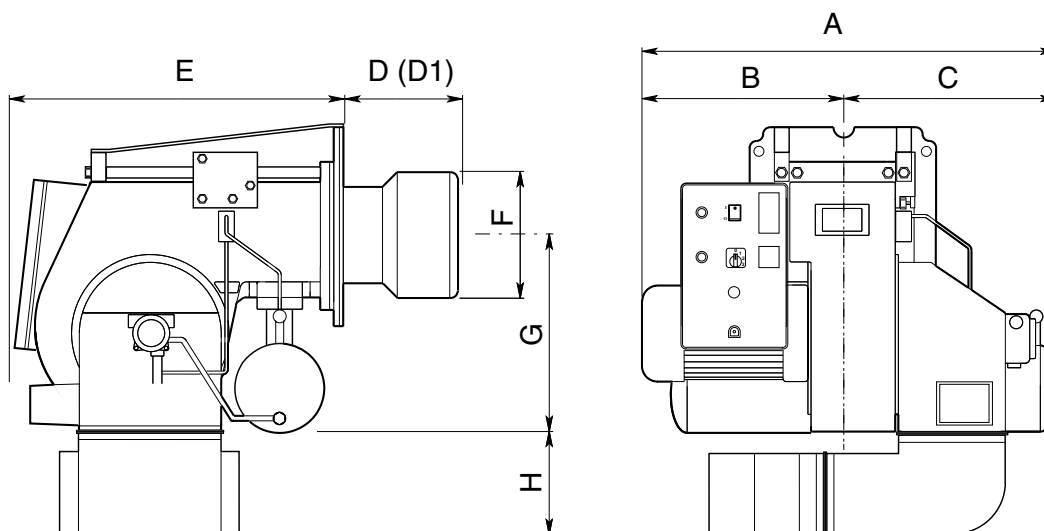
The complete burner with combustion head in a wooden box with:

- 1 Carton Box for flexible hoses,
- Operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
1580	1580	1050

Dimensions



Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
LO-Tron 4.3000 Z	1205	603	602	350	600	925	290	466	280

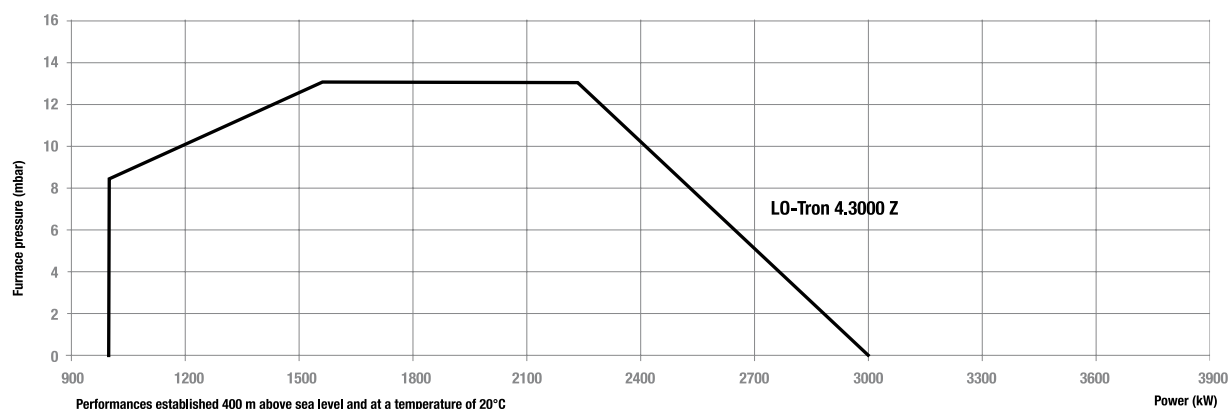
Range: LO-Tron 4.3000 Z

990 ... 3000 kW

2 stages

Heavy oil 15°E at 50° C

Working field



Characteristics and equipment

Type	LO-Tron 4.3000 Z	
Operating range	990 - 3000 kW	
Nozzles	According to requested power	
Fuel flow	88 ... 264 kg/h	
Control box	LMO 44	
Fan Motor	2800 rpm - 230/400 V - 50 Hz - 7,5 kW	
Pump	E7 NC 1069	
Resistance on pre-heaters	18 kW	
	KN	KL
Complete burner code	on request	on request

Options

Gas pilot flame	on request
Forced oil preparation ring (to prepare oil at 80°C and 3 bar):	on request
Design of the system or supply the assembled skid or the single components	
Silencer	standard

Basic spare parts

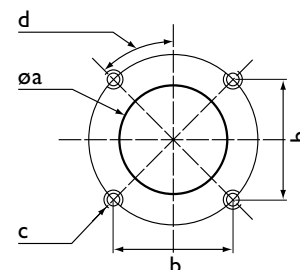
Ignition transformer	T101
Ignition electrode	E612 x 2
Baffle plate	LO-Tron 4.3000
Control box	BFD05024
Flame detector	A112/2
	A207/1

Description

- Two stages forced draught burner.
- Fuel: heavy oil, viscosity 100°E (760 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 580, 930 and 1 400 kW.
- Two combustion head lengths.
- Gun type architecture.
- Motor-pump separated.
- Electrical heavy oil heater for oil supply to the burner at 80°C and 3 bar.
- Additional heating on the pipes and the valves, into the pump and the nozzle holder.
- Closing of the air flap on burner shut-down.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

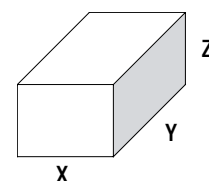
Connecting flange

Ø a (mm)	b (mm)	c	d
195	190	M10	45°



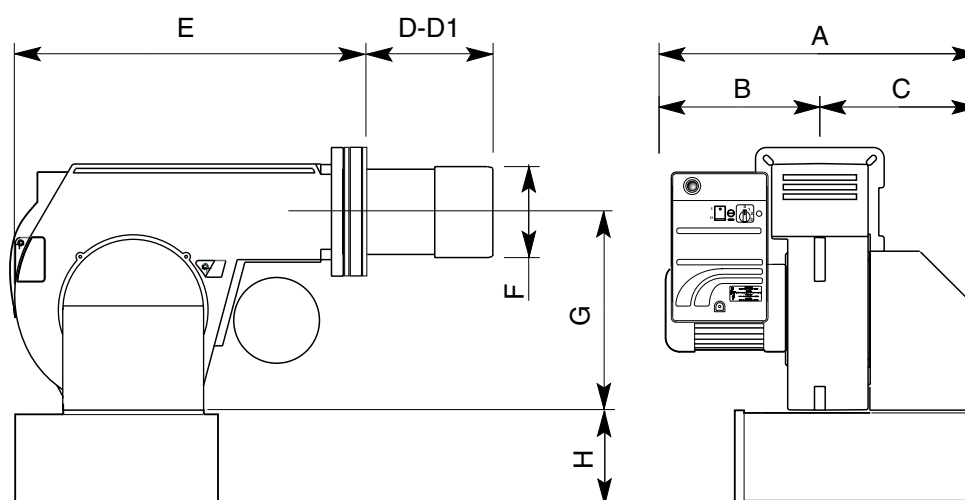
Packaging

The complete burner with combustion head is delivered in a single carton box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
1100	780	700

Dimensions

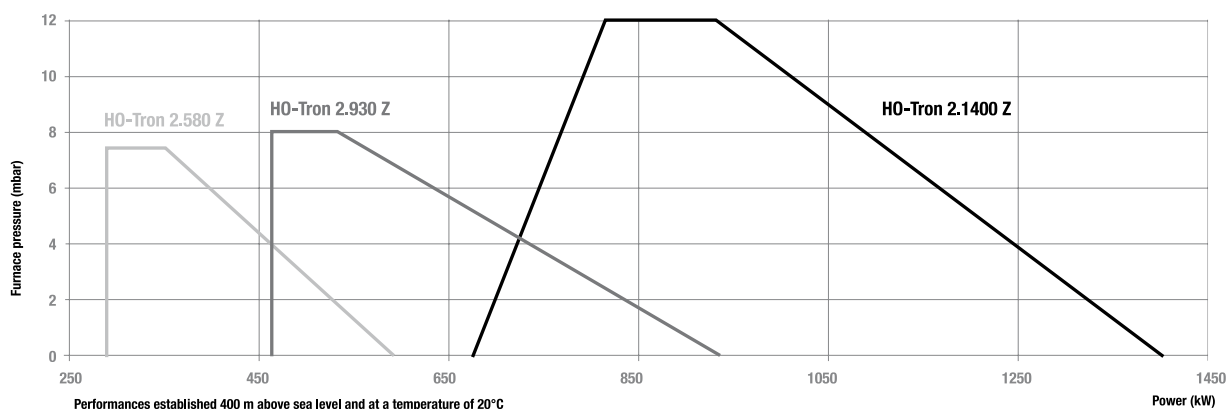


Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
HO-Tron 2.580 Z	740	370	370	170	310	600	185	385	225*
HO-Tron 2.930 Z									
HO-Tron 2.1400 Z									

* optional silencer

Range: HO-Tron 2.580 Z, HO-Tron 2.930 Z,
HO-Tron 2.1400 Z
290 ... 1400 kW
2 stages
Heavy oil 100°E at 50° C

Working fields



Characteristics and equipment

Type	HO-Tron 2.580 Z		HO-Tron 2.930 Z		HO-Tron 2.1400 Z	
Operating range	290 - 580 kW		465 - 930 kW		675 - 1400 kW	
Nozzles	According to requested power					
Fuel flow	25 ... 51 kg/h		41 ... 85 kg/h		60 ... 122 kg/h	
Control box	LMO 44					
Fan Motor	2800 rpm - 230 V - 50 Hz - 1,5 kW		2800 rpm - 230 V - 50 Hz - 1,5 kW		2800 rpm - 230 V - 50 Hz - 2,2 kW	
Pump	E4 NC 1069					
Resistance on pre-heaters			3 kW		4,65 kW 7,05 kW	
	KN	KL	KN	KL	KN	KL
Complete burner code	on request	on request	on request	on request	on request	on request

Options

Forced oil preparation ring (to prepare oil at 80°C and 3 bar):	on request
Design of the system or supply the assembled skid or the single components	
Silencer	on request

Basic spare parts

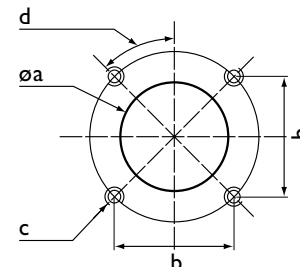
Ignition transformer	T101
Ignition electrode	E612 x 2
Baffle plate	HO-Tron 2.580 BFD05010/051
	HO-Tron 2.930 BFD05010/051
	HO-Tron 2.1400 BFD05009/051
Control box	A112/2
Flame detector	A207/1

Description

- Two stages forced draught burner.
- Fuel: heavy oil, viscosity 100°E (760 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 1 700 and 2 100 kW.
- Two combustion head lengths.
- Gun type architecture.
- Motor-pump separated.
- Electrical heavy oil heater for oil supply to the burner at 80°C and 3 bar.
- Additional heating on the pipes and the valves, into the pump and the nozzle holder.
- Closing of the air flap on burner shut-down.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

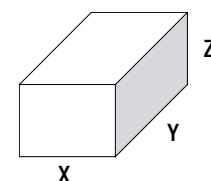
Ø a (mm)	b (mm)	c	d
260 ... 290	315	M14	45°



Packaging

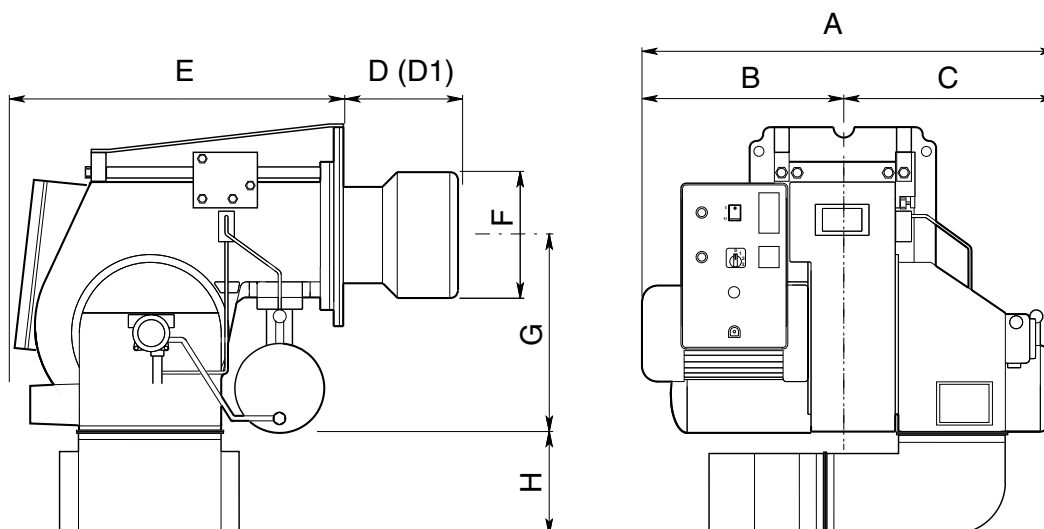
The complete burner with combustion head in a wooden box with:

- 1 Carton Box for flexible hoses,
- Operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
1370	1140	950

Dimensions



Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
HO-Tron 3.1700 Z	850	400	450	295	455	710	250	398	283*
HO-Tron 3.2100 Z							270		

* optional silencer

Heavy oil HO-Tron 3 Z

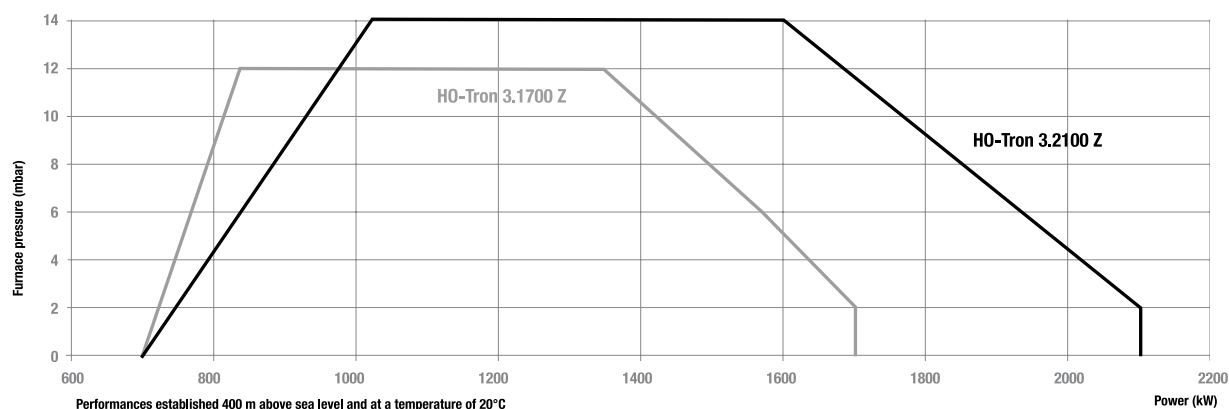
Range: HO-Tron 3.1700 Z, HO-Tron 3.2100 Z

700 ... 2100 kW

2 stages

Heavy oil 100°E at 50° C

Working fields



Characteristics and equipment

Type	HO-Tron 3.1700 Z		HO-Tron 3.2100 Z	
Operating range	700 - 1700 kW		700 - 2100 kW	
Nozzles	According to requested power			
Fuel flow	60 ... 148 kg/h		60 ... 184 kg/h	
Control box	LMO 44			
Fan Motor	2800 rpm - 230/400 V - 50 Hz - 3 kW		2800 rpm - 230/400 V - 50 Hz - 4 kW	
Pump	E6 NC 1069			
Resistance on pre-heaters	9 kW		10,5 kW	
	KN	KL	KN	KL
Complete burner code	on request	on request	on request	on request

Options

Forced oil preparation ring	on request
(to prepare oil at 80°C and 3 bar):	
Design of the system or supply the assembled skid or the single components	
Silencer	on request

Basic spare parts

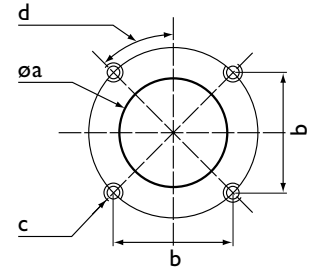
Ignition transformer	T101
Ignition electrode	E612 x 2
Baffle plate	HO-Tron 3.1700 BFD05025/2
	HO-Tron 3.2100 BFD05025/2
Control box	A112/2
Flame detector	A207/1

Description

- Two stages forced draught burner.
- Fuel: heavy oil, viscosity 100°E (760 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 3 000 kW.
- Two combustion head lengths.
- Gun type architecture.
- Motor-pump separated.
- Electrical heavy oil heater for oil supply to the burner at 80°C and 3 bar.
- Additional heating on the pipes and the valves, into the pump and the nozzle holder.
- Closing of the air flap on burner shut-down.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

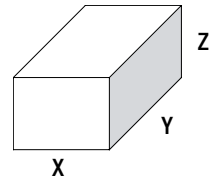
Ø a (mm)	b (mm)	c	d
300	400	M16	45°



Packaging

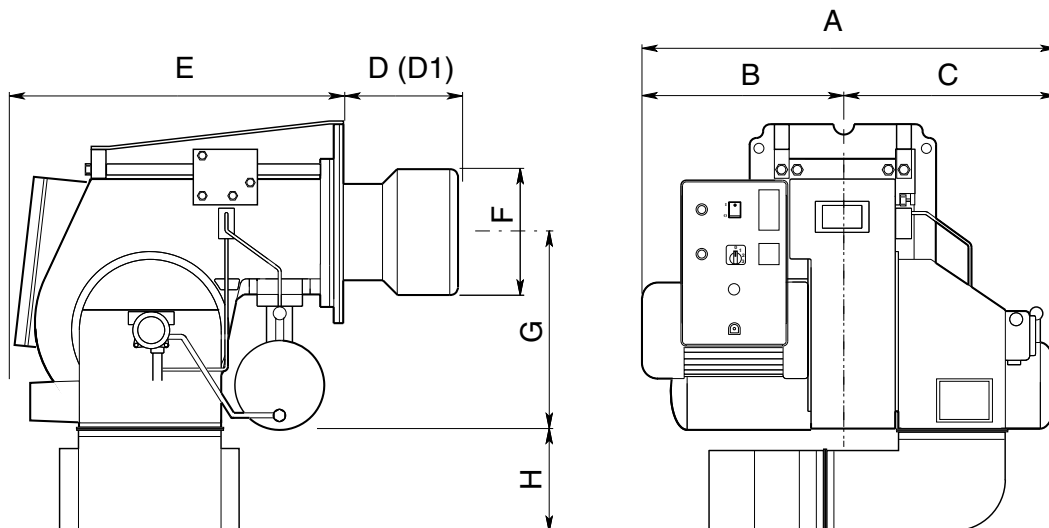
The complete burner with combustion head in a wooden box with:

- 1 Carton Box for flexible hoses,
- Operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
1580	1580	1050

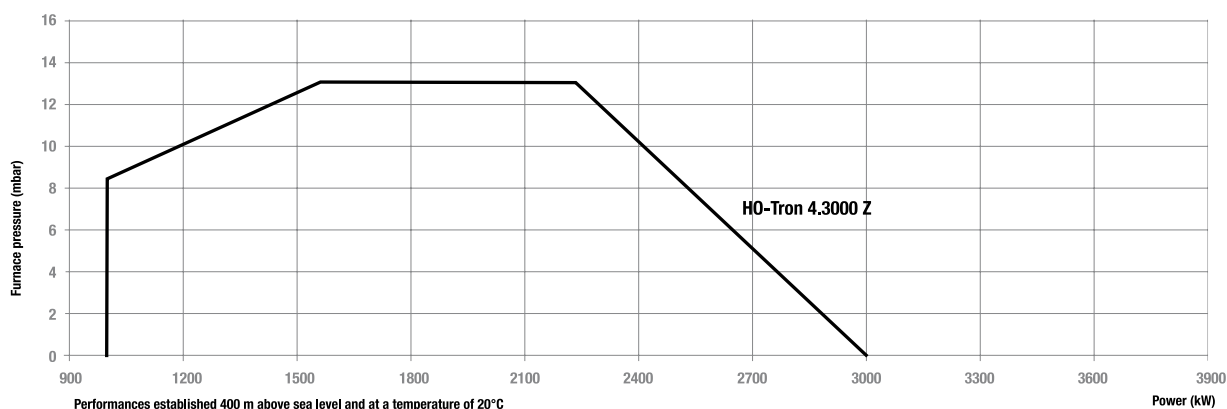
Dimensions



Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
HO-Tron 4.3000 Z	1205	603	602	350	600	925	290	466	280

Range: HO-Tron 4.3000 Z
1000 ... 3000 kW
2 stages
Heavy oil 100°E at 50° C

Working field



Characteristics and equipment

Type	HO-Tron 4.3000 Z	
Operating range	1000 - 3000 kW	
Nozzles	According to requested power	
Fuel flow	88,5 ... 264 kg/h	
Control box	LMO 44	
Fan Motor	2800 rpm - 230/400 V - 50 Hz - 7,5 kW	
Pump	E7 NC 1069	
Resistance on pre-heaters	18 kW	
Complete burner code	KN	KL
	on request	on request

Options

Gas pilot flame	on request
Forced oil preparation ring (to prepare oil at 80°C and 3 bar):	on request
Design of the system or supply the assembled skid or the single components	
Silencer	standard

Basic spare parts

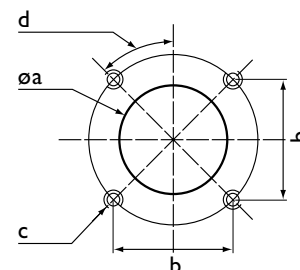
Ignition transformer	T101
Ignition electrode	E612 x 2
Baffle plate	HO-Tron 4.3000
Control box	BFD05024
Flame detector	A112/2
	A207/1

Description

- Three stages forced draught burner.
- Fuel: heavy oil, viscosity 100°E (760 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 3 900 kW.
- Two combustion head lengths.
- Gun type architecture.
- Motor-pump separated.
- Electrical heavy oil heater for oil supply to the burner at 80°C and 3 bar.
- Additional heating on the pipes and the valves, into the pump and the nozzle holder.
- Closing of the air flap on burner shut-down.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

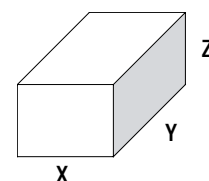
Ø a (mm)	b (mm)	c	d
330	400	M16	45°



Packaging

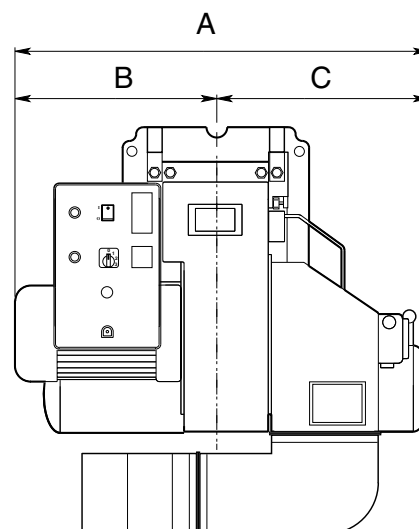
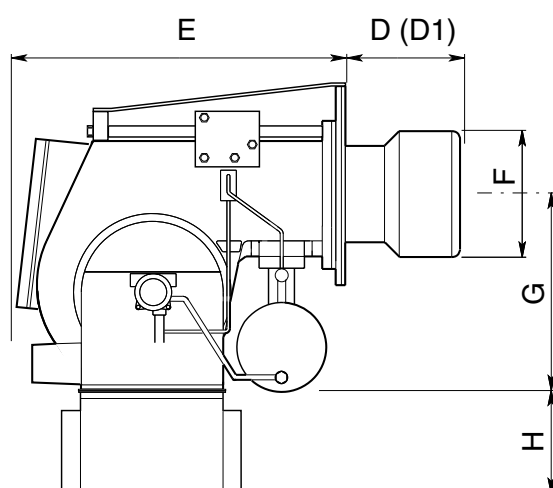
The complete burner with combustion head in a wooden box with:

- 1 Carton Box for flexible hoses,
- Operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
1580	1580	1050

Dimensions



Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
HO-Tron 4.3900 Z3	1205	603	602	350	600	925	320	466	280

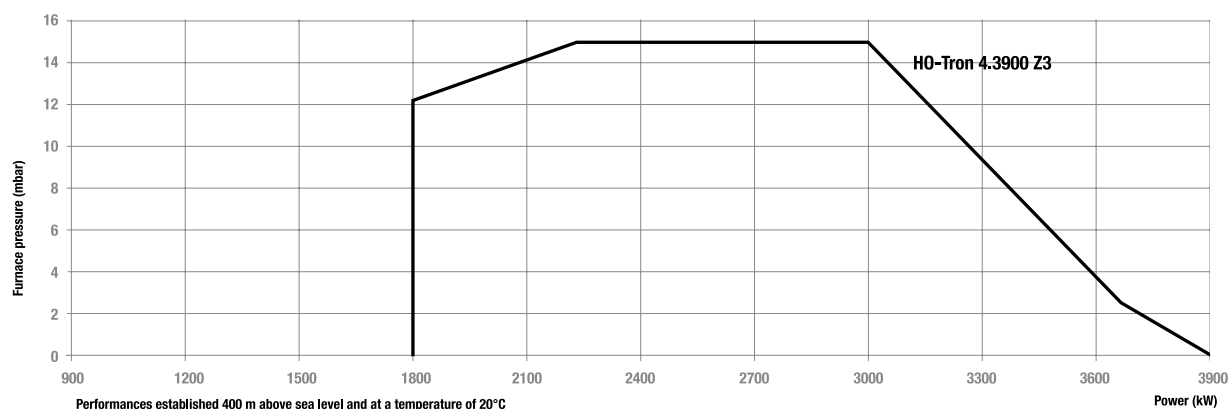
Range: HO-Tron 4.3900 Z3

1300 ... 3900 kW

3 stages

Heavy oil 100°E at 50° C

Working field



Characteristics and equipment

Type	HO-Tron 4.3900 Z3	
Operating range	1300 - 3900 kW	
Nozzles	According to requested power	
Fuel flow	155 ... 343 kg/h	
Control box	LMO 44	
Fan Motor	2800 rpm - 230/400 V - 50 Hz - 9 kW	
Pump	TA 2C	
Resistance on pre-heating	21 kW	
	KN	KL
Complete burner code	on request	on request

Options

Gas pilot flame	on request
Forced oil preparation ring (to prepare oil at 80°C and 3 bar):	on request
Design of the system or supply the assembled skid or the single components	
Version for heavy oil up to 100°E at 50°C:	standard
Silencer	standard

Basic spare parts

Ignition transformer	T101
Ignition electrode	E612 x 2
Baffle plate	HO-Tron 4.3900
Control box	BFD05023
Flame detector	A112/2
	A207/1

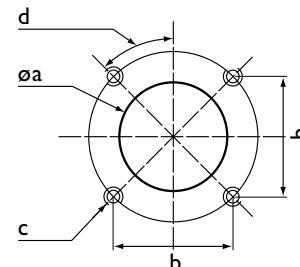
Description

- Three stages forced draught burner.
- Fuel: heavy oil, viscosity 100°E (760 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 5 000 and 5 800 kW.
- Two combustion head lengths.
- Gun type architecture.
- Motor-pump separated.
- Electrical heavy oil heater for oil supply to the burner at 80°C and 3 bar.
- Additional heating on the pipes and the valves, into the pump and the nozzle holder.
- Closing of the air flap on burner shut-down.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:

- EMC	89/336/EEC
- Low voltage	73/23/EEC
- Efficiency	92/42/EEC

Connecting flange

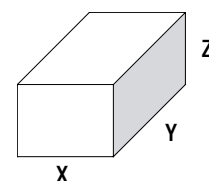
Ø a (mm)	b (mm)	c	d
330	460	M16	45°



Packaging

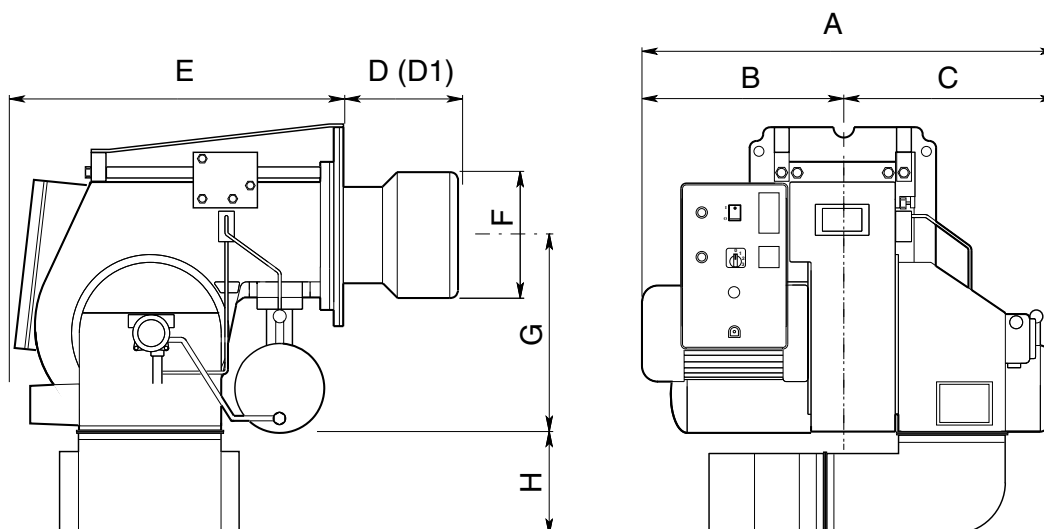
The complete burner with combustion head in a wooden box with:

- 1 Carton Box for flexible hoses,
- Operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
1580	1580	1050

Dimensions



Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
HO-Tron 5.5000 Z3	1280	655	625	350	600	1030	320	565	400
HO-Tron 5.5800 Z3									

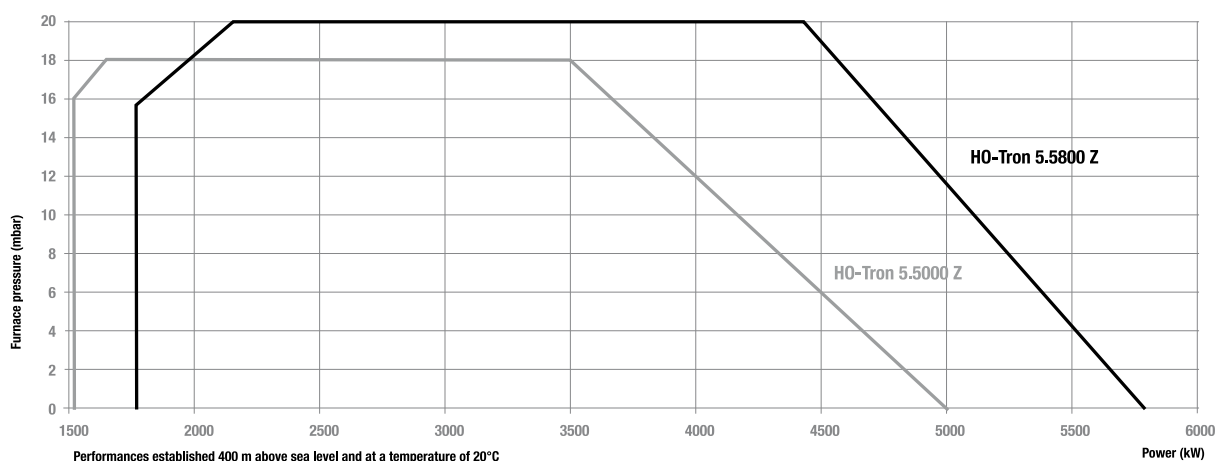
Range: HO-Tron 5.5000 Z3, HO-Tron 5.5800 Z3

1580 ... 5800 kW

3 stages

Heavy oil 100°E at 50° C

Working fields



Characteristics and equipment

Type	HO-Tron 5.5000 Z3		HO-Tron 5.5800 Z3	
Operating range	1580 - 5000 kW		1800 - 5800 kW	
Nozzles	According to requested power			
Fuel flow	140 ... 440 kg/h		160 ... 510 kg/h	
Control box	LMO 44			
Fan Motor	2800 rpm - 230/400 V - 50 Hz - 11 kW		2800 rpm - 230/400 V - 50 Hz - 15 kW	
Pump	TA 3C			
Resistance on pre-heating	24 kW			
	KN	KL	KN	KL
Complete burner code	on request	on request	on request	on request

Options

Gas pilot flame	on request
Forced oil preparation ring (to prepare oil at 80°C and 3 bar):	on request
Design of the system or supply the assembled skid or the single components	
Version for heavy oil up to 100°E at 50°C:	standard
Silencer	standard

Basic spare parts

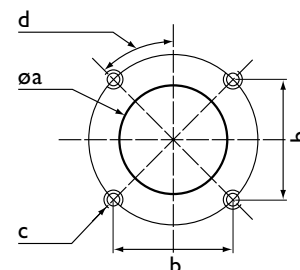
Ignition transformer	T101
Ignition electrode	E612 x 2
Baffle plate	HO-Tron 5.5000 BFD05023
	HO-Tron 5.5800 BFD05023
Control box	A112/2
Flame detector	A207/1

Description

- Two stage progressive mechanical forced draught burner.
- Fuel: heavy oil, viscosity 100°E (760 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 580, 930 and 1 400 kW.
- Mini/maxi power ratio: 1/3 with return nozzle.
- Two combustion head lengths.
- Gun type architecture.
- Motor-pump separated.
- Electrical heavy oil heater for oil supply to the burner at 80°C and 3 bar.
- Additional heating on the pipes and the valves, into the pump and the nozzle holder.
- Closing of the air flap on burner shut-down.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

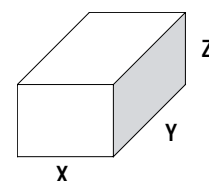
Ø a (mm)	b (mm)	c	d
195	190	M10	45°



Packaging

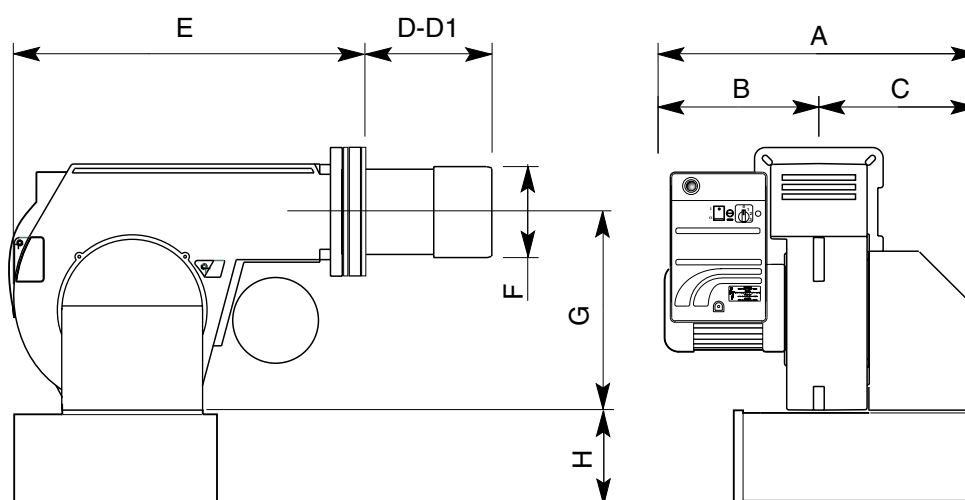
The complete burner with combustion head in a wooden box with:

- 1 Carton Box for flexible hoses,
- Operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
1100	780	700

Dimensions

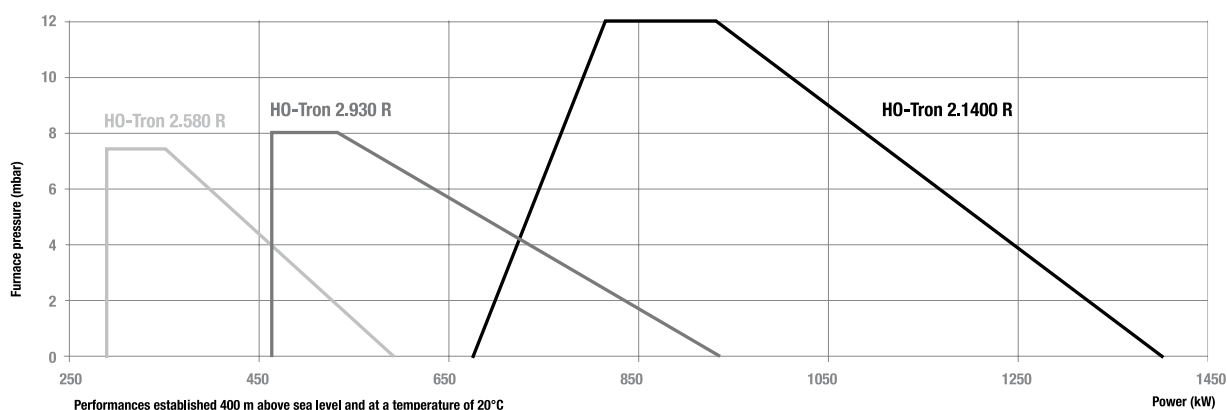


Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
HO-Tron 2.580 R	740	370	370	170	310	600	185	385	225*
HO-Tron 2.930 R									
HO-Tron 2.1400 R									

* optional silencer

Range: HO-Tron 2.580 R, HO-Tron 2.930 R,
HO-Tron 2.1400 R
290 ... 1400 kW
2 stage progressive mechanical
Heavy oil 100°E at 50° C

Working fields



Characteristics and equipment

Type	HO-Tron 2.580 R		HO-Tron 2.930 R		HO-Tron 2.1400 R	
Operating range	290 - 580 kW		465 - 930 kW		675 - 1400 kW	
Nozzles	According to requested power					
Fuel flow	25 ... 51 kg/h		41 ... 85 kg/h		60 ... 122 kg/h	
Control box	LAL 1.25					
Fan Motor	2800 rpm - 230 V - 50 Hz - 1,5 kW		2800 rpm - 230 V - 50 Hz - 1,5 kW		2800 rpm - 230 V - 50 Hz - 2,2 kW	
Pump	E6 NC		E7 NC		E7 NC	
Resistance on pre-heating	3 kW		4,65 kW		7,05 kW	
	KN	KL	KN	KL	KN	KL
Complete burner code	on request	on request	on request	on request	on request	on request

Options

Forced oil preparation ring (to prepare oil at 80°C and 3 bar):	on request
Design of the system or supply the assembled skid or the single components	
Version for heavy oil up to 100°E at 50°C:	standard
Silencer	on request
Power regulator PID (water, steam, air):	on request
RWF40 + matching probe	

Basic spare parts

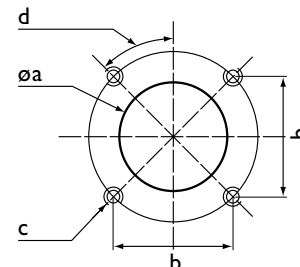
Ignition transformer		T101
Ignition electrode		E612 x 2
Baffle plate	HO-Tron 2.580	BFD05010/051
	HO-Tron 2.930	BFD05010/051
	HO-Tron 2.1400	BFD05009/051
Control box		A147
Flame detector		A207/1

Description

- Two stage progressive mechanical forced draught burner.
- Fuel: heavy oil, viscosity 100°E (760 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 1 700 and 2 100 kW.
- Mini/maxi power ratio: 1/3 with return nozzle.
- Two combustion head lengths.
- Gun type architecture.
- Motor-pump separated.
- Electrical heavy oil heater for oil supply to the burner at 80°C and 3 bar.
- Additional heating on the pipes and the valves, into the pump and the nozzle holder.
- Closing of the air flap on burner shut-down.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

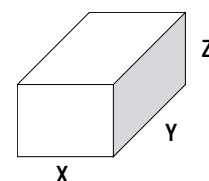
Ø a (mm)	b (mm)	c	d
260 ... 290	315	M14	45°



Packaging

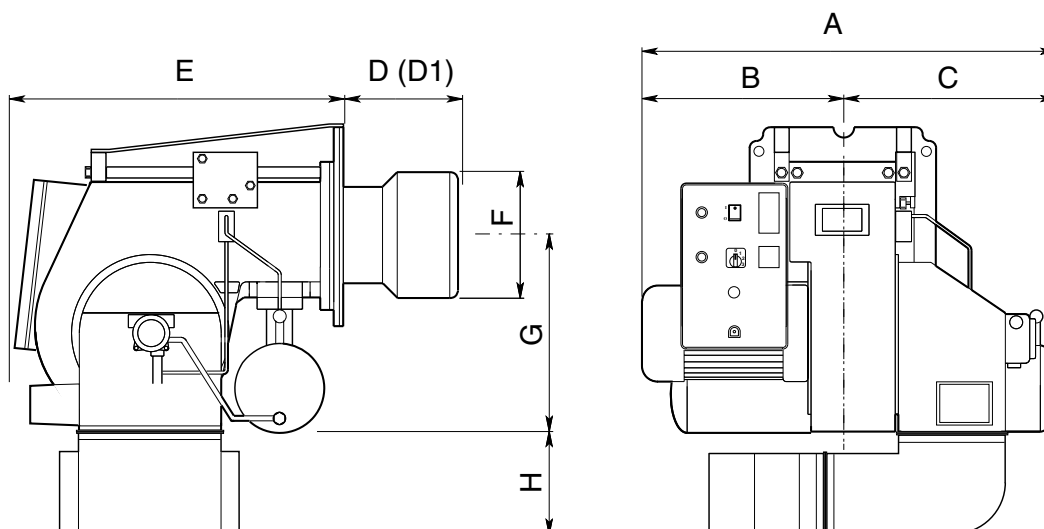
The complete burner with combustion head in a wooden box with:

