



MADE IN ITALY

C 271 - 01

# Nias CONDENSING



*Condensing, pre-mixed, wall-hung gas boilers with water tank*



**Life-enhancing heat**



Condensing, pre-mixed, wall-hung boilers with water tank

# Nias CONDENSING



HIGH EFFICIENCY

LOW EMISSIONS

HIGH PRODUCTION OF DHW

QUALITY

STRENGTH

RELIABILITY



# life-enhancing heat

**Nias**  
CONDENSING



**E**nvironmental concern and energy saving brought Fondital to design Nias Condensing Line Tech. It is a wall hung condensing boiler for heating and producing instant domestic hot water or with storage tank.

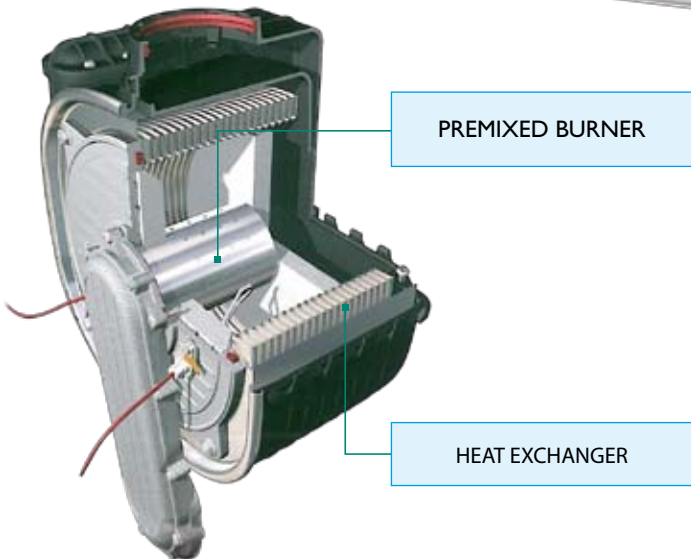
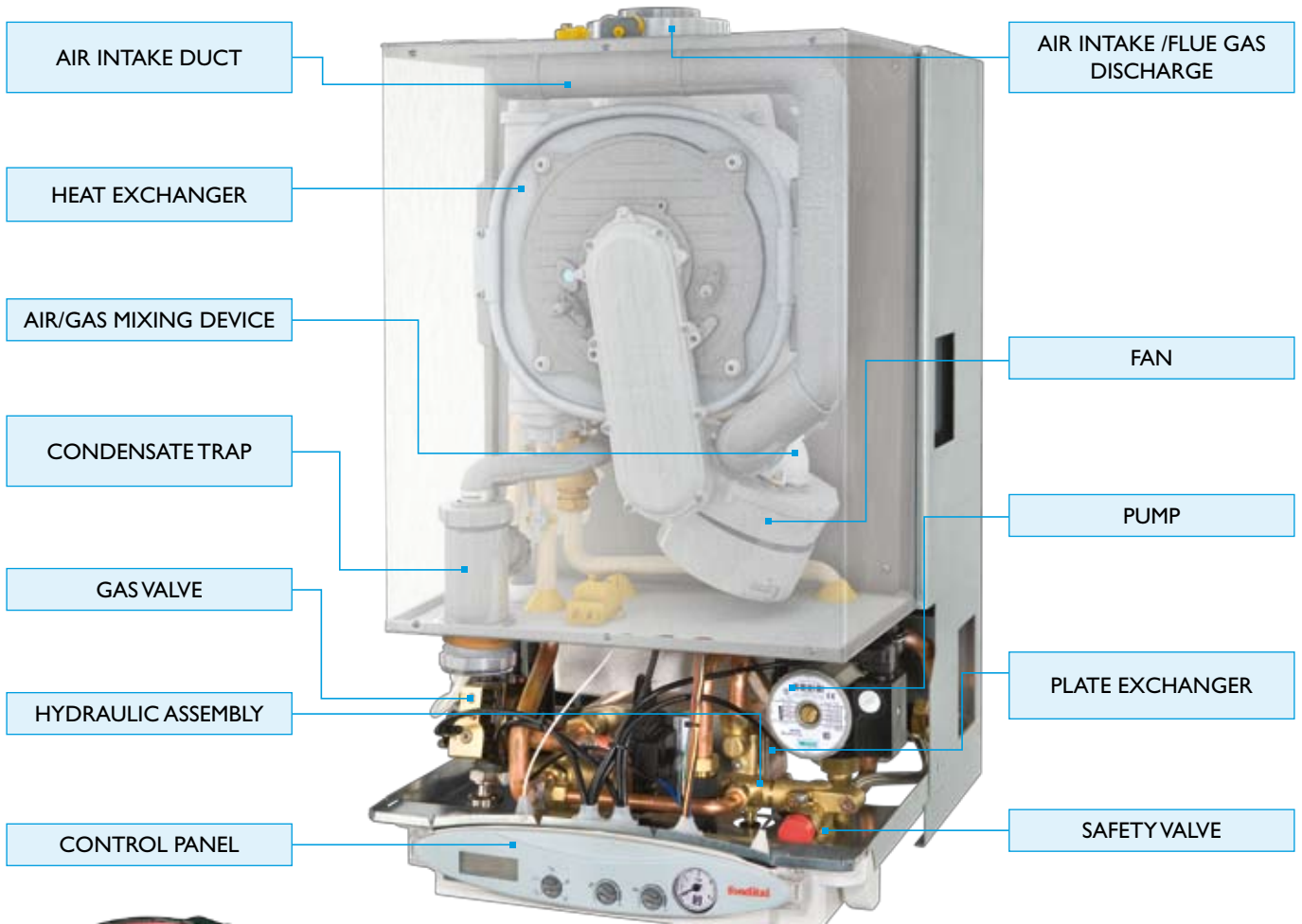
Condensing technology allows for higher efficiency, not attainable in traditional technology boilers, reducing fuel costs

