

**BOILERS**

C 061 - 01 **GB**

**NOVA FLORIDA**



**ALTAIR**

Cast-iron  
boilers with  
atmospheric  
gas-fired  
burner

**CE**  
0049

# ECO-FRIENDLY & ECONOMICAL

**A**LTAIR is a family of floor-standing boilers by Nova Florida with a cast-iron body and an atmospheric gas burner. These new models complete Nova Florida's range of cast iron boilers which, like the Drago, Scudo and Mira, are very successful all over the world. ALTAIR comes in 23 different open-flue versions, thermal input 18-100 kW, and 4 balanced-flue versions, thermal input 18-36.5 kW.

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Nova Florida's modern, new range of ALTAIR boilers features a versatile, high-tech cast-iron heat exchanger, piezoelectric and electronic ignition, high efficiency (in some models as high as 93%), and reduced flue gas emissions. With this new range of products, Nova Florida continues to provide eco-friendly heating appliances at affordable prices.



✓ Easy installation

ALTAIR boilers come in the following models:

**ALTAIR RTN**

CH open-flue boiler, piezoelectric ignition, 5 versions capacity 18-48 kW.

✓ Silent operation

**ALTAIR RTN PV**

CH open-flue boiler, complete with circulating pump and expansion vessel, piezoelectric ignition, 4 versions capacity 18-36 kW.

✓ Long life

**ALTAIR RTN E**

CH open-flue boiler, electronic ignition, 10 versions capacity 18-100 kW.

✓ Wide range

**ALTAIR RTN PVE**

CH open-flue boiler, complete with circulating pump and expansion vessel, electronic ignition, 4 versions capacity 18-36 kW.

✓ Modern design and style

**ALTAIR RTFS E**

CH balanced-flue boiler, electronic ignition, 4 versions capacity 18-36.5 kW.

✓ Easy operation

The various versions of the ALTAIR boiler can be linked to WHPN BS domestic hot water storage heaters by Nova Florida.

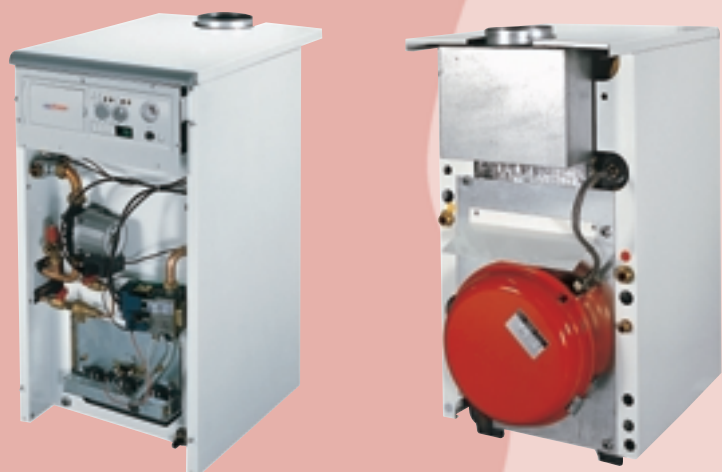
Up to eight boilers can be installed in a cascade arrangement using a specific heat regulator.

If you require any further details regarding the specifications and installation of our boilers, please contact the Nova Florida service centre which will give you advice on choosing the right version and installation.

Mod. RTFS E



Mod. RTN PVE



The quality of a boiler can also be seen from the materials of which it is made. This is why Nova Florida has chosen superior quality components for the ALTAIR range and has built the body of top quality cast-iron to ensure extended performance and added resistance. The cast-iron core provides a full range of operating powers and ensures cost saving and efficiency for many years.

In the wetback combustion chamber there are staggered hubs to ensure natural circulation of the water in each element. These special features of ALTAIR boilers are a guarantee of excellent performance.

But this still does not come up to Nova Florida's standard. The surface of the heat exchanger is covered in projections in the shape of a truncated rhomboid pyramid that increase in size along the path of the flue gas, for increased heat exchange and therefore efficiency.

Inside the cast-iron body is a gas-fired atmospheric burner made of stainless steel.

This type of burner features a very low noise level and top performance to ensure, in combination with the body, high efficiency and low emissions.

All models of the ALTAIR boiler have the 2-star rating according to the Efficiency Directive 92/42 EEC, and some have been awarded the 3-star rating due to their excellence.