- 1 Carton Box for flexible hoses,
- Operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
1370	1140	950

Dimensions



Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
HO-Tron 3.1700 R	850	400	450	295	455	710	250	398	283*
HO-Tron 3.2100 R							270		

* optional silencer

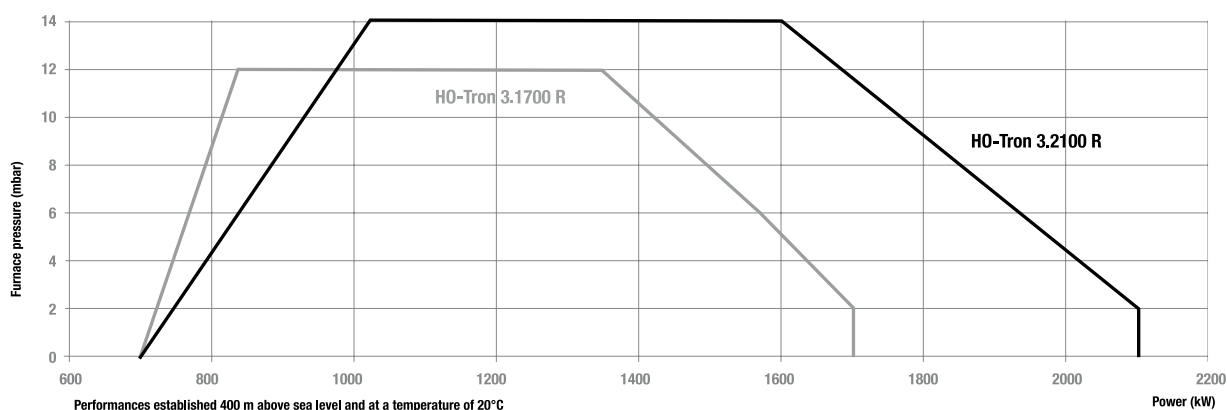
Range: HO-Tron 3.1700 R, HO-Tron 3.2100 R

700 ... 2100 kW

2 stage progressive mechanical

Heavy oil 100°E at 50° C

Working fields



Characteristics and equipment

Type	HO-Tron 3.1700 R		HO-Tron 3.2100 R	
Operating range	700 - 1700 kW		700 - 2100 kW	
Nozzles	According to requested power			
Fuel flow	60 ... 148 kg/h		60 ... 184 kg/h	
Control box	LAL 1.25			
Fan Motor	2800 rpm - 230/400 V - 50 Hz - 3 kW		2800 rpm - 230/400 V - 50 Hz - 4 kW	
Pump	E7 NC 1069		TA 2C	
Resistance on pre-heating	9 kW		10,5 kW	
	KN	KL	KN	KL
Complete burner code	on request	on request	on request	on request

Options

Forced oil preparation ring (to prepare oil at 80°C and 3 bar):	on request
Design of the system or supply the assembled skid or the single components	
Version for heavy oil up to 100°E at 50°C:	standard
Silencer	on request
Power regulator PID (water, steam, air):	on request
RWF40 + matching probe	

Basic spare parts

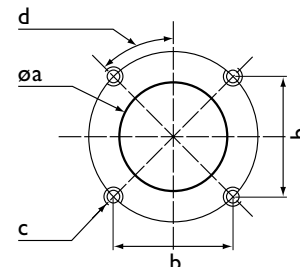
Ignition transformer	T101
Ignition electrode	E612 x 2
Baffle plate	HO-Tron 3.1700 BFD05025/2
	HO-Tron 3.2100 BFD05025/2
Control box	A147
Flame detector	A207/1

Description

- Two stage progressive mechanical forced draught burner.
- Electronic version with LAMTEC available on request.
- Fuel: heavy oil, viscosity 100°E (760 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 3 000 and 3 900 kW.
- Mini/maxi power ratio: 1/3 with return nozzle.
- Two combustion head lengths.
- Gun type architecture.
- Motor-pump separated.
- Electrical heavy oil heater for oil supply to the burner at 80°C and 3 bar.
- Additional heating on the pipes and the valves, into the pump and the nozzle holder.
- Closing of the air flap on burner shut-down.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

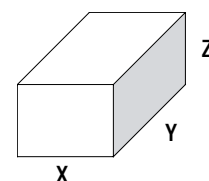
Ø a (mm)	b (mm)	c	d
300 ... 330	400	M16	45°



Packaging

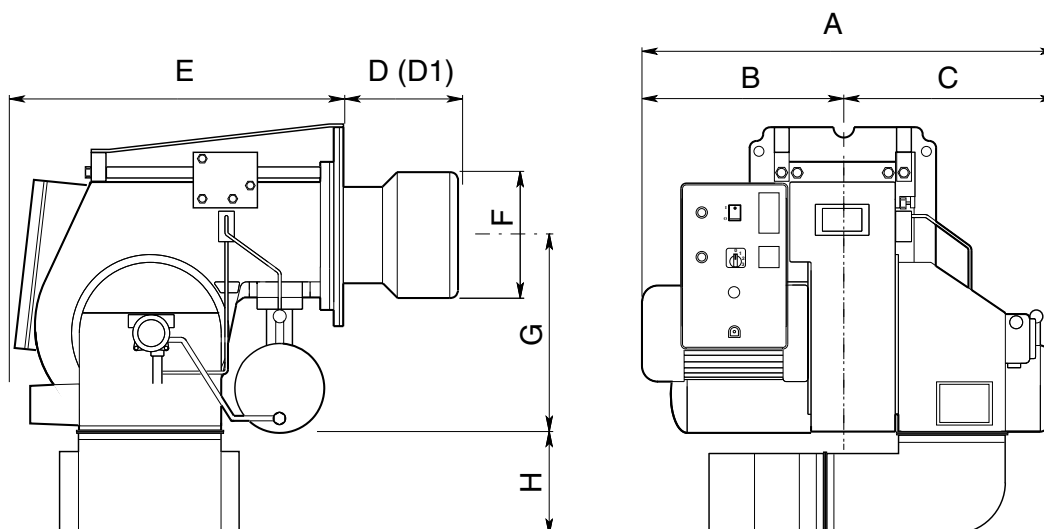
The complete burner with combustion head in a wooden box with:

- 1 Carton Box for flexible hoses,
- Operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
1580	1580	1050

Dimensions

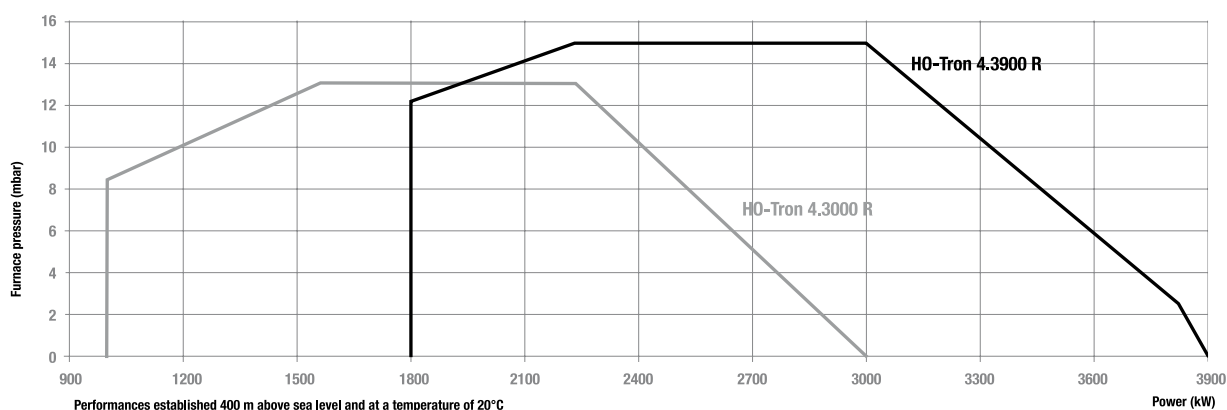


Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
HO-Tron 4.3000 R	1205	603	602	350	600	925	290	466	280
HO-Tron 4.3900 R							320		

Heavy oil HO-Tron 4 R

Range: HO-Tron 4.3000 R, HO-Tron 4.3900 R,
1000 ... 3900 kW
2 stage progressive mechanical
Heavy oil 100°E at 50° C

Working fields



Characteristics and equipment

Type	HO-Tron 4.3000 R		HO-Tron 4.3900 R	
Operating range	1000 - 3000 kW		1300 - 3900 kW	
Nozzles	According to requested power			
Fuel flow	88,5 ... 264 kg/h		155 ... 343 kg/h	
Control box	LAL 1.25			
Fan Motor	2800 rpm - 230/400 V - 50 Hz - 7,5 kW		2800 rpm - 230/400 V - 50 Hz - 9 kW	
Pump	TA 3C			
Resistance on pre-heating	18 kW		21 kW	
	KN	KL	KN	KL
Complete burner code	on request	on request	on request	on request

Options

Gas pilot flame	on request
Forced oil preparation ring (to prepare oil at 80°C and 3 bar):	on request
Design of the system or supply the assembled skid or the single components	
Version for heavy oil up to 100°E at 50°C:	standard
Silencer	standard
Power regulator PID (water, steam, air):	on request
RWF40 + matching probe	

Basic spare parts

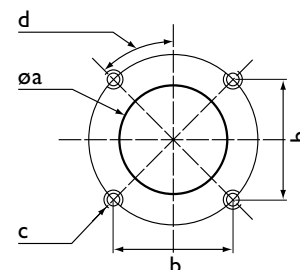
Ignition transformer	T101
Ignition electrode	E612 x 2
Baffle plate	HO-Tron 4.3000 BFD05025/2
	HO-Tron 4.3900 BFD05025/2
Control box	A147
Flame detector	A207/1

Description

- Two stage progressive mechanical forced draught burner.
- Electronic version with LAMTEC available on request.
- Fuel: heavy oil, viscosity 100°E (760 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 5 000 and 5 800 kW.
- Mini/maxi power ratio: 1/3 with return nozzle.
- Two combustion head lengths.
- Gun type architecture.
- Motor-pump separated.
- Electrical heavy oil heater for oil supply to the burner at 80°C and 3 bar.
- Additional heating on the pipes and the valves, into the pump and the nozzle holder.
- Closing of the air flap on burner shut-down.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

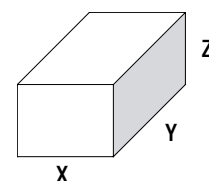
Ø a (mm)	b (mm)	c	d
330	460	M16	45°



Packaging

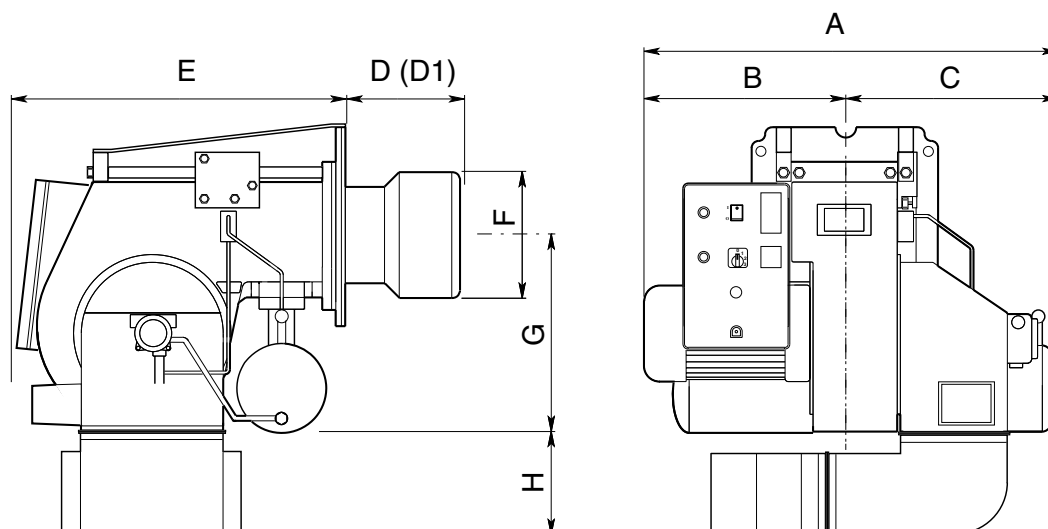
The complete burner with combustion head in a wooden box with:

- 1 Carton Box for flexible hoses,
- Operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
1580	1580	1050

Dimensions



Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
HO-Tron 5.5000 R	1280	655	625	350	600	1030	320	565	400
HO-Tron 5.5800 R									

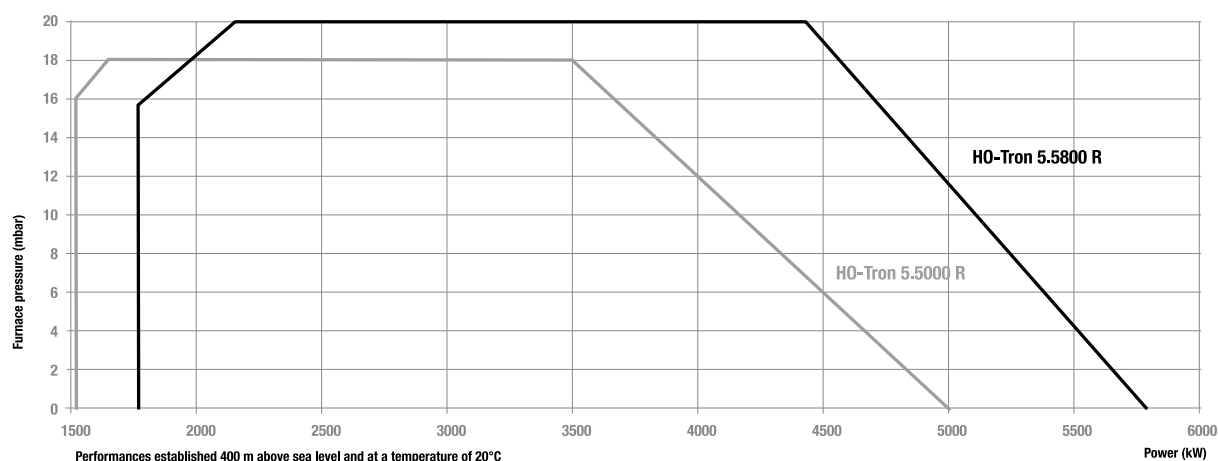
Range: HO-Tron 5.5000 R, HO-Tron 5.5800 R

1580 ... 5800 kW

2 stage progressive mechanical

Heavy oil 100°E at 50° C

Working fields



Characteristics and equipment

Type	HO-Tron 5.5000 R		HO-Tron 5.5800 R	
Operating range	1580 - 5000 kW		1800 - 5800 kW	
Nozzles	According to requested power			
Fuel flow	140 ... 440 kg/h		160 ... 510 kg/h	
Control box	LAL 1.25			
Fan Motor	2800 rpm - 230/400 V - 50 Hz - 11 kW		2800 rpm - 230/400 V - 50 Hz - 15 kW	
Pump	TA 4C		TA 4C	
Resistance on pre-heating	24 kW		24 kW	
	KN	KL	KN	KL
Complete burner code	on request	on request	on request	on request

Options

Gas pilot flame	on request
Forced oil preparation ring (to prepare oil at 80°C and 3 bar):	on request
Design of the system or supply the assembled skid or the single components	
Version for heavy oil up to 100°E at 50°C:	standard
Silencer	standard
Power regulator PID (water, steam, air):	on request
RWF40 + matching probe	

Basic spare parts

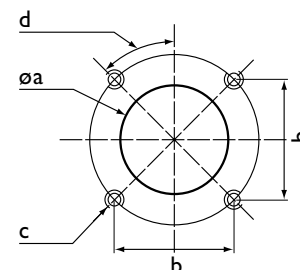
Ignition transformer	T101
Ignition electrode	E612 x 2
Baffle plate	HO-Tron 5.5000 BFD05023
	HO-Tron 5.5800 BFD05023
Control box	A147
Flame detector	A207/1

Description

- Two stage progressive mechanical forced draught burner.
- Electronic version with LAMTEC available on request.
- Fuel: heavy oil, viscosity 100°E (760 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 7 500, 8 500, 10 500 and 12 500 kW.
- Mini/maxi power ratio: 1/3 with return nozzle.
- Two combustion head lengths.
- Gun type architecture.
- Motor-pump separated.
- Electrical heavy oil heater for oil supply to the burner at 80°C and 3 bar.
- Additional heating on the pipes and the valves, into the pump and the nozzle holder.
- Closing of the air flap on burner shut-down.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

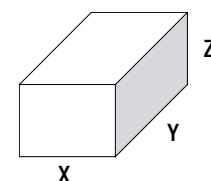
Ø a (mm)	b (mm)	c	d
440 ... 470	460	M20	45°



Packaging

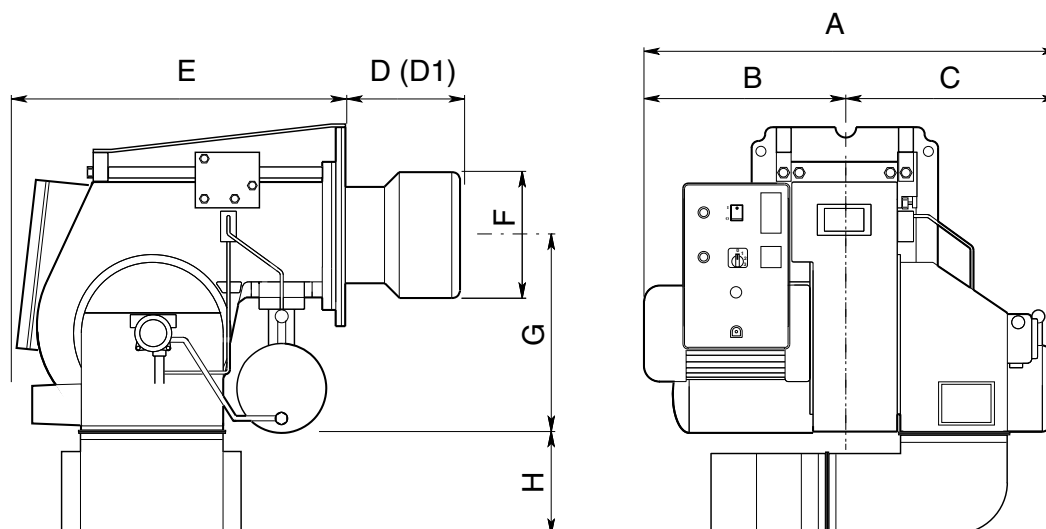
The complete burner with combustion head in a wooden box with:

- 1 Carton Box for flexible hoses,
- Operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
2400	1800	1600

Dimensions

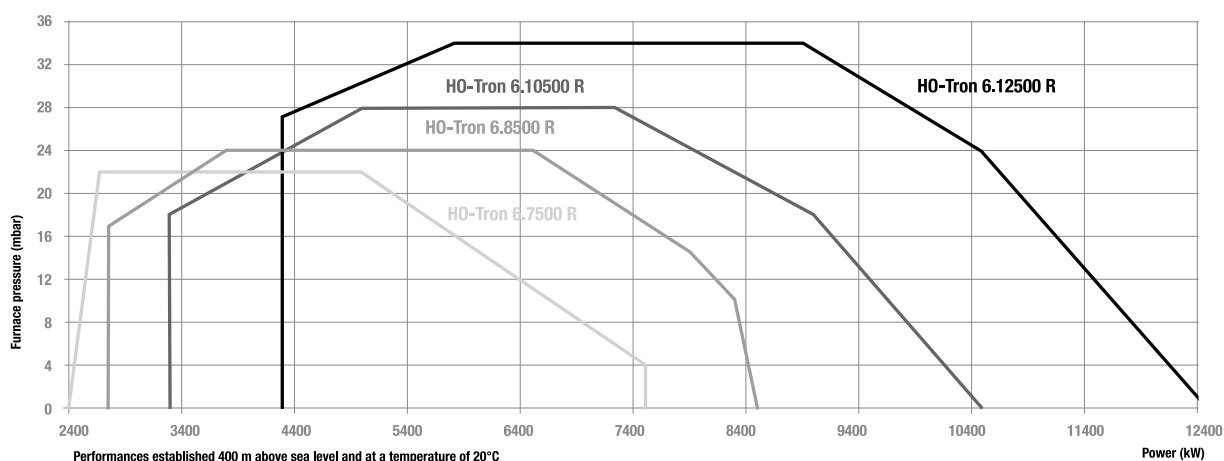


Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
HO-Tron 6.7200 R	1480	660	820	455	-	1240	425	800	500
HO-Tron 6.8500 R									
HO-Tron 6.10500 R	1505	685							
HO-Tron 6.13000 R	1615	795							

Heavy oil HO-Tron 6 R

Range: HO-Tron 6.7200 R, HO-Tron 6.8500 R,
HO-Tron 6.10500 R, HO-Tron 6.13000 R
2400 ... 12500 kW
2 stage progressive mechanical
Heavy oil 100°E at 50° C

Working fields



Characteristics and equipment

Type	HO-Tron 6.7200 R		HO-Tron 6.8500 R		HO-Tron 6.10500 R		HO-Tron 6.13000 R	
Operating range	2400 - 7250 kW		2750 - 8500 kW		3300 - 10500 kW		4300 - 12500 kW	
Gas train and nozzle	According to requested power							
Fuel flow	210 ... 640 kg/h		240 ... 750 kg/h		290 ... 920 kg/h		380 ... 1100 kg/h	
Control box	LAL 1.25							
Fan Motor	2800 rpm - 230/400 V 50 Hz - 15 kW		2800 rpm - 230/400 V 50 Hz - 18,5 kW		2800 rpm - 230/400 V 50 Hz - 22 kW		2800 rpm - 230/400 V 50 Hz - 37 kW	
Pump	TA 5C		TA 5C		T5 + TV		T5 + TV	
Resistance on pre-heating	30 kW		30 kW		44 kW		60 kW	
	KN	KL	KN	KL	KN	KL	KN	KL
Complete burner code	on request	on request	on request	on request	on request	on request	on request	on request

Options

Gas pilot flame	on request
Forced oil preparation ring (to prepare oil at 80°C and 3 bar):	on request
Design of the system or supply the assembled skid or the single components	
Version for heavy oil up to 100°E at 50°C:	standard
Silencer	standard
Power regulator PID (water, steam, air):	on request
RWF40 + matching probe	

Basic spare parts

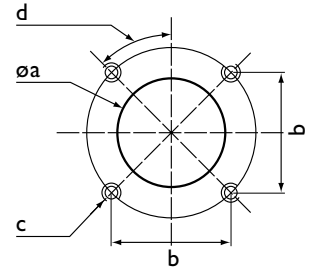
Ignition transformer	T101
Ignition electrode	BFE01099
	BFE01100
Baffle plate	HO-Tron 6.7200
	HO-Tron 6.8500
	HO-Tron 6.10500
	HO-Tron 6.13000
Control box	A147
Flame detector	A207/1

Description

- Two stage progressive mechanical forced draught burner.
- Electronic version with LAMTEC available on request.
- Fuel: heavy oil, viscosity 100°E (760 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 15 000 and 17 000 kW.
- Mini/maxi power ratio: 1/3 with return nozzle.
- Two combustion head lengths.
- Gun type architecture.
- Motor-pump separated.
- Electrical heavy oil heater for oil supply to the burner at 80°C and 3 bar.
- Additional heating on the pipes and the valves, into the pump and the nozzle holder.
- Closing of the air flap on burner shut-down.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 267 norm and European Guidelines such as:
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

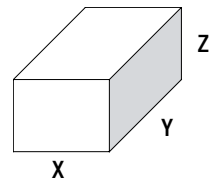
Ø a (mm)	b (mm)	c	d
570	620	M20	45°



Packaging

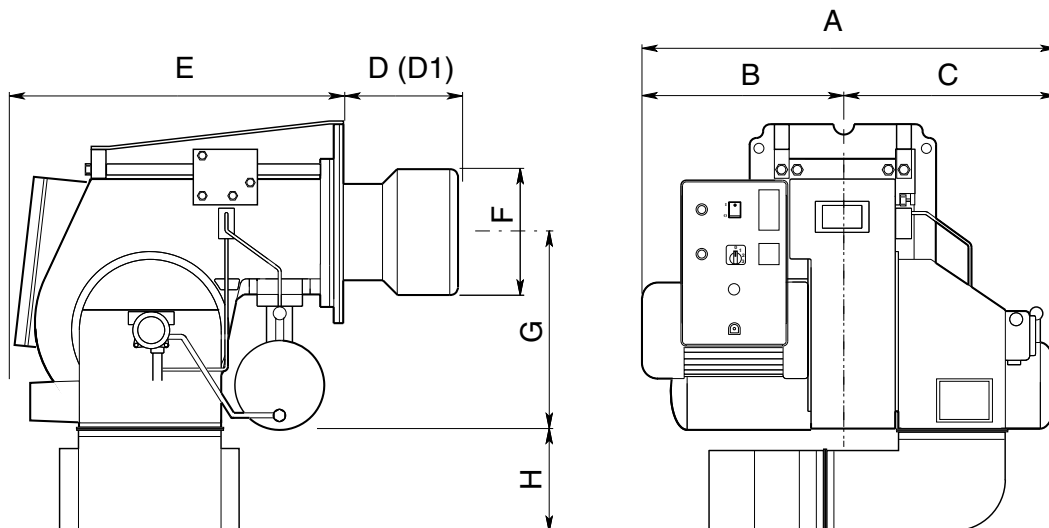
The complete burner with combustion head in a wooden box with:

- 1 Carton Box for Gas train,
- 1 Carton Box for flexible hoses,
- Operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
2800	2100	2000

Dimensions



Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
HO-Tron 7.15000 R	1670	800	870	590	-	1750	550	1100	500
HO-Tron 7.17000 R									

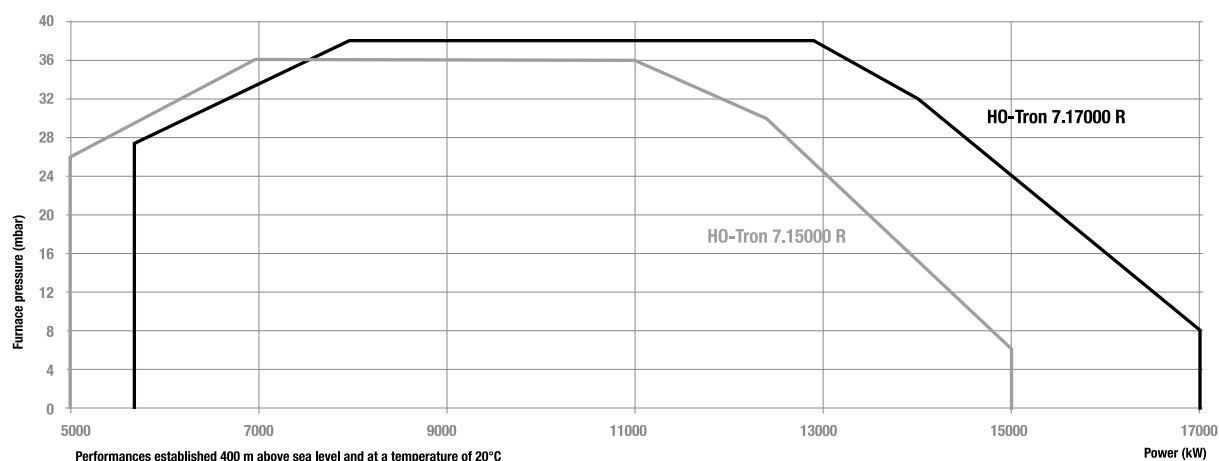
Heavy oil HO-Tron 7 R

Range: HO-Tron 7.15000 R, HO-Tron 7.17000 R,
5000 ... 17000 kW

2 stage progressive mechanical

Heavy oil 100°E at 50° C

Working fields



Characteristics and equipment

Type	HO-Tron 7.15000 R		HO-Tron 7.17000 R	
Operating range	5000 - 15000 kW		5700 - 17000 kW	
Nozzles	According to requested power			
Fuel flow	440 ... 1320 kg/h		500 ... 1495 kg/h	
Control box	LAL 2.25			
Fan Motor	2800 rpm - 230/400 V - 50 Hz - 45 W		2800 rpm - 230/400 V - 50 Hz - 55 W	
Pump	T5 + TV			
Resistance on pre-heating	75 kW			
	KN	KL	KN	KL
Complete burner code	on request	on request	on request	on request

Options

Gas pilot flame	on request
Forced oil preparation ring (to prepare oil at 80°C and 3 bar):	on request
Design of the system or supply the assembled skid or the single components	
Version for heavy oil up to 100°E at 50°C:	standard
Silencer	on request
Power regulator PID (water, steam, air):	on request
RWF40 + matching probe	

Basic spare parts

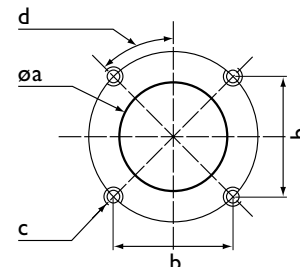
Ignition transformer	T101
Ignition electrode	BFE01099
	BFE01100
Baffle plate	HO-Tron 7.15000
	HO-Tron 7.17000
Control box	A147
Flame detector	A207/1

Description

- Two stages dual fuel forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, heavy oil, viscosity 15°E (115 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 500, 700 and 1 200 kW.
- Two combustion head lengths.
- Gun type architecture.
- Motor-pump separated.
- Closing of the air flap on burner shut-down.
- Gas train factory assembled and tested for tightness and electrical security.
- Electrical heavy oil heater.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP 42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN267 and 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

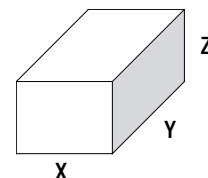
Ø a (mm)	b (mm)	c	d
190 ... 225	230	M14	45°



Packaging

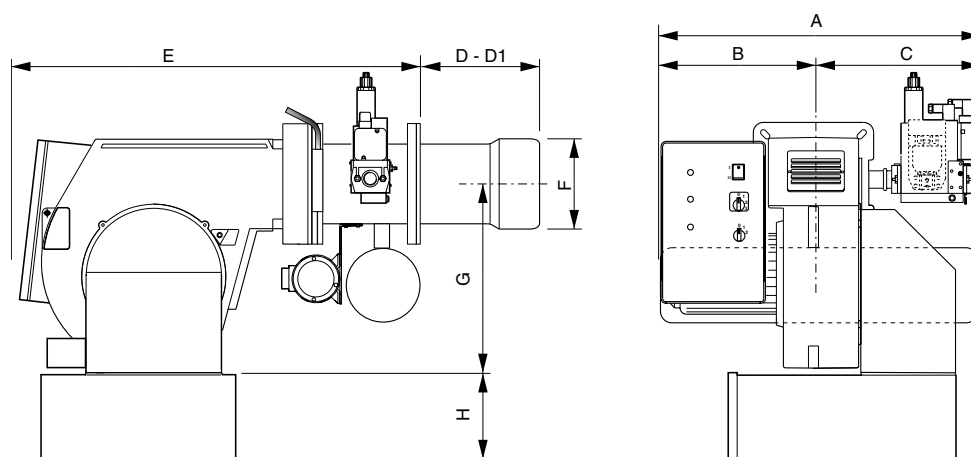
The complete burner with combustion head in a wooden box with:

- 1 Carton Box for Gas train,
- 1 Carton Box for flexible hoses,
- Operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
1100	780	700

Dimensions

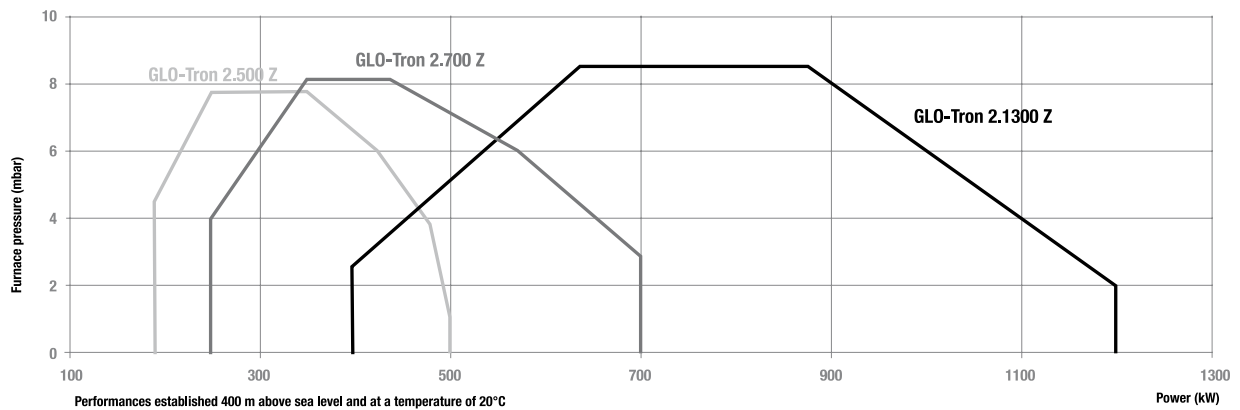


Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
GLO-Tron 2.500 Z	715	370	345	175	335	900	180	385	225
GLO-Tron 2.700 Z							215		
GLO-Tron 2.1300 Z									

Dual fuel heavy oil GLO-Tron 2 Z

Range: GLO-Tron 2.500 Z, GLO-Tron 2.700 Z,
GLO-Tron 2.1300 Z
190 ... 1200 kW
2 stages
Heavy oil 15°E at 50° C

Working fields



Characteristics and equipment

Type		GLO-Tron 2.500 Z		GLO-Tron 2.700 Z		GLO-Tron 2.1300 Z	
Operating range		190 - 500 kW		250 - 700 kW		400 - 1200 kW	
Gas pressure		20 ... 300 mbar					
Gas train and nozzles		According to requested power					
Fuel flow		16,7 ... 44 kg/h		22 ... 62 kg/h		35 ... 105 kg/h	
Control box		LGB 22					
Fan Motor		2800 rpm - 230 V - 50 Hz - 1,5 kW		2800 rpm - 230 V - 50 Hz - 1,5 kW		2800 rpm - 230 V - 50 Hz - 2,2 kW	
Pump		E4 NC		E4 NC		E6 NC	
Resistance on pre-heating		3 kW		4,65 kW		7,05 kW	
		KN	KL	KN	KL	KN	KL
Complete burner code	d1,1/2-Rp2	on request	on request	on request	on request	on request	on request
	d1,1/4-Rp2	on request	on request	on request	on request	on request	on request
	d2-Rp2	on request	on request	on request	on request	on request	on request

Options

Forced oil preparation ring (to prepare oil at 80°C and 3 bar):	on request
Design of the system or supply the assembled skid or the single components	
Silencer	on request
Kit for automatic fuel changeover	on request

Basic spare parts

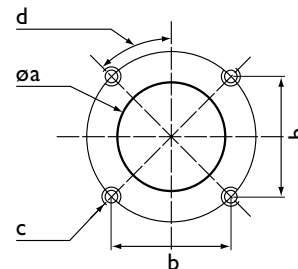
Ignition transformer	T101
Ignition electrode	E612 x 2
Baffle plate GLO-Tron 2.500	BFD07049
GLO-Tron 2.700	BFD07049
GLO-Tron 2.1300	BFD05009/051
Control box	A130/1
Flame detector	A205

Description

- Two stages dual fuel forced draught burner.
- Fuel: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, heavy oil, viscosity 15°E (115 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 1 770 and 2 150 kW.
- Two combustion head lengths.
- Gun type architecture.
- Motor-pump separated.
- Closing of the air flap on burner shut-down.
- Gas train factory assembled and tested for tightness and electrical security.
- Electrical heavy oil heater.
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel.
- Three-phase electrical power supply.
- Protection level IP 42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN267 and 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

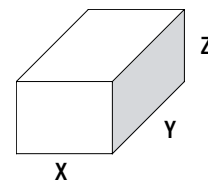
Ø a (mm)	b (mm)	c	d
260 ... 290	315	M16	45°



Packaging

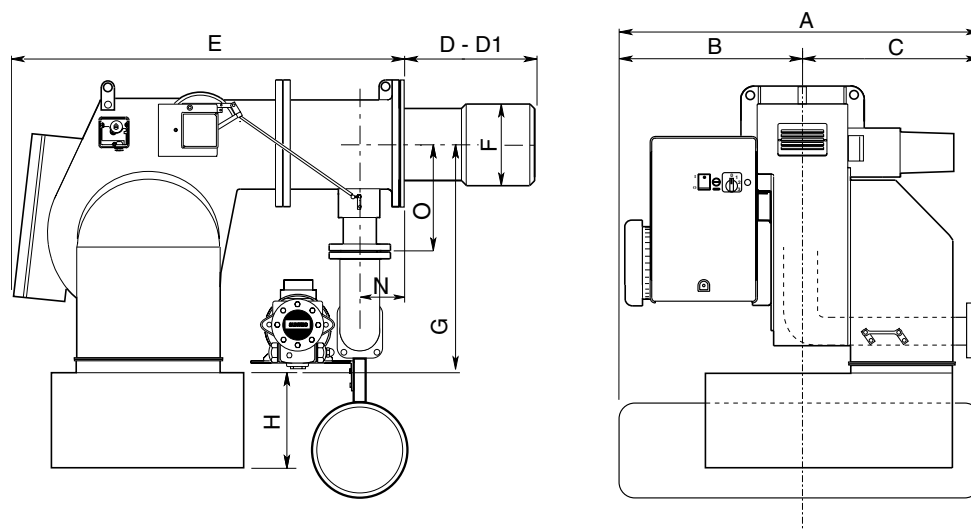
The complete burner with combustion head in a wooden box with:

- 1 Carton Box for Gas train,
- 1 Carton Box for flexible hoses,
- Operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
1370	1140	950

Dimensions

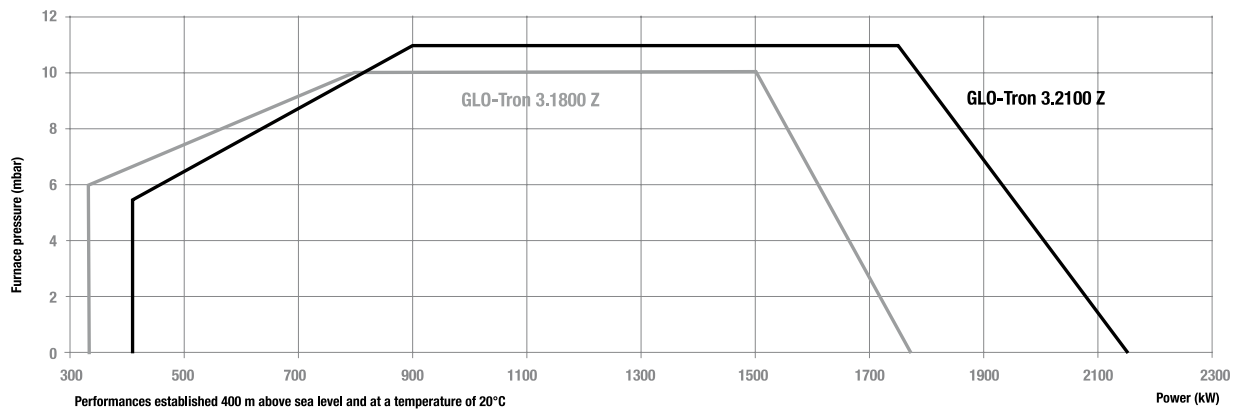


Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
GLO-Tron 3.1800 Z	885	410	475	340	540	990	250	398	283
GLO-Tron 3.2100 Z				345	545		270		

Dual fuel heavy oil GLO-Tron 3 Z

Range: GLO-Tron 3.1800 Z, GLO-Tron 3.2100 Z
 340 ... 2150 kW
 2 stages
 Heavy oil 15°E at 50° C

Working fields



Characteristics and equipment

Type		GLO-Tron 3.1800 Z		GLO-Tron 3.2100 Z	
Operating range		340 - 1770 kW		410 - 2150 kW	
Gas pressure		50 ... 300 mbar			
Gas train and nozzles		According to requested power			
Fuel flow		30 ... 156 kg/h		36 ... 189 kg/h	
Control box		LGB 22			
Fan Motor		2800 rpm - 230 V - 50 Hz - 3 kW		2800 rpm - 230 V - 50 Hz - 4 kW	
Pump		E6 NC 1069			
Resistance on pre-heating		9 kW		10,5 kW	
		KN	KL	KN	KL
Complete burner code	s80-DN80	on request	on request	on request	on request
	d2-Rp2	on request	on request	on request	on request
	d1,1/4-Rp2	on request	on request	on request	on request
	s65-DN65	on request	on request	on request	on request