and simultaneously decreasing polluting emissions.

92/42/CEE directive awards Nias Condensing Line Tech boilers with the highest efficiency rating, corresponding to the four stars ★★★★★ and places them in the cleanest class of NOx pollutant emissions (EN 297, class 5).

Using the exclusive "AQUA PREMIUM SYSTEM" guarantees a high production of domestic hot water despite a storage tank of only 25 litres and therefore with limited overall dimensions. The storage tank can also be disconnected.



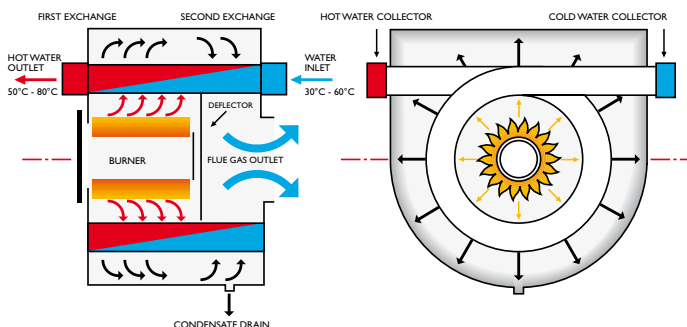


**B**ased on a stainless steel heat exchanger, with a large exchange surface and little water content, and a premixed burner, the boiler guarantees high performance thanks to flue gas heat recycling and small polluting emissions via continuous control of balanced operation in combustion sequence.

Nias Condensing Line Tech is available in two different outputs 24.8 Kw and 27.4 Kw.

The boiler exchanger is formed by a series of special stainless steel pipes, coil arranged and coupled in series and parallel configurations, in which the main circuit water is being conveyed.

Hot flue gases go through the openings between the pipes relinquishing their heat to the water; the contact of already cooled flue gases with the first pipes in which cooled central heating return water flows, allows for condensing of water steam contained in them and therefore recovery of latent heat of vaporization.