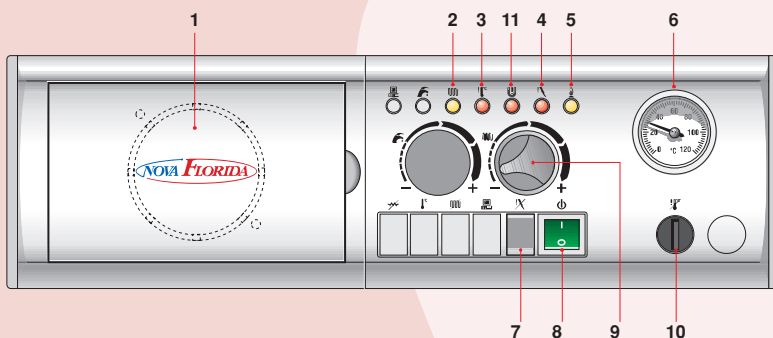
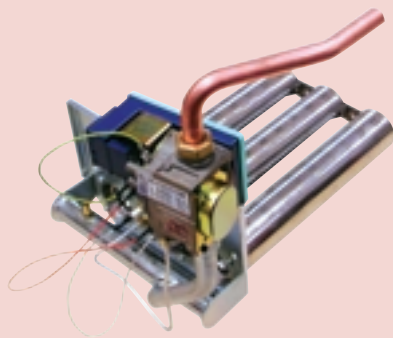
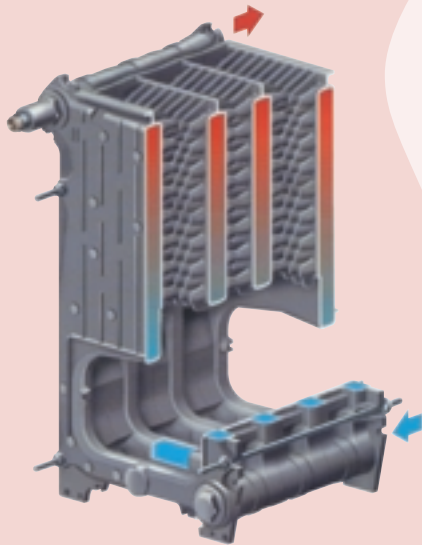
Considerable thought has gone into the design and construction of the instrument panel. The result is a modular, ergonomic design and the performance can be enhanced by adding other modules inside.

The standard configuration of the instrument panel on ALTAIR boilers holds the gas burner controls, a temperature control and display, operating lights, a safety thermostat, reset button, and heating pump control and water pressure switch.

The instrument panel is also designed to take a thermoregulation unit.

The ALTAIR range of boilers by Nova Florida are the ideal answer to a wide variety of engineering requirements. The range includes open-flue and balanced-flue models ready for installation in boiler rooms or any room in the house.

Some models are equipped with a circulating pump and expansion vessel, and some have complex circuits with no need for extra plumbing for special configurations. These highly versatile boilers are designed specifically for more classic installations.



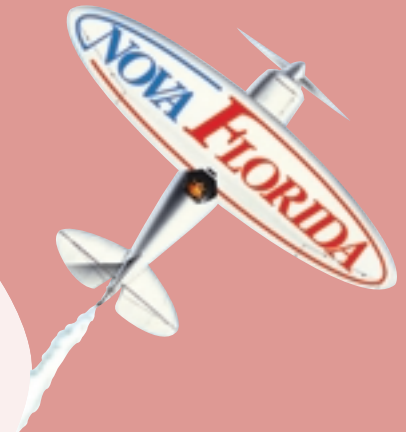
1. Temperature control unit and timer (both optional)
2. Heating pump light (yellow)
3. Overheating emergency light (red)
4. Burner emergency light (red)
5. Burner on light (yellow)
6. Thermometer
7. Release button
8. Illuminated main switch (green light)
9. Temperature control
10. Manual reset after overheating shutdown
11. Flue over-temperature emergency light, model RTN E, and low gas pressure light, model RTN E 70-100 (red).

STANDARD INSTRUMENT PANEL

Some models have piezoelectric ignition and others electronic ignition with an intermittent pilot.

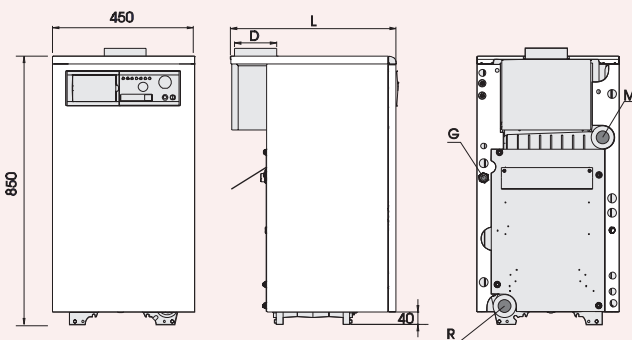
But the versatility of ALTAIR boilers does not stop here: Nova Florida has designed this range of compact boilers to save space and make them ideal for any public or private building. This is why the draught-diverter is housed inside the boiler and height has been added to the cast-iron body.