Options

Forced oil preparation ring (to prepare oil at 80°C and 3 bar):	on request
Design of the system or supply the assembled skid or the single components	
Silencer	on request
Kit for automatic fuel changeover	on request
Two stages heavy oil / two stage progressive mechanical gas	

Basic spare parts

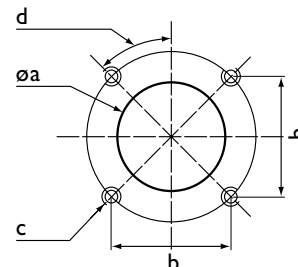
Ignition transformer	T101
Ignition electrode	E612 x 2
Baffle plate	GLO-Tron 3.1800 BFD05025/2
	GLO-Tron 3.2100 BFD05025/2
Control box	A130/1
Flame detector	A205

Description

- Two stage progressive mechanical forced draught burner.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, heavy oil, viscosity 100°E (760 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 1 770 and 2 150 kW.
- Mini/maxi power ratio: 1/3 with return nozzle.
- Two combustion head lengths.
- Gun type architecture:
 - Separated forced draught fan,
 - Optimal accessibility,
 - Easy maintenance,
 - Secured burner head adjustments,
 - Closing of the air flap on burner shut-down.
- Electrical heavy oil heater for oil supply to the burner at 80°C and 3 bar.
- Additional heating on the pipes and the valves, into the pump and the nozzle holder.
- Numbered screw strip in a connection box mounted on the body of the burner.
- Complete electrical equipment in an IP54 switch cabinet with control panel, delivered separately.
- Electrical power supply: Single phase for the control circuit (220V - 50Hz),
- Three-phase for the power circuit.
- Protection level IP42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN267 and 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

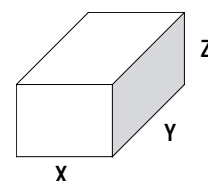
Ø a (mm)	b (mm)	c	d
260 ... 290	315	M16	45°



Packaging

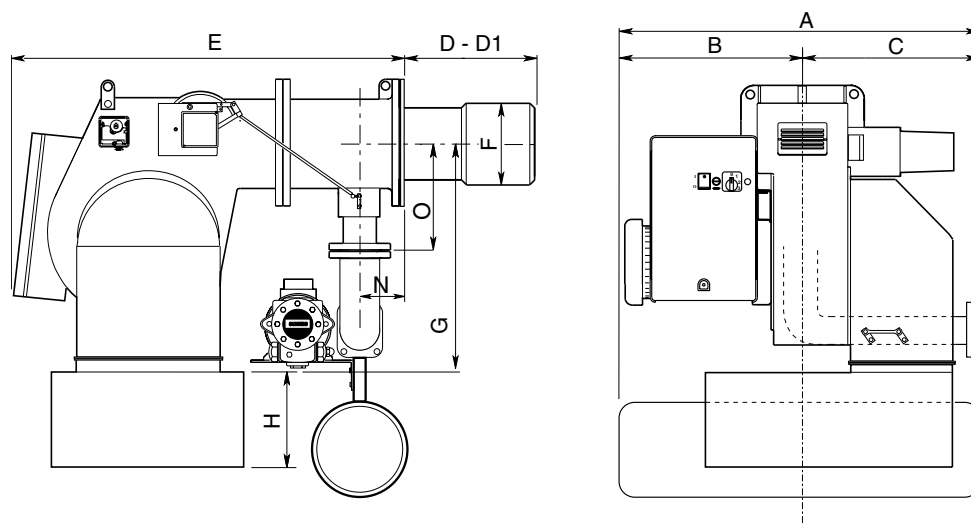
The complete burner with combustion head in a wooden box with:

- 1 Carton Box for Gas train,
- 1 Carton Box for flexible hoses,
- Operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
1370	1140	950

Dimensions



Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
GHO-Tron 3.1800 R	885	410	475	340	540	990	250	398	283
GHO-Tron 3.2100 R				345	545		270		

Dual fuel heavy oil GHO-Tron 3 R

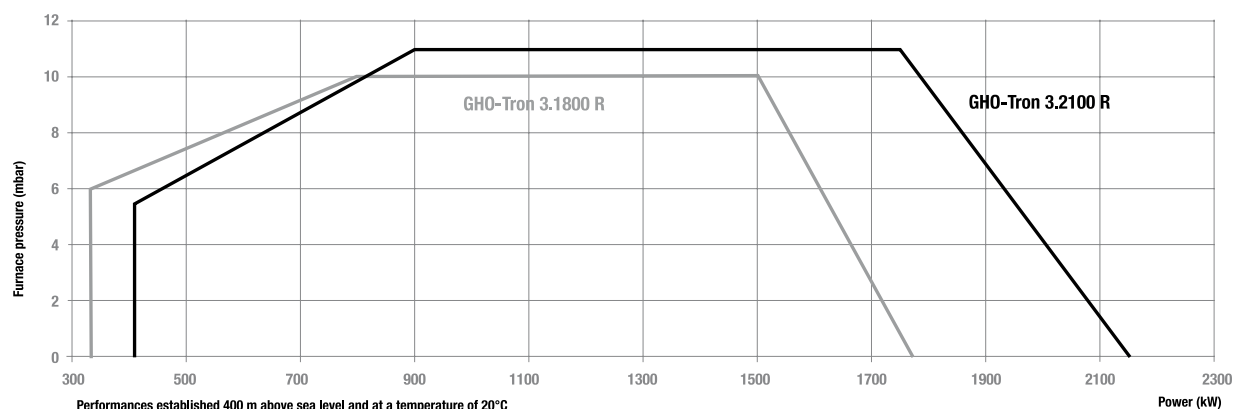
Range: GHO-Tron 3.1800 R, GHO-Tron 3.2100 R

340 ... 2150 kW

2 stage progressive mechanical

Heavy oil 100°E at 50° C

Working fields



Characteristics and equipment

Type		GHO-Tron 3.1800 R		GHO-Tron 3.2100 R	
Operating range		340 - 1770 kW		410 - 2150 kW	
Nozzles		According to requested power			
Fuel flow		30 ... 156 kg/h		36 ... 189 kg/h	
Control box		LGB 22			
Fan Motor		2800 rpm - 230/400 V - 50 Hz - 3 kW		2800 rpm - 230/400 V - 50 Hz - 4 kW	
Pump		E7 NC			
Resistance on pre-heating		9 kW		10,5 kW	
		KN	KL	KN	KL
Complete burner code	s80-DN80	on request	on request	on request	on request
	s65-DN65	on request	on request	on request	on request
	d2-Rp2	on request	on request	on request	on request
	d1,1/4-Rp2	on request	on request	on request	on request

Options

Gas pilot flame	
Forced oil preparation ring (to prepare oil at 80°C and 3 bar):	on request
Design of the system or supply the assembled skid or the single components	
Version for heavy oil up to 100°E at 50°C:	standard
Silencer	on request
Power regulator PID (water, steam, air):	on request
RWF40 + matching probe	
Kit for automatic fuel changeover	on request
Two stages heavy oil /	on request
two stage progressive mechanical gas	

Basic spare parts

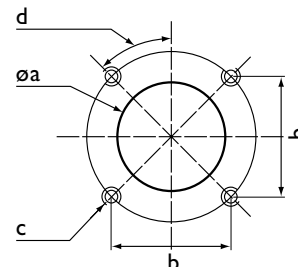
Ignition transformer	T101
Ignition electrode	E612 x 2
Baffle plate	GHO-Tron 3.1800 BFD05025/2
	GHO-Tron 3.2100 BFD05025/2
Control box	A130/1
Flame detector	A205

Description

- Two stage progressive mechanical forced draught burner.
- Electronic version with LAMTEC available on request.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, heavy oil, viscosity 100°E (760 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 3 000 and 3 900 kW.
- Mini/maxi power ratio: 1/3 with return nozzle.
- Two combustion head lengths.
- Duoblock type architecture:
 - Separated forced draught fan,
 - Optimal accessibility,
 - Easy maintenance,
 - Secured burner head adjustments,
 - Closing of the air flap on burner shut-down.
- Electrical heavy oil heater for oil supply to the burner at 80°C and 3 bar.
- Additional heating on the pipes and the valves, into the pump and the nozzle holder.
- Numbered screw strip in a connection box mounted on the body of the burner.
- Complete electrical equipment in an IP54 switch cabinet with control panel, delivered separately.
- Electrical power supply: Single phase for the control circuit (220V - 50Hz),
- Three-phase for the power circuit.
- Protection level IP42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN267 and 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

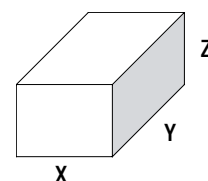
Ø a (mm)	b (mm)	c	d
300 ... 330	315	M16	45°



Packaging

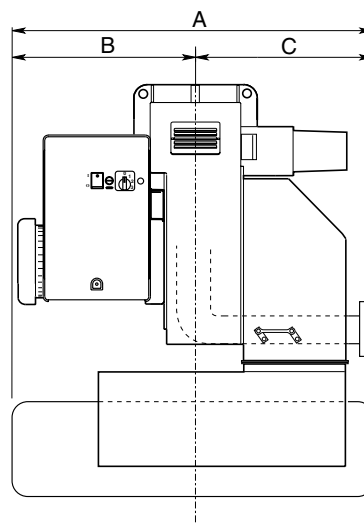
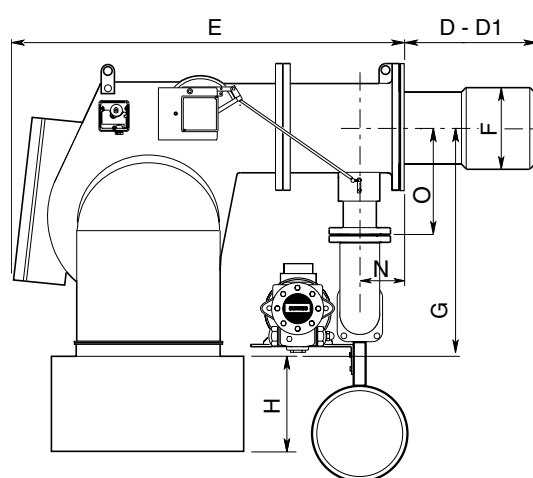
The complete burner with combustion head in a wooden box with:

- 1 Carton Box for Gas train,
- 1 Carton Box for flexible hoses,
- Operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
1580	1580	1050

Dimensions



Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
GHO-Tron 4.3000 R	1225	588	638	295	495	1215	290	466	280
GHO-Tron 4.3900 R							320		

Dual fuel heavy oil GHO-Tron 4 R

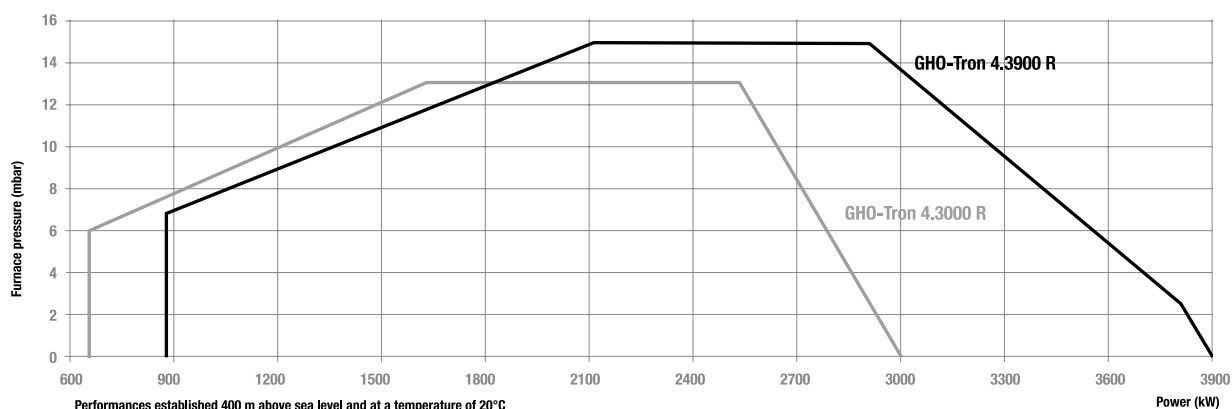
Range: GHO-Tron 4.3000 R, GHO-Tron 4.3900 R

650 ... 3900 kW

2 stages progressive mechanical

Heavy oil 100°E at 50° C

Working fields



Characteristics and equipment

Type		GHO-Tron 4.3000 R		GHO-Tron 4.3900 R	
Operating range		650 - 3000 kW		880 - 3800 kW	
Nozzles		According to requested power			
Fuel flow		57 ... 264 kg/h		77 ... 334 kg/h	
Control box		LFL 1.333			
Fan Motor		2800 rpm - 230/400 V - 50 Hz - 7,5 kW		2800 rpm - 230/400 V - 50 Hz - 9 kW	
Pump		TA 3C			
Resistance on pre-heating		18 kW		21 kW	
		KN	KL	KN	KL
Complete burner code	s100-DN100	on request	on request	on request	on request
	s80-DN80	on request	on request	on request	on request
	s65-DN65	on request	on request	on request	on request
	d2-Rp2	on request	on request	on request	on request

Options

Gas pilot flame for oil	on request
Gas pilot flame for gas	standard
Forced oil preparation ring (to prepare oil at 80°C and 3 bar):	on request
Design of the system or supply the assembled skid or the single components	
Special version for heavy oil up to 100°E at 50°C:	
Extra heaters	
Silencer	standard
Power regulator PID (water, steam, air):	on request
RWF40 + matching probe	
Kit for automatic fuel changeover	on request
Two stages heavy oil /	on request
two stage progressive mechanical gas	

Basic spare parts

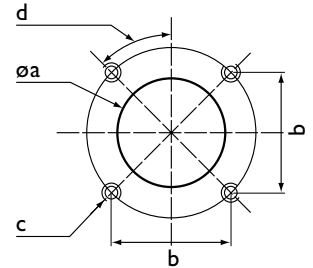
Ignition transformer	T101
Ignition electrode	E612 x 2
Baffle plate	GHO-Tron 4.3000 BFD07019/001
	GHO-Tron 4.3900 BFD07034
Control box	A130/1
Flame detector	A205

Description

- Two stage progressive mechanical forced draught burner.
- Electronic version with LAMTEC available on request.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, heavy oil, viscosity 100°E (760 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 5 000 and 5 800 kW.
- Mini/maxi power ratio: 1/3 with return nozzle.
- Two combustion head lengths.
- Duoblock type architecture:
 - Separated forced draught fan,
 - Optimal accessibility,
 - Easy maintenance,
 - Secured burner head adjustments,
 - Closing of the air flap on burner shut-down.
- Electrical heavy oil heater for oil supply to the burner at 80°C and 3 bar.
- Additional heating on the pipes and the valves, into the pump and the nozzle holder.
- Numbered screw strip in a connection box mounted on the body of the burner.
- Complete electrical equipment in an IP54 switch cabinet with control panel, delivered separately.
- Electrical power supply: Single phase for the control circuit (220V - 50Hz),
- Three-phase for the power circuit.
- Protection level IP42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN267 and 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

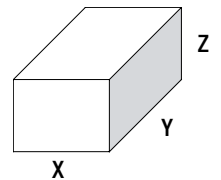
Ø a (mm)	b (mm)	c	d
330	330	M16	45°



Packaging

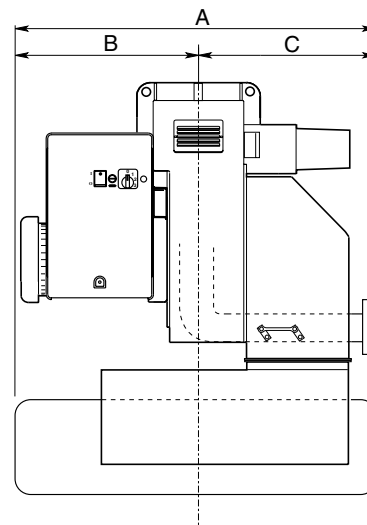
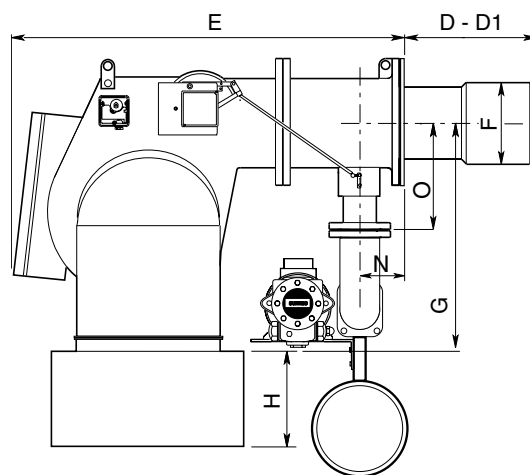
The complete burner with combustion head in a wooden box with:

- 1 Carton Box for Gas train,
- 1 Carton Box for flexible hoses,
- Operating manual including electrical terminal diagram and spare parts list.



Dimensions (mm)		
X	Y	Z
1580	1580	1050

Dimensions



Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
GH0-Tron 5.5000 R	1322	689	633	350	600	1370	320	565	400
GH0-Tron 5.5800 R									

Dual fuel heavy oil GHO-Tron 5 R

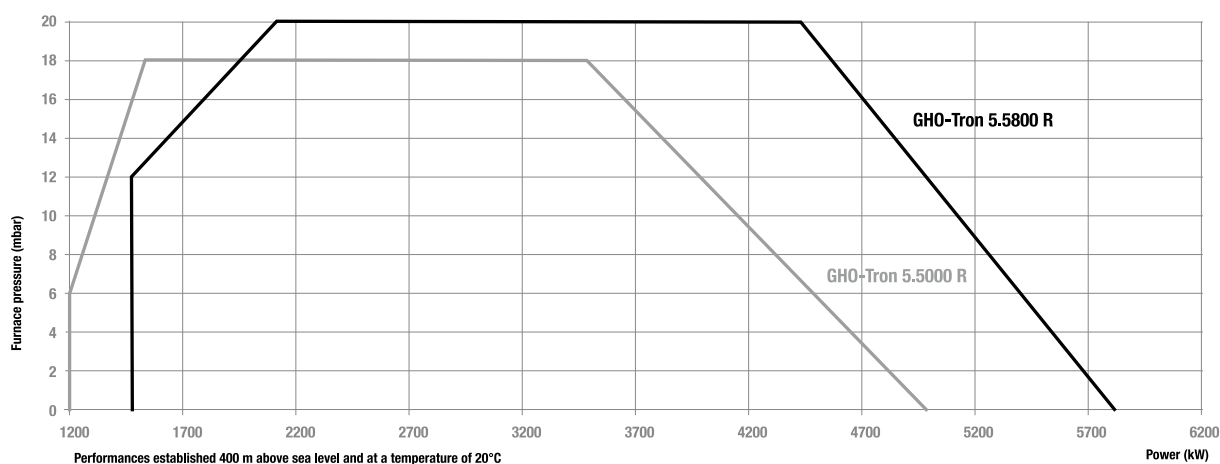
Range: GHO-Tron 5.5000 R, GHO-Tron 5.5800 R

1200 ... 5800 kW

2 stage progressive mechanical

Heavy oil 100°E at 50° C

Working fields



Characteristics and equipment

Type		GHO-Tron 5.5000 R		GHO-Tron 5.5800 R	
Operating range		1200 - 5000 kW		1500 - 5800 kW	
Nozzles		According to requested power			
Fuel flow		106 ... 440 kg/h		132 ... 510 kg/h	
Control box		LFL 1.333			
Fan Motor		2800 rpm - 230/400 V - 50 Hz - 11 kW		2800 rpm - 230/400 V - 50 Hz - 15 kW	
Pump		TA 4C			
Resistance on pre-heating		24 kW			
		KN	KL	KN	KL
Complete burner code	s125-DN125	on request	on request	on request	on request
	s100-DN100	on request	on request	on request	on request
	s80-DN80	on request	on request	on request	on request
	s65-DN65	on request	on request	on request	on request
	d2-Rp2	on request	on request	on request	on request

Options

Gas pilot flame for oil	on request
Gas pilot flame for gas	standard
Forced oil preparation ring	on request
(to prepare oil at 80°C and 3 bar):	
Design of the system or supply the assembled skid	
or the single components	
Special version for heavy oil up to 100°E at 50°C:	
Extra heaters	
Silencer	standard
Power regulator PID (water, steam, air):	on request
RWF40 + matching probe	
Kit for automatic fuel changeover	on request
Two stages heavy oil /	on request
two stage progressive mechanical gas	

Basic spare parts

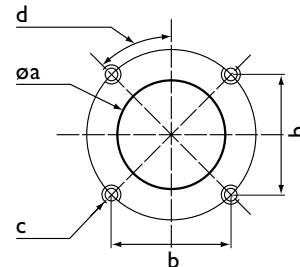
Ignition transformer	T101
Ignition electrode	E612 x 2
Baffle plate	GHO-Tron 5.5000 BFD03020
	GHO-Tron 5.5800 BFD03020
Control box	A130/1
Flame detector	A205

Description

- Two stage progressive mechanical forced draught burner.
- Electronic version with LAMTEC available on request.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, heavy oil, viscosity 100°E (760 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 7 250, 8 500, 10 500 and 13 000 kW.
- Mini/maxi power ratio: 1/3 with return nozzle.
- Two combustion head lengths.
- Duoblock type architecture:
 - Separated forced draught fan,
 - Optimal accessibility,
 - Easy maintenance,
 - Secured burner head adjustments,
 - Closing of the air flap on burner shut-down.
- Electrical heavy oil heater for oil supply to the burner at 80°C and 3 bar.
- Additional heating on the pipes and the valves, into the pump and the nozzle holder.
- Numbered screw strip in a connection box mounted on the body of the burner.
- Complete electrical equipment in an IP54 switch cabinet with control panel, delivered separately.
- Electrical power supply: Single phase for the control circuit (220V - 50Hz),
- Three-phase for the power circuit.
- Protection level IP42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN267 and 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

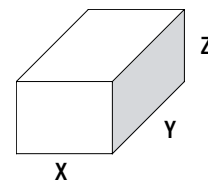
Ø a (mm)	b (mm)	c	d
440 ... 470	460	M20	45°



Packaging

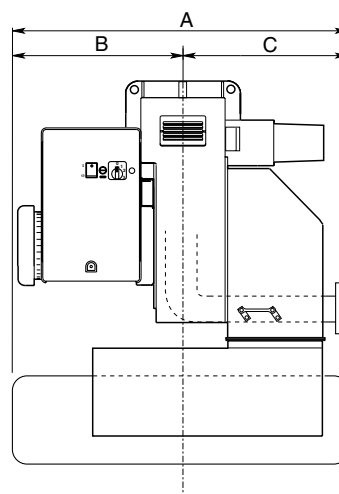
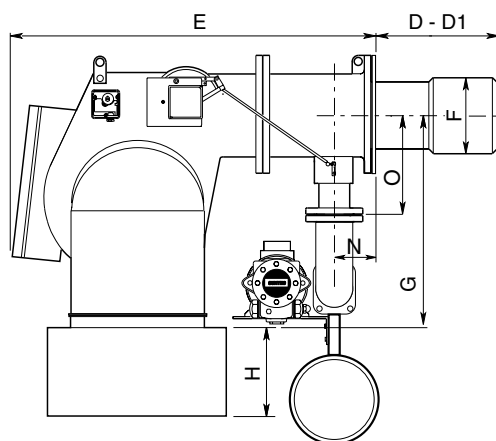
The burner is delivered complete with:

- Gas train,
- Hoses and nozzles,
- Boiler fixing accessories,
- Directions for use including electrical diagram, exploded view and spare parts list.



Dimensions (mm)		
X	Y	Z
2400	1800	1600

Dimensions

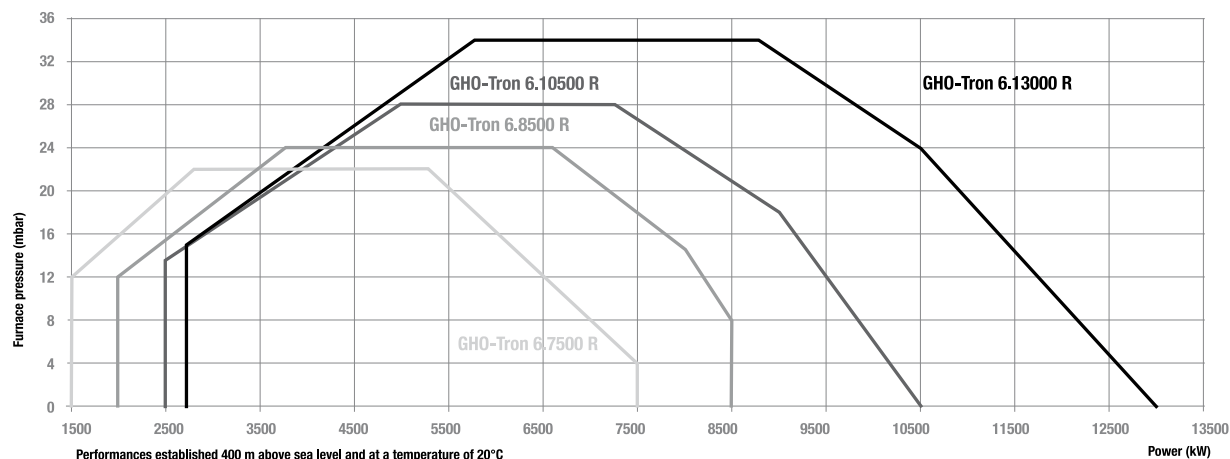


Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
GHO-Tron 6.7200 R	1215	585	630	570	-	1470	420	800	500
GHO-Tron 6.8500 R	1285	655							
GHO-Tron 6.10500 R	1315	685							
GHO-Tron 6.13000 R	1425	795					450		

Dual fuel heavy oil GHO-Tron 6 R

**Range: GHO-Tron 6.7200 R, GHO-Tron 6.8500 R,
GHO-Tron 6.10500 R, GHO-Tron 6.13000 R**
1500 ... 13000 kW
2 stage progressive mechanical
Heavy oil 100°E at 50° C

Working fields



Characteristics and equipment

Type		GHO-Tron 6.7200 R		GHO-Tron 6.8500 R		GHO-Tron 6.10500 R		GHO-Tron 6.13000 R	
Operating range		1500 - 7250 kW		2000 - 8500 kW		2500 - 10500 kW		2700 - 13000 kW	
Gas train and nozzle		According to requested power							
Fuel flow		132 ... 660 kg/h		176 ... 750 kg/h		220 ... 920 kg/h		240 ... 1100 kg/h	
Control box		LFL 1.333							
Fan Motor		2800 rpm - 230/400 V 50 Hz - 15 kW		2800 rpm - 230/400 V 50 Hz - 18,5 kW		2800 rpm - 230/400 V 50 Hz - 22 kW		2800 rpm - 230/400 V 50 Hz - 37 kW	
Pump		TA 5C		TA 5C		T5 + TV		T5 + TV	
Resistance on pre-heating		30 kW		30 kW		44 kW		60 kW	
		KN	KL	KN	KL	KN	KL	KN	KL
Complete burner code	s125-DN125	on request	on request	on request	on request	on request	on request	on request	on request
	s100-DN100	on request	on request	on request	on request	on request	on request	on request	on request
	s80-DN80	on request	on request	on request	on request	on request	on request	on request	on request
	s65-DN65	on request	on request	on request	on request	on request	on request	on request	on request
	s150-DN150	on request	on request	on request	on request	on request	on request	on request	on request

Options

Gas pilot flame for oil	on request
Gas pilot flame for gas	standard
Forced oil preparation ring	on request
(to prepare oil at 80°C and 3 bar):	
Design of the system or supply the assembled skid	
or the single components	
Version for heavy oil up to 100°E at 50°C:	standard
Silencer	standard
Power regulator PID (water, steam, air):	on request
RWF40 + matching probe	
Kit for automatic fuel changeover	on request
Two stages heavy oil /	on request
two stage progressive mechanical gas	

Basic spare parts

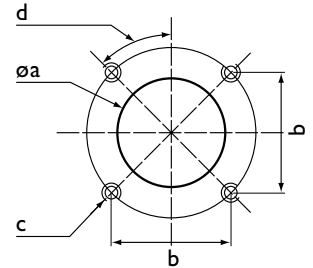
Ignition transformer	T101
Ignition electrode	E612 x 2
Baffle plate	GHO-Tron 6.7200
	BFD03027
	GHO-Tron 6.8500
	BFD03027
	GHO-Tron 6.10500
	BFD03023
	GHO-Tron 6.13000
	BFD03027
Control box	A130/1
Flame detector	A205

Description

- Two stage progressive mechanical forced draught burner.
- Electronic version with LAMTEC available on request.
- Fuels: natural gas, net calorific value 8,83 ... 10,53 kWh/m³, heavy oil, viscosity 100°E (760 mm²/s) at 50°C, net calorific value 10,5...11,5 kWh/kg.
- Maximum heat power: 15 000 and 17 000 kW.
- Mini/maxi power ratio: 1/3 with return nozzle.
- Two combustion head lengths.
- Duoblock type architecture:
 - Separated forced draught fan,
 - Optimal accessibility,
 - Easy maintenance,
 - Secured burner head adjustments,
 - Closing of the air flap on burner shut-down.
- Electrical heavy oil heater for oil supply to the burner at 80°C and 3 bar.
- Additional heating on the pipes and the valves, into the pump and the nozzle holder.
- Numbered screw strip in a connection box mounted on the body of the burner.
- Complete electrical equipment in an IP54 switch cabinet with control panel, delivered separately.
- Electrical power supply: Single phase for the control circuit (220V - 50Hz),
- Three-phase for the power circuit.
- Protection level IP42 (IP54 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN267 and 676 standards and European Guidelines such as:
 - Gas appliances 93/68/EEC
 - EMC 89/336/EEC
 - Low voltage 73/23/EEC
 - Efficiency 92/42/EEC

Connecting flange

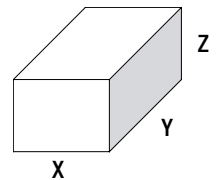
Ø a (mm)	b (mm)	c	d
570	620	M20	45°



Packaging

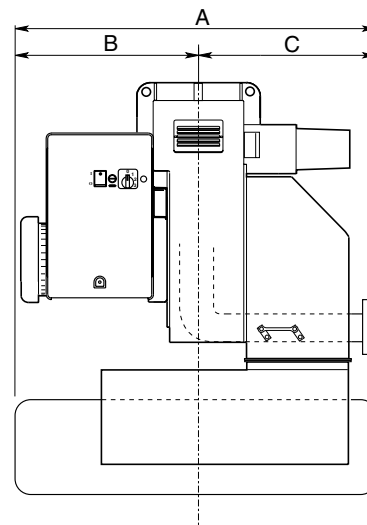
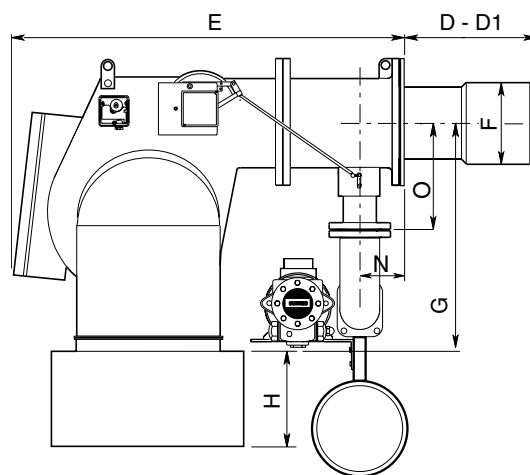
The burner is delivered complete with:

- Gas train,
- Hoses and nozzles,
- Boiler fixing accessories,
- Directions for use including electrical diagram, exploded view and spare parts list.



Dimensions (mm)		
X	Y	Z
2800	2100	2000

Dimensions



Type	Dimensions (mm)								
	A	B	C	D	D1	E	F	G	H
GH0-Tron 7.15000 R	1670	800	870	590	-	1910	550	1167	500
GH0-Tron 7.17000 R									

Dual fuel heavy oil GHO-Tron 7 R

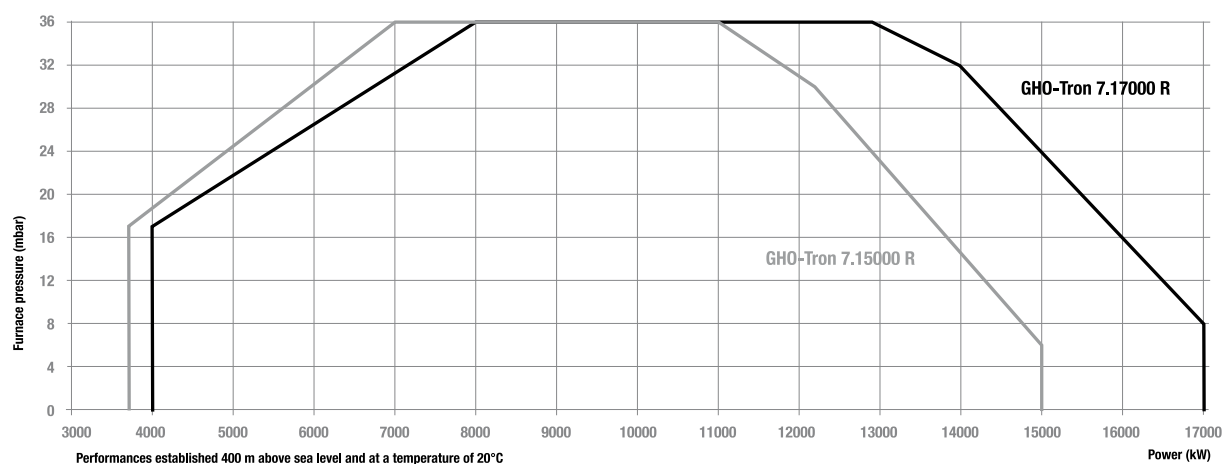
Range: GHO-Tron 7.15000 R, GHO-Tron 7.17000 R

3700 ... 17000 kW

2 stage progressive mechanical

Heavy oil 100°E at 50° C

Working fields



Characteristics and equipment

Type	GHO-Tron 7.15000 R		GHO-Tron 7.17000 R	
Operating range	3700 - 15000 kW		4000 - 17000 kW	
Nozzles	According to requested power			
Fuel flow	325 ... 1320 kg/h		350 ... 1495 kg/h	
Control box	LFL 1.333			
Fan Motor	2800 rpm - 230/400 V - 50 Hz - 45 W		2800 rpm - 230/400 V - 50 Hz - 55 W	
Pump	T5 + TV			
Resistance on pre-heating	75 kW			
	KN	KL	KN	KL
Complete	on request	on request	on request	on request
burner code	on request	on request	on request	on request
s150-DN150	on request	on request	on request	on request
s125-DN125	on request	on request	on request	on request
s100-DN100	on request	on request	on request	on request
s80-DN80	on request	on request	on request	on request

Options

Gas pilot flame for oil	on request
Gas pilot flame for gas	standard
Forced oil preparation ring	on request
(to prepare oil at 80°C and 3 bar):	
Design of the system or supply the assembled skid or the single components	
Version for heavy oil up to 100°E at 50°C:	standard
Silencer	on request
Power regulator PID (water, steam, air):	on request
RWF40 + matching probe	
Kit for automatic fuel changeover	on request
Two stages heavy oil /	on request
two stage progressive mechanical gas	

Basic spare parts

Ignition transformer	T101
Ignition electrode	E612 x 2
Baffle plate GHO-Tron 7.15000	BFD07048
Baffle plate GHO-Tron 7.17000	BFD07048
Control box	A130/1
Flame detector	A205

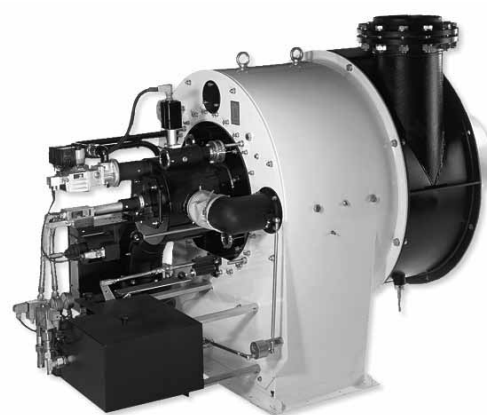
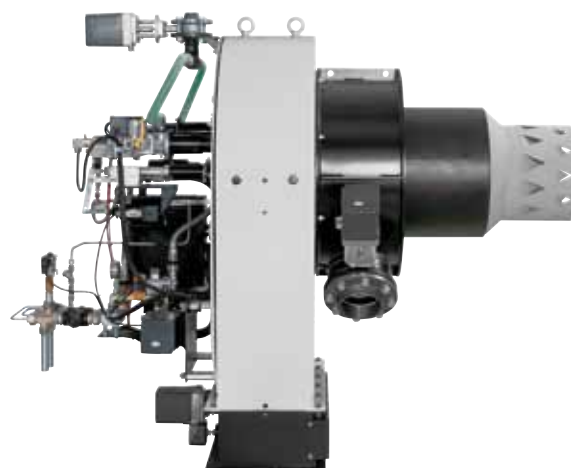
Technical presentation

Industrial burners with adjustable flame represent the most important products in combustion technology and only few companies in the world can offer this type of solutions that fulfil the need of industrial installations.

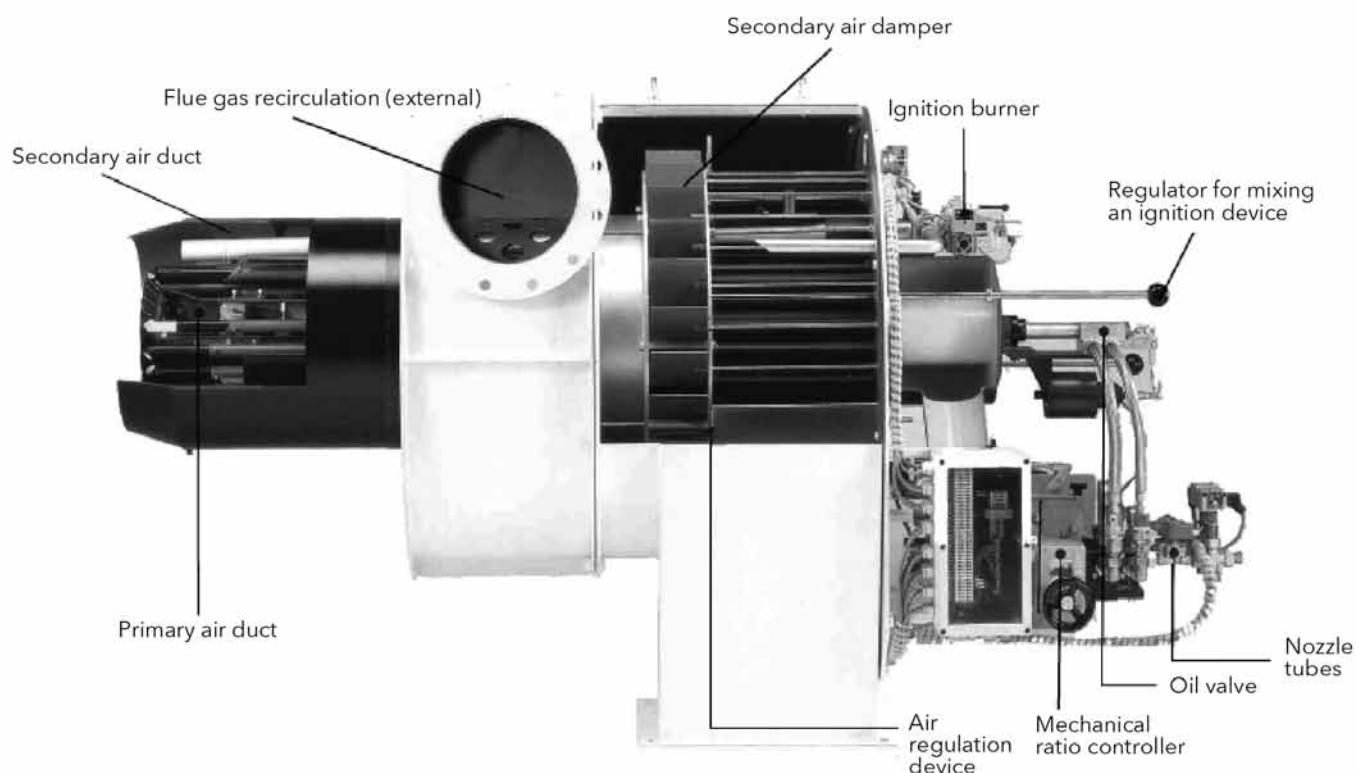
Elco industrial burners are designed to satisfy the widest range of needs and can be applied to the most various type of civil and industrial solutions like fire-tube boilers, water-tube boilers, dryers and melting furnaces.