# life-enhancing heat

## CONTROL PANEL



The control panel guarantees simple use and management of the various boiler functions. The **Aqua Premium** system can be enabled or excluded by means of the domestic hot water selector switch (3).

- 1 LED thermometer for simple and immediate reading of CH water temperature. LEDs also display boiler malfunction via flashing indications allowing for problem diagnosis.
- 2 Function selector
- 3 DHW temperature adjusting + water tank activation selector
- 4 CH temperature adjusting selector
- 5 Manometer

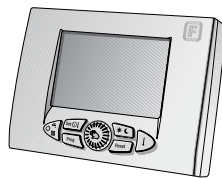


The **Aqua Premium** system can be activated/deactivated using the DHW selector

## SLIDING TEMPERATURE



Outdoor probe (option)

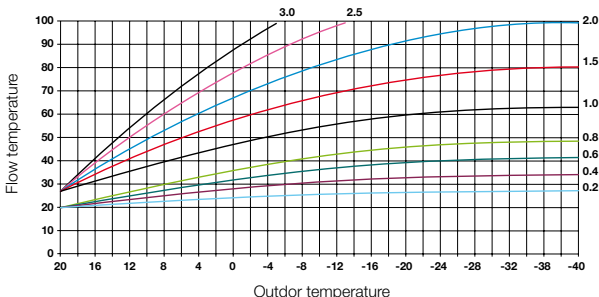


Remote control (option)

The boiler can be connected to a probe measuring outdoor temperature (option) allowing for sliding temperature operation, with or without remote control.

Boiler electronics automatically changes central heating flow temperature in relation to sensed outdoor temperature, selected thermoregulation curve, and desired room temperature, optimizing operation and achieving higher energy savings.

### Central heating curves for operation with outdoor temperature probe



**N**ias Condensing Line Tech boilers have several control and safety devices which guarantee safe, efficient and reliable operation.

They are equipped with two air purging devices, one on the pump assembly and one on the heat exchanger, in order to provide the best and most effective air purge from the system.

Furthermore, they are fit on the primary circuit with a flow meter ensuring correct water flow in the heat exchanger, with an automatic by-pass which can aid the heat exchanger, with a probe controlling the set temperature, and with a safety thermostat in order to avoid overheating.

Flue gas temperature is controlled by two devices, a thermal breaker installed in the heat exchanger fumes circuit and a thermostat on the boiler output. Should a malfunction occur, the devices shut down the boiler operation ensuring safety.

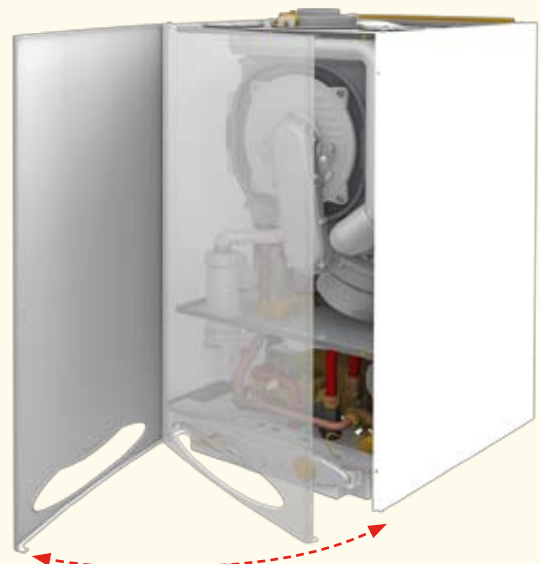
The probe on the domestic hot water circuit allows for an accurate control of the set domestic hot water temperature.

Nias Condensing Line Tech boilers are equipped with a front door which can be opened from left to right and vice-versa for more convenient service procedure implementation.

Nias condensing Line Tech adopts the AQUA

PREMIUM system that allows large quantities of hot water to be used during periods of greater use but also allows for storage to be excluded when low quantity of hot water is required ensuring cost savings.