Great care has been taken over the internal layout. In all models in the ALTAIR range the components are housed at or near the front for easy access. All these features have been developed by Nova Florida with the requirements of fitters and service engineers in mind.



## DIMENSIONS

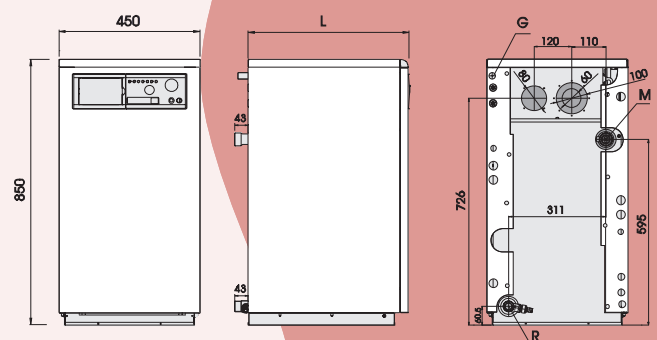
ALTAIR RTN/RTN E 18÷40



ALTAIR RTN/RTN E

Modello	L	D	G	M	R
ALTAIR 18	525	110	G 3/4"	G 1" 1/4	G 1" 1/4
ALTAIR 24	525	130	G 3/4"	G 1" 1/4	G 1" 1/4
ALTAIR 32-36	625	130	G 3/4"	G 1" 1/4	G 1" 1/4
ALTAIR 48	765	150	G 3/4"	G 1" 1/4	G 1" 1/4

ALTAIR RTFS E

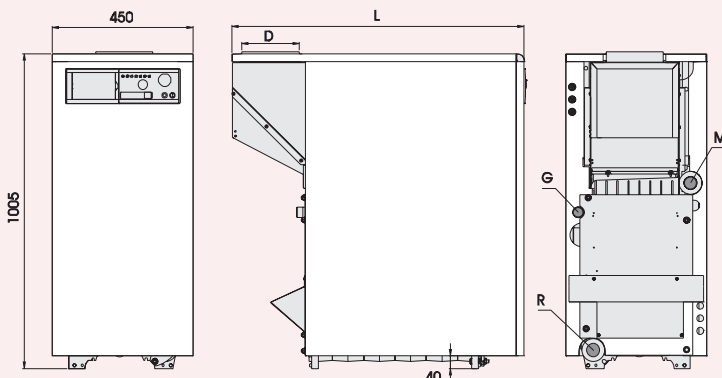


Modello	L	G	M	R
ALTAIR 18-24	510	G 1/2"	G 1"	G 1"
ALTAIR 32-36	610	G 1/2"	G 1"	G 1"

ALTAIR RTN PV/ RTN PVE

Modello	L	D	G	M	R
ALTAIR 18	525	110	G 3/4"	G 3/4"	G 3/4"
ALTAIR 24	525	130	G 3/4"	G 3/4"	G 3/4"
ALTAIR 32-36	625	130	G 3/4"	G 3/4"	G 3/4"

ALTAIR RTN E 60÷100



ALTAIR RTN

Modello	L	D	G	M	R
ALTAIR 60	905	180	G 1"	G 1" 1/2	G 1" 1/2
ALTAIR 70	1052	180	G 1"	G 1" 1/2	G 1" 1/2
ALTAIR 80	1153	200	G 1"	G 1" 1/2	G 1" 1/2
ALTAIR 90	1280	220	G 1"	G 1" 1/2	G 1" 1/2
ALTAIR 100	1430	250	G 1"	G 1" 1/2	G 1" 1/2