EK-DUO & RPD Duoblock progressive modulating forced-draught burner are designed to obtain the maximum flexibility to meet the widest range of applications. These burners enable installation to realize a modular and flexible combustion solution with a high degree of personalization. All these resulted in a high performance installation at the lowest running cost. The burners are built to be connected to an external air supply and can be supplied together with built in or separate control panel, electronic or mechanical adjustment, flue gas re-circulation, heavy oil pump unit and heating unit.

This range of burners is able to fulfill high capacity and high turndown needs and allows installation in very high pressurized combustion chambers. These burners can be used in installation with hot air process up to 300° C like in the oil diathermic generators and other heat recovery systems.



Burner type	Max Output (air at 20°C)					Operation		Low-NOx		
	Gas	Light Oil	Heavy Oil	Gas /Light Oil	Gas /Heavy Oil	Mechanical	Electronic	Gas	Light Oil	Gas / Light Oil
EK-DUO 2.550	6500	6200	6000	6000	6000		•	•	•	•
EK-DUO 2.700	7000	7800	7800	7800	7800		•	•	•	•
EK-DUO 3.850	8300	9250	9500	9500	9500		•	•	•	•
EK-DUO 3.1000	11000	12000	12000	12000	12000		•	•	•	•
EK-DUO 4.1300	13000	13000	13000	13000	13000		•	•	•	•
EK-DUO 4.1600	16000	16000	16000	16000	16000		•	•	•	•
RPD 20	3300	3300	3300	3300	3300	•	•	•		
RPD 30	6042	6042	6042	6042	6042	•	•	•		
RPD 40	8230	8230	8230	8230	8230	•	•	•		
RPD 50	11160	11160	11160	11160	11160	•	•	•		
RPD 60	14511	15418	14511	14511	14511	•	•	•		
RPD 70	20470	20636	20470	20470	20470	•	•	•		
RPD 80	34500	31938	30350	30350	30350	•	•	•		
RPD 90	42000	42000	42000	42000	42000	•	•	•		
RPD 100	45000	45000	45000	45000	45000	•	•	•		



Operating mode

Fully automatic forced draught burner with electronic or mechanical fuel/ air ratio control system, safety equipment according to EN standards, especially designed for high turn down ratios.

Electric design

Burner pre-wired and ready to connect. All burner components wired to the burner terminal rail. Burner control box supplied loose for installation in separate control panel.

Combustion air

Separate combustion air blower with stable and pulsation-free characteristics able to overcome boilers with high flue gas resistance. The combustion air volume is divided into a primary and a secondary stream. The flame shape may be adapted by adjustable crown of air registers.

Control systems

For electronic control systems, the fuel flow rate is controlled by means of an actuator fitted to the fuel control valve. The air flow rate is controlled by means of an actuator provided to the primary air damper and an actuator provided to the secondary air cylinder.

For mechanical control systems, an actuator is fitted to a compound control with linkages to feed control valve and linkages to primary and secondary air dampers.

Monitoring system

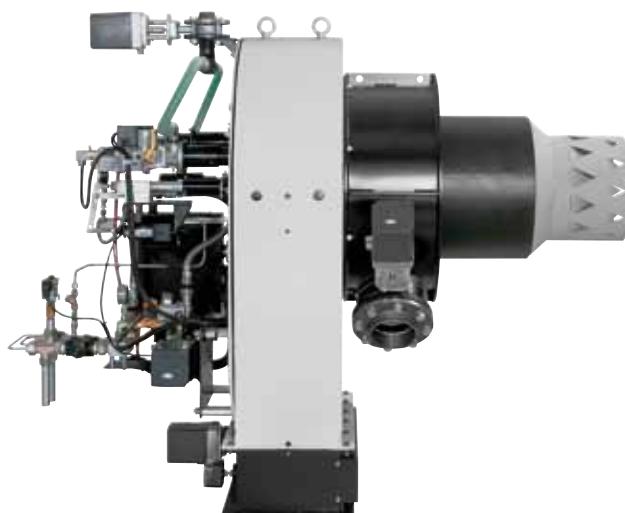
Flame monitoring by means of flame sensor and tested burner control box. Combustion air monitoring achieved through differential air pressure switch, resp. speed control switch in case of burner with speed control.

Ignition

Direct high voltage ignition, 5000 V, by means of an inbuilt ignition burner.

Description

- Duoblock two-stage progressive electronic low NOx dual fuel forced draught burner.
- Free flame low NOx class 3 technology.
- Designed to be connected to an external air supply.
- Fuel:
 - natural gas, net calorific value 8,83 ... 10,53 kWh/m³, low-NOx class 2 or 3 with Diamond technology 2nd generation,
 - light oil, viscosity 6 mm²/s at 20°C, net calorific value 11,86 kWh/kg, low-NOx class 3,
 - dual fuel, natural gas and light oil, integral low-NOx class 3 with Free Flame technology,
 - heavy oil, viscosity 20 ... 350 mm²/s by 50°C, net calorific value 10,69 ... 10,97 kWh/kg,
 - other fuels: on request.
- Maximum heat power: from 600 to 16 000 kW.
- Minimum / maximum power ratio: 1/3 for light and heavy oil, 1/6 for gas and 1/8 for gas with frequency inverter.
- Air / gas ratio with choice of two different digital control boxes: BCS or Etamatic.
- Flame tube length according to installation.
- Secured burner head adjustments during maintenance.
- Closing of the air damper on burner shutdown.
- Control box: on request, built-in or external.
- Enumerated connection terminals on the body of the burner.
- Communication by bus with Etamatic (in progress for BCS).
- Gas train factory-assembled and tested for tightness and electrical security.
- Three-phase electrical power supply.
- Protection level IP 44 (IP 54 and 65 on request).
- Maximum ambient air temperature: 60°C.
- In compliance with the EN 676 standard and European Guidelines such as:
 - Low Voltage 73/23/EC
 - EMC 2004/108/EC
 - Gas appliances 90/396/EC
 - PED 97/23/EC



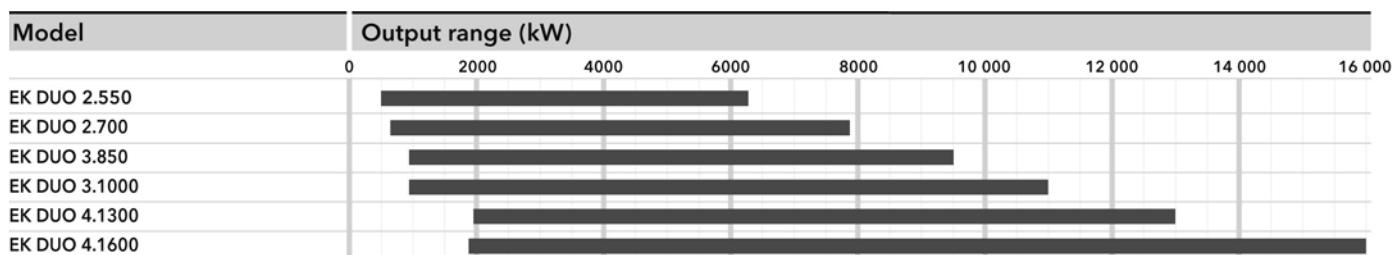
Fuel and combustion range

Gas burners. Low-NOx class 2 combustion: 120 mg/kWh.
 Gas burners. Low-NOx class 3 combustion: 80 mg/kWh.
 Light oil burners. Low-NOx class 3 combustion: 120 mg/kWh.
 Dual fuel burners. Low-NOx class 3 combustion: 80 mg/kWh for gas, 120 mg/kWh for light oil.

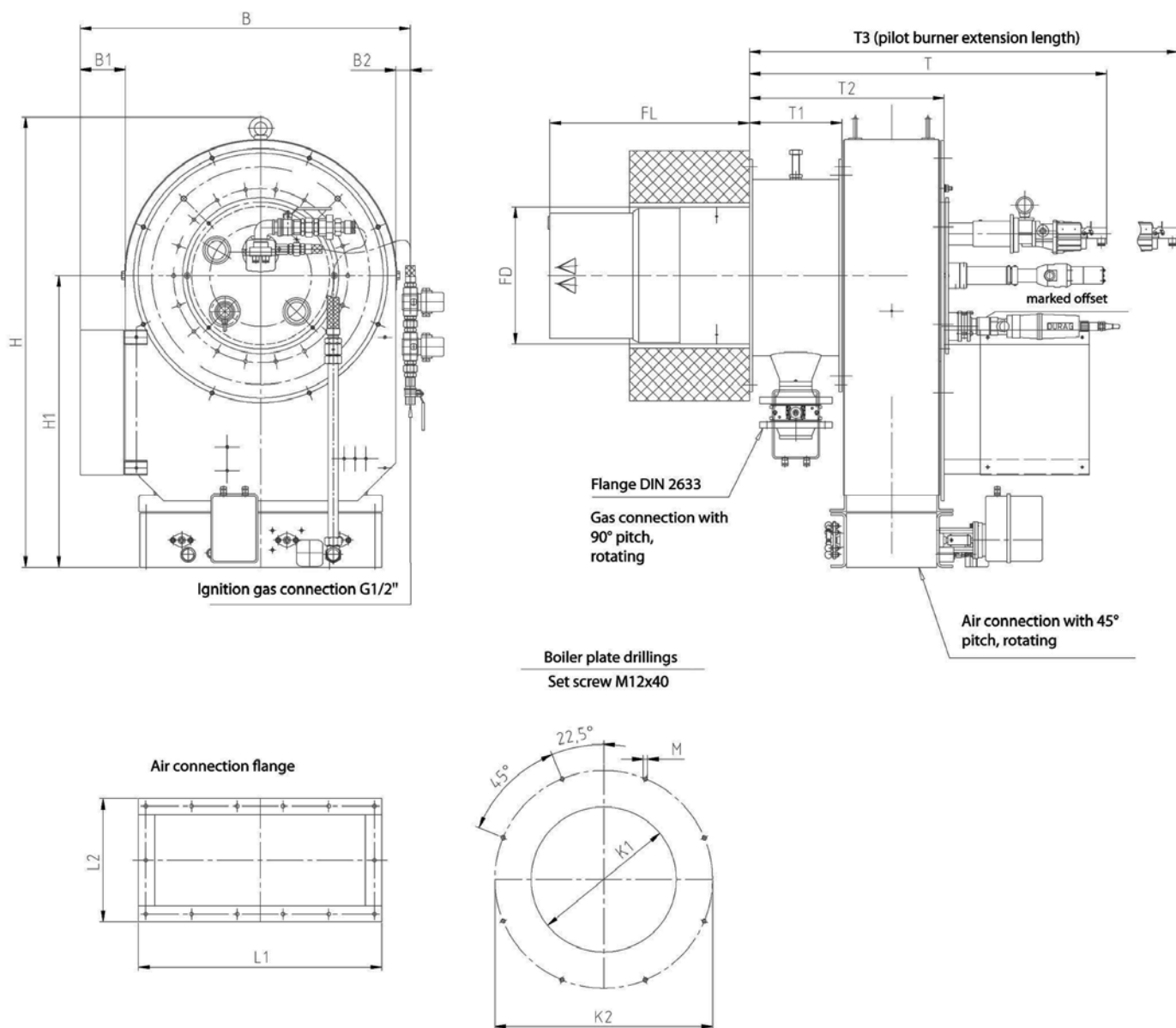
Power range

EK-DUO 2	EK-DUO 3	EK-DUO 4
7MW	12 MW	16 MW

EK-DUO duoblock burner



EK-DUO technical data



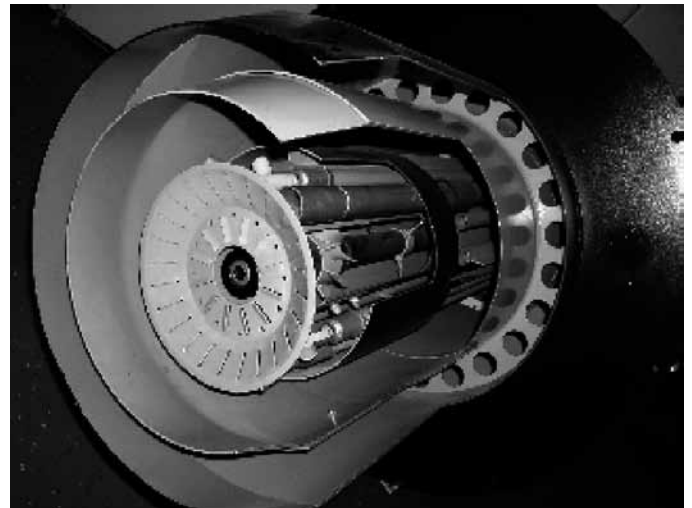
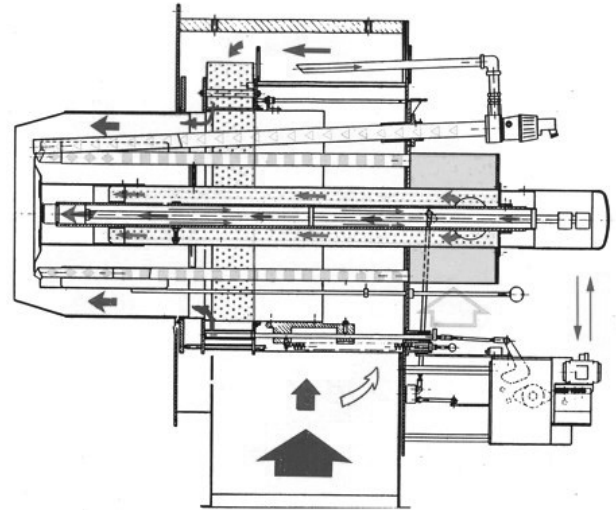
Burner type	Output* (kW)	Weight* (kg)	Gas connection	Space requirements and dimensions															
				H	H ₁	B	B ₁	B ₂ *	T*	T ₁	T ₂	T ₃	F ₁ *	F ₀	L ₂	L ₁	K ₁	K ₂	M
EK-DUO 2.550	600 - 6200	320	DN 80	1241	804	910	125	40	985	255	537	2030	320	378	340	670	400	600	M12
EK-DUO 2.700	650 - 7800	400							- 1061			- 2150	- 550						
EK-DUO 3.850	900 - 9500	400	DN 80	1481	944	1110	120	40	1098	290	622	1810	350	441	386	827	480	690	M12
EK-DUO 3.1000	1000 - 12 000	470							- 1111			- 2390	- 509	- 456					
EK-DUO 4.1300	2000 - 13 000	320	DN 100	1491	929	1162	122	40	1177	420	802	2360	350	506	440	841	525		M20
EK-DUO 4.1600	2000 - 16 000	420				- 1228		- 106	- 1408			- 2700	- 600						

*value dependent on design variant

Air and Fuel Guiding System

When the burner is equipped with an electronic compound regulator.
The combustion air feed rate (primary and secondary air) is controlled according to the fuel feed rate by means of an electronic fuel-air compound control system over the whole output range and checked by an exhaust gas test.

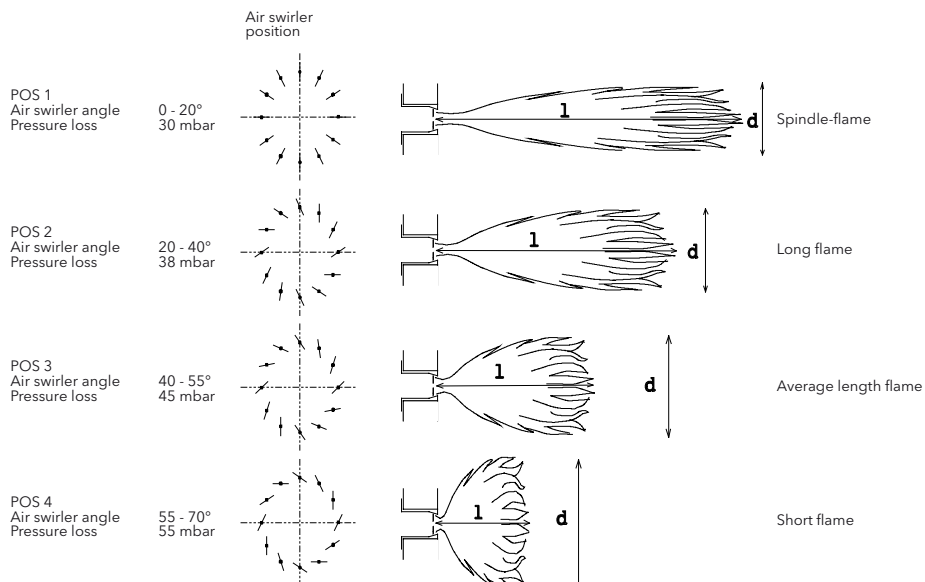
The air streams (primary and secondary air) are guided to the combustion process by means of two different air dampers. Using a return oil pressure atomiser, the fuel oil is brought to the furnace via nozzles, whereas the fuel gas leaves the concentric gas gun with removable gas nozzle towards the furnace.



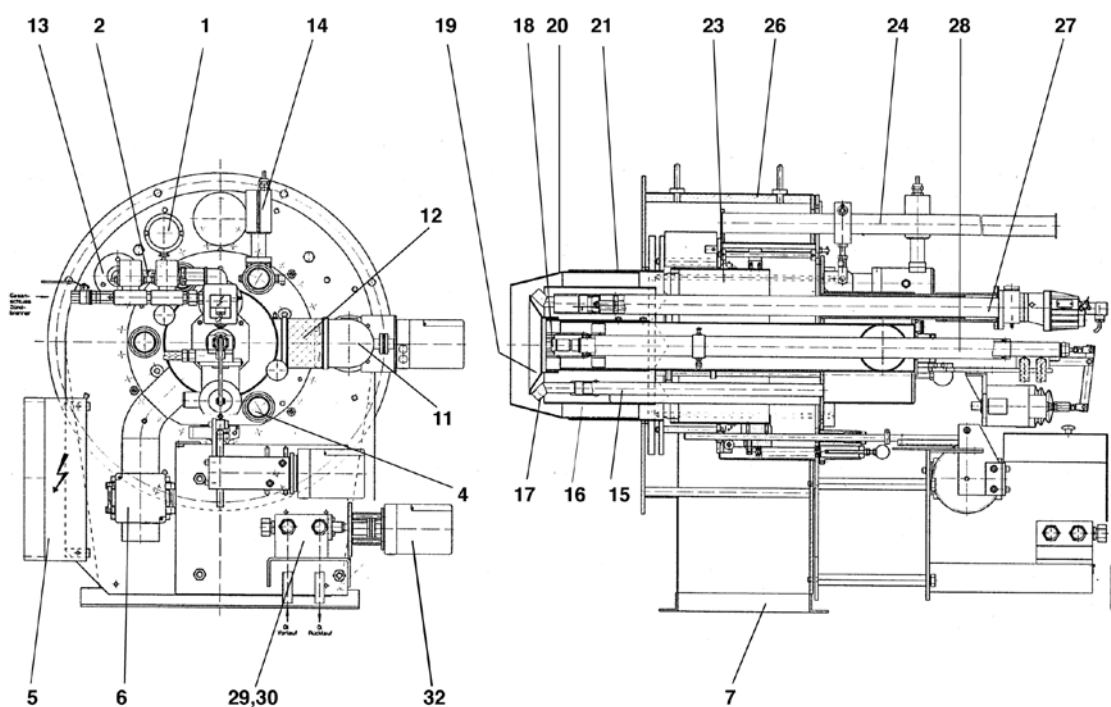
Air Flow Adjustment - Gas Rate Adjustment

The burner has a crown of air registers that enables the form of the flame to be varied according to the output and to suit the shape of the combustion chamber.

Flame formation



RPD - Burners construction



- 1 Secondary air pressure switch
- 2 Ignition gas valve group
- 4 Inspection glasses
- 5 Terminal box
- 6 Gas flow rate control damper
- 7 Combustion air-intake connection
- 11 Primary air damper
- 12 Sleeve
- 13 Combustion air for ignition burner
- 14 Flame monitor
- 15 Gas feed pipes
- 16 Air guide sleeve
- 17 Gas nozzles
- 18 Oil Nozzle
- 19 Diffuser plate
- 20 Flame tube

- 21 Burner tube
- 23 Secondary air control cylinder
- 24 Extracting assembly
- 26 Burner housing
- 27 Ignition burner
- 28 Nozzle rod
- 29 Oil pressure switch
- 30 Oil flow rate controller
- 32 Electric actuator

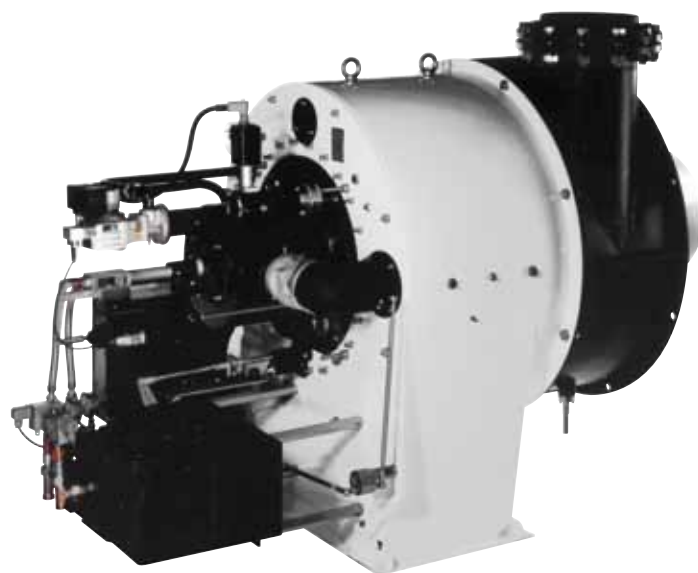
The burner can be mounted into the boiler with different layout and combustion air fan drives mode that can be :

- Direct drive
- Drive via flexible coupling
- V belt drive

Type	Size	Output rating	Fuel	Control, system and burner head types
EK-DUO	2.	550	L-	EUF-FQe
RPD	30			RU
1. Type	EK-DUO RPD	5. Control, system and burner head types	R	= mechanical compound control
	= duoblock burner single flow		V	= constant pressure control
	= duoblock burner double flow		E	= electronic compound control
2. Size	2 - 4 20 - 100		U	= low-polluting with diamond burner head
	duoblock burner EK-DUO duoblock burner RPD		F	= low-polluting with free-flame Burner head
3. Out put rating	EK-DUO RPD		D	= steam atomiser
	Burner combustion output in kW x 10 without		P	= compressed air atomiser
4. Fuels	G		Y	= external exhaust recirculation, (replaced by modern ELCO burner technology)
	F		FQi/e	= frequency converter for speed regulation (enternal/external)
	L			
	S			
	C			
	= natural gas E, LL			
	= propane gas			
	= light fuel oil EL			
	= heavy fuel oil S			
	= special fuels			

Description

- Duoblock 2 stage progressive forced-draught burner with register.
- Designed to be connected to an external air supply.
- Fuel:
 - natural gas, net calorific value 8,83 ... 10,53 kWh/m³, low NOx class 2 or 3 with Diamond technology 2nd generation, - light oil, viscosity 6 mm²/s at 20°C, net calorific value 11,86 kWh/kg, low NOx class 3,
 - dual fuel, natural gas and light oil, integral low NOx class 3 with Free Flame technology,
 - heavy oil, viscosity 20 ... 350 mm²/s by 50°C, net calorific value 10,69 ... 10,97 kWh/kg,
 - other fuel: on request.
 - co combustion of various fuels or to eliminate liquid waste: on request.
- Maximum heat power: from 1 000 to 45 000 kW.
- Minimum / maximum power ratio: 1/3 for light and heavy oil, 1/6 for gas and 1/8 for gas with frequency inverter.
- Air / gas ratio with choice of two different digital control boxes (BCS or Etamatic) or with mechanical compound.
- Adjustable flame length with air registers.
- Flame tube length according to installation.
- Closing of the air damper on burner shutdown.
- Control box: on request, built-in or external.
- Enumerated connection terminals on the body of the burner.
- Communication by bus with Etamatic (in progress for BCS).
- Gas train factory-assembled and tested for tightness and electrical security.
- Three-phase electrical power supply.
- Protection level IP 44 (IP 54 and 65 on request).
- Maximum ambient air temperature 60°C.
- In compliance with the EN 676 standard and European Guidelines such as:
 - low Voltage 73/23/EC
 - EMC 2004/108/EC
 - gas appliances 90/396/EC
 - PED 97/23/EC



Fuel and combustion range

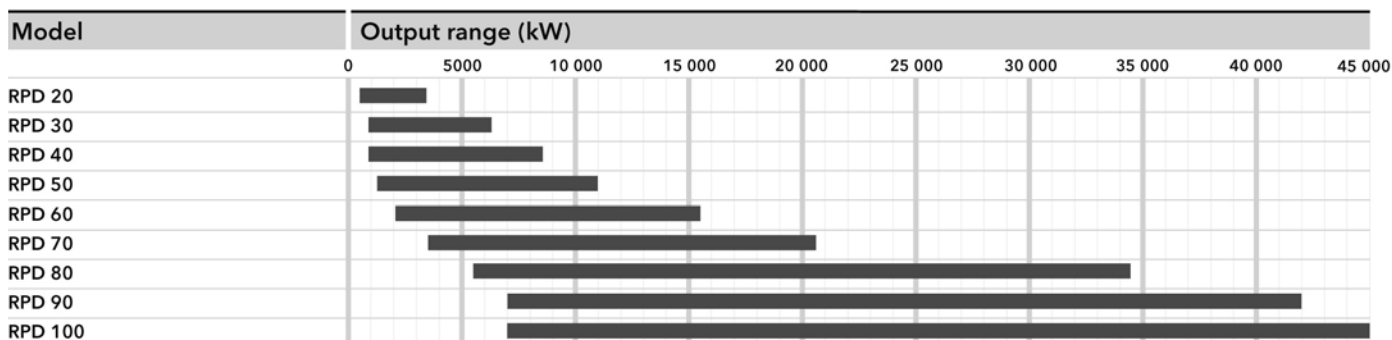
Natural gas	Low-NOx class 2 combustion: 120 mg/kWh. Low-NOx class 3 combustion: 80 mg/kWh.
Light oil	Low-NOx class 3 combustion: 120 mg/kWh.
Heavy oil	NOx values depending on fuel
Dual fuel light oil	Low-NOx class3 combustion: 80 mg/kWh for gas, 120 mg/kWh for light oil.

Power range

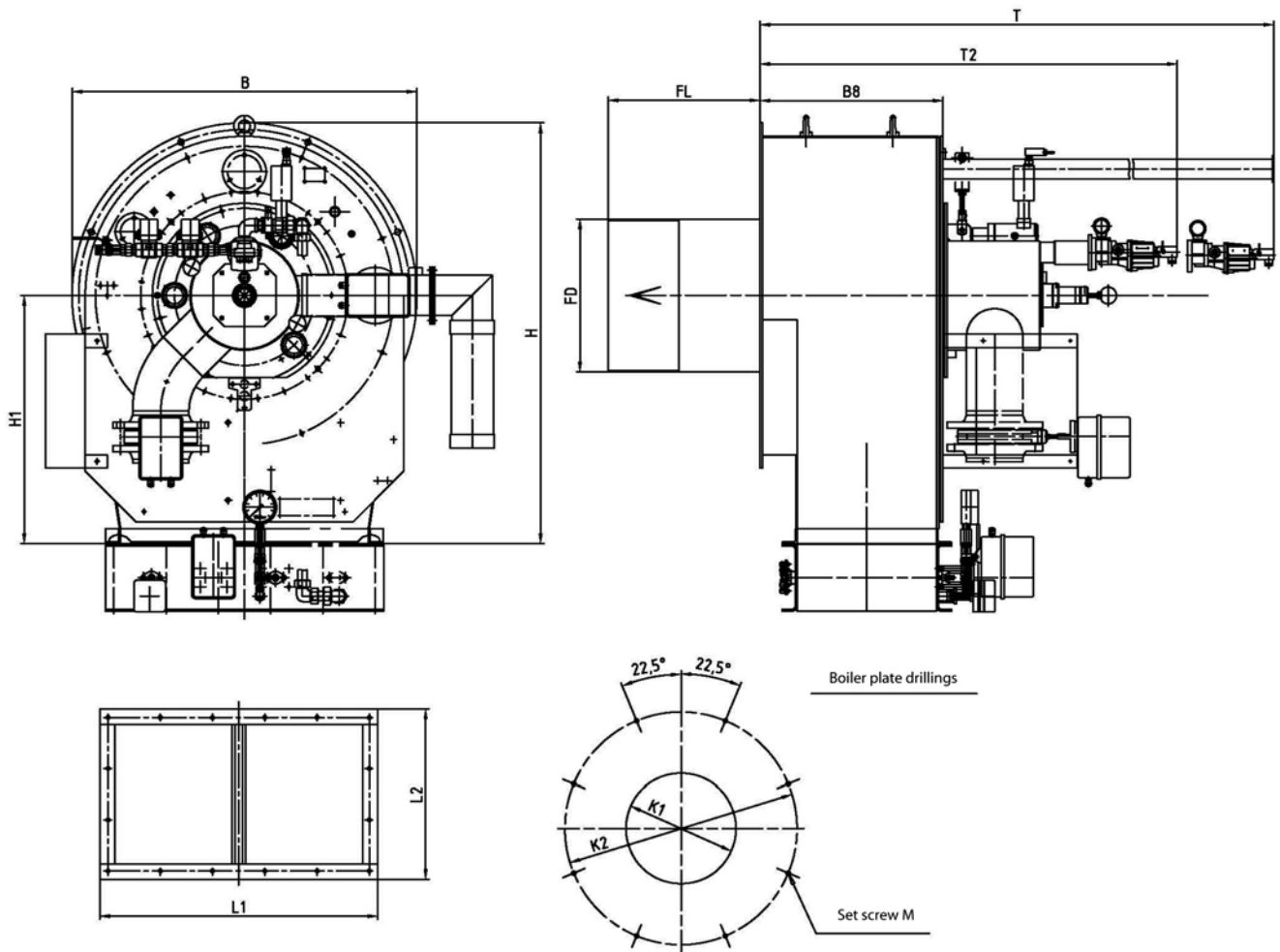
RPD 20	RPD 30	RPD 40	RPD 50	RPD 60
3,3 MW	6 MW	8,2 MW	11,2 MW	14,5 MW

RPD 70	RPD 80	RPD 90	RPD 100
20,5 MW	34,5 MW	42 MW	45 MW

RPD duoblock burner



RPD technical data



Burner type	Output* (kW)	Weight* (kg)	Gas connection	Space requirements and dimensions												
				H	H ₁	B	T	T ₁	T ₂	F ₁	F ₀	L ₁	L ₂	K ₁	K ₂	M
RPD20	500 - 3300	300 - 450	DN 50	690	425	530	729	325	-	250	260	510	316	270	500	10
RPD30	669 - 6215	300 - 450	R3"	1065	650	830	1681	416	1051	317	371	670	410	385	790	12
RPD40	901 - 8230	350 - 450	R3"	1065	650	830	1681	416	1051	442	409	670	410	423	790	12
RPD50	1400 - 11 160	450 - 600	R5"	1255	740	1030	2278	535	1225	370	456	830	506	470	990	12
RPD60	2232 - 15 418	550 - 640	R5"	1365	825	1080	2382	622	1312	312	506	840	560	520	1040	12
RPD70	3000 - 20 636	700 - 900	R5"	1520	900	1240	2741	731	1421	469	626	1026	690	640	1200	12
RPD80	5500 - 34 500	900 - 1200	R8"	1725	1000	1450	3180	860	1550	600	710	1192	790	740	1400	12
RPD90	7000 - 42 000	1100 - 1400	R8"	2000	1100	1800	3610	890	1685	810	870	1390	832	883	1750	12
RPD100	7000 - 45 000	1150 - 1450	R8"	2000	1100	1800	3610	890	1685	810	922	1390	832	945	1750	12

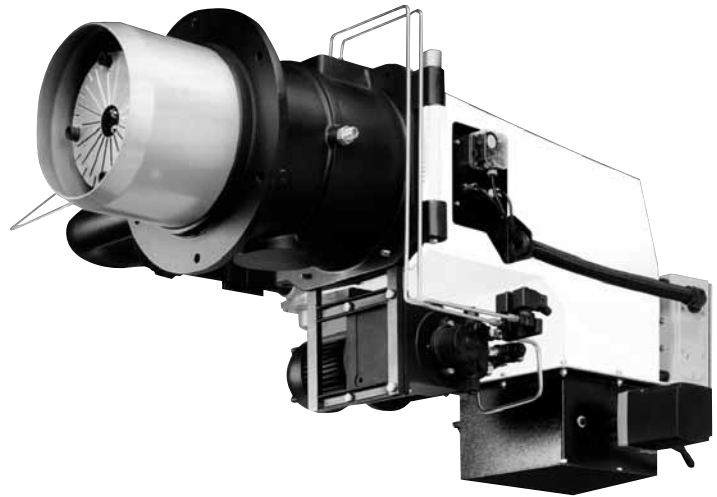
*value dependent on design variant

Description

- Duoblock 2 stage progressive forced draught burner.
- Designed to be connected to an external air supply.
- Power range: 600 to 12 000 kW.
- Minimum / maximum power ratio:
 - 1/3 to 1/4 for light oil,
 - 1/5 for gas,
 - 1/8 for gas with speed controller.
- Pneumatic (AGP System®) or digital (GEM System®) gas operation, for a perfect air/gas mixture, a high CO₂ value over the whole burner operating range, and precise control of excess air which is essential for high efficiency.
- Three stages oil operation for EC07 and EC08 in light oil and dual fuel light oil.
- Two stage progressive mechanical for EC09 in light oil and dual fuel light oil.
- Numbered screw strips in a connection box mounted on the body of the burner.
- Electrical switch cabinet manufactured to protection level IP55. It is supplied separately and includes the burner control:
 - Control box for burner operation sequences,
 - Contactors and remote overload cut-out for control of the fan unit,
 - Fuse to protect the auxiliary equipment,
 - Switches, warning and information lights, manual power control,
 - Ready to accept: PID power regulator (in option),
 - Speed controller (in option, location out of the switch cabinet).
- Gas train factory assembled and tested for tightness and electrical security.

Application

- Designed for big heating plants and "light" industrial usage.
 - Standard hot water boilers from 2 to 12 MW,
 - Steam boilers from 2 to 12 t/h,
 - Hot air generators.
- For NO_x combustion values:
 - Gas: class 2 (120 mg/kWh) and 3 (80 mg/kWh),
 - Light oil: class 1 (250 mg/kWh) and 2 (185 mg/kWh).
- Fuels:
 - Natural gas: 150 to 300 mbar,
 - Net calorific value 8,83 ... 10,53 kWh/m³,
 - Light oil: viscosity 6mm²/s at 20°C,
 - Net calorific value 11,86 kWh/kg,
 - Dual fuel, natural gas (150 to 300 mbar) and light oil.



Variants

- Implementation for warm air
- Continuous self-testing
- Oxygen regulation

Options

- Power regulator kit: R40
- Fan speed controller
- Fan unit: sized by elco to match application request.

Power range

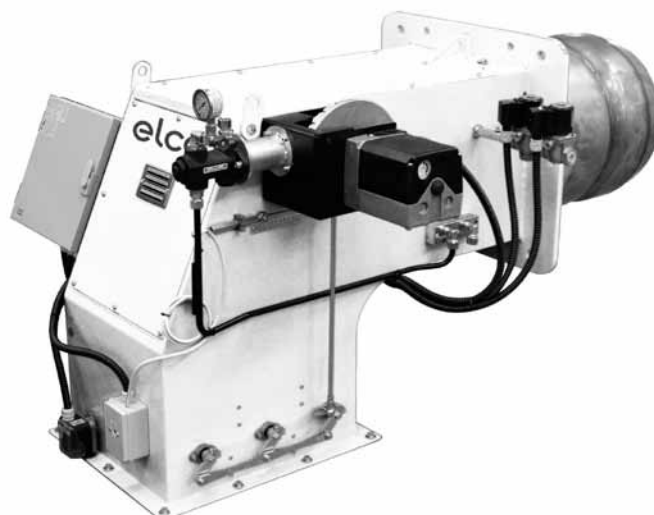
	Gas G-VT	Dual fuel light oil GL-VTZ3	Light oil L-Z3
EC 07.1900	350 - 1900	350 - 1900	400 - 1900
EC 07.2500	400 - 2500	400 - 2500	500 - 2500
EC 08.4100	600 - 4100	600 - 4100	1000 - 4100
EC 08.4600	600 - 4600	600 - 4600	1200 - 4600
EC 08.6000	850 - 6000	850 - 6000	
	G-VT	GL-VR	L-R
EC 09.7000	1000 - 7000	1000 - 7000	1750 - 7000
EC 09.10000	1500 - 10000	1500 - 10000	2500 - 10000
EC 09.12000	1800 - 12000	1800 - 12000	

Description

- Duoblock 2 stage progressive mechanical forced draught burner.
- Designed to be connected to an external air supply.
- Power range: 600 to 25 000 kW.
- Minimum / maximum power ratio:
 - 1/3 to 1/4 for heavy oil,
 - 1/5 for gas,
- Numbered screw strips in a connection box mounted on the body of the burner.
- Electrical switch cabinet manufactured to protection level IP40 assembled on the burner or IP54 delivery separated and includes the burner control:
 - Control box for burner operation sequences,
 - Contactors and remote overload cut-out for control of the fan unit,
 - Fuse to protect the auxiliary equipment,
 - Switches, warning and information lights, manual power control,
 - Ready to accept: PID power regulator (in option),
- Gas train factory assembled and tested for tightness and electrical security.
- Electronic version with LAMTEC available on request.

Application

- Designed for big heating plants and "light" industrial usage.
 - Standard hot water boilers from 600 kW to 25 MW,
 - Steam boilers from 1,5 to 30 t/h,
 - Hot air generators.
- Fuels:
 - Natural gas: 100 to 300 mbar,
 - Net calorific value 8,83 ... 10,53 kWh/m³,
 - Heavy oil: viscosity from 380mm²/s at 50°C to
 - Net calorific value 11,86 kWh/kg,
 - Dual fuel, natural gas (150 to 300 mbar) and heavy oil.



Variants

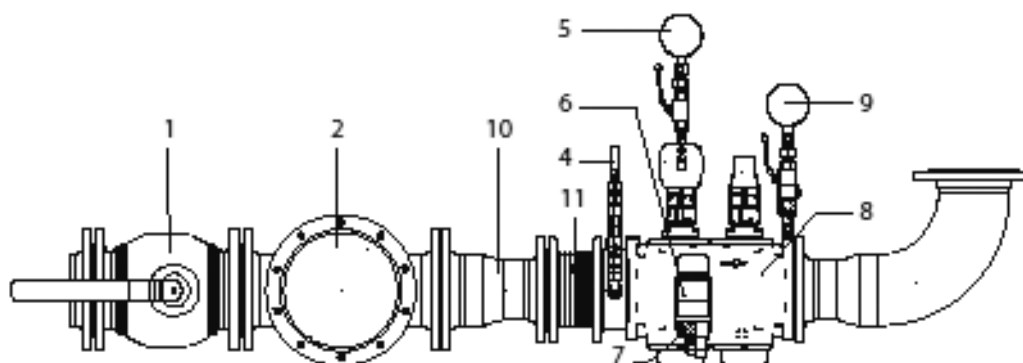
- Implementation for warm air up to 200°C
- Continuous self-testing

Options

- Power regulator kit : R40
- Fan unit: sized by elco to match application request.