“AQUA PREMIUM SYSTEM” boilers are more compact in size than the usual boilers with storage tanks.





## NIAS CONDENSING LINE TECH KB 24 - KB 28

Wall-hung, condensing, premixed boiler with water storage tank and sealed chamber. Available in two outputs: 24.8, and 27.4 kW (50°C - 30°C). Ready as standard to be fired with methane or propane gas.

Can be connected to:

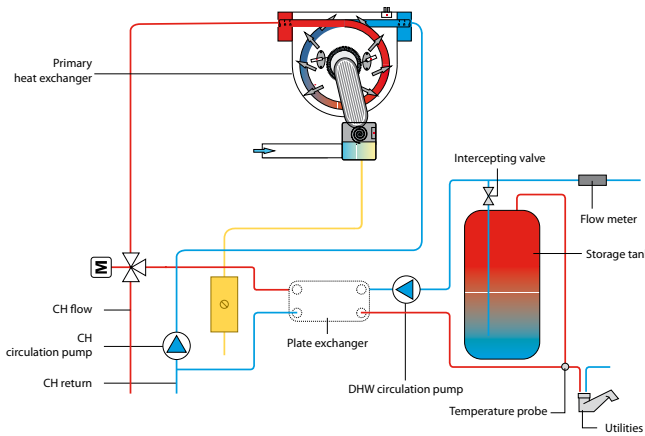
- outdoor probe
- remote control
- electronic board managing a low temperature zone.



“AQUA PREMIUM SYSTEM” associates to the secondary plate heat exchanger, a compact stratification water tank for large DHW withdrawals and is capable of supplying 16.3 l/min and 18.3 l/min respectively for the KB 24 and KB 28 models.

The reduced dimensions of the stratification storage tank and the compact hydraulic group make the interior of the boiler efficient and easily accessible.

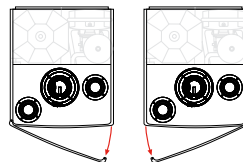
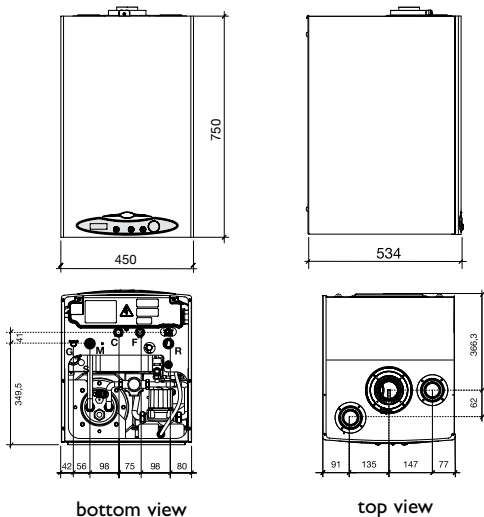
### KB model HYDRAULIC LAYOUT



### DHW production in 10 minutes

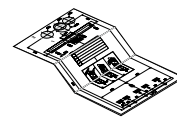
<b>NIAS CONDENSING KB 24</b>	163 litres/10'
<b>NIAS CONDENSING KB 28</b>	183 litres/10'