Power range

	Heavy oil DO	Dual fuel heavy oil DGO
DO/DGO-Tron 3.1700 R	682 - 1700	342 - 1770
DO/DGO-Tron 3.2100 R	682 - 2093	414 - 2150
DO/DGO-Tron 4.3000 R	1000 - 3000	630 - 3000
DO/DGO-Tron 4.3900 R	1300 - 3900	875 - 3900
DO/DGO-Tron 5.5000 R	1578 - 5000	1200 - 5000
DO/DGO-Tron 5.5800 R	1795 - 5800	1500 - 5800
DO/DGO-Tron 6.7200 R	2417 - 7500	1500 - 7500
DO/DGO-Tron 6.8500 R	2750 - 8500	2000 - 8500
DO/DGO-Tron 6.10500 R	3300 - 10500	2500 - 10500
DO/DGO-Tron 6.12000 R	4367 - 12500	2700 - 13000
DO/DGO-Tron 7.15000 R	5000 - 15000	3690 - 15000
DO/DGO-Tron 7.17000 R	5700 - 17000	4000 - 17000
DO/DGO-Tron 7.19000 R	6000 - 19000	4750 - 19000
DO/DGO-Tron 8.22000 R	6500 - 22000	5500 - 22000
DO/DGO-Tron 8.25000 R	7000 - 25000	6000 - 25000



- 1 Gas ball valve *
 - 2 Gas filter
 - 3 Gas pressure regulator (incl.8)
 - 4 Test burner with push-button valve*
 - 5 Manometer with push-button valve*
 - 6 Leakage control device included
 - 7 Gas pressure switch minimum
 - 8 Double electromagnetic valve or gas Motorized valves
 - 9 Manometer with push-button valve *
 - 10 Cone tube adapter *
 - 11 Anti-vibration coupling *
- Gas train are fully mounted, electrical connected and tested (electrical, hydraulic, leakage)

* Additional component parts to be ordered separately : gas leakage control, gas ignition unit, gas pressure switch and gas options

Scope of supply:

Type Rp d1,1/4-Rp2 - D2-Rp2 - s65-DN65 - s80-DN80

set consists of:

- 1 Gas filter
- 1 Gas compact unit VGD 20 /40 incl. actuators SKP15 and SKP75
- 1 Spring for SKP 75 to adjust pressure range 15-120 mbar (downstream of the pressure controller)
- 1 Gas pressure switch minimum
- 1 Connecting piece between burner and gas train

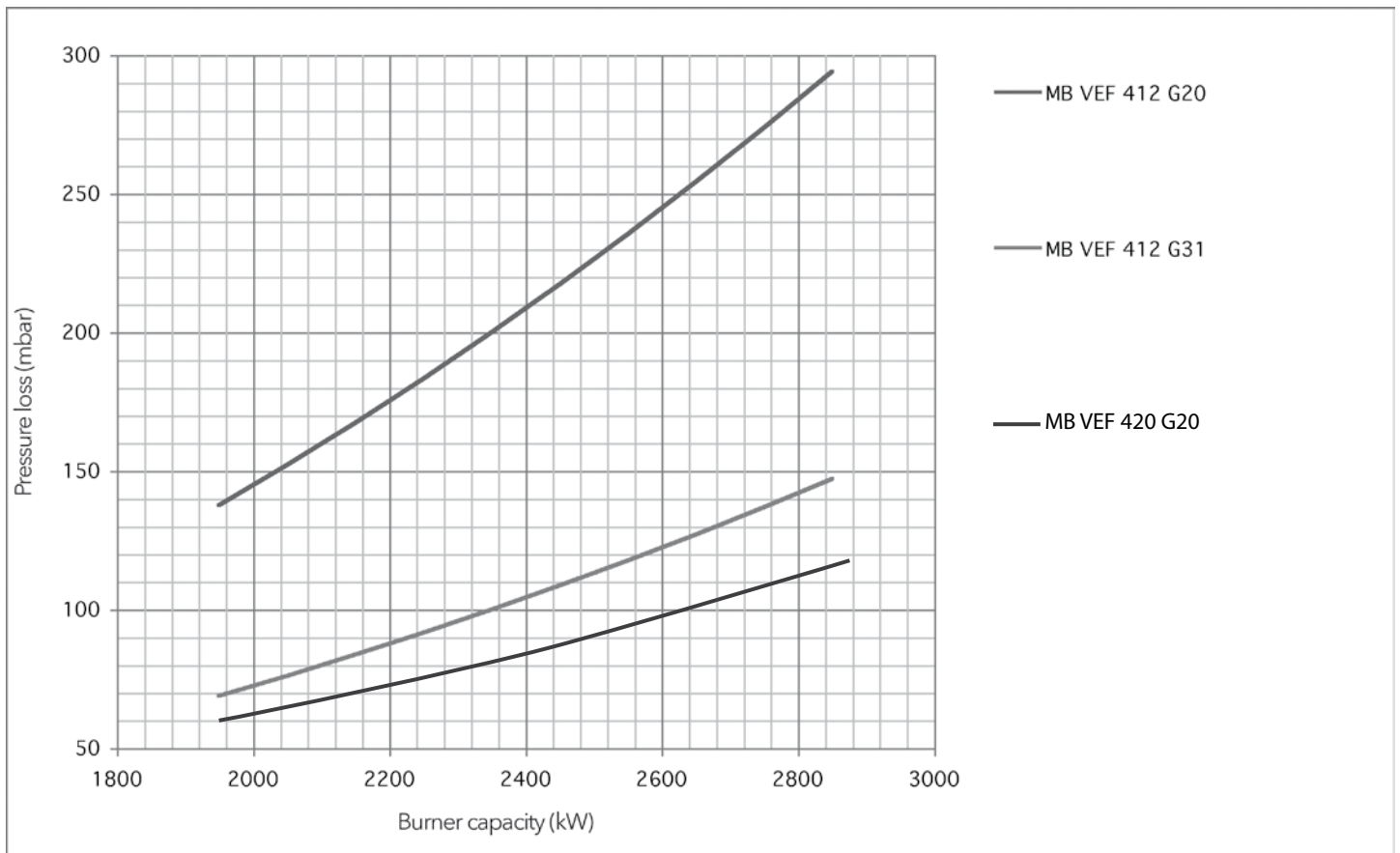
Designation	Type	Order N°
VGD40 080 P40/37 (LPG)	AGP gas valves group in threaded / flange design	13 011 716
VGD40 065 P150		13 013 610
MB-VEF420 B01 S30 P150		13 005 975
MB-VEF412 B01 S30 P300/148 (LPG)		0241 121
VGD40 065 P150		3 832 083
VGD40.503 P150		3 832 084

Burner type	Burner capacity kW	pFr max mbar	MB VEF 412 d1"1/4-Rp2 mbar		MB VEF 420 d2-Rp2 mbar
			G20	G31	G20
ES08.2800 G-VT ES08.2800 GL-VTZ3	1950	(*)	138	69	58
	2050	(*)	152	76	62
	2150	(*)	167	84	66
	2250	(*)	183	92	72
	2350	(*)	200	100	78
	2450	(*)	217	109	83
	2550	(*)	235	118	90
	2650	(*)	254	127	99
	2750	(*)	274	137	105
	2850	(*)	294	147	116

(*) ΔP = Inlet gas pressure - Furnace Pressure

Conditions:

Tests at CO₂=10,2 % ; Furnace Pressure = 0 mbar ; Gas Valve completely open; side Y adjusted at max output

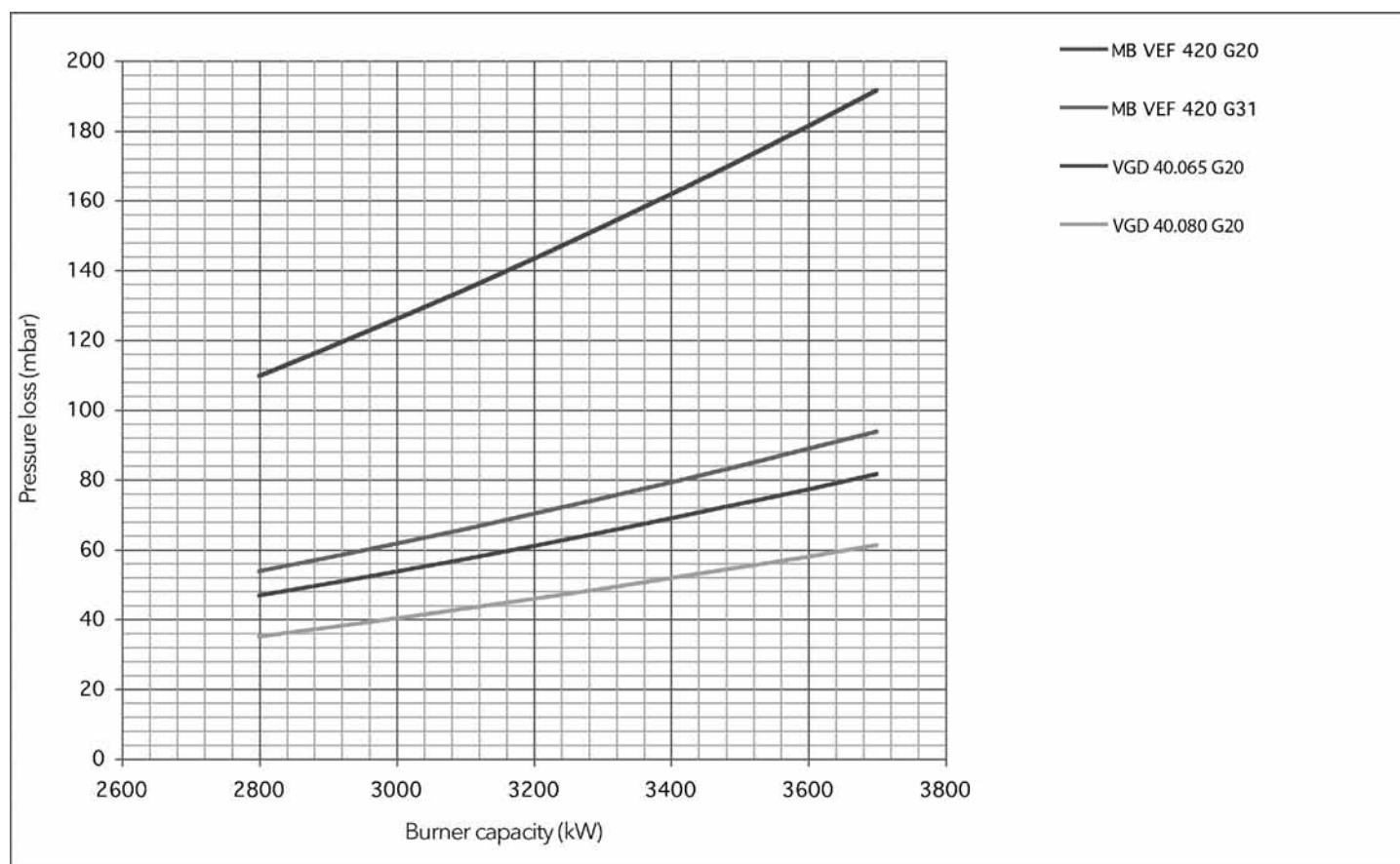


Burner type	Burner capacity kW	pFr max mbar	MB VEF 420		VGD 40.065	VGD 40.080
			d2-Rp2		S65-DN65	S80-DN80
			mbar		mbar	mbar
			G20	G31	G20	G20
ES08.3700 G-VT ES08.3700 GL-VTZ3	2800	(*)	110	54	47	35
	2900	(*)	118	58	50	38
	3000	(*)	126	62	54	40
	3100	(*)	134	66	57	43
	3200	(*)	143	70	61	46
	3300	(*)	152	75	65	49
	3400	(*)	162	79	69	52
	3500	(*)	171	84	73	55
	3600	(*)	181	89	77	58
	3700	(*)	191	94	81	61

(*) ΔP = Inlet gas pressure - Furnace Pressure

Conditions:

Tests at CO₂=10,2 % ; Furnace Pressure = 0 mbar ; Gas Valve completely open; side Y adjusted at max output

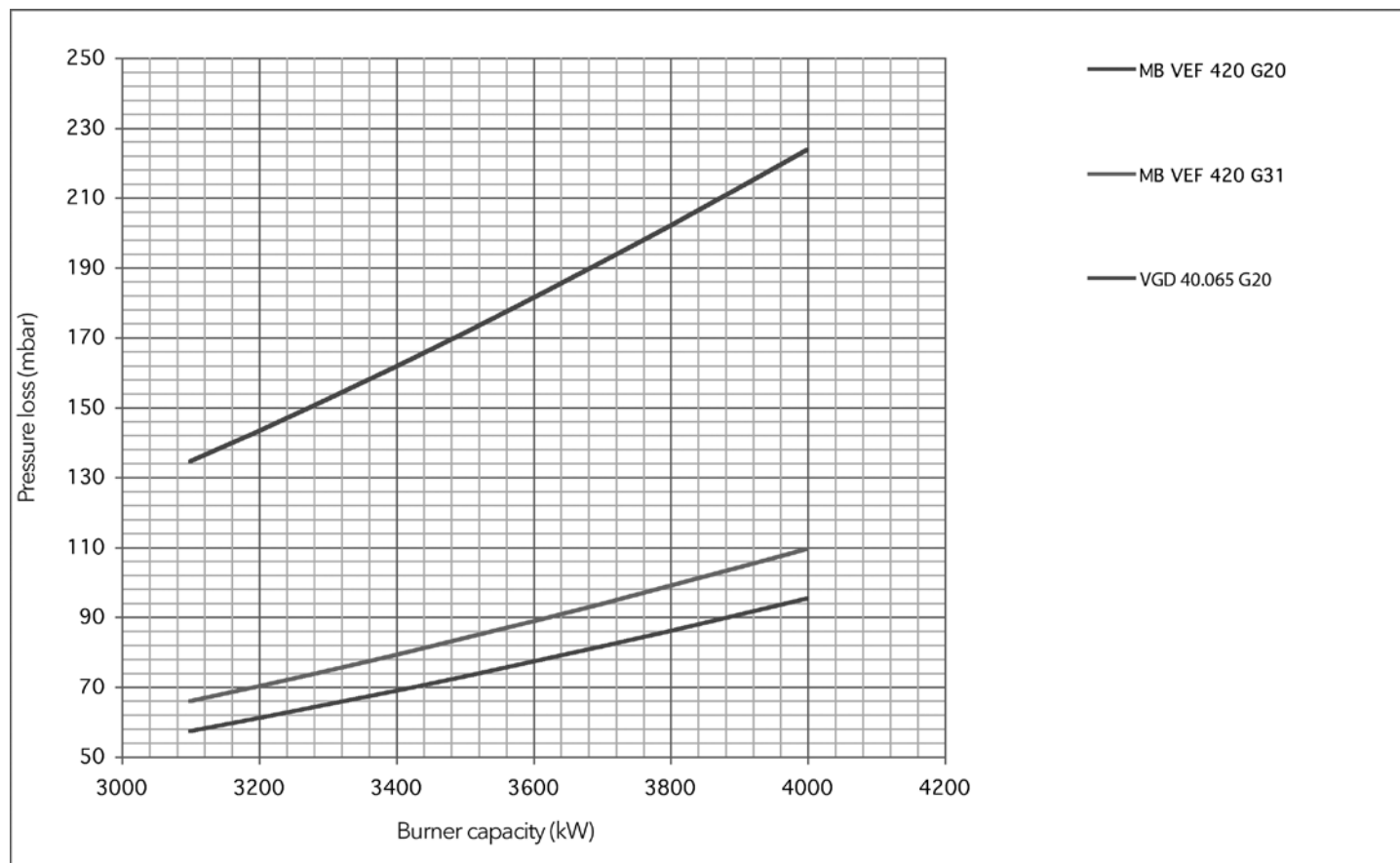


Burner type	Burner capacity kW	pFr max mbar	MB VEF 420 d2-Rp2 mbar		VGD 40.065 S65-DN65 mbar
			G20	G31	G20
ES08.4000 G-VT ES08.4000 GL-VTZ3	3100	(*)	134	66	57
	3200	(*)	143	70	61
	3300	(*)	152	75	65
	3400	(*)	162	79	69
	3500	(*)	171	84	73
	3600	(*)	181	89	77
	3700	(*)	191	94	81
	3800	(*)	202	99	86
	3900	(*)	213	104	90
	4000	(*)	224	109	95

(*) ΔP = Inlet gas pressure - Furnace Pressure

Conditions:

Tests at CO₂=10,2 % ; Furnace Pressure = 0 mbar ; Gas Valve completely open; side Y adjusted at max output

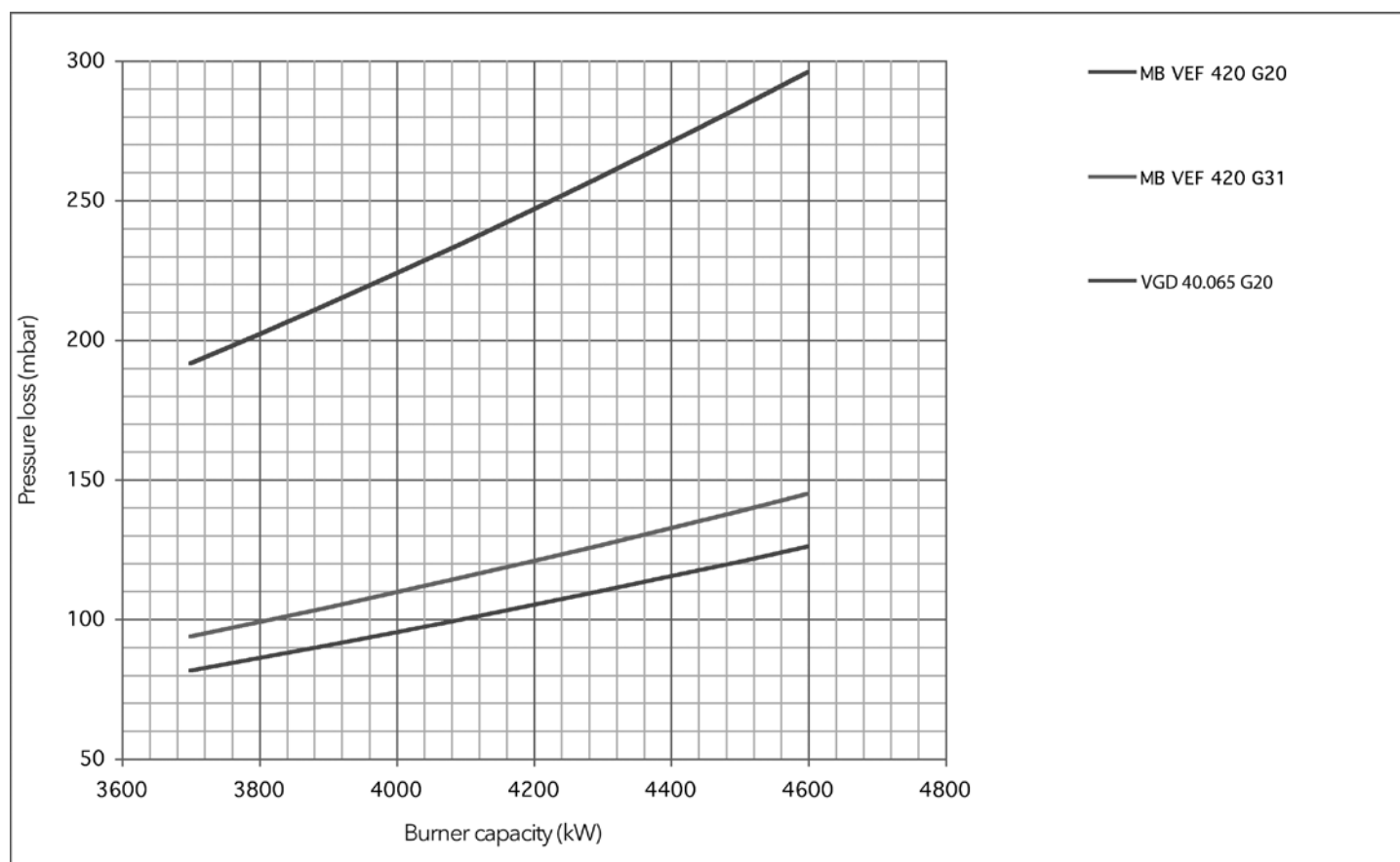


Burner type	Burner capacity kW	pFr max mbar	MB VEF 420		VGD 40.065
			d2-Rp2		S65-DN65
			mbar		mbar
			G20	G31	G20
ES08.5000 G-VT ES08.5000 GL-VTZ3	3700	(*)	191	94	81
	3800	(*)	202	99	86
	3900	(*)	213	104	90
	4000	(*)	224	109	95
	4100	(*)	235	115	100
	4200	(*)	247	121	105
	4300	(*)	259	127	110
	4400	(*)	271	132	115
	4500	(*)	283	139	120
	4600	(*)	296	145	126

(*) ΔP = Inlet gas pressure - Furnace Pressure

Conditions:

Tests at CO₂=10,2 % ; Furnace Pressure = 0 mbar ; Gas Valve completely open; side Y adjusted at max output

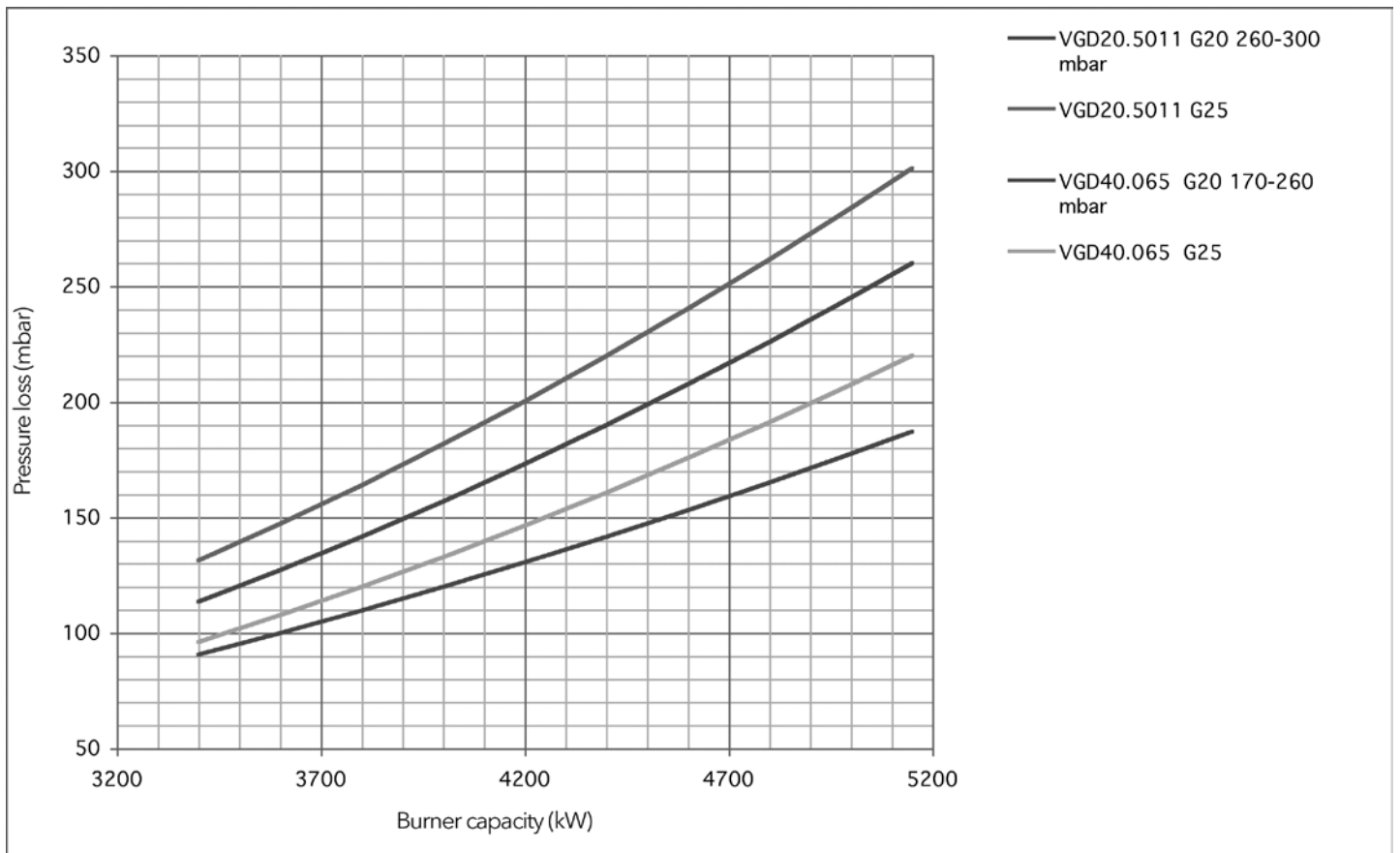


Burner type	Burner capacity kW	pFr max mbar	VGD 20.5011		VGD 40.065
			d2-Rp2		S65-DN65
			mbar		mbar
			G20	G31	G20
ES08.5200 G-VT	3400	(*)	113	131	91
	3600	(*)	127	147	100
	3800	(*)	142	164	110
	4000	(*)	157	182	120
	4200	(*)	173	200	130
	4400	(*)	190	220	142
	4600	(*)	207	240	153
	4800	(*)	226	261	165
	5000	(*)	245	284	177
	5150	(*)	260	301	187

(*) ΔP = Inlet gas pressure - Furnace Pressure

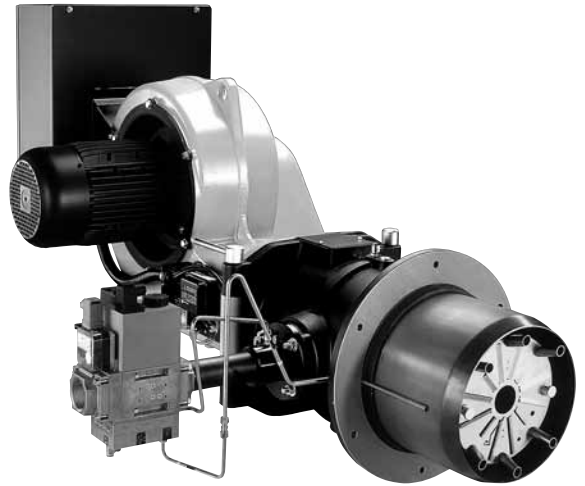
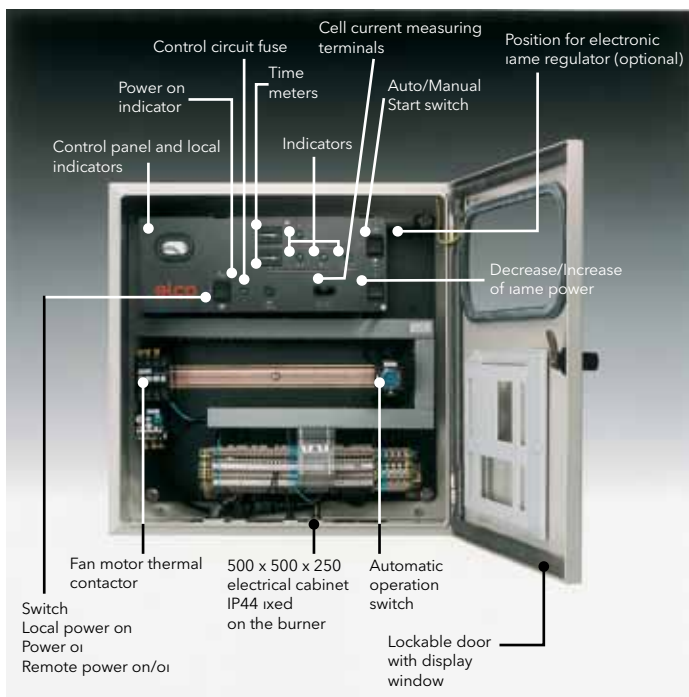
Conditions:

Tests at CO₂=10,2 % ; Furnace Pressure = 0 mbar ; Gas Valve completely open; side Y adjusted at max output



ES08 range is supply only in AGP version for gas and dual fuel gas - light oil with low NOx emission class 3 as per EN676 and in three stage mechanical version for light oil low NOx emission class 2 as per EN267. All burners are delivered with electrical equipment in a switch cabinet mounted on the burner with control panel.

Options: refer to the specific options



Fuel and combustion range

Supplied as standard.

- IP54 cabinet:
 - 500 x 500 x 250.
- Control box for burner operation sequences.
- Motor power contractor.
- Automatic operation switches.
- Control panel and local indicators.
- Wiring for remote information kit.
- Time meters (see previous page).
- The pre-wired remote control comes as standard on all burners turns the burners off and on.
- Ready to accept R40 load controller (option).
- Fan speed controller (option, located, out of the switch cabinet).

EC range duoblock can be supplied in AGP® or mechanical version according to configuration available or based on special request.

Electrical switch cabinet manufactured to protection level IP54.

It is supplied separately and includes the burner control:

- Control box for burner operation sequences,
- Contractors and remote overload cut-out for control of the fan unit,
- Fuse to protect the auxiliary equipment,
- Switches, warning and information lights, manual over control,
- Ready to accept R40 load controller (option),
- Fan speed controller (in option, located out of the switch cabinet).



Load controller R40 kit and probe

Designation	Burners	Order N°
R40 stand alone - PID 3 points (RWF40 010 A 97C)	ES08, EC07, EC08 & EC09	13 007 570
QAC 22 (external probe)		13 018 513

Load controller RWF40 kit and probe

Designation	Burners	Order N°
RWF40 stand alone - PID 3 points kit with wiring*	ES08, EC07, EC08 & EC09	13 006 476
Mounting set for RWF40		13 007 272
Hot water / air probe PT100 (-200°C / +400°C) L = 160		65 300 274

*Kit RWF40 is complete with wiring for ES08 and Duoblock EC range. To be mounted on switch cabinet - mounting set order N° 13 007 272 shall be ordered together.

Load controller R40 kit with probe

Designation	Burners	Order N°
LEP13 (water - immersion probe)	ES08, EC07, EC08 & EC09	13 008 099
LEA13 (water - strap on probe)		13 008 100
LA13 (air - immersion probe up to 130° C)		13 008 101
LV16 (steam - pressure probe up to 16 bar*)		13 008 103

*Kit suitable for pressures between 9 and 15 bar. For other pressures, pressure probes with 1, 4, 10 and 25 bar scales are available on request at the same price.

Valve tightness control

Designation	Burners	Order N°
VPS 504 serie1	ES08, EC07, EC08 & EC09	13 001 778

Gas pressure switch with support

Designation	Burners	Order N°
Kit maximum gas pressure switch 2,5 ... 50 mbar	ES08, EC07, EC08 & EC09	13 021 944
Support		13 020 755

Gas and air manometer with push button

Designation	Burners	Order N°
0...60 mbar	ES08, EC07, EC08 & EC09	13 002 181
0...100 mbar		13 018 509
0...400 mbar		13 018 510

Permanent ventilation

Designation	Burners	Order N°
Kit	ES08 gas only	13 006 356

Front face plate

Designation	Burners	Order N°
CP6	ES08, EC07, EC08 & EC09	13 018 500

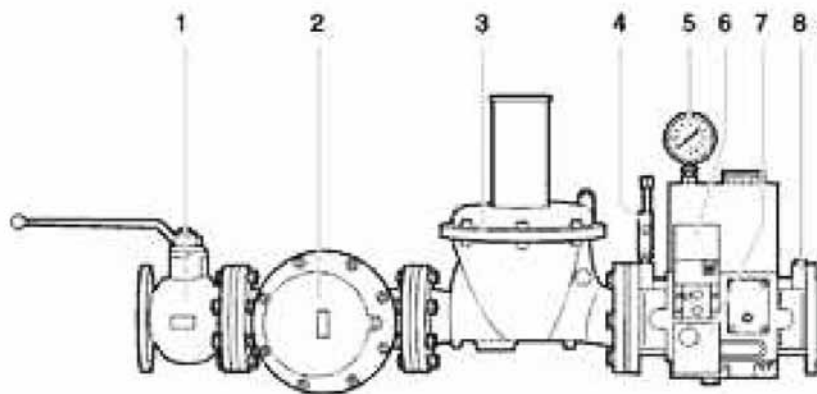
Sound proofing box

Designation	Burners	Order N°
CI25 (noise reduction 15 ... 20 dB(A))	ES08 only	13 019 312
CI35 (noise reduction 20 ... 30 dB(A))		13 019 316

Variatron (fan speed controller)

Designation	Burners	Order N°
4 kW (Motor power)	ES08.2800 & ES08.3700 external mounting	3 832 694
5,5 kW (Motor power)	ES08.4000 external mounting	3 832 695
7,5 kW (Motor power)	ES08.4000 (< 3500 kW) external mounting	3 832 696
11 kW (Motor power)	ES08.5000 (ES08.5200 included) external mounting	3 832 697

Gas train VF2 (EN676 configuration) EK6 ... EK9



- 1 Gas ball valve
- 2 Gas filter
- 3 Gas pressure regulator
- 4 Test burner with push-button valve *
- 5 Manometer with push-button valve *
- 6 Leakage control device *
- 7 Gas pressure switch minimum
- 8 Double electromagnetic valve or gas Motorized valves
- Anti-vibration coupling *
- Gas train are fully mounted, electrical connected and tested (electrical, hydraulic, leakage)

* Additional component parts to be ordered separately : gas leakage control, gas ignition unit, gas pressure switch and gas options

Delivery scope and description

Gas valves group in flange design

Basic version

Type VF2 - S40-DN40 - VF2 - S100-DN100

set consists of:

- 1 Gas ball valve (max. 1 bar)
- 1 Gas filter (max. 1 bar)
- 1 Gas pressure regulator with spring 12,5-25 mbar (max. 0,4 bar)
- 1 Double electromagnetic valve (max. 0,5 bar)
- 1 Gas pressure switch (2,5 - 50 mbar)
- 1 Manometer with bush-button 0-60 mbar

Type VF2 - S125-DN125 - VF2 - S150-DN150

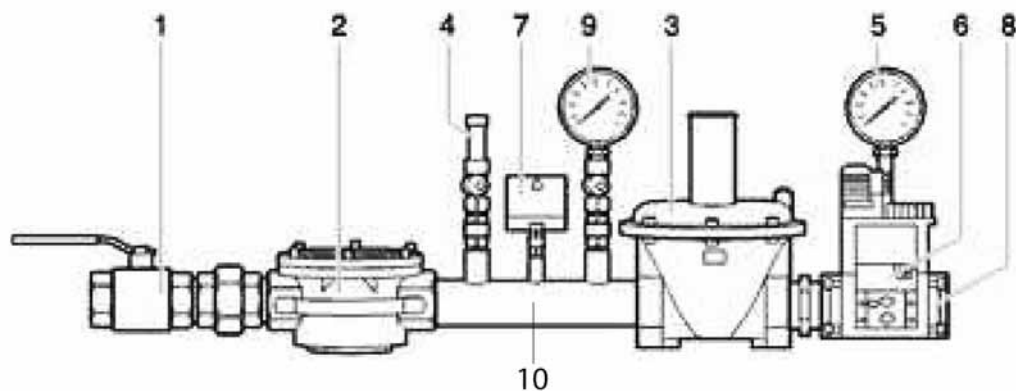
set consists of:

- 1 Gas ball valve (max. 1 bar)
 - 1 Gas filter (max. 1 bar)
 - 1 Gas pressure regulator with spring 12,5-25 mbar (max. 0,4 bar)
 - 2 Gas valves (max. 0,6 bar) for type VF2 - S125-DN125
 - 2 Gas valves (max. 0,4 bar) for type VF2 - S150-DN150
 - 1 Manometer with push-button valve (0-60 mbar)
 - 1 Ignition gas unit CG15 to be assembled into the burner (Not included in the price of the gas train)
- for EK6 order N° 1778803349
for EK7-8-9 order N° 1478803372

GAS TRAIN VF2 (EN676 CONFIGURATION) EK6 ... EK9

Designation	Type	Order N°
VF2-s150-DN150	Gas valves group in flange design Basic version	12 001 179
VF2-s125-DN125		12 001 178
VF2-s100-DN100		12 001 177
VF2-s80-DN80		12 001 176
VF2-s65-DN65		12 001 175
VF2-s50-DN50		12 001 174
VF2-s40-DN40		12 001 173

Gas train VG2 (EN676 configuration) EK6



- 1 Gas ball valve
- 2 Gas filter
- 3 Gas pressure regulator
- 4 Test burner with push-button valve *
- 5 Manometer with push-button valve *
- 6 Leakage control device *
- 7 Gas pressure switch minimum
- 8 Double electromagnetic valve or gas Motorized valves
- 9 Manometer with push-button valve *
- 10 Adapter with three connections
- Anti-vibration coupling

* Additional component parts to be ordered separately : gas leakage control, gas ignition unit, gas pressure switch and gas options

Delivery scope and description

Gas valves group in threaded design

Gas valves group in flange design

Basic version

Type VG2 - Rp 3/8-Rp1/2 - VG2 - D2-Rp2

set consists of:

- 1 Gas ball valve (max. 1 bar)
 - 1 Gas filter (max. 1 bar)
 - 1 Gas pressure regulator with spring 12,5-25 mbar (max. 0,4 bar)
 - 1 Double electromagnetic valve (max. 0,5 bar)
 - 1 Gas pressure switch (2,5 - 50 mbar)
 - 1 Manometer with push-button valve (0-60 mbar)
 - 1 Adapter with connection Rp 1/2" - Rp 1/4"
 - 1 Ignition gas unit CG15 to be assembled into the burner (Not included in the price of the gas train)
- for EK6 order N° 1778803349
- for EK7-8-9 order N° 1478803372

GAS TRAIN VG2 (EN676 CONFIGURATION) EK6

Designation	Type	Order N°
VG2-D2-Rp2	Gas valves group in threaded design	12 001 172
VG2-Rp 3/8-Rp1/2	Basic version	12 001 171

Burner type	Burner capacity kW	pFr max mbar	Pressure loss Δp (mbar) - VG2 & VF2 EN676											
			h3/8-Rp1/2 Natural Gas		d2-Rp2 Natural Gas		S40-DN40 Natural Gas		S50-DN50 Natural Gas		S65-DN65 Natural Gas		S80-DN80 Natural Gas	
			E	LL	E	LL	E	LL	E	LL	E	LL	E	LL
EK 6.170 G(GL)-R/E	850	17	47	57	-	-	47	57	-	-	-	-	-	-
	950	15	53	66	-	-	53	66	-	-	-	-	-	-
	1050	12,5	58	75	-	-	58	75	-	-	-	-	-	-
	1150	10	66	87	-	66	66	87	-	66	-	-	-	-
	1250	6	74	94	56	71	74	94	56	71	-	45	-	-
	1350	3,5	75	101	60	67	75	101	60	67	-	47	-	-
	1455	0	86	-	55	74	86	-	55	74	39	50	-	-
EK 6.200 G(GL)-R/E	1250	17	76	89	59	72	76	89	59	72	-	47	-	-
	1350	15	78	101	54	67	78	101	54	67	-	48	-	-
	1450	13	88	-	58	74	88	-	58	74	43	50	-	-
	1600	11	-	-	65	84	-	-	65	84	46	55	-	-
	1800	8	-	-	78	97	-	-	78	97	50	63	-	-
	2000	4	-	-	89	-	-	-	89	-	56	71	44	55
	2250	0	-	-	-	-	-	-	-	-	63	83	48	62
EK 6.240 G(GL)-R/E	1550	18	-	-	68	85	-	-	68	85	49	59	-	-
	1650	16,5	-	-	74	90	-	-	74	90	52	62	-	-
	1800	15	-	-	82	103	-	-	82	103	56	49	-	-
	2000	11,5	-	-	91	-	-	-	91	-	61	76	-	-
	2200	7,5	-	-	105	-	-	-	105	-	67	82	53	65
	2400	4	-	-	-	-	-	-	-	-	72	92	56	71
	2600	0	-	-	-	-	-	-	-	-	80	103	60	77
EK 6.300 G(GL)-R/E	2000	15,5	-	-	90	-	-	-	90	-	60	72	-	-
	2100	14	-	-	96	-	-	-	96	-	62	77	-	59
	2200	12,5	-	-	104	-	-	-	104	-	65	78	51	62
	2400	10	-	-	-	-	-	-	-	-	73	88	54	65
	2600	7,5	-	-	-	-	-	-	-	-	80	88	58	67
	2800	5	-	-	-	-	-	-	-	-	83	98	63	68
	2900	0	-	-	-	-	-	-	-	-	86	107	67	73

Comments

pe: Gas flowing pressure before ball valve (mbar)

pFr: Furnace pressure loss (mbar)

Δp : Pressure loss (mbar)

Natural Gas E Hu = 10,35 kWh/m³, d = 0,606

Natural Gas LL Hu = 8,85 kWh/m³, d = 0,641

Conditions

The furnace pressure loss pFr must be added to the pressure loss Δp .

The furnace pressure loss pFr must be lower than the furnace pressure loss pFr max.

* Gas velocity > 30 m/s and/or Δp Gas filter > 10 mbar

Gas train selection chart for EK6 G-RU refert to technical documentation.

Example (Natural Gas E)

Burner type

EK 6.170 G-R/E

Burner capacity

1150 kW

Furnace pressure loss pFr

10 mbar

Gas flowing pressure pe before ball valve

80 mbar

Pressure loss Δp for S40-DN40 (from chart)

66 mbar

Minimum gas pressure for S40-DN40 (Δp + pFr): 76 mbar

Gas flowing pressure pe > than minimum gas pressure for S40-DN40

Result

S40-DN40 is suitable

Gas trains Gas fitting group VF2 Selection chart EK7-9 G(GL)-RE

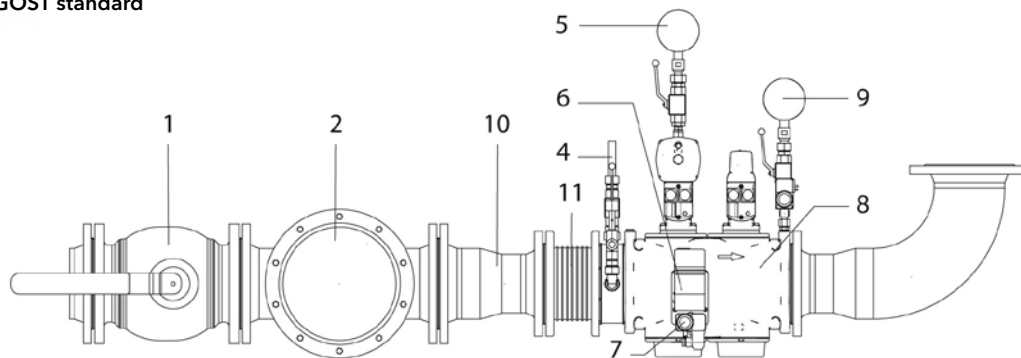
Burner type	Burner capacity	pFr max kW	Pressure loss Δp (mbar) - VF2 EN676							
			S50-DN50 mbar		S65-DN65 natural gas		S80-DN80 natural gas		S100-DN100 natural gas	
			E	LL	E	LL	E	LL	E	LL
EK 7.350 G(GL)-R/E	2250	21,5	104	-	64	78	49	57	-	-
	2500	18	-	-	72	86	51	63	-	-
	2750	15	-	-	79	93	56	60	-	-
	3000	12	-	-	91	100	62	68	-	-
	3250	8,5	-	-	90	116	55	74	-	-
	3500	5	-	-	103	-	62	85	41	55
	3765	1,5	-	-	109	-	71	92	45	60
EK 7.450 G(GL)-R/E	2400	22,5	-	-	76	91	59	70	-	-
	2700	20	-	-	84	96	65	68	-	-
	3000	18	-	-	104	115	73	77	-	-
	3300	15,5	-	-	101	136	70	83	-	-
	3600	12	-	-	116	165	75	94	-	-
	3900	8	-	-	-	-	84	106	-	-
	4200	4,5	-	-	-	-	87	125	70	95

Burner type	Burner capacity kW	pFr max mbar	Pressure loss Δp (mbar) - VF2 EN676									
			S65-DN65 Natural Gas		S80-DN80 Natural Gas		S100-DN100 Natural Gas		S125-DN125 Natural Gas		S150-DN150 Natural Gas	
			E	LL	E	LL	E	LL	E	LL	E	LL
EK 8.550 G(GL)-R	2750	22	76	89	50	62	-	-	-	-	-	-
	3250	18	95	119	60	77	-	-	-	-	-	-
	3750	15,5	115	-	73	93	-	62	-	-	-	-
	4250	12	-	-	84	98	50	64	-	-	-	-
	4750	9	-	-	99	126	58	74	-	62	-	-
	5250	4,5	-	-	106	-	64	83	54	65	-	61
	5815	0	-	-	134	-	76	99	57	72	-	68
EK 8.700 G(GL)-R	4200	23	-	-	86	104	58	69	-	-	-	-
	4500	22	-	-	98	119	62	75	-	-	-	-
	5000	18,0	-	-	104	-	68	82	-	67	-	-
	5500	17,5	-	-	128	-	77	96	63	74	-	70
	6000	12,5	-	-	-	-	84	108	65	78	59	73
	6500	7,5	-	-	-	-	89	-	61	78	56	71
	7000	3,0	-	-	-	-	99	-	64	86	59	76
	7310	0	-	-	-	-	106	-	66	91	61	79
EK 9.850 G(GL)-R	5100	28,0	-	-	108	149	70	84	-	65	-	-
	5500	26,0	-	-	124	-	73	90	59	68	-	64
	6000	22,0	-	-	147	-	79	103	60	73	55	68
	6500	18,0	-	-	-	-	87	116	62	79	57	72
	7000	15,0	-	-	-	-	94	126	66	88	61	78
	7500	11,0	-	-	-	-	103	142	66	91	59	77
	8000	6,5	-	-	-	-	108	150	73	105	65	82
	8545	0,0	-	-	-	-	118	168	80	115	70	90
EK 9.1000 G(GL)-R	7000	27,0	-	-	-	-	93	120	66	82	60	72
	7500	25,0	-	-	-	-	103	135	70	91	64	77
	8000	22,5	-	-	-	-	112	150	75	101	66	82
	8500	20,0	-	-	-	-	123	166	82	112	70	86
	9000	18,0	-	-	-	-	136	-	90	125	73	92
	9500	15,5	-	-	-	-	149	-	98	139	77	98
	10000	13,0	-	-	-	-	163	-	108	160	81	110
	10500	11,0	-	-	-	-	-	-	119	175	86	115
	10910	9,0	-	-	-	-	-	-	135	190	95	120

Gas train selection chart for EK6...9 G-RU refer to technical documentation.

Gas train VGD (EN676 configuration) EK6 ... EK9 / N10

GOST standard



- 1 Gas ball valve
 - 2 Gas filter
 - 3 Gas pressure regulator (incl.8)
 - 4 Test burner with push-button valve *
 - 5 Manometer with push-button valve *
 - 6 Leakage control device *
 - 7 Gas pressure switch min./max.
 - 8 Double electromagnetic valve or gas Motorized valves
 - 9 Manometer with push-button valve *
 - 10 Cone tube adapter
 - 11 Anti-vibration coupling
- Gas train are fully mounted, electrical connected and tested (electrical, hydraulic, leakage)

* Additional component parts to be ordered separately : gas leakage control, gas ignition unit, gas pressure switch and gas options

Delivery scope and description

Type VGD D2-Rp2 - s65-DN65 - s80-DN80 - s100-DN100 - s125-DN125

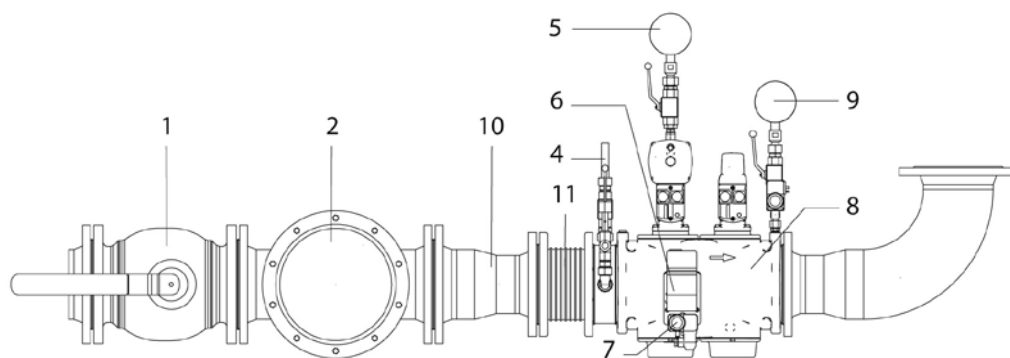
set consists of:

- 1 Manual ball valve
 - 1 Gas filter
 - 1 Cone tube
 - 1 Anti-vibration coupling
 - 1 Gas compact unit VGD 20 / 40 incl. actuators SKP15 and SKP25
 - 1 Spring for SKP25 to adjust pressure range 15-120 mbar (downstream of the pressure controller)
 - 2 Gas pressure switches
 - 1 Manometer with push-button valve *
 - 1 Connecting piece between burner and gas train
 - 1 Ignition gas unit CG15 to be assembled into the burner (Not included in the price of the gas train)
- for EK6 order N° 1778803349
for EK7-8-9 order N° 1478803372

GAS TRAIN VGD (EN676 CONFIGURATION) EK6 ... EK9 / N10

Designation	Type	Order N°
VGD-s100-DN100 / filter s125-DN125	Gas valves group in threaded / flange design Basic version	14 002 817
VGD-s80-DN80 / filter s100-DN100		14 002 806
VGD-s65-DN65 / filter s80-DN80		14 002 795
VGD-D2-Rp2 / filter s65-DN65		14 002 784
VGD-D2-Rp2 / filter d2-Rp2		14 002 773

Gas train VGD (EN676 export configuration) EK6 ... EK9



- 1 Gas ball valve *
 - 2 Gas filter
 - 3 Gas pressure regulator (incl.8)
 - 4 Test burner with push-button valve *
 - 5 Manometer with push-button valve *
 - 6 Leakage control device *
 - 7 Gas pressure switch minimum
 - 8 Double electromagnetic valve or gas Motorized valves
 - 9 Manometer with push-button valve *
 - 10 Cone tube adapter *
 - 11 Anti-vibration coupling *
- Gas train are fully mounted, electrical connected and tested (electrical, hydraulic, leakage)

* Additional component parts to be ordered separately : gas leakage control, gas ignition unit, gas pressure switch and gas options

Delivery scope and description

Type VGD Rp 1" 1/2 - D2-Rp2 - s65-DN65 - s80-DN80

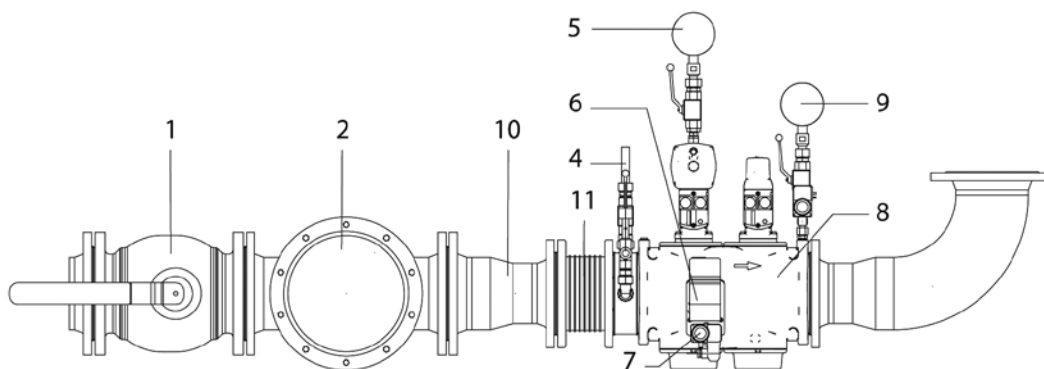
set consists of:

- 1 Gas filter (delivered separately)
 - 1 Gas compact unit VGD 20 / 40 incl. actuators SKP15 and SKP25
 - 1 Spring for SKP25 to adjust pressure range 15-120 mbar (downstream of the pressure controller)
 - 1 Gas pressure switch minimum (max. for steam application)
 - 1 Manometer with push-button valve *
 - 1 Connecting piece between burner and gas train
 - 1 Ignition gas unit CG15 to be assembled into the burner (Not included in the price of the gas train)
- for EK6 order N° 1778803349
for EK7-8-9 order N° 1478803372

GAS TRAIN VGD (EN676 EXPORT CONFIGURATION) EK6 ... EK9

Designation	Type	Order N°
VGD-s80-DN80 / filter s100-DN100		147 883 9043
VGD-s65-DN65 / filter s80-DN80	Gas valves group in threaded / flange design Basic version	147 883 9032
VGD-D2-Rp2 / filter 2"1/2		147 883 9021
VGD-Rp h3/8-Rp1/2 / filter d2-Rp2		147 883 9010

Gas train for G-VU2 range EK6 to EK9 (EN676 configuration)



* additional component parts paid separately

1 Gas ball valve *

2 Gas filter

3 Gas pressure regulator (incl.8)

4 Test burner with push-button valve *

5 Manometer with push-button valve *

6 Leakage control device included

7 Gas pressure switch minimum

8 Double electromagnetic valve

9 Manometer with push-button valve *

10 Cone tube adapter *

11 Anti-vibration coupling *

Gas train are fully mounted, electrical connected and tested (electrical, hydraulic, leakage)

* Additional component parts to be ordered separately : gas leakage control, gas ignition unit, gas pressure switch and gas options

Delivery scope and description

Type Rp 1"1/4 - Rp 2" - DN65 - DN80

set consists of:

- 1 Gas filter

- 1 Gas compact unit VGD 20 /40 incl. actuators SKP15 and SKP75

- Leakage test device VPS 504 S 02

- Adapter set for leakage test device VPS504 (for VGD 20 only)

- 1 Gas pressure switch minimum

- 1 Connecting piece between burner and gas train

- 1 Ignition gas unit CG15 to be assembled into the burner (Not included in the price of the gas train)

for EK6 order N° 1778803349

for EK7-8-9 order N° 1478803372

Designation	Type	Order N°
VGD 40.080 DN80 / filter DN100 / VPS		1 478 836 373
VGD 40.065 DN65 / filter DN80 / VPS	Gas valves group in threaded / flange design. Basic version for AGP range EK G-VU2	1 478 836 328
VGD 20.5011 Rp 2" / filter DN65 / VPS		1 478 836 317
VGD 20.4011 Rp 1"1/2 / filter 2" / VPS		1 478 836 282

Gas pressure loss table of range G-VU2 in AGP conguation are the same of VGD EN676 Export

Integrated leakage controllers

Designation	Suitable for	Order N°
VPS504 S04	VG2 - Rp 1»1/2 and 2», VF2 - DN40 ... 100	1 478 653 152
VPS504 S04 for butane	VG2 - Rp 1»1/2 and 2», VF2 - DN40 ... 100	1 478 822 560
VPS504 S04 for G-VU2 burners	VGD - Rp 1»1/2 and 2», VGD - DN65 ... 80	1 478 836 259
VPS504 adapter set	for VGD20	1 478 836 260
VDK 200	VF2-DN125and150 - VGD-DN100 and 150	3 333 284 117

Leakage controllers (*)

Designation	Suitable for	Order N°
DSLX PX VX	EK 6 to EK 9 all versions	1 758 857 090
LDU 11	GLO-Tron & GHO-Tron	on request

(*) For mechanical version burner only, please order leakage controller and 1 additional pressure switch, for electronic version burner, order 1 additional pressure switch only, leakage controller is already included

Ignition gas unit

All VGD gas valves group in threaded / flange design

Designation	Suitable for	Order N°
CG15	EK6	1 478 803 349
CG15	EK7-8-9	1 478 803 372

Leakage control with gas pressure switch

Designation	Suitable for	Order N°
GW 50 A5	EK6 to EK9 with BCS 300	1 768 853 009
GW 150 A5		1 768 853 010
GW 500 A5		1 768 853 021

Burner type	Burner capacity kW	pFr max mbar	Pressure loss Δp (mbar) - VGD EN676 - GOST					
			VGD D2-Rp2		VGD d2-Rp2		VGD S65-DN65	
			Filter d2-Rp2		Filter S65-DN65		Filter S80-DN80	
			E	LL	E	LL	E	LL
EK 6.170 G(GL)-R/E	850	17	38	45	37	43	35	40
	950	15	41	49	40	47	37	43
	1050	12,5	44	53	42	51	38	46
	1150	10	47	58	44	55	40	49
	1250	6	48	50	46	47	41	40
	1350	3,5	42	54	39	50	33	42
	1455	0	44	58	41	53	34	44
EK 6.200 G(GL)-R/E	1250	17	52	52	50	48	45	41
	1350	15	45	55	42	50	36	43
	1450	13	47	58	44	53	37	44
	1600	11	52	65	48	59	39	48
	1800	8	59	75	53	67	43	52
	2000	4	65	-	58	75	45	57
	2250	0	-	-	67	87	50	65
EK 6.240 G(GL)-R/E	1550	18	56	68	52	62	44	52
	1650	16,5	59	72	54	66	46	54
	1800	15	65	80	59	73	49	58
	2000	11,5	72	-	65	81	52	63
	2200	7,5	79	-	71	90	55	68
	2400	4	-	-	78	101	59	75
	2600	0	-	-	85	-	63	-
EK 6.300 G(GL)-R/E	2000	15,5	70	-	63	78	50	60
	2100	14	74	-	66	82	51	62
	2200	12,5	78	-	69	86	53	65
	2400	10	-	-	76	97	57	71
	2600	7,5	-	-	84	-	61	-
	2800	5	-	-	92	106	66	70
	2990	0	-	-	114	-	73	-

Comments

pe: Gas flowing pressure before ball valve (mbar)

pFr: Furnace pressure loss (mbar)

Δp : Pressure loss (mbar)

Natural Gas E Hu = 10,35 kWh/m³, d = 0,606

Natural Gas LL Hu = 8,85 kWh/m³, d = 0,641

Conditions

The furnace pressure loss pFr must be added to the pressure loss Δp .

The furnace pressure loss pFr must be lower than the furnace pressure loss pFr max.

* Gas velocity > 30 m/s and/or Δp Gas filter > 10 mbar

Gas train selection chart for EK6 G-RU refert to technical documentation.

Example (Natural Gas E)

Burner type

Burner capacity

Furnace pressure loss pFr

Gas flowing pressure pe before ball valve

Pressure loss Δp for D2-Rp2 (from chart)

Minimum gas pressure for D2-Rp2 (Δp + pFr):

Gas flowing pressure pe > than minimum gas pressure for D2-Rp2

EK 6.170 G-R/E

1150 kW

10 mbar

80 mbar

47 mbar

57 mbar

Result

D2-Rp2 is suitable

Gas trains Gas fitting group VGD Selection chart EK6

Burner type	Burner capacity kW	pFr max mbar	Pressure loss Δp (mbar) - VGD EN676 - Export							
			VGD Rp 1" 1/2		VGD D2-Rp2		VGD S65-DN65		VGD S80-DN80	
			Filter d2-Rp2		Filter 2" 1/2		Filter S80-DN80		Filter S100-DN100	
			E	LL	E	LL	E	LL	E	LL
EK 6.170 G(GL)-R/E	850	17	40	46	37	43	35	40	33	38
	950	15	43	51	40	47	37	43	35	41
	1050	12,5	45	55	42	51	38	46	36	43
	1150	10	48	60	44	55	40	49	38	46
	1250	6	51	53	46	47	41	40	38	36
	1350	3,5	55	58	39	50	33	42	30	38
	1455	0	47	62	41	53	34	44	30	39
EK 6.200 G(GL)-R/E	1250	17	54	55	50	48	45	41	42	38
	1350	15	48	58	42	50	36	43	33	38
	1450	13	50	62	44	53	37	44	34	39
	1600	11	56	70	48	59	39	48	35	42
	1800	8	63	81	53	67	43	52	37	46
	2000	4	71	-	58	75	45	57	39	49
	2250	0	-	-	67	87	50	65	43	55
EK 6.240 G(GL)-R/E	1550	18	59	73	52	62	44	52	40	47
	1650	16,5	63	78	54	66	46	54	41	48
	1800	15	70	87	59	73	49	58	44	52
	2000	11,5	78	-	65	81	52	63	46	55
	2200	7,5	87	-	71	90	55	68	47	59
	2400	4	-	-	78	101	59	75	50	64
	2600	0	-	-	85	-	63	-	53	-
EK 6.300 G(GL)-R/E	2000	15,5	76	-	63	78	50	60	44	52
	2100	14	80	-	66	82	51	62	45	54
	2200	12,5	85	-	69	86	53	65	46	55
	2400	10	-	-	76	97	57	71	49	60
	2600	7,5	-	-	84	100	61	-	52	-
	2800	5	-	-	92	106	66	70	55	56
	2900	0	-	-	114	-	73	-	-	57

Comments

pe: Gas flowing pressure before ball valve (mbar)

pFr: Furnace pressure loss (mbar)

Δp : Pressure loss (mbar)

Natural Gas E Hu = 10,35 kWh/m³, d = 0,606

Natural Gas LL Hu = 8,85 kWh/m³, d = 0,641

Conditions

The furnace pressure loss pFr must be added to the pressure loss Δp .

The furnace pressure loss pFr must be lower than the furnace pressure loss pFr max.

* Gas velocity > 30 m/s and/or Δp Gas filter > 10 mbar

Gas train selection chart for EK6 G-RU refert to technical documentation.

Example (Natural Gas E)

Burner type

EK 6.170 G-R/E

Burner capacity

1150 kW

Furnace pressure loss pFr

10 mbar

Gas flowing pressure pe before ball valve

80 mbar

Pressure loss Δp for Rp 1 1/2" (from chart)

48 mbar

Minimum gas pressure for Rp 1 1/2" (Δp + pFr):

58 mbar

Gas flowing pressure pe > than minimum gas pressure for Rp 1 1/2"

Result

Rp 1 1/2" is suitable

Burner type	Burner capacity kW	pFr max mbar	Pressure loss Δp (mbar) - VGD EN676 - GOST							
			VGD d2-Rp2		VGD S65-DN65		VGD S80-DN80		VGD S100-DN100	
			Filter S65-DN65		Filter S80-DN80		Filter S100-DN100		Filter S125-DN125	
			E	LL	E	LL	E	LL	E	LL
EK 7.350 G(GL)-R/E	2250	21,5	67	83	51	61	43	51	40	47
	2500	18	75	90	54	61	45	51	41	47
	2750	15	83	94	58	59	48	46	43	39
	3000	12	85	107	60	65	48	49	43	42
	3250	8,5	90	120	54	71	40	53	34	44
	3500	5	100	130	59	78	42	57	35	47
	3765	1,5	-	-	64	86	45	62	37	51
EK 7.450 G(GL)-R/E	2400	22,5	81	100	62	74	54	63	50	58
	2700	20	93	104	69	71	58	57	54	51
	3000	18	98	121	70	80	58	63	54	56
	3300	15,5	108	132	71	89	56	70	50	61
	3600	12	122	143	77	98	60	76	52	66
	3900	8	-	-	84	108	64	82	55	70
	4200	4,5	-	-	91	120	69	90	58	76

Burner type	Burner capacity kW	pFr max mbar	Pressure loss Δp (mbar) - VGD EN676 - Export							
			VGD d2-Rp2		VGD S65-DN65		VGD S80-DN80		VGD S100-DN100	
			Filter S65-DN65		Filter S80-DN80		Filter S100-DN100		Filter S125-DN125	
			E	LL	E	LL	E	LL	E	LL
EK 7.350 G(GL)-R/E	2250	21,5	51	61	43	51	40	47	38	45
	2500	18	54	61	45	51	41	47	39	47
	2750	15	58	59	48	46	43	39	41	37
	3000	12	60	65	48	49	43	42	41	38
	3250	8,5	54	71	40	53	34	44	31	40
	3500	5	59	78	42	57	35	47	32	43
	3765	1,5	64	86	45	62	37	51	33	46
EK 7.450 G(GL)-R/E	2400	22,5	62	74	54	63	50	58	42	49
	2700	20	69	71	58	57	54	51	45	41
	3000	18	70	80	58	63	54	56	45	44
	3300	15,5	71	89	56	70	50	61	39	48
	3600	12	77	98	60	76	52	66	41	52
	3900	8	84	108	64	82	55	70	42	56
	4200	4,5	91	120	69	90	58	76	45	61

Comments

p_e : Gas flowing pressure before ball valve (mbar)
 p_{Fr} : Furnace pressure loss (mbar)
 Δp : Pressure loss (mbar)
 Natural Gas E $H_u = 10,35 \text{ kWh/m}^3$, $d = 0,606$
 Natural Gas LL $H_u = 8,85 \text{ kWh/m}^3$, $d = 0,641$

Conditions

The furnace pressure loss p_{Fr} must be added to the pressure loss Δp .
 The furnace pressure loss p_{Fr} must be lower than the furnace pressure loss p_{Fr} max.

* Gas velocity > 30 m/s and/or Δp Gas filter > 10 mbar

Gas train selection chart for EK7 G-RU refert to technical documentation.

Example (Natural Gas E)

Burner type EK 7.450 G-R/E
 Burner capacity 3000 kW
 Furnace pressure loss p_{Fr} 18 mbar
 Gas flowing pressure p_e before ball valve 120 mbar
 Pressure loss p for D2-Rp2 (from chart) 98 mbar
 Minimum gas pressure for D2-Rp2 ($\Delta p + p_{Fr}$): 116 mbar
 Gas flowing pressure p_e > than minimum gas pressure for D2-Rp2

Result

D2-Rp2 is suitable

Gas trains Gas fitting group VGD Selection chart EK8

Burner type	Burner capacity kW	pFr max mbar	Pressure loss Δp (mbar) - VGD EN676 - GOST							
			VGD d2-Rp2		VGD S65-DN65		VGD S80-DN80		VGD S100-DN100	
			Filter S65-DN65		Filter S80-DN80		Filter S100-DN100		Filter S125-DN125	
			E	LL	E	LL	E	LL	E	LL
EK 8.550 G(GL)-R/E	2750	22,0	72	92	47	57	36	43	32	37
	3250	18,0	95	-	65	79	50	55	39	46
	3750	15,5	-	-	76	88	58	64	49	53
	4250	12,0	-	-	80	97	58	67	47	52
	4750	9,0	-	-	90	12	62	75	49	57
	5250	4,5	-	-	105	131	71	87	55	66
	5815	0,0	-	-	120	-	81	101	61	75
EK 8.700 G(GL)-R/E	4200	23,0	-	-	83	102	60	72	50	58
	4500	22,0	-	-	90	111	64	78	52	62
	5000	0,8	-	-	101	128	71	87	56	68
	5500	17,5	-	-	117	149	81	101	63	77
	6000	12,5	-	-	128	-	85	109	64	81
	6500	7,5	-	-	141	-	92	119	68	87
	7000	3,0	-	-	150	-	95	122	69	90
	7310	0	-	-	-	-	100	133	71	94

Burner type	Burner capacity kW	pFr max mbar	Pressure loss Δp (mbar) - VGD EN676 - Export							
			VGD S65-DN65		VGD S65-DN65		VGD S80-DN80		VGD S100-DN100	
			Filter S65-DN65		Filter S80-DN80		Filter S100-DN100		Filter S125-DN125	
			E	LL	E	LL	E	LL	E	LL
EK 8.550 G(GL)-R/E	2750	22,0	47	57	36	43	32	37	-	-
	3250	18,0	65	79	50	55	39	46	43	44
	2750	15	58	59	48	46	43	39	41	37
	3750	15,5	76	88	58	64	49	53	40	46
	4250	12,0	80	97	58	67	47	52	41	49
	4750	9,0	90	112	62	75	49	57	43	54
	5250	4,5	105	131	71	87	55	66	44	57
	5815	0,0	120	-	81	101	61	75	45	58
EK 8.700 G(GL)-R/E	4200	23,0	83	102	60	72	50	58	48	55
	4500	22,0	90	111	64	78	52	62	49	57
	5000	19,0	101	128	71	87	56	68	51	60
	5500	17,5	117	149	81	101	63	77	52	61
	6000	12,5	128	-	85	109	64	81	52	62
	6500	7,5	141	-	92	119	68	87	52	64
	7000	3,0	150	-	95	122	69	90	53	66
	7310	0	-	-	100	133	71	94	55	70

Comments

pe: Gas flowing pressure before ball valve (mbar)

pFr: Furnace pressure loss (mbar)

Δp : Pressure loss (mbar)

Natural Gas E Hu = 10,35 kWh/m³, d = 0,606

Natural Gas LL Hu = 8,85 kWh/m³, d = 0,641

Conditions

The furnace pressure loss pFr must be added to the pressure loss Δp .

The furnace pressure loss pFr must be lower than the furnace pressure loss pFr max.

* Gas velocity > 30 m/s and/or Δp Gas filter > 10 mbar

Gas train selection chart for EK8 G-RU refer to technical documentation.

Example (Natural Gas E)

Burner type

EK 8.7000 G-R/E

Burner capacity

6500 kW

Furnace pressure loss pFr

7,5 mbar

Gas flowing pressure pe before ball valve

120 mbar

Pressure loss Δp for Rp 1 1/2" (from chart)

92 mbar

Minimum gas pressure for Rp 1 1/2" (Δp + pFr):

100 mbar

Gas flowing pressure pe > than minimum gas pressure for Rp 1 1/2"

Result

S80-DN80 is suitable

Burner type	Burner capacity kW	pFr max mbar	Pressure loss Δp (mbar) - VGD EN676 - GOST							
			VGD S65-DN65		VGD S65-DN65		VGD S80-DN80		VGD S100-DN100	
			Filter S65-DN65		Filter S80-DN80		Filter S100-DN100		Filter S125-DN125	
			E	LL	E	LL	E	LL	E	LL
EK 9.850 G(GL)-R/E	5110	28,0	-	-	-	-	70	85	55	60
	5500	26,0	-	-	-	-	72	90	55	65
	6000	22,0	-	-	-	-	78	100	56	70
	6500	18,0	-	-	-	-	85	110	58	75
	7000	15,0	-	-	-	-	90	120	62	80
	7500	11,0	-	-	-	-	97	128	65	85
	8000	6,5	-	-	-	-	105	140	70	90
	8545	0,0	-	-	-	-	115	150	75	95
EK 9.100 G(GL)-R/E	7000	27,0	-	-	-	-	92	114	64	77
	7500	25,0	-	-	-	-	99	124	67	81
	8000	22,5	-	-	-	-	110	140	75	88
	8500	20,0	-	-	-	-	120	150	78	95
	9000	18,0	-	-	-	-	125	170	80	100
	9500	15,5	-	-	-	-	140	-	85	110
	10000	13,,0	-	-	-	-	155	-	90	120
	10500	11,0	-	-	-	-	-	-	100	130
	10910	9,0	-	-	-	-	-	-	105	135

Burner type	Burner capacity kW	pFr max mbar	Pressure loss Δp (mbar) - VGD EN676 - GOST							
			VGD d2-Rp2		VGD S65-DN65		VGD S80-DN80		VGD S100-DN100	
			Filter S65-DN65		Filter S80-DN80		Filter S100-DN100		Filter S125-DN125	
			E	LL	E	LL	E	LL	E	LL
EK 9.850 G(GL)-R/E	5110	28,0	-	-	-	-	70	85	55	60
	5500	26,0	-	-	-	-	72	90	55	65
	6000	22,0	-	-	-	-	78	100	56	70
	6500	18,0	-	-	-	-	85	110	58	75
	7000	15,0	-	-	-	-	90	120	62	80
	7500	11,0	-	-	-	-	97	128	65	85
	8000	6,5	-	-	-	-	105	140	70	90
	8545	0,0	-	-	-	-	115	150	75	95
EK 9.100 G(GL)-R/E	7000	27,0	-	-	-	-	92	114	64	77
	7500	25,0	-	-	-	-	99	124	67	81
	8000	22,5	-	-	-	-	110	140	75	88
	8500	20,0	-	-	-	-	120	150	78	95
	9000	18,0	-	-	-	-	125	170	80	100
	9500	15,5	-	-	-	-	140	-	85	110
	10000	13,,0	-	-	-	-	155	-	90	120
	10500	11,0	-	-	-	-	-	-	100	130
	10910	9,0	-	-	-	-	-	-	105	135

Comments

p_e : Gas flowing pressure before ball valve (mbar)
 p_{Fr} : Furnace pressure loss (mbar)
 Δp : Pressure loss (mbar)
 Natural Gas E $H_u = 10,35 \text{ kWh/m}^3$, $d = 0,606$
 Natural Gas LL $H_u = 8,85 \text{ kWh/m}^3$, $d = 0,641$

Conditions

The furnace pressure loss p_{Fr} must be added to the pressure loss Δp .
 The furnace pressure loss p_{Fr} must be lower than the furnace pressure loss p_{Fr} max.

* Gas velocity > 30 m/s and/or Δp Gas filter > 10 mbar

Gas train selection chart for EK9 G-RU refer to technical documentation.

Example (Natural Gas E)

Burner type EK 9.100 G-R/E
 Burner capacity 9500 kW
 Furnace pressure loss p_{Fr} 15,5 mbar
 Gas flowing pressure p_e before ball valve 120 mbar
 Pressure loss p for D2-Rp2 (from chart) 85 mbar
 Minimum gas pressure for D2-Rp2 ($\Delta p + p_{Fr}$): 101 mbar
 Gas flowing pressure p_e > than minimum gas pressure for s100-DN100

Result

s100-DN100 is suitable

Gas trains Gas fitting group VGD Selection chart N10

Burner type	Burner capacity kW	pFr max mbar	Pressure loss Δp (mbar) - VGD EN676 - GOST							
			VGD S65-DN65		VGD S80-DN80		VGD S100-DN100		VGD S125-DN125	
					Filter S100-DN100		Filter S125-DN125		Filter S150-DN150	
			E	LL	E	LL	E	LL	E	LL
N10.1200 G(GL)-E/EU2	5000		-	-	-	-	-	-	-	-
	6000		-	-	-	-	-	-	-	-
	7000		-	-	-	-	-	-	-	-
	8000		-	-	-	-	-	-	-	-
	9000	34	-	-			130	160	110	125
	10000	33	-	-	-	-	145	170	115	135
	11000	26	-	-	-	-	160	190	125	145
	12000	21	-	-	-	-	180	210	140	155
N10.1400 G(GL)-E/EU2	6000		-	-	-	-	-	-	-	-
	7000		-	-	-	-	-	-	-	-
	8000		-	-	-	-	-	-	-	-
	9000		-	-	-	-	-	-	-	-
	10000	34	-	-			145	170	115	135
	11000	34	-	-	-	-	175	205	140	160
	12000	34	-	-	-	-	200	230	160	175
	13000	28	-	-	-	-	220	245	170	185
	14000	23	-	-	-	-	-	-	190	200

Comments

pe: Gas flowing pressure before ball valve (mbar)

pFr: Furnace pressure loss (mbar)

Δp : Pressure loss (mbar)

Natural Gas E Hu = 10,35 kWh/m³, d = 0,606

Natural Gas LL Hu = 8,85 kWh/m³, d = 0,641

Conditions

The furnace pressure loss pFr must be added to the pressure loss Δp .

The furnace pressure loss pFr must be lower than the furnace pressure loss pFr max.

* Gas velocity > 30 m/s and/or Δp Gas filter > 10 mbar

Example (Natural Gas E)

Burner type

N,10.12000 G/EU2

Burner capacity

10000 kW

Furnace pressure loss pFr

33 mbar

Gas flowing pressure pe before ball valve

150 mbar

Pressure loss Δp for Rp 1 1/2" (from chart)

115 mbar

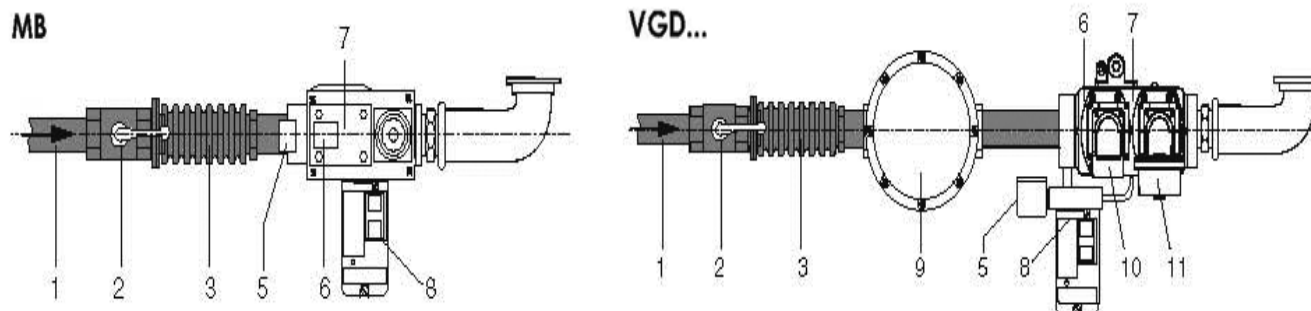
Minimum gas pressure for Rp 1 1/2" (Δp + pFr):

148 mbar

Gas flowing pressure pe > than minimum gas pressure for s125-DN125

Result

s125-DN125 is suitable



* Additional component parts to be ordered separately: maximum gas pressure switch and gas options

- 1 - Main gas pipe
- 2 - Ball valve *
- 3 - Anti-vibration coupling *
- 5 - Min gas pressure switch
- 6 - Safety gas valve
- 7 - Working gas valve
- 8 - Leakage control included (only two stage gas train for M B-ZRDLE are supply without)
- 9 - Gas filter included (governor include in the valve)
- 10 - Actuator SKP 15
- 11 - Actuator SKP 75
- 12 - Max gas pressure switch *

GLO/GHO-Tron conguration : gas ignition unit is included in the body in the body of the burners. Price of it is included in the burner.

Gas train for GLO and GH0-TRON

Gas valves group in threaded / flange design in basic version configuration (Min and Max gas pressure switch included)

Designation	Suitable for	Order N°
VGD40.150 + Filter s150-DN150 + VDK	GLO-Tron & GH0-Tron	on request
VGD40.125 + Filter s125-DN125 + VDK		on request
VGD40.100 + Filter s100-DN100 + VDK		on request
VGD40.080 + Filter s80-DN80 + VPS		on request
VGD40.065 + Filter s65-DN65 + VPS		on request
VGD20.503 + Filter d2-Rp2 + VPS		on request
MB-DLE 415 - Rp. 1" 1/2 + VPS	GLO-Tron 3.1800 Z & GLO-Tron 3.2100 Z	on request
MB-ZRDLE 420 - d2-Rp2	GLO-Tron 2.500 Z	on request
MB-ZRDLE 415 - Rp. 1" 1/2	GLO-Tron 2.700 Z	on request
MB-ZRDLE 412 - Rp. 1" 1/4	GLO-Tron 2.1300 Z	on request

Gas leakage control type "LDU 11" on request.

High pressure gas train and governor on request

Additional options might be supply with dierent codes from those one in this catalogue

Dual fuel range gas - heavy oil GLO Tron - GHO Tron				Natural gas L.C.V. 8.570 kcal/Nm³ LPG on request L.C.V. 22.260 kcal/Nm³		
Burners	Gas train	VPS VDK	Advisable gas governor & filter	Springs color	Inlet gas pressure min. mbar	Inlet gas pressure max. mbar
GLO-Tron 2.500 Z	MBZRDLE 415	-	included	-	15	360
	MBZRDLE 412	-	included	-	30	360
GLO-Tron 2.700 Z	MBZRDLE 420	-	included	-	15	360
	MBZRDLE 412	-	included	-	45	360
GLO-Tron 2.1300 Z	MBZRDLE 420	-	included	-	40	360
	MBZRDLE 412	-	included	-	100	360
GLO-Tron 3.1800 Z	VGD 40.080	VPS	no	neutral	18	700
			Filter s80-DN80		20	700
GHO-Tron 3.1800 R	VGD 40.065	VPS	no	neutral	25	700
			Filter s65-DN65		30	700
DGO-Tron 3.1700 R	VGD 20.503	VPS	no	neutral	40	600
			Filter d2-Rp2		45	600
	MBDLE 415	VPS	included	-	85	360
GLO-Tron 3.2100 Z	VGD 40.080	VPS	no	neutral	20	700
			Filter s80-DN80		23	700
GHO-Tron 3.2100 R	VGD 40.065	VPS	no	neutral	30	700
			Filter s65-DN65		35	700
DGO-Tron 3.2100 R	VGD 20.503	VPS	no	neutral	50	600
			Filter d2-Rp2		60	600
	MBDLE 415	VPS	included	-	100	360

Comments

Inlet gas flowing pressure before ball valve (mbar)

Furnace pressure loss (mbar)

Δp : Pressure loss (mbar)

Natural Gas E Hu = 10,35 kWh/m³, d = 0,606

Natural Gas LL Hu = 8,85 kWh/m³, d = 0,641

Conditions

The furnace pressure loss pFr must be added to the pressure loss Δp .

The furnace pressure loss pFr must be lower than the furnace pressure loss.

Example (Natural Gas E)

Burner type

Burner capacity

Furnace pressure loss pFr

Gas flowing pressure pe before ball valve

Pressure loss Δp for VGD 20.503 (from table)

Minimum gas pressure for VGD 20.503(Δp + pFr):

Gas flowing pressure pe > than minimum gas pressure for VGD 20.503

GHO-Tron 3.2100 R

1750 kW

5 mbar

80 mbar

60 mbar

65 mbar

Result

s125-DN125 is suitable

* Gas velocity > 30 m/s and/or Δp Gas filter > 10 mbar

Gas train selection chart for GLO/GHO-Tron refer to technical documentation.