### Dimensions

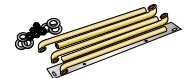


Front panel door can be opened on both sides

### Accessories supplied with the boiler and included in the price



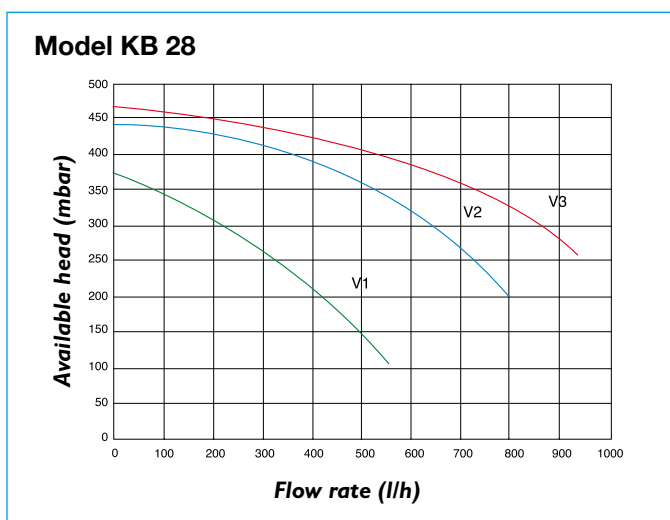
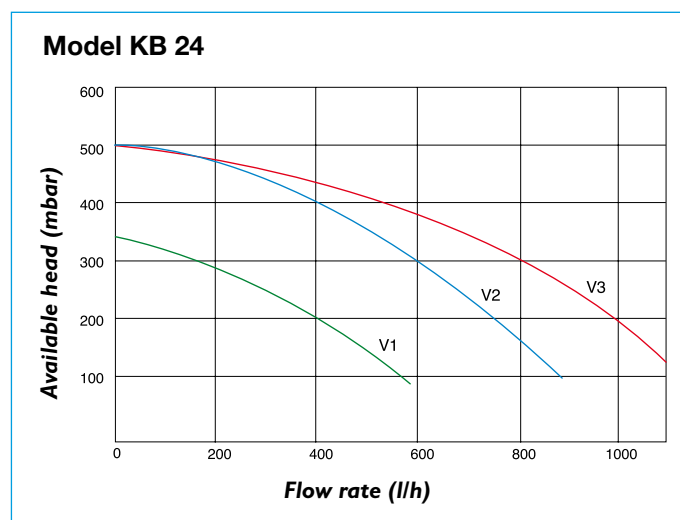
Paper template





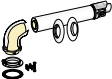
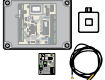




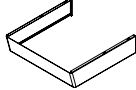

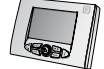
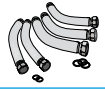

Hydraulic kit

# life-enhancing heat

## Head available for boiler (by-pass closed)



## ACCESSORIES

Item	Description	Code	Item	Description	Code
	Split pipe kit Ø 80+80	<b>OKITSDOP00</b>		Outdoor probe	<b>OSONDAES01</b>
	Coaxial kit Ø 60/100, length 0.75 m	<b>0CONDASP00</b>		Electric zone kit with outdoor probe	<b>OKITZONE00</b>
	Coaxial connection kit Ø 60/100	<b>OKITATCO00</b>		Boiler cover	<b>OCOPERIG01</b>
	90° elbow and flange kit Ø 60/100	<b>OKCURFLA00</b>		Anti-frost kit	<b>OKANTIGE00</b>
	Pipes and taps cover	<b>0COPETUB02</b>		Fixing template (metal)	<b>ODIMMECO03</b>
	Remote control	<b>0CREMOTO05</b>		Kit of flexible pipes (covered in stainless steel), N° 2 x ¾" - N° 3 x ½" L: 260/520 mm	<b>OKITIDTR00</b>
				Gas and water tap kit	<b>OKITRUBI01</b>

INCLUDED IN THE PRICE: Standard hydraulic kit, paper template, air-intake sealing cap kit.

**COMPANY  
WITH QUALITY SYSTEM  
CERTIFIED BY DNV  
= ISO 9001:2008 =**

Fondital company operates under UNI EN ISO 9001:2000 certified quality system management. Internal quality assessment of functionality, manufacturing processes, and final products ensure reliability and trouble-free operation.