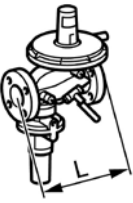
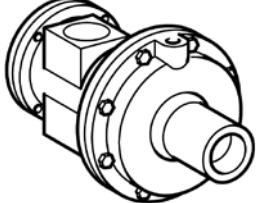
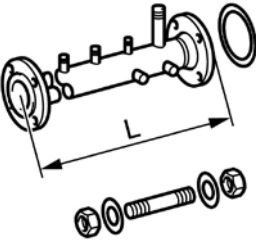
		Dual fuel range gas - heavy oil GLO Tron - GHO Tron			Natural gas L.C.V. 8.570 kcal/Nm ³ LPG on request L.C.V. 22.260 kcal/Nm ³	
Burners	Gas train	VPS VDK	Advisable gas governor & filter	Springs color	Inlet gas pressure min. mbar	Inlet gas pressure max. mbar
GHO-Tron 4.3000 R DGO-Tron 4.3000 R	VGD 40.100	VDK	no	neutral	20	700
			Filter s100-DN100		22	700
	VGD 40.080	VPS	no	neutral	30	700
			Filter s80-DN80		35	700
	VGD 40.065	VPS	no	neutral	45	700
			Filter s65-DN65		55	700
GHO-Tron 4.3900 R DGO-Tron 4.3900 R	VGD 40.100	VDK	no	neutral	80	600
			Filter d2-Rp2		100	600
	VGD 40.080	VPS	no	neutral	27	700
			Filter s100-DN100		30	700
	VGD 40.065	VPS	no	neutral	40	700
			Filter s80-DN80		50	700
GHO-Tron 5.5000 R DGO-Tron 5.5000 R	VGD 40.125	VDK	no	yellow	75	700
			Filter s125-DN125		90	700
	VGD 40.100	VDK	no	yellow	135	600
			Filter s100-DN100		170	600
	VGD 40.080	VPS	no	yellow	33	700
			Filter s80-DN80		35	700
GHO-Tron 5.5800 R DGO-Tron 5.5800 R	VGD 40.125	VDK	no	yellow	40	700
			Filter s125-DN125		45	700
	VGD 40.100	VDK	no	yellow	60	700
			Filter s100-DN100		75	700
	VGD 40.080	VPS	no	yellow	110	600
			Filter s80-DN80		140	600
GHO-Tron 5.5800 R DGO-Tron 5.5800 R	VGD 40.065	VPS	no	yellow	210	600
			Filter s65-DN65		250	600
	VGD 20.503	VPS	no	yellow	45	700
			Filter d2-Rp2		50	700
	VGD 40.100	VDK	no	yellow	55	700
			Filter s100-DN100		60	700
GHO-Tron 5.5800 R DGO-Tron 5.5800 R	VGD 40.080	VPS	no	yellow	80	700
			Filter s80-DN80		100	700
	VGD 20.065	VPS	no	yellow	150	600
			Filter s65-DN65		180	600
	VGD 20.503	VPS	no	yellow	275	600
			Filter d2-Rp2		340	600

Dual fuel range gas - heavy oil GLO Tron - GHO Tron			Natural gas L.C.V. 8.570 kcal/Nm ³ LPG on request L.C.V. 22.260 kcal/Nm ³			
Burners	Gas train	VPS VDK	Advisable gas governor & filter	Springs color	Inlet gas pressure min. mbar	Inlet gas pressure max. mbar
GHO-Tron 6.7200 R DGO-Tron 6.7200 R	VGD 40.125	VDK	no	yellow	55	700
			Filter s125-DN125		60	700
	VGD 40.100	VDK	no	yellow	70	700
			Filter s100-DN100		75	700
	VGD 40.080	VPS	no	yellow	115	700
			Filter s80-DN80		140	700
GHO-Tron 6.8500 R DGO-Tron 6.8500 R	VGD 40.125	VDK	no	yellow	225	700
			Filter s65-DN65		280	700
	VGD 40.100	VDK	no	yellow	80	700
			Filter s125-DN125		85	700
	VGD 40.080	VPS	no	yellow	100	700
			Filter s100-DN100		110	700
GHO-Tron 6.10500 R DGO-Tron 6.10500 R	VGD 40.125	VDK	no	yellow	170	700
			Filter s80-DN80		210	700
	VGD 40.100	VDK	no	yellow	320	700
			Filter s65-DN65		410	700
	VGD 40.080	VPS	no	yellow	110	700
			Filter s125-DN125		115	700
GHO-Tron 6.13000 R DGO-Tron 6.13000 R	VGD 40.150	VDK	no	yellow	130	700
			Filter s100-DN100		165	700
	VGD 40.125	VDK	no	yellow	230	700
			Filter s80-DN80		290	700
	VGD 40.100	VDK	no	yellow	440	700
			Filter s65-DN65		550	700
GHO-Tron 7.15000 R DGO-Tron 7.15000 R	VGD 40.150	VDK	no	yellow	150	700
			Filter s150-DN150		160	700
	VGD 40.125	VDK	no	yellow	160	700
			Filter s125-DN125		175	700
	VGD 40.100	VDK	no	yellow	200	700
			Filter s100-DN100		230	700
GHO-Tron 7.17000 R DGO-Tron 7.17000 R	VGD 40.150	VDK	no	yellow	340	700
			Filter s80-DN80		420	700
	VGD 40.125	VDK	no	yellow	120	700
			Filter s150-DN150		125	700
	VGD 40.100	VDK	no	yellow	140	700
			Filter s125-DN125		150	700
GHO-Tron 7.17000 R DGO-Tron 7.17000 R	VGD 40.150	VDK	no	yellow - red	190	700
			Filter s100-DN100		230	700
	VGD 40.125	VDK	no	yellow - red	380	700
			Filter s80-DN80		450	700
	VGD 40.100	VDK	no	yellow - red	170	700
			Filter s150-DN150		175	700
GHO-Tron 7.17000 R DGO-Tron 7.17000 R	VGD 40.150	VDK	no	yellow - red	200	700
			Filter s125-DN125		210	700
	VGD 40.125	VDK	no	yellow - red	270	700
			Filter s100-DN100		330	700
	VGD 40.100	VDK	no	yellow - red	540	700
			Filter s80-DN80		650	700

DGO-Tron 8 series : Gas train on request.

Type	Description	Destination	Order N°
Flanges 	Threaded flange S50-DN50 - PN16 Rp 3/4" 1" h3/8-Rp1/2 d2-Rp2		3 333 109 195 3 333 109 196 3 333 109 197 3 333 109 198
	Welded flange PN16 s40-DN40 x 42 mm s50-DN50 x 45 mm s65-DN65 x 45 mm s80-DN80 x 50 mm s100-DN100 x 52 mm s125-DN125 x 55 mm s150-DN150 x 55 mm		5 318 353 048 5 318 428 082 5 318 428 093 5 318 428 106 5 318 428 117 5 318 428 128 5 318 428 139
Ball valves 	Threaded, max. working pressure 1 bar 1/2" x 75 mm 3/4" x 80 mm 1" x 90 mm h3/8-Rp1/2 x 120 mm d2-Rp2 x 140 mm		12 000 511 12 000 512 13 014 319 13 011 724 13 011 727
	Flanges, max. working pressure 16 bar s40-DN40 x 140 mm s50-DN50 x 150 mm s65-DN65 x 170 mm s80-DN80 x 180 mm s100-DN100 x 190 mm Flanges, max. working pressure 16 bar, non ferrous s40-DN40 x 140 mm s50-DN50 x 150 mm s65-DN65 x 170 mm s80-DN80 x 180 mm s100-DN100 x 190 mm s125-DN125 x 325 mm s150-DN150 x 350 mm		12 000 516 12 000 517 12 000 518 12 000 519 12 000 520 12 000 524 12 000 525 12 000 526 12 000 527 12 000 528 12 000 529 12 000 530
Filters 	Non ferrous filter - max. pressure 1 bar 3/4" x 92 mm 1" x 135 mm	Seals and screw set are ordered separately	3 333 261 049 3 333 261 050
	Non ferrous filter - max. pressure 0,5 bar h3/8-Rp1/2 x 208 mm d2-Rp2 x 208 mm	Seals and screw set are ordered separately	13 011 723 13 009 700
	Non ferrous filter - max. pressure 1 bar s40-DN40 x 250 mm s50-DN50 x 250 mm s65-DN65 x 250 mm s80-DN80 x 330 mm s100-DN100 x 350 mm s125-DN125 x 470 mm s150-DN150 x 470 mm	Seals and screw set are ordered separately	1 478 543 935 1 478 543 946 1 478 543 957 1 478 543 968 1 478 543 979 1 478 543 980 1 478 543 981
	Non ferrous filter - max. pressure 4 bar s40-DN40 x 250 mm s50-DN50 x 250 mm s65-DN65 x 250 mm s80-DN80 x 330 mm s100-DN100 x 350 mm s125-DN125 x 470 mm s150-DN150 x 470 mm s40-DN40 x 250 mm s50-DN50 x 250 mm s65-DN65 x 250 mm s80-DN80 x 330 mm s100-DN100 x 350 mm s125-DN125 x 470 mm s150-DN150 x 470 mm	Seals and screw set are ordered separately	1 478 549 604 1 478 548 112 1 478 552 210 1 478 549 615 1 478 549 626 1 478 665 947 1 478 640 740 1 478 549 604 1 478 548 112 1 478 552 210 1 478 549 615 1 478 549 626 1 478 665 947 1 478 640 740

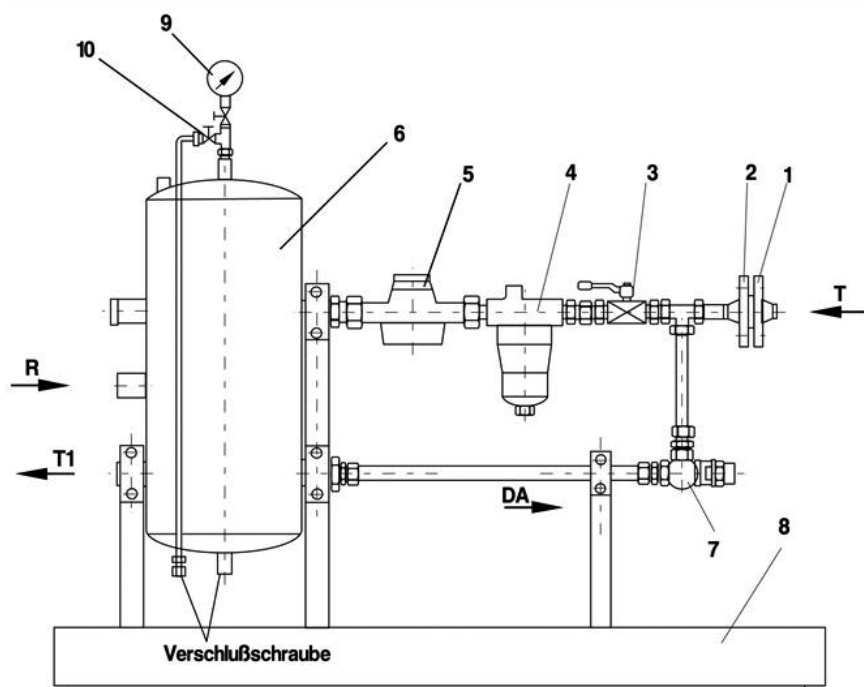
Type	Description	Destination	Order N°
Pressure regulators 	Max. working pressure 0,4bar, non ferrous GDJ 1/2" x 100 mm	12,5 ... 25 mbar spring for 16 ... 28 mbar spring for 22 ... 40 mbar spring for 40 ... 55 mbar	3 333 123 399 1 478 682 753 1 478 781 122 12 001 218
	GDJ 3/4" x 125 mm	12,5 ... 25 mbar spring for 22,5 ... 35 mbar spring for 25 ... 75 mbar	3 333 123 400 1 478 682 775 1 478 682 786
	GDJ 1" x 125 mm	12,5 ... 25 mbar spring for 22,5 ... 35 mbar spring for 25 ... 75 mbar	3 333 123 401 1 478 682 775 1 478 682 786
	GDJ h3/8-Rp1/2 x 155 mm	12,5 ... 25 mbar Spring for 22, 5 ... 35 mbar spring for 25 ... 75 mbar	3 333 123 402 1 478 682 800 1 478 682 811
	GDJ d2-Rp2 x 200 mm	12,5 ... 25 mbar spring for 22,5 ... 35 mbar spring for 25 ... 75 mbar	3 333 123 403 1 478 682 833 1 478 682 844
	Max. working pressure 0,4 bar, non ferrous FRS s40-DN40 x 200 mm	10 ... 30 mbar red spring for 25 ... 55 mbar yellow spring for 30 ... 70 mbar black spring for 60 ... 110 mbar	1 478 490 702 1 478 435 327 1 478 435 338 1 478 435 349
	FRS s50-DN50 x 230 mm	10 ... 30 mbar red spring for 25 ... 55 mbar yellow spring for 30 ... 70 mbar black spring for 60 ... 110 mbar	1 478 490 713 1 478 435 372 1 478 435 383 1 478 435 394
	FRS s65-DN65 x 290 mm	10 ... 30mbar red spring for 25 ... 55 mbar yellow spring for 30 ... 70 mbar black spring for 60 ... 110 mbar pink spring for 100 ... 150mbar	1 478 490 724 1 478 435 429 1 478 435 430 1 478 435 441 1 478 494 328
	FRS s65-DN65 x 290 mm	with spring 10 à 30 mbar red spring for 25 ... 55 mbar yellow spring for 30 ... 70 mbar black spring for 60 ... 110 mbar pink spring for 100 ... 150mbar	1 478 490 724 1 478 435 429 1 478 435 430 1 478 435 441 1 478 494 328
	FRS s80-DN80 x 310 mm	with spring 10 à 30 mbar red spring for 25 ... 55 mbar yellow spring for 30 ... 70 mbar black spring for 60 ... 110 mbar pink spring for 100 ... 150 mbar	12 001 096 1 478 435 429 1 478 435 430 1 478 435 441 1 478 494 328
	FRS s100-DN100 x 350 mm	with spring 10 à 30 mbar red spring for 25 ... 55 mbar yellow spring for 30 ... 70 mbar black spring for 60 ... 110 mbar pink spring for 100 ... 150 mbar	12 001 097 1 478 435 474 1 478 435 485 1 478 435 496 1 478 781 519
	FRS s125-DN125 x 400 mm	with spring 10 à 30 mbar red spring for 25 ... 55 mbar yellow spring for 30 ... 70 mbar black spring for 60 ... 110 mbar pink spring for 100 ... 150 mbar	12 001 098 1 478 434 982 1 478 434 993 1 478 435 009 1 478 740 474
	FRS s150-DN150 x 480 mm	with spring 10 à 30 mbar red spring for 25 ... 55 mbar yellow spring for 30 ... 70 mbar black spring for 60 ... 110 mbar pink spring for 100 ... 150 mbar	12 001 099 1 478 435 032 1 478 435 043 1 478 435 054 1 478 781 484

Type	Description	Destination	Order N°
Pressure regulators 	Max. working pressure 0,4bar, safety valve RS250 s25-DN25 x 230 mm RS250 s50-DN50 x 230 mm RS250 s80-DN80 x 310 mm RS250 s100-DN100 x 350 mm RS250 s150-DN150 x 480 mm RS251 s50-DN50 x 310 mm RS251 s80-DN80 x 410 mm		1 478 541 586 1 478 541 597 1 478 541 600 1 478 541 611 1 478 541 622 1 478 548 747 1 478 548 758
		Discharge valve SL10 discharge pressure 80 mbar discharge pressure 100 mbar discharge pressure 120 mbar discharge pressure 140 mbar discharge pressure 160 mbar discharge pressure 180 mbar discharge pressure 200 mbar discharge pressure 220 mbar discharge pressure 240 mbar discharge pressure 260 mbar discharge pressure 280 mbar discharge pressure 300 mbar	1 478 687 054 1 478 687 065 1 478 687 076 1 478 687 087 1 478 687 098 1 478 687 101 1 478 687 112 1 478 687 123 1 478 687 134 1 478 687 145 1 478 687 156 1 478 687 167
Connections 	h3/8-Rp1/2 x 300mm with 2 connections 1/2" and 1 connection 1/4" pour DMV SE 512 d2-Rp2 x 300mm with 2 connections 1/2" and 1 connection 1/4" pour DMV SE 520 with connections for test burner, pressure switch, pressure valve, pressure release valve, ignition valve, safety valve s40-DN40 x 900mm s50-DN50 x 900mm s65-DN65 x 950mm s80-DN80 x 1100mm s100-DN100 x 1300mm s125-DN125 x 1550mm s150-DN150 x 1800mm		3 333 212 374 3 333 212 375 1 688 595 566 1 688 595 577 1 688 595 588 1 688 595 599 1 688 595 602 1 688 595 613 1 688 595 624
Gas valves	Electromagnetic, quick-opened/closed DMV-D503 - 3/8" x 121 mm DMV-D503 - 1/2" x 121 mm DMV-D507 - 1/2" x 141 mm DMV-D507 - 3/4" x 141 mm DMV-D507 - 1" x 141 mm DMV-D512 - 1" x 174 mm DMV-D512 - d1,1/4-Rp2 x 174 mm DMV-D512 - h3/8-Rp1/2 x 174 mm DMV-D512 - d2-Rp2 x 174 mm DMV-D520 - 1" x 201 mm DMV-D520 - d1,1/4-Rp2 x 201 mm DMV-D520 - h3/8-Rp1/2 x 201 mm DMV-D520 - d2-Rp2 x 201 mm DMV-D5040 - s40-DN40 x 240 mm DMV-D5050 - s50-DN50 x 240 mm DMV-D5065 - s65-DN65 x 290 mm DMV-D5080 - s80-DN80 x 310 mm DMV-D5100 - s100-DN100 x 350 mm	Seals and screw set are ordered separately	12 000 677 12 000 678 12 000 679 12 000 680 12 000 681 12 000 682 12 000 683 12 000 684 12 000 685 12 000 686 12 000 687 12 000 688 12 000 689 12 000 666 12 000 667 12 000 668 12 000 669 12 000 670
	Electromagnetic for bio-gas VG40 - s40-DN40 x 200 mm VG50 - s50-DN50 x 230 mm VG65 - s65-DN65 x 290 mm	Seals and screw set are ordered separately	3 333 263 352 3 333 263 353 3 333 263 354
	Motorized, PN16 VK80 - s80-DN80 x 310 mm VK100 - s100-DN100 x 350 mm VK125 - s125-DN125 x 400 mm VK150 - s150-DN150 x 480 mm	Seals and screw set are ordered separately	1 478 544 063 1 478 544 074 1 478 544 085 1 478 548 269

Type	Description	Destination	Order N°
Anti-vibration coupling (Compensator) 	With external thread 1" h3/8-Rp1/2 d2-Rp2	Seals and screw set are ordered separately	3 333 260 228 3 333 260 229 3 333 260 230
	With flange PN16, max. pressure 10 bar S40-DN40 S50-DN50 S65-DN65 S80-DN80 S100-DN100 S125-DN125 S150-DN150		12 001 013 12 001 014 12 001 015 12 001 016 12 001 017 12 001 018 12 001 019
Elbow pipes 	90°, male / female 3/4" 1" d1,1/4-Rp2 h3/8-Rp1/2 d2-Rp2		3 333 109 257 3 333 103 790 3 333 116 894 3 333 103 791 3 333 103 792
			3 333 109 311 3 333 110 711 3 333 110 712
	PN16, connection Rp1/2" S40-DN40 x 99 mm S50-DN50 x 121 mm S65-DN65 x 140 mm S80-DN80 x 164,5 mm S100-DN100 x 204,5 mm S125-DN125 x 245,5 mm S150-DN150 x 283,5 mm		1 688 421 310 1 688 421 321 1 688 421 332 1 688 421 343 1 688 421 354 1 688 421 365 1 488 421 376
	90°, flanges PN16 s65-DN65 - s40-DN40 x 235 mm s65-DN65 - s50-DN50 x 235 mm s65-DN65 - s65-DN65 x 235 mm s80-DN80 - s40-DN40 x 246,5 mm s80-DN80 - s50-DN50 x 249,5 mm s80-DN80 - s65-DN65 x 249,5 mm s80-DN80 - s80-DN80 x 264,5 mm s80-DN80 - s100-DN100 x 266,5 mm s100-DN100 - s50-DN50 x 297,5 mm s100-DN100 - s65-DN65 x 325 mm s100-DN100 - s80-DN80 x 293 mm s100-DN100 - s100-DN100 x 304,5 mm s150-DN150 - s65-DN65 x 503,5 mm s150-DN150 - s80-DN80 x 418,5mm s150-DN150 - s100-DN100 x 420,5mm s150-DN150 - s125-DN125 x 423,5mm s150-DN150 - s150-DN150 x 423,5mm		1 688 551 557 1 688 551 568 120 011 214 1 688 421 092 1 688 421 105 1 688 421 116 1 688 421 127 1 688 590 481 1 688 556 245 1 688 551 604 1 688 551 615 1 688 556 256 1 688 666 166 1 688 421 138 1 688 421 149 1 688 421 150 1 688 421 161

Type	Description	Destination	Order N°
Straight pipes 	Flanges PN16 s40-DN40 x 500mm s50-DN50 x 250mm s50-DN50 x 500mm s65-DN65 x 250mm s65-DN65 x 500mm s80-DN80 x 250mm s80-DN80 x 500mm s100-DN100 x 250mm s100-DN100 x 500mm s125-DN125 x 250mm DN4125 x 500mm s150-DN150 x 250mm s150-DN150 x 500mm	Seals and screw set are ordered separately	1 688 421 478 1 688 421 172 1 688 421 489 1 688 421 194 1 688 421 490 1 688 421 218 1 688 421 503 1 688 421 230 1 688 421 514 1 688 421 252 1 688 421 525 1 688 421 274 1 688 421 536 1 688 421 296
	Adapting, flanges PN16 s25-DN25 - s50-DN50 x 159 mm s25-DN25 - s40-DN40 x 144 mm S25-DN25 - s65-DN65 x 173 mm s25-DN25 - s80-DN80 x 254 mm s40-DN40 - s50-DN50 x 163 mm s40-DN40 - s65-DN65 x 177 mm s40-DN40 - s80-DN80 x 182 mm s50-DN50 - s65-DN65 x 180 mm s50-DN50 - s80-DN80 x 185 mm s50-DN50 - s100-DN100 x 197 mm s65-DN65 - s80-DN80 x 185 mm s65-DN65 - s100-DN100 x 197 mm s80-DN80 - s100-DN100 x 202 mm s80-DN80 - s125-DN125 x 232 mm s80-DN80 - s150-DN150 x 245 mm s100-DN100 - s125-DN125 x 234 mm s100-DN100 - s150-DN150 x 247 mm s125-DN125 - s150-DN150 x 250 mm		1 688 541 804 1 688 586 714 1 688 590 469 1 688 653 209 1 688 421 387 1 478 589 757 1 688 666 064 1 688 421 398 1 688 582 165 1 688 590 458 1 688 421 401 1 688 421 412 1 688 421 423 1 688 421 434 1 688 602 591 1 688 421 445 1 688 421 456 1 688 421 467
	Adapting, threaded h3/8-Rp1/2 - d1,1/4-Rp2 1" - 3/4"		3 333 110 775 3 333 109 204

Type	Description	Destination	Order N°
Manometers 	Gas manometers with push-button valve, Rp1/2"		1 098 693 283
	0 - 60 mbar 0 - 100 mbar 0 - 160 mbar 0 - 250 mbar 0 - 600 mbar 0 - 1,6 bar 0 - 6 bar 0 - 60 mbar 0 - 60 mbar	For VGF2 S65-DN65 For MB VEF	1 098 693 294 1 098 693 307 1 098 693 318 1 098 693 329 1 098 693 330 1 098 693 341 13 001 683 13 001 775
Test burner	With push-button valve, Rp 1/2" Max. pressure 0,5 bar		1 478 595 657
Flow counters	TERZ 94 max. pressure 10 bar		12 001 361
	6 - 100 m3/h - S50-DN50 x 150 mm 10 - 250 m3/h - S80-DN80 x 120 mm 25 - 400 m3/h - S80-DN80 x 120 mm 25 - 400 m3/h - S100-DN100 x 150 mm 40 - 650 m3/h - S100-DN100 x 150 mm 85 - 1000 m3/h - S150-DN150 x 175 mm 100 - 1600 m3/h - S150-DN150 x 175 mm		12 001 362 12 001 363 12 001 364 12 001 365 12 001 366 12 001 367
Spacers	With connections Rp1/2" and Rp3/4" for manometer and test burner		1 478 439 545
	s40-DN40 x 50 mm s50-DN50 x 50 mm s65-DN65 x 50 mm s80-DN80 x 50 mm s100-DN100 x 50 mm s125-DN125 x 50 mm s150-DN150 x 50 mm		1 478 439 556 1 478 439 567 1 478 439 578 1 478 439 589 1 478 439 590 1 478 439 603
Seals, screw set 	Screwing set : 1 seal, 4 bolts, 4 nuts, 4 washers		1 478 811 767
	s25-DN25 s40-DN40 s50-DN50 s65-DN65 s80-DN80 s100-DN100 s125-DN125 s150-DN150		12 001 429 12 001 430 12 001 431 12 001 432 12 001 433 12 001 434 12 001 435
Holders	for gas train Crutch	Three pieces (with flange and leg)	3 333 208 914
	Flange Leg 1000 mm	For gas train S40-DN40 ... S150-DN150	3 333 208 915 3 333 208 916 1 478 429 541
Flexible hose 	Stainless steel - max. pressure 4 bar		4 488 681 772
	Rp1/2" x 500 mm Rp1/2" x 1000 mm Rp3/4" x 500 mm Rp3/4" x 1000 mm Rp1" x 500 mm Rp1" x 1000 mm		4 488 681 783 4 488 681 794 4 488 682 708 4 488 682 719 4 488 682 720
	Stainless steel - max. pressure 1 bar		4 488 696 511
	Rph3/8-Rp1/2 x 500 mm Rph3/8-Rp1/2 x 1000 mm d2-Rp2 x 500 mm d2-Rp2 x 1000 mm		4 488 696 522 4 488 696 533 4 488 696 544



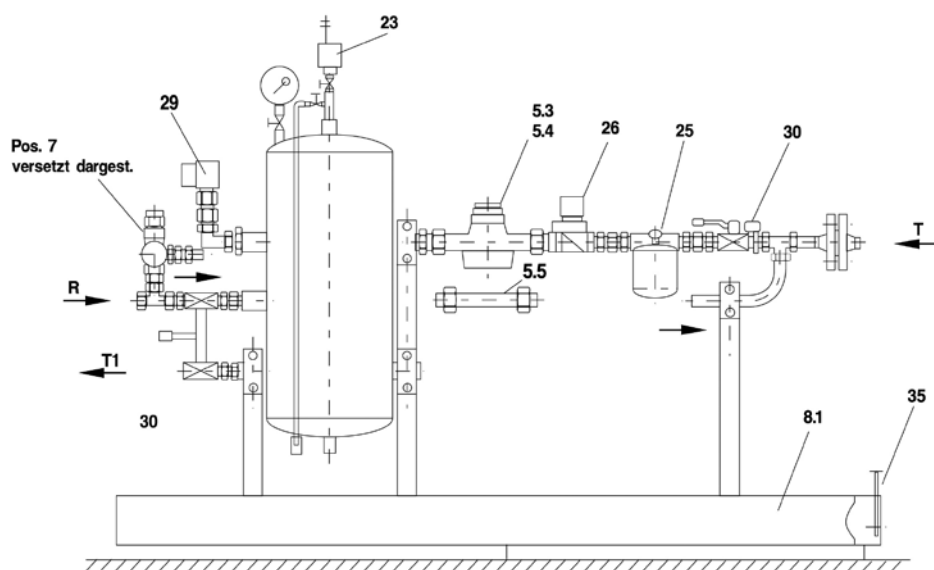
Base equipment

- 1 Welded flange PN16
- 2 Connecting flange PN16
- 3 Ball valve PN16
- 4 Fuel filter
- 5 Fuel rate tcounter with roller
- 6 Pressure tank
- 7 Relief valve
- 8 Fuel collector with holding
- 9 Glycerol manometer 0..10 bar
- 10 Air valve

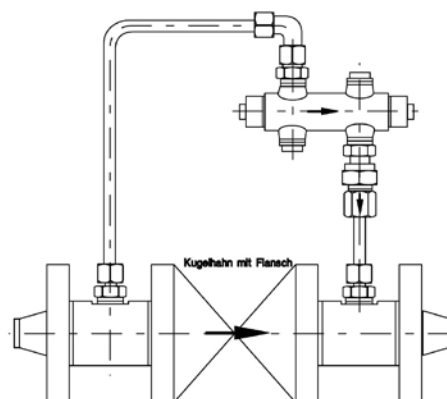
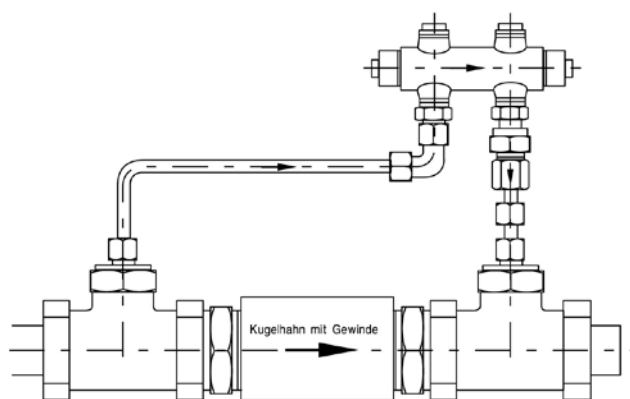
Base type		LBA 600 A	LBA 1200 A	LBA 2400 A	LBA 3000 A
Burner pump capacity	l/h	600	1200	2400	3000
Fuel rate for burner capacity "T"	l/h	10...200	10...400	30...1000	75...2000
Flange connection "T" on feed line	PN 16	s15-DN15		s20-DN20	s25-DN25
Burner connection "R" and "T1" (feed + return pipe)		Rp 1/2	Rp 3/4	Rp 1	
Delivery pressure --> depending on air venting way	manual	min. 1 bar / max. 2,5 bar			
	automat	1 bar			
Volume pressure tank	dm³	6	12	22	
Dimension L x B	mm	1050 x 360	1300 x 400		
Oder-No.		138 881 2306	138 881 2317	138 881 2328	138 881 2339

Note:

- Oil supply pressure (pressure range) is created by sepatate force pump in ring pipeline or by lift of tank to greater height!
- For oil feed line of Monoblock burners, operating with oil EL and L (--> heavy oil M and S on request).
- Suits for equipment in accordance with DIN 4755/2, TRD 411, TRD 604.



Pos.	Oil mountings group	LBA 600 A	LBA 1200 A	LBA 2400 A	LBA 3000 A
5.3	Fuel rate counter with pulse transducer (Reed)	0,1 l / Imp		1 l / Imp	
	Order-No.	136 881 2340		136 881 2351	136 881 2566
5.4	Fuel rate counter with inductive pulse transducer	0,01 l / Imp			0,1 l / Imp
	Order-No.	136 881 2362		136 881 2373	136 881 2384
5.5	Make-up part for fuel rate counter (for remedial maintenance)	Rp 3/4		Rp 1	Rp 1 1/4
	Order-No.	136 881 2395		136 881 2408	136 881 2419
8.1	Extended fuel collector for options M, DM, DK	This option needs when choice of options M and / or DK			
	Order-No.	138 881 2420			
21	limit switch for ball valve position 1	230V / 50Hz / IP65, mounted onto ball valve. Tested at installation.			
	Order-No.	176 881 24 31			
23	Automatic air valve	Rp 3/8, PN16, 150°C			
	Order-No.	147 881 2442			
25	Fuel filter	Rp 1/2		Rp 3/4	Rp 1
	Order-No.	134 881 2453		134 881 2464	134 881 2475
26	Safety electromagnetic valve	Rp 1/2		Rp 3/4	Rp 1
	Order-No.	147 881 2486		147 881 2497	147 881 2500
29	Oil pressure switch	Rp 1/2, 230V / 50Hz / IP54, setting range 0,2...2,5 bar			
	Order-No.	176 881 2511			
30	Two ball valves combination	Rp 1/2	Rp 3/4	Rp 1	
	Order-No.	147 881 2522	147 881 2533	147 881 2544	
35	Leakage control built in fuel collector	230V / 50Hz / IP65			
	Order-No.	175 881 2555			



	Description	Order N°
Safety valve according to TRD oil pressure control	Safety valve for EL with relief valve, nonreturn valve, pipe, threaded connection, seal Nominal pressure: 40 bar Pressure different: 3 - 10 bar	147 873 1962
	Connection element for safety valve on threaded mounting with threaded connection and seal Threaded connection Rp 1/2" Threaded connection Rp 3/4" Threaded connection Rp 1"	146 873 1837 146 873 1848 146 873 1859
	Connection element for safety valve on flange mounting with connecting ring, threaded connection, seal, pin screws, nuts s15-DN15 PN 16/40 s20-DN20 PN 16/40 s25-DN25 PN 16/40 s32-DN32 PN 16/40 s40-DN40 PN 16/40 s50-DN50 PN 16/40 s65-DN65 PN 16 s80-DN80 PN 16	146 873 1860 146 873 1871 146 873 1882 146 873 1780 146 873 1791 146 873 1804 146 873 1826 146 873 1815
	Oil pressure switch (EK 6-EK 9) for feed and return pipeline with manometer, stopcock, threaded connection	109 879 6676

Oil fittings Manometer Leakage control device Air valve

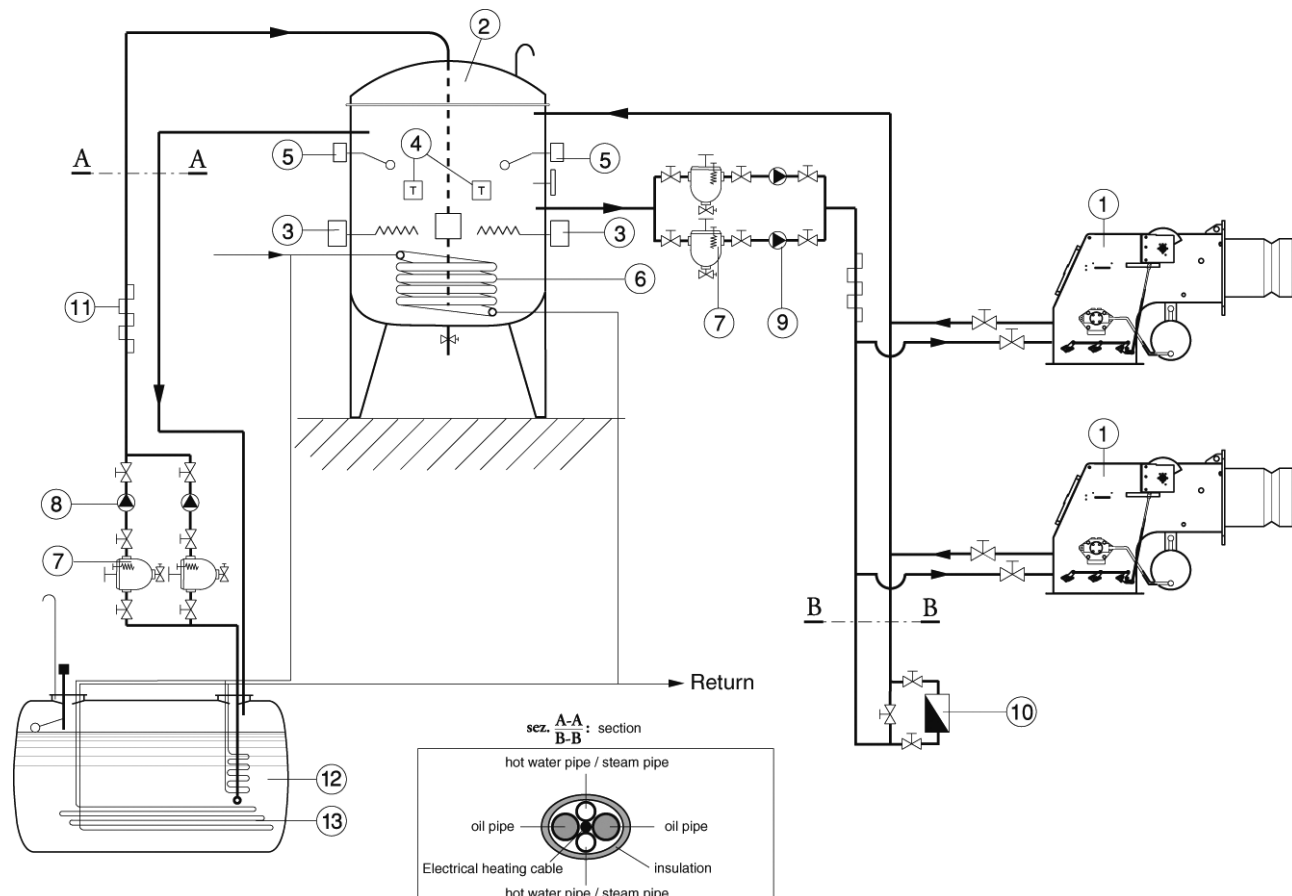
Type	Description	Order N°
	Manometer / vacuumeter with glycerol filler Connection Rp 1/2 A radial Indication range: -1...+3 bar -1...+5 bar 0...4 bar 0...6 bar 0...10 bar 0...16 bar 0...25 bar 0...40 bar 0...60 bar	109 874 8467 109 874 8478 109 874 8489 333 311 6345 109 874 8490 109 858 5471 333 326 1128 109 016 0374 109 811 4290
	Signal device for oil for wall mounting HMW with 1 optoelectronic detector and 2 m cable, signal part in housing HxBxT=110x75x55 230V / 50-60Hz / IP65 250V Possibility to connect 2. optoelectronic detector Leakage detector, optoelectronic with cable 2 m Leakage detector, optoelectronic with cable 10 m Leakage detector, optoelectronic with cable 30 m	175 881 2000 175 881 2011 175 881 2022 175 881 2033
	Automatic air valve with stopcock Rp 3/8	147 881 2577

Type	Description	Order N°
	Relief / pressure maintaining valve in threaded design, directly adjustable, with spring load for keeping adjusted working and maximum pressure Viscosity range 2,8...480 sSt	
	Connection Fuel rate Pressure degree Rp l/h bar	
	1/4i 6...120 0,5...1,5 1...4 2...9	147 881 2044 147 873 0083 147 873 1940
	3/8i 15...160 0,5...1,5 1...4 2...9	147 881 2055 147 881 2066 147 881 2077
	1/2i 30... 600 0,5...1,5 1...4 2...9	147 881 2088 147 872 0874 147 881 2099
	3/4i 100...2000 0,5...3,5 2...9	147 881 2102 147 881 2113
	1i 300...6000 0,5...1,5 1...4 2...9	147 881 2124 147 881 2135 147 881 2146
	Relief / pressure maintaining valve in flange design, directly adjustable, with spring load for keeping adjusted working and maximum pressure Viscosity range 2,8...480 sSt	
	Connection Fuel rate Pressure degree DN l/h bar	
	15 30...600 0,5...1,5 1...4 2...9	147 881 2179 147 872 9973 147 881 2180
	20 100...2000 0,5...3,5 2...9	147 881 2191 147 881 2204
	25 300...6000 0,5...1,5 1...4 2...9	147 881 2215 147 878 5851 147 881 2226
	Welded flange PN 16 according to DIN 2633, form C from RSt 37-2 as external flange for oil mounting PN16	
	s15-DN15 s20-DN20 s25-DN25 s32-DN32 s40-DN40 x 42 mm s50-DN50 x 45 mm s65-DN65 x 45 mm s80-DN80 x 50 mm	531 867 5203 333 310 1876 531 835 3059 531 870 4652 531 835 3048 531 842 8082 531 842 8093 531 842 8106
	Seal and screw set is ordered separately!	
	Welded flange PN 40 according to DIN 2635, form C from C22 as external flange for oil mounting PN40	
	s15-DN15 s20-DN20 s25-DN25 s32-DN32 s40-DN40 x 42 mm s50-DN50 x 45 mm	531 855 7486 333 310 1916 531 855 6494 531 855 6507 531 855 6518 531 857 5308
	Seal and screw set is ordered separately!	
	Seal and screw set for flange connection on oil mounting with 1 seal, pin screws, hexagon nuts, lining washer	
	s15-DN15 PN16 / PN40	531 873 1439
	s20-DN20 PN16 / PN40	531 873 1440
	s25-DN25 PN16 / PN40	531 873 1451
	s32-DN32 PN16 / PN40	531 873 1462
	s40-DN40 PN16 / PN40	531 873 1473
	s50-DN50 PN16 / PN40	531 873 1484
	s65-DN65 PN 16	531 873 1495
	s80-DN80 PN 16	531 873 1508

Type	Description	Order N°
Ball valves	0°C ... 60°C : 64 bar, 0°C ... 120°C : 40 bar, 20°C ... 150°C : 30 bar	
	1/4"	1 478 736 157
	1/2"	1 478 736 168
	3/4"	1 478 736 179
	1"	1 478 736 180
	-20°C ... 150°C : 16 bar	
	s25-DN25	1 478 732 910
	s32-DN32	1 478 732 921
	s40-DN40	1 478 732 932
	s50-DN50	1 478 732 943
	s65-DN65	1 478 732 954
	s80-DN80	1 478 732 965
	-10°C ... 120°C : 40 bar, -10°C ... 150°C : 30 bar	
	s15-DN15	1 478 734 938
	s20-DN20	1 478 734 949
Filters	3/4" (hand cleaning)	12 006 508
	Any other sites and capacities	on request
Light oil flow counter	Without pulse transducer	
	10 ... 400 l/h - 16 bar - Rp 1/2"	1 368 746 803
	10 ... 400 l/h - 16 bar - s15-DN15	1 368 746 892
	30 ... 1000 l/h - 16 bar - Rp 3/4"	1 368 746 836
	30 ... 1000 l/h - 16 bar - s20-DN20	1 368 746 927
	75 ... 2000 l/h - 16 bar - Rp1"	1 368 746 869
	75 ... 2000 l/h - 16 bar - s25-DN25	1 368 746 950
	With pulse transducer RV 0,1 (Reed)	
	10 ... 400 l/h - 16 bar - Rp 1/2"	1 368 746 814
	10 ... 400 l/h - 16 bar - s15-DN15	1 368 746 905
	30 ... 1000 l/h - 16 bar - Rp 3/4"	1 368 746 847
	30 ... 1000 l/h - 16 bar - s20-DN20	1 368 746 938
	75 ... 2000 l/h - 16 bar - Rp1"	1 368 746 870
	75 ... 2000 l/h - 16 bar - s25-DN25	1 368 746 961
	With pulse transducer RV 0,1 (Reed)	
	10 ... 400 l/h - 16 bar - Rp 1/2"	1 368 746 825
	10 ... 400 l/h - 16 bar - s15-DN15	1 368 746 916
	30 ... 1000 l/h - 16 bar - Rp 3/4"	1 368 746 858
	30 ... 1000 l/h - 16 bar - s20-DN20	1 368 746 949
	75 ... 2000 l/h - 16 bar - Rp1"	1 368 746 881
	75 ... 2000 l/h - 16 bar - s25-DN25	1 368 746 972
	With pulse transducer RV 0,1 (Reed)	
	VSR - Rp 1/2"	1 012 553
	VSR - Rp 3/4"	1 012 564
	VSR - Rp1"	1 012 575

Type	Description	Order N°
Heavy oil ring system	Customised heavy oil ring system according to specification needed	on request

Heavy oil preparation suggested sheme



Standard system composition

- 1 Feeding and filtering system
- 2 Fuel heating system for reducing oil viscosity plus service tank
- 3 Forced oil supply system "RING"

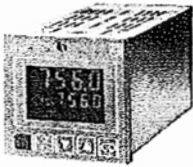
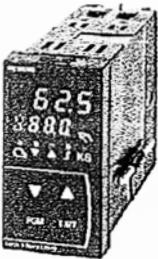
Base equipment

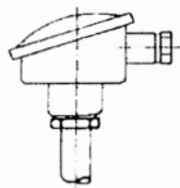
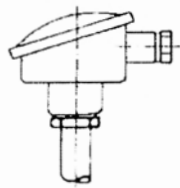
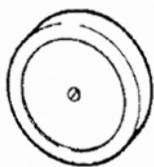
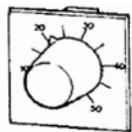
- 1 Burners
- 2 Service tank
- 3 Electric heaters
- 4 Safety and operation thermostat
- 5 Level switch (working + safety)
- 6 Heating coil
- 7 Selfcleaning oil filter
- 8 Load pumps
- 9 Ring pumps
- 10 Oil ring control pressure device
- 11 Heating cable
- 12 Main heavy oil storage tank
- 13 Heating coil



Heavy oil heating and pumping units

All installations using heavy oil burners have to be completed with a **forced oil preparation ring** in order to guarantee oil supply to the burner at suitable temperature and pressure (Temperature +/- 80° C Pressure 3 bar).

Type	Description	Order N°																		
Load controller 	Industrial controller KS 92 for the installation on the front panel with: - All-purpose measuring input, adjusted for all the known measuring devices - Correcting input for 0/4...20mA or Poti - Correcting input for 0/4...20mA or 0/2...10V - 2 digital command inputs for internal commutation etc. by means of the external voltage 24V of direct current - 3 adjustable outputs of the relay for <250 V, 500 V-A, 2A - 1 anamog output 0/4....20Ma - Auxiliary power 230 V, alternative current (+10/15%), 48...62Hz Industrial controller KS 92 for the installation on the front panel with internal feeding or the pressure transducer.	75 872 1399																		
Industrial controller KS 92 -1	Models <table border="0"> <tr> <td>KS92-110-00000-000</td><td>Basic version «3 points», 5 programs</td><td>14.023.310</td></tr> <tr> <td>KS92-112-11000-000</td><td>Extended version : additional E/A and 1 constant analogic output, Mode BUS</td><td>14.023.321</td></tr> <tr> <td>KS92-114-21000-000</td><td>Complete version : additional E/A and 2 constant analogic outputs, Profi-BUS</td><td>14.023.332</td></tr> <tr> <td>KS92-110-00100-000</td><td>Basic version «3 points», 8 programs</td><td>14.023.376</td></tr> <tr> <td>KS92-112-11100-000</td><td>Extended version : additional E/A and 1 constant analogic output, Mode BUS, 8 programs</td><td>14.023.387</td></tr> <tr> <td>KS92-114-21200-000</td><td>Complete version : additional E/A and 2 constant analogic outputs, Profi-BUS, 16 programs</td><td>14.023.398</td></tr> </table>	KS92-110-00000-000	Basic version «3 points», 5 programs	14.023.310	KS92-112-11000-000	Extended version : additional E/A and 1 constant analogic output, Mode BUS	14.023.321	KS92-114-21000-000	Complete version : additional E/A and 2 constant analogic outputs, Profi-BUS	14.023.332	KS92-110-00100-000	Basic version «3 points», 8 programs	14.023.376	KS92-112-11100-000	Extended version : additional E/A and 1 constant analogic output, Mode BUS, 8 programs	14.023.387	KS92-114-21200-000	Complete version : additional E/A and 2 constant analogic outputs, Profi-BUS, 16 programs	14.023.398	
KS92-110-00000-000	Basic version «3 points», 5 programs	14.023.310																		
KS92-112-11000-000	Extended version : additional E/A and 1 constant analogic output, Mode BUS	14.023.321																		
KS92-114-21000-000	Complete version : additional E/A and 2 constant analogic outputs, Profi-BUS	14.023.332																		
KS92-110-00100-000	Basic version «3 points», 8 programs	14.023.376																		
KS92-112-11100-000	Extended version : additional E/A and 1 constant analogic output, Mode BUS, 8 programs	14.023.387																		
KS92-114-21200-000	Complete version : additional E/A and 2 constant analogic outputs, Profi-BUS, 16 programs	14.023.398																		
Load controller 	Load controller RWF40.010 A97 DPS for the installation on the front panel with the connection of the measuring converter and with: - All-purpose measuring inlet opening for Pt100, Pt1000, Ni1000, thermocouple or unified signal - Correcting input for the external set value, with the change of the set value by means of a resistance 0-1 kOhm, or with unified signal - Correcting signal for the sensor of ambient temperature Pt1000 or Ni1000 - Output 1 for the unlocking of the burner - Outputs 2, 3 (modulable ouput) for the regulating unit - Outputs 4 for the limiting comparator Load controller RWF40.010 A97 with the steady output 4-20mA for the burner with electronic control BCS. Adapter frame for the installation of RWF40 in the point of connection of RWF32 during the substitution of the obsolete facilities. RWF 40 ttings : FZA21.11 (potentiometer for adjustment of the set value) Kit for mounting RWF40 to replace RWF32 RWF40 for dual heavy oil / gas GLO / GHO-Tron	175 880 3952 175 880 3963 175 880 3985 3333118980 on request on request																		

Type	Description	Order N°
Sensors of temperature 	Temperature sensor PT 100 conform to the German industrial norm DIN 43729, form B, M24x1,5, having the measurement range 1XPT100, connection Rp1/2", protective tube St35.8. Maximal ambient temperature for the connecting head 100°C. Working medium: water, liquid fuel. Use: RWF40, KS92 Measurement range: -200...+400°C, depth of installation: 160 mm Measurement range: +480°C, depth of installation: 250mm, Maximum 38 bar up to 250°C, Maximum 27 bar up to 350°C, from 350°C and higher - without pressure	175 857 4269 175 859 1655
Sensors of temperature 	Temperature sensor PT100 conform to German industrial norm DIN 43729, form B, M24x1,5, connection Rp1/2", protective tube St35.8, 1 x PT100 with a measuring transformer having two wires, maximal ambient Temperature for the connecting head: 60°C Working medium: water, li Use: BCS with an internal regulator of power. Measurement range: 0 - 200°C, depth of instalaltion: 160 mm Measurement range: 0 - 200°C, depth of instalaltion: 250 mm Maximum 38 bar up to 250°C, maximum 27 bar up to 350°C, from 350°C and higher - without pressure	101 1276 101 1287
Pressure 	Measuring pressure transducer, connection Rp1/2", auxiliary power 12...30V of direct current, output 4...20mA, is necessary a regulator with internal feeding. Use: BCS, RWF40, KS92 with internal feeding. Measurement range 0...1.6 bar Measurement range 0...2.5 bar Measurement range 0...4 bar Measurement range 0...6 bar Measurement range 0...10 bar Measurement range 0...16 bar Measurement range 0...25 bar	175 864 0659 175 871 3722 175 872 7079 175 864 0660 175 857 7280 175 857 7291 175 872 7060
Sensor 	Sensor of weather conditions QAC 22 Measurement range: -30°C - +50°C, 1NI 1000 Ohm 0°C Use : RWF40	333 311 8977
Adjustment 	Adjustment of the set values FZA 21.11, installation on the front panel 48x48 mm with a changeable kit of scales Use : RWF40	333 311 8980
Potentiometers	EK6 to EK9 ...L-R, ...GL-R	1 007 645

Regulation of O₂ and control of the fan's rotational speed for the burners with the control unit BCS

With the purpose of amplifying the potentialities of this system all the burners, equipped with the control unit BCS, can be without problems completed with the devices for regulating O₂ and fan speed controller.

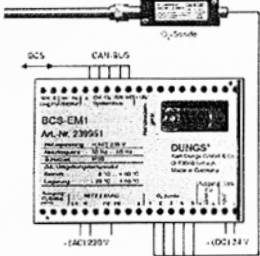
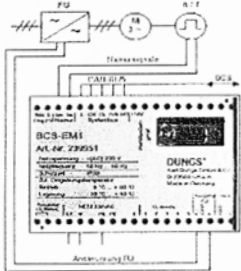
A result of these measures will be the economic and well thought-out handling of the resources: electric energy and fuel, which not only corresponds to the ecological conception of the company ELCO, but it also leads to the real saving of means for the user.

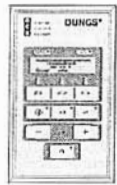
The additional equipment of the existing furnace units is not complicated thanks to the modular design of the system as a whole and an innovative communication between single modules by means of the bus CAN.

Thanks to the well thought-out general scheme of the unit BCS the additional time, necessary for putting into operation and the maintenance of the devices regulating O₂ and/or controlling the rotational speed, is insignificant.

Depending on the dimensions of the unit and on the operating conditions, the periods of amortization less than two years are real.

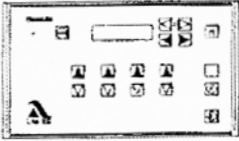
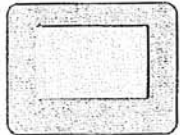
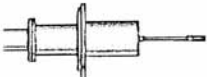
For the concrete evaluation of the potential of cost reduction, taking into account the individual operating conditions, there is a computational program, oriented to the practical values.

Type	Description	Order N°
Regulation of O₂ 	Regulation of O₂ for the reduction of fuel consumption The device for regulation of O₂ ensures the burner's excess air, in every point of load, operating at a pre-determined optimum ratio. It is able to operate at this optimum ratio by compensating influencing factors such as fuel and weather changes. The improvement in combustion efficiency, as a result of these measures, leads to a considerable decrease in fuel consumption. Thanks to a special engineering-and-technical solution of the O₂ regulation device as a whole and combined with the BCS system, the adjustment of the O₂ regulation is carried out together with the regulation of the base ratio of "fuel-air"; Under these conditions, thanks to the independent determination of the necessary regulating parameters, specific for this unit, the system keeps the value of used time at a low level. - Reduction of the fuel consumption owing to the optimization of the combustion efficiency. - Oxygen probe with a short time of actuation; no need of reference standard gas. - Simplicity of regulation with support on the part of the system. - Permanent indication of the measured O₂ value (together with the manual control device). - Connection or disconnection of the O₂ regulation device for every kind of fuel. - Possibility of additional equipment on all the burners provided with the control system BCS.	
Fan speed controller 	Controller of the fan speed for the reduction of electric current consumption and noise creation level The control of the fan speed allows in every point of the burner's load to reduce the fan speed to the minimal air volume necessary for combustion. This resulted in considerable reduction on the electrical consumption of the fan and the noise level. The whole section of electric circuit, including the device which presets the fan speed, the frequency inverter, the electric Motor, the device for acknowledgment of the fan speed by means of Namur sensor, were taken into account in the scheme of electric safety of the BCS and it has passed the test in accordance with the norms established by the German Union of engineering supervision workers. The adjustment of the fan speed in the dialog mode in every point of the burner's load reduces the additional time losses while putting into operation. - Essential saving of electric energy as a result of reducing the power consumed by the fan which supplies the air for combustion (depending on the unit's operating conditions down to the coefficient 0.5). - Considerable reduction in noise level (it is possible to abandon some additional measures of acoustic insulation). - Optimal matching of the burner with the furnace units also in the case of full load. - Little time used for putting into operation, owing to the adjustment in the dialog mode. - Possibility of additional equipment on all burners provided with the control unit BCS.	

Type	Description	Order N°
EM1 module (BCS) 	Additional modul BCS-EM1 for the control of the fan's rotational speed and/or for the regulation of O2 For the incorporation into the switch cabinet with: - Output of the frequency inverter 4-20mA - Input for the sensory switch Namur - Digital input for the alarm system of the frequency inverter - Input for the oxygen probe - Digital output for the state of the O2 regulation device - Bus CAN-BCS for the communication with the burner's control system BCS For the mounting of the O2 regulation device there will be required additionally, see page 8.3 - Oxygen probe - Threaded tube connection for the incorporation of the oxygen probe - Detachable contact joint of the oxygen probe - Unit for power supply from the mains 230 V of alternative current / 24 V of direct current For the mounting of the rotational speed controller there will be required additionally: - Frequency inverter, for example, VLT500, see page 220 - Sensory switch Namur, for example, Bi2 - G12-YO, see page 216	175 881 7298
BCS indicating controller 	Indicating controller with 4-lines indication by plaintext, for the input of a set value and the parametrization of the burner's control system BCS, the indication effectuated by the signaling system checking the operation of the technological equipment and by the alarm system, as well as of the true O2 values (only if combined with an O2 regulation device). Use: all the burners with BCS system Mounting frame for incorporating the indicating controller into the door of the distribution cabinet. Connecting wire provided with lugs for BCS 300 (3m length)	175 879 5208 12 000 619 12 000 621
BG inductive switch «Namur» 	BG inductive switch Namur, Type Bi2 - G 12 - Y O for the installation on the burner EK6 EK7 EK8 - EK9.850 EK9.1000 N10	1 658 778 196 1 658 778 196 1 658 814 675 1 658 814 686 1 658 814 697 1 658 860 480
Regulation O2 probe 	Measuring probe for O2-flue gases To be installed in the discharge flue, is composed of: - Measuring probe for O2-flue gases - Fastening element for the probe BCS-O2 Rp 1/2" - Plug connector for the probe BCS-O2 - Unit of power supply from the mains 230 V / 24 V, 3A The O2 measuring probe depends on the reliability of the BCS system and is suitable for the long-time use. It does not need any reference standard gas. The time of probe's activation in case of short circuit allows to establish the true O2 value of the furnace unit in accordance with the set value and to liquidate quickly the defects. O2 probe temp. Range max. 250°C O2 probe temp. Range max. 350°C	14.010.396 14.010.385

For temperature and pressure probe to match with control unit BCS refer to general probes page.

For frequency converter refer to the fan speed controller - Variatron®

Type	Description	Destination	Order N°
Etamatic	 Electronic control Etamatic with 4 DPS-adjusting outputs for servodrives up to 50 mA of direct current with: - Incorporated automatic furnace, having passed the test approved by the German Union of engineering supervision workers - Incorporated control of tightness of the valves - Incorporated regulator of power - Incorporated counter of working hours with pulse transducer - Incorporated relay of flame - Incorporated program of O₂ regulation, including the system Lamtec with connecting bus For the regulation of O₂ there is necessary additionally: - Device for O₂ regulation, current order N° 101 1312		101 2586
	Electronic control Etamatic S with a steady adjusting output for the regulation of the number of revolutions of the fan supplying the air of burning and 4 DPS-adjusting outputs for the servodrives up to 50 mA of direct current with: - Incorporated automatic furnace, having passed the test approved by the German Union of engineering supervision workers - Incorporated control of tightness of the valves - Incorporated regulator of power - Incorporated counter of working hours with pulse transducer - Incorporated relay of flame incorporated program of O₂ regulation, including the system Lamtec with connecting bus For the regulation of O₂ there is necessary additionally: - Device for O₂ regulation, current order N° 101 1312 For the control of the number of revolutions there are necessary additionally: - Static frequency converter - Switch Namur		101 2597
Etamatic OEM for EK Range	Electronic control Etamatic OEM for EK6-9 built in the burner or in a separate derivative cabinet. Configuration on request : Display Unit or Customer interface must be ordered together with it		On request
Regulation of O ₂	  Regulation of O₂ (only combined with the electronic control Etamatic) with: - Lambda-probe LS 2 - Gas extraction device MEV, length 300mm - Probe installation fittings SEA - Lambda-transmitter LT 2 in the wall-type casing IP 54, including 1 analog output 0/4-20 mA = 0-10%O₂ Options: - Measurement of the flue gas temperature and the calculation of the coefficient of burning efficiency, including 2 temperature sensors PT100 and 2 analog outputs, freely adjustable on the flue gas temperature and the burner's load. - Combined probe KS 1 for the detection of CO/H₂, including the unit of power supply from the mains and the additional analog output for the CO emission Complete set : combined probe type KS1D, Lambda-transmitter LT2, gas consumption counter MEV		101 1312 101 1323 101 1334
	Etamatic commissioning and regulation software : On request depending from language interface Customer interface Etamatic OEM Operation and display Etamatic OEM Assembly frame for operation and display unit (assembly into switch cabinet) Pro Bus DP interface and processor WARNING : either customer interface or operation and display unit has to be included		1658843732 1718843754 1718850339 14028667 On request
BG inductive switch «Namur»	BG inductive switch Namur, Type Bi2 - G 12 - Y O for the installation on the burner		1 658 778 196
	EK6		1 658 778 196
	EK7		1 658 814 675
	EK8 - EK9.850		1 658 814 686
	EK9.1000		1 658 814 697
BG inductive switch Namur for fan speed control	N10		1 658 860 480

For temperature and pressure probe to match with control unit Etamatic refer to general probes page.
For frequency converter refer to the fan speed controller - Variatron®

Danfoss variatrons

Designation	Type	Burners	Order N°
Configuration 1: IP55 with installation plate, interface alphanumeric, without board coating, without main switch, german, software basis, without fieldbus, without additional E/A-board			
3 kW	FC102P3K0T4	EK 6.170 / EK 6.200	14 021 957
4 kW	FC102P4K0T4	EK 6.240 / EK 6.300	14 021 968
5,5 kW	FC102P5K5T4	EK 7.350	14 021 979
7,5 kW	FC102P7K5T4	EK 7.450	14 021 990
11 kW	FC102P11KT4	EK 8.550	14 022 001
15 kW	FC102P15KT4	EK 8.700	14 022 012
18,5 kW	FC102P18KT4	EK 9.850	14 022 023
22 kW	FC102P22KT4	EK 9.1000	14 022 034
30 kW	FC102P30KT4	E 10.12000, EK-DUO, RPD	14 022 045
37 kW	FC102P37KT4	E 10.12000 / E 10.14000, EK-DUO, RPD	14 022 056
45 kW	FC102P45KT4	E 10.14000, EK-DUO, RPD	14 022 067
55 kW	FC102P55KT4	EK-DUO, RPD	14 022 078
Configuration 2: IP21 with installation plate, interface alphanumeric, without board coating, without main switch, german, software basis, without fieldbus, without additional E/A-board			
3 kW	FC102P3K0T4	EK 6.170 / EK 6.200	14 022 089
4 kW	FC102P4K0T4	EK 6.240 / EK 6.300	14 022 100
5,5 kW	FC102P5K5T4	EK 7.350	14 022 111
7,5 kW	FC102P7K5T4	EK 7.450	14 022 122
11 kW	FC102P11KT4	EK 8.550	14 022 133
15 kW	FC102P15KT4	EK 8.700	14 022 144
18,5 kW	FC102P18KT4	EK 9.850	14 022 155
22 kW	FC102P22KT4	EK 9.1000	14 022 166
30 kW	FC102P30KT4	E 10.12000, EK-DUO, RPD	14 022 177
37 kW	FC102P37KT4	E 10.12000 / E 10.14000, EK-DUO, RPD	14 022 188
45 kW	FC102P45KT4	E 10.14000, EK-DUO, RPD	14 022 199
55 kW	FC102P55KT4	EK-DUO, RPD	14 022 210
Configuration 3: IP20, interface alphanumeric, without board coating, without main switch, german, software basis, without fieldbus, without additional E/A-board			
3 kW	FC102P3K0T4	EK 6.170 / EK 6.200	14 022 221
4 kW	FC102P4K0T4	EK 6.240 / EK 6.300	14 022 232
5,5 kW	FC102P5K5T4	EK 7.350	14 022 243
7,5 kW	FC102P7K5T4	EK 7.450	14 022 254
11 kW	FC102P11KT4	EK 8.550	14 022 265
15 kW	FC102P15KT4	EK 8.700	14 022 276
18,5 kW	FC102P18KT4	EK 9.850	14 022 287
22 kW	FC102P22KT4	EK 9.1000	14 022 298
30 kW	FC102P30KT4	E 10.12000, EK-DUO, RPD	14 022 309
37 kW	FC102P37KT4	E 10.12000 / E 10.14000, EK-DUO, RPD	14 022 320
45 kW	FC102P45KT4	E 10.14000, EK-DUO, RPD	14 022 331
55 kW	FC102P55KT4	EK-DUO, RPD	14 022 342

Options for danfoss variatrons

Designation	Type	Order N°
130B1129	Interface-plug in set with 3 m cable for IP55/66-devices with cover	14 022 375
Assembly		14 022 386
130B1100	MCA101 Profibus DP-V1	14 022 397
130B1112	Profibus-Connector 9-polig Sub-D just for IP20-switch cabinet	14 022 408
130B1100	MCA101 Profibus DP-V1	14 022 397
130B1102	MCA104 DeviceNet	14 022 419
130B1106	MCA108 LonWorks	14 022 430
130B1144	MCA109 BAC-net	14 022 441
175N2584	Ethernet-Modul (PROFINet, Modbus TP) for separate assembly	14 022 452
for Ethernet/IP, PROFINet, Modbus TCP Master-Gateway to connect until 16 VLT via RS485		

Switch cabinet for modulating gas, oil and dual fuel burners consist of

Switch cabinet housing with intake canal, intake bus, PE-terminals, holes for PG-connections

Feeding with 1 main switch 3pol.

2 fuses 3pol., 3 phase lamps, connection terminals

Burners control with 1 control protector

1 pol., 1 Motor protector 3 pol., 1 auxiliary contactor with 4 contacts, 1 Motor contactor with overload disconnecter (from 5.5kW contact combination

star-triangle), 3 signal lamps 2 W,

2 mode operating switches, 1 enabling button

switch 1 pol., 1 key switch for limit test, 2 working hours

counter with pulse transducer, 1 control box (only mounted and wired), connection terminals

Safety circuit with 2 control

Protectors 1 pol., 1 signal lamp 2W

1 enabling button switch 1 pol.,

2 auxiliary contactors with 4 contacts, connection terminals

Montage place for capacity regulating with

1 compound switch-microswitch,

1 auxiliary contactor with 4 contacts

1 regulator (only mounted and wired)

for modulating operation

connection terminals

Extra equipment for gas and dual fuel burners

Leakage control device VDK200 with 1 signal

lamp, connection terminals

UV-detector for control box LGK 16,

manual gas-oil switching with

1 mode operating switch, 2 signal lamps,

2 auxiliary contactors with 8 contacts,

connection terminals

Further options

Mounted and wired

Etamatic

02-regulating

Frequency converter < 11kW

Frequency converter > 11Kw

Switch cabinet

Designation	Burners	Order N°
For light oil burners	EK6.170/200L...	1 009 823
	EK6.240/300L...	1 009 834
	EK7.350/450L...	1 009 845
	EK8.550 L...	1 009 856
	EK8.700 L...	1 009 867
	EK9.850 L...	1 009 878
	EK9.1000 L...	1 009 889
For gas burners	N10	Included - only for derivative connection
	EK6.170/200 G...	1 009 914
	EK6.240/300 G...	1 009 925
	EK7.350/450 G...	1 009 936
	EK8.550 G...	1 009 947
	EK8.700 G...	1 009 958
	EK9.850 G...	1 009 969
For dual fuel burners	EK9.1000 G...	1 009 970
	N10 Included	Included - only for derivative connection
	EK6.170/200 GL...	1 010 024
	EK6.240/300 GL...	1 010 035
	EK7.350/450 GL...	1 010 046
	EK8.550 GL...	1 010 057
	EK8.700 GL...	1 010 068
	EK9.850 GL...	1 010 079
	EK9.1000 GL...	1 010 080
	N10 Included	Included - only for derivative connection

Switch cabinet fittings

Designation	Burners	Order N°
Mounting plate with intake canal, intake bus, PE-terminals, feeding with 1 fuse, connection terminals	EK6.170/200L	1010148
	EK6.240/300L	1010159
	EK7..L	1010160
	EK8.550L	1010171
	EK8.700L	1010182
	EK9.850L	1010193
	EK9.1000L	1010206
Mounting plate with intake canal, intake bus, PE-terminals, feeding with 1 fuse, connection terminals	EK6.240/300G	1010240
	EK7..G	1010251
	EK8.550G	1010262
	EK8.700G	1010273
	EK9.850G	1010284
	EK9.1000G	1010295
Mounting plate with intake canal, intake bus, PE-terminals, feeding with 1 fuse, connection terminals	EK6.240/300GL	1010353
	EK7..GL	1010364
	EK8.550GL	1010375
	EK8.700GL	1010386
	EK9.850GL	1010379
	EK9.1000GL	1010400

Switch cabinet for G-VU2 version

Designation	Burners	Order N°
Standard: soft start Motor fan		6 518 846 082
Version 1: external fan speed controller	EK6	6 518 849 309
Version 11: fan speed controller integrated on the Motor		6 518 849 310
Standard: soft start Motor fan		6 518 846 093
Version 1: external fan speed controller	EK7	6 518 849 321
Version 11: fan speed controller integrated on the Motor		6 518 849 332
Standard: soft start Motor fan		6 518 846 106
Version 1: external fan speed controller	EK8	6 518 849 343
Version 11: fan speed controller integrated on the Motor		6 518 849 354
Standard: soft start Motor fan		6 518 846 117
Version 1: external fan speed controller	EK9.850	6 518 849 365
Version 11: fan speed controller integrated on the Motor		6 518 849 376
Standard: soft start Motor fan		6 518 846 128
Version 1: external fan speed controller	EK9.1000	6 518 849 387
Version 11: fan speed controller integrated on the Motor		6 518 849 398

Type	Description	Destination		Order N°
Sound-proof housing Reduction in sound level for 15-20 dB (A)	 Sound-proof housing from sheet steel, reduction in sound level for 15-20 dB (A), lacquering according to RAL 7035, external surface from sheet steel with heat-resistant fiberglass sound-proof material according DIN 4702 Demountable basis, lateral elements and housing cover. All parts are self-bearing, easy desassembled by means of fast-opened locks. Housing movable and adjustable throughout the height. Approach pipe line for oil-gas and wiring in lateral elements or lower part. Air intake is effected through absorption section.	EK6.L	B x H x T 1200X1450X1250	114 874 7884
		EK7.L	1400X1450X1350	114 874 7895
		EK8.L	1500X1500X1500	114 874 7908
		EK9.L	1700X1650X1600	114 874 7919
		EK6.G	1200X1650X1250	114 874 7953
		EK7.G	1400X1750X1350	114 874 7964
		EK8.G	1500X1850X1500	114 874 7975
		EK9.G	1700X2000X1600	114 874 7986
		EK6.GL	1250X1650X1250	114 874 8025
		EK7.GL	1400X1750X1350	114 874 8036
Sound-proof housing Reduction in sound level for 20-30 dB (A)	 Sound-proof housing from sheet steel, reduction in sound level for 20-30 dB (A), lacquering according to RAL 7035, external surface from sheet steel with heat-resistant fiberglass sound-proof material according DIN 4702. Encased with galvanized perforated sheet. Demountable basis, lateral elements and housing cover. All parts are self-bearing, easy desassembled by means of fast-opened locks. Housing movable and adjustable by height. Approach pipe line for oil-gas and wiring in lateral elements or lower part. Air intake is effected through absorption section.	EK6.L	B x H x T 1200X1450X1250	114 874 7680
		EK7.L	1400X1450X1350	114 874 7691
		EK8.L	1500X1500X1500	114 874 7704
		EK9.L	1700X1650X1600	114 874 7715
		EK6.G	1200X1650X1250	114 874 7759
		EK7.G	1400X1750X1350	114 874 7760
		EK8.G	1500X1850X1500	114 874 7771
		EK9.G	1700X2000X1600	114 874 7782
		EK6.GL	1250X1650X1250	114 874 7817
		EK7.GL	1400X1750X1350	114 874 7828
Special sound-proofing box	For special sizes, consult us	EK6 and EK7		1 013 385
		EK8 and EK9		1 013 396
Oil pans	Placed in the sound-proofing box to recuperate oil	EK6		1 388 748 081
		EK7		1 388 748 092
		EK8		1 388 748 105
		EK9		1 388 748 116

Boiler with three-way furnace

Dimension A = mm

Dimension B = mm

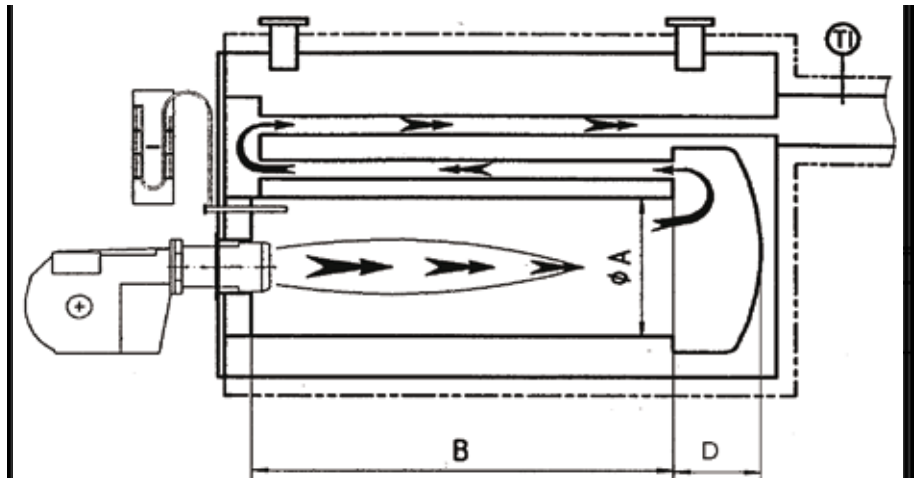
Efficiency = %

Furnace pressure = mbar

Thickness of boiler front plate = mm

Air inlet temperature = °C

Flue gas temperature = °C



Boiler with reversible furnace

Dimension A = mm

Dimension B = mm

Dimension C = mm

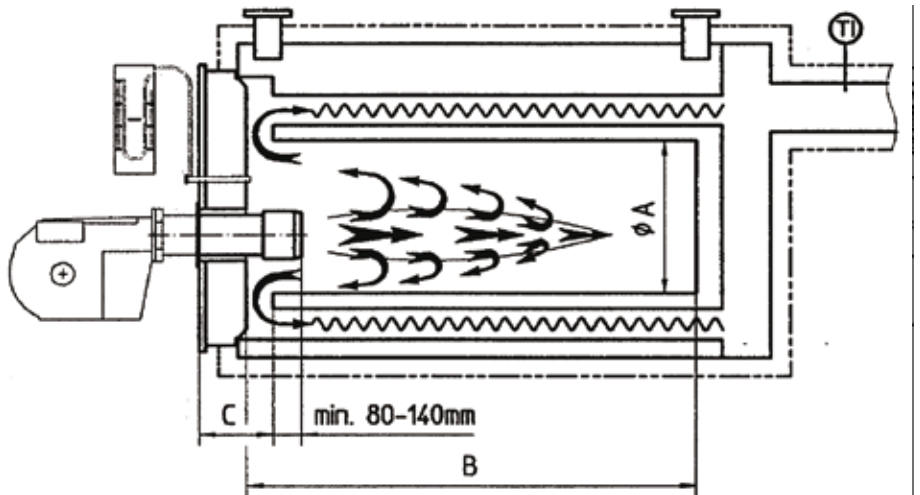
Efficiency = %

Furnace pressure = mbar

Thickness of boiler front plate = mm

Air inlet temperature = °C

Flue gas temperature = °C



C = boiler front up to reversal edge second draft

Boiler: Brand name

Type:

Water boiler: Capacity: kW

Working temperature: °C

Steam boiler: Steam capacity: kg/h

Working pressure: bar

Water supply temperature: °C

Fuel: ☐ Gas

Gas supply pressure: mbar

Calorific power: kWh/m³

Fuel: ☐ Oil

☐ Light oil

☐ Heavy oil Viscosity: mm²/s/50°C

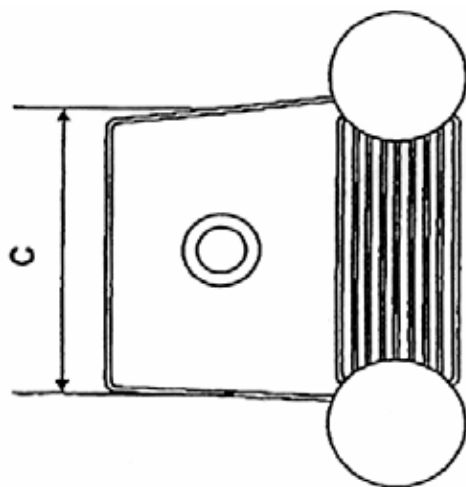
Calorific power: kWh/kg

Power supply: Voltage: 3x V, Hz

Control: 3x V, Hz

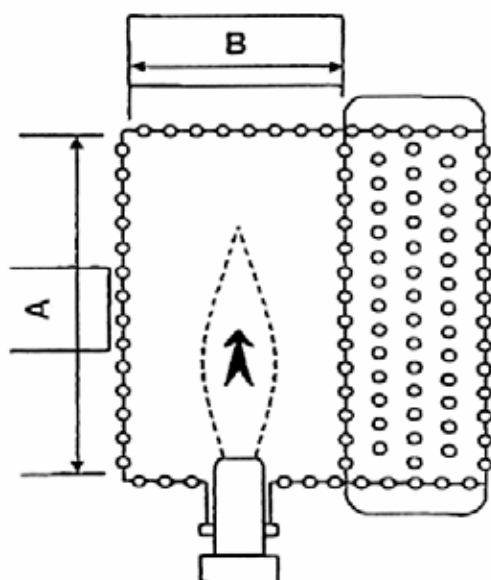
Altitude: m

Water-tube boiler



Number of burners =

If more than one burner, please indicate the location and dimension.



Dim A = mm

Dim B = mm

Dim C = mm

Boiler efficiency = %

Thickness of boiler front plate = mm

Boiler maker:

Model:

Water boiler:

Capacity: kW

Operating temperature: °C

Steam boiler:

Steam capacity: kg/h

Operating pressure: bar

Water supply temperature: °C

Steam temperature: °C

Back pressure = mbar

Flue gas temperature = °C

Air inlet temperature = °C

Fuel: ☐ GasFuel: ☐ Oil

Gas pressure: mbar

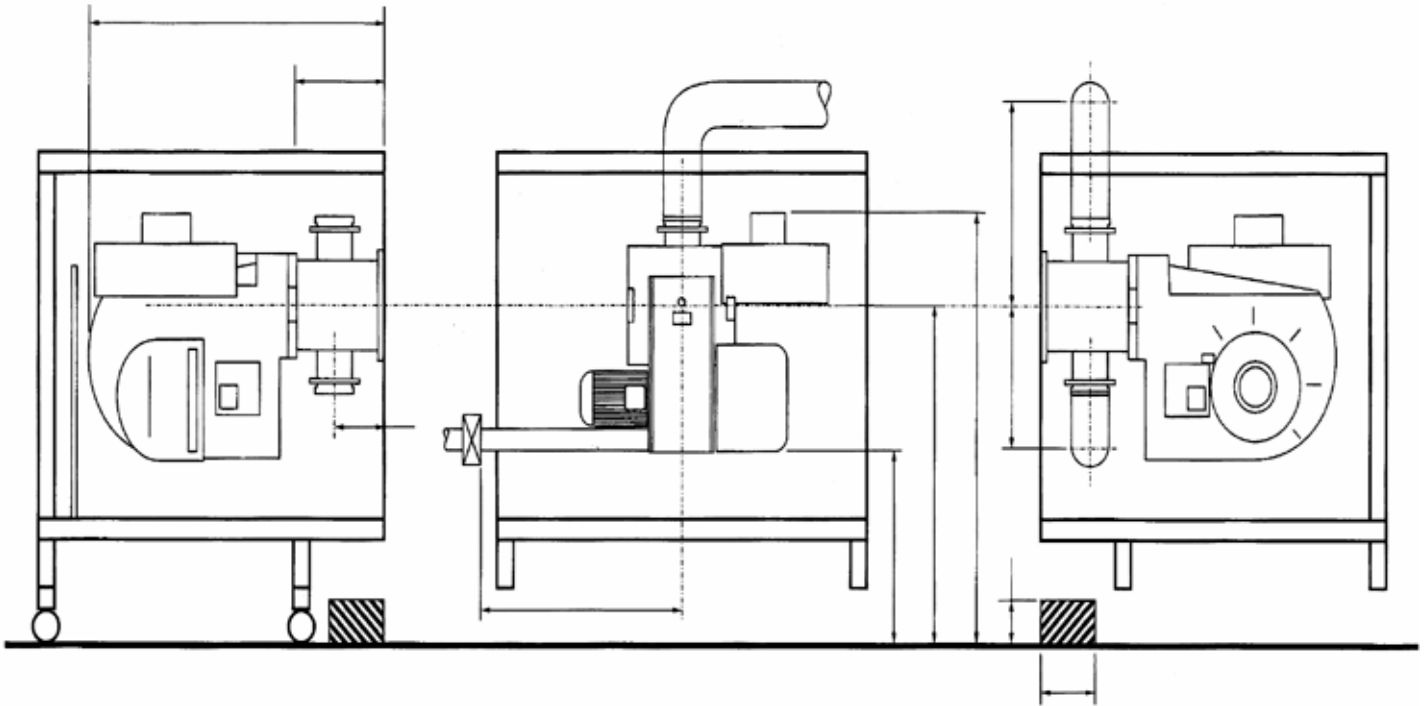
☐ light oilSpecific heat capacity: kWh/m³☐ Heavy oil Viscosity: mm²/s/50°C

Specific heat capacity: kWh/kg

Power supply: Voltage: 3x V , Hz

Control: 3x V , Hz

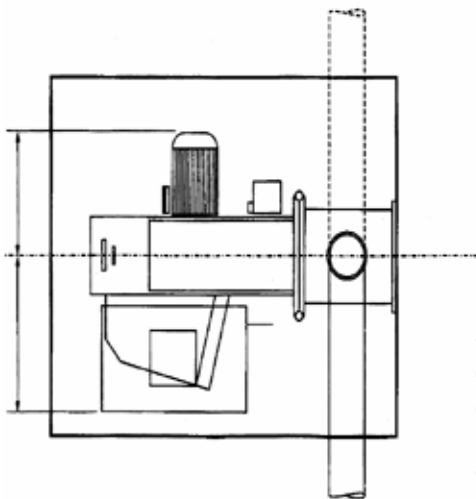
Altitude: m



Thickness of housing wall : 30-60 mm

Measuring sheet for sound-proof housing

Indicate marked dimension and additional elements (gas and oil line,wiring).
Also indicate impediments near boiler (view window, cable canals...) or on the ground (socle, mount for gas plant...).



Customer	Boiler type
Project	Burner type
delivery time	
Delivery address	
Department	Wiring
Office manager	Color according RAL

elco : Main subsidiaries and worldwide partners network



Contact us to know our worldwide partners details
industry@elco-burners.com

Main Subsidiaries

elco Industry Netherlands

elco Rendamax BV
Amsterdamsestraatweg 27
1411 AW Naarden
Tel. +31 (0) 35 6 95 73 10
Fax +31 (0) 35 6 94 26 37
Contact: info@nl.elco.net

elco Industry Germany

ELCO GmbH
Dreieichstrasse 10
64546 Mörfelden-Walldorf
Tel. 06 105/968 192
Fax 06 105/968 199
Contact: industry@elco-burners.com

elco Industry Italy

Corte degli Speciali 10/14
28100 Novara - Italy
Tel. +39 0321 338600
Fax +39 0321 3388680
Contact: industry@elco-burners.com

elco Industry France

elco Industrie
18, rue des Buchillons
Ville-La-Grand BP 264
74106 Annemasse cedex
Tel. + 33 4 50 87 76 10
Fax + 33 4 50 87 76 11
Contact: industrie@elco-burners.com

elco Industry China

CEB Shanghai Representative Office
17B V-Capital Bldg
No. 333 Xian Xia Road
200336 Shanghai
Tel. +86 21 3252 2078
Fax +86 21 3252 2166
Contact: industry@elco-burners.com
www.elco.com.cn

elco Industry Russia

Representative Office AO «ELCO»
Burners Division Ariston Thermo Group
Bolshaya Novodmitrovskaya 14/1 - 6th
floor - Office 626
127015 Moscow - Russia
Tel. +7 495 213 0300 # 4128
Fax + 7 495 213 0302
Contact: industry@elco-burners.com

elco Industry Turkey

Contact: industry@elco-burners.com

elco
www.elco-burners.com