GENERAL FEATURES			KB 24	KB 28
Gas category			I12H3P	I12H3P
Nominal heat input		kW	23.1	25.55
Nominal heat output (80-60°C)		kW	22.7	25.4
Nominal heat output (50-30°C)		kW	24.8	27.4
Minimum heat output (80-60°C)		kW	6.5	5.4
Minimum heat output (50-30°C)		kW	7.3	6.1
Useful efficiency at nominal heat input (80-60°C)		%	97.5	97.53
Useful efficiency at minimum heat input (80-60°C)		%	95.7	95.5
Useful efficiency at nominal heat input (50-30°C)		%	104.8	105.4
Useful efficiency at minimum heat input (50-30°C)		%	106.9	106.7
Useful efficiency at 30%		%	109.1	108.9
Casing heat loss with burner on at nominal heat input		%	1.4	0.9
Casing heat loss with burner on at minimum heat input		%	2.1	2.3
Casing heat losses with burner off		%	0.2	0.3
Chimney heat loss with burner on at nominal heat input		%	2.6	2.5
Chimney heat loss with burner on at minimum heat input		%	2.2	2.2
Energy efficiency mark (92/42 EEC)			★★★★	★★★★
NOx class (EN 297/EN 483)			5	5
CH maximum working pressure		bar	3	3
CH maximum working temperature		°C	83	83
CH temperature adjustment range		°C	20 - 78	20 - 78
Expansion vessel capacity		l	10	10
CH consumption at nominal heat output (80-60°C)	Methane	m³/h	2.51	2.77
CH consumption at minimum heat output (80-60°C)	Methane	m³/h	0.69	0.57
CH consumption at nominal heat output (80-60°C)	Propane	kg/h	1.84	2.03
CH consumption at minimum heat output (80-60°C)	Propane	kg/h	0.52	0.49
Nominal heat output in DHW mode (ΔT 30°C)		kW	28.0	31.0
Minimum heat output in DHW mode (ΔT 30°C)		kW	7.3	6.1
Nominal heat input in DHW mode		kW	27.2	30.4
Minimum heat input in DHW mode		kW	6.8	5.7
Useful efficiency at nominal heat input in DHW mode (ΔT 30°C)		%	103	102
DHW maximum pressure		bar	8	8
DHW minimum pressure		bar	0.5	0.5
Specific DHW flow rate ΔT 30°C		l/min	16.3	18.3
DHW maximum working temperature		°C	62	62
DHW temperature adjustment range		°C	35 - 57	35 - 57
DHW consumption at nominal heat output	Methane	m³/h	2.96	3.28
DHW consumption at minimum heat output	Methane	m³/h	0.74	0.63
DHW consumption at nominal heat output	Propane	kg/h	2.26	2.50
DHW consumption at minimum heat output	Propane	kg/h	0.57	0.49
ΔT flue gas/air at nominal heat input		°C	67	51.2
ΔT flue gas/air at minimum heat input		°C	49	45
Flue gas flow rate at nominal heat input		g/s	12.4	13.9
Flue gas flow rate at minimum heat input		g/s	3.1	3.1
CO <sub>2</sub> at nominal heat input	Methane	%	9.0	9.0
CO <sub>2</sub> at nominal heat input	Propane	%	10.0	10.0
Residual available head at nominal heat input		Pa	127	170
Residual available head at minimum heat input		Pa	8	9
Supply pressure	Methane	mbar	20	20
Supply pressure	Propane	mbar	37	37
Number of nozzles			1	1
Nozzle diameter	Methane	mm	10.8	10.8
Nozzle diameter	Propane	mm	10.8	10.8
Power supply voltage/frequency		V/Hz	230/50	230/50
Fuse on the power supply		A	2	2
Absorbed electric power		W	186	186
Electric protection rating			IPX4D	IPX4D
Gas fitting			G1/2	G1/2
Central heating fittings			G3/4	G3/4
DHW fittings			G1/2	G1/2
L x H x D		mm	450x750x535	450x750x535
Net weight		kg	68.4	71.5
Gross weight		kg	78.8	81.8

**FONDITAL S.p.A.**

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COMPANY WITH QUALITY MANAGEMENT  
 SYSTEM CERTIFIED BY DNV  
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