# CAST-IRON BOILER WITH ATMOSPHERIC GAS-FIRED BURNER, Mod. ALTAIR

## MAIN FEATURES

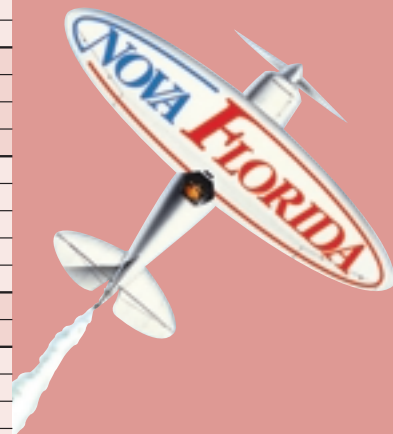
ALTAIR						
		RTN 18	RTN 24	RTN 32	RTN 36	RTN 48
Class		II 2H3+	II 2H3+	II 2H3+	II 2H3+	II 2H3+
Thermal output	kW	20	26,6	34,4	39,2	52,8
Thermal input	kW	18	24	31,5	36	48
Ignition		PIEZOELECTRIC				
Actual efficiency at nominal pressure	%	89,6	90,9	90,9	90,83	91,84
Efficiency at reduced load (30%)	%	89,2	91,1	89,0	90,75	90,4
Efficiency rating CE		★★	★★	★★	★★	★★
Maintaining loss at $\Delta T = 50^{\circ}\text{C}$	%	3,6	2,8	3,1	1,57	1,76
Heat loss at the chimney with burner off	%	0,2	0,2	0,2	0,2	0,2
Heat loss at the chimney with burner on	%	6,8	6,3	6	7,6	6,4
Flue gas temperature (G 20 nat. gas)	$^{\circ}\text{C}$	110/120	110/120	120/130	120/130	120/130
Flue gas temperature (G 30)	$^{\circ}\text{C}$	110/120	110/120	120/130	120/130	120/130
Flue gas mass output (G 20 nat. gas)	Kg/h	42	56	63	70	88
Flue gas mass output (G 30)	Kg/h	40	53	60	64	80
Max. operating pressure	bar	4	4	4	4	4
Water content	litri	10	10	13,4	13,4	16,8
Minimum water flow rate	l/h	400	520	680	770	1030
Load loss on the water side	m.c.a.	0,4	0,4	0,6	0,6	0,8
Maximum hot water temperature	$^{\circ}\text{C}$	85	85	85	85	85
Burner gas pressure (G 20 nat. gas)	mbar	9,5	11,0	9,5	12,0	12,5
Burner gas pressure (G 30)	mbar	26	26	25,5	26,8	26
Flue outlet diameter	$\emptyset$	110	130	130	130	150
Delivery pipe diameter	$\emptyset$	1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4
Return pipe diameter	$\emptyset$	1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4
Gas inlet diameter	$\emptyset$	3/4"	3/4"	3/4"	3/4"	3/4"
Expansion vessel capacity	litri	--	--	--	--	--
Pump head	m.c.a.	--	--	--	--	--
Mains voltage	V/Ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Wattage	W	10	10	10	10	10
Dimensions: Width	mm	450	450	450	450	450
Depth	mm	525	525	625	625	765
Height	mm	850	850	850	850	850
Net weight	Kg	105	105	138	138	173

ALTAIR ELECTRONIC									
		RTN E 18	RTN PVE 18	RTN E 24	RTN PVE 24	RTN E 32	RTN PVE 32	RTN E 36	RTN PVE 36
Class		II 2H3+	II 2H3+	II 2H3+	II 2H3+	II 2H3+	II 2H3+	II 2H3+	II 2H3+
Thermal output	kW	20		26,6		34,4		39,2	
Thermal input	kW	18		24		31,5		36	
Ignition		ELECTRONIC							
Actual efficiency at nominal pressure	%	89,6		90,9		90,9		90,83	
Efficiency at reduced load (30%)	%	89,2		91,1		89,0		90,75	
Efficiency rating CE		★★		★★		★★		★★	
Maintaining loss at $\Delta T = 50^{\circ}\text{C}$	%	3,6		2,8		3,1		1,57	
Heat loss at the chimney with burner off	%	0,2		0,2		0,2		0,2	
Heat loss at the chimney with burner on	%	6,8		6,3		6		7,6	
Flue gas temperature (G 20 nat. gas)	$^{\circ}\text{C}$	110/120		110/120		120/130		120/130	
Flue gas temperature (G 30)	$^{\circ}\text{C}$	110/120		110/120		120/130		120/130	
Flue gas mass output (G 20 nat. gas)	Kg/h	42		56		63		70	
Flue gas mass output (G 30)	Kg/h	40		53		60		64	
Max. operating pressure	bar	4		4		4		4	
Water content	litri	10		10		13,4		13,4	
Minimum water flow rate	l/h	400		520		680		770	
Load loss on the water side	m.c.a.	0,4	--	0,4	--	0,6	--	0,6	--
Maximum hot water temperature	$^{\circ}\text{C}$	85		85		85		85	
Burner gas pressure (G 20 nat. gas)	mbar	9,5		11,0		9,5		12,0	
Burner gas pressure (G 30)	mbar	26		26		25,5		26,8	
Flue outlet diameter	$\emptyset$	110		130		130		130	
Delivery pipe diameter	$\emptyset$	1" 1/4	3/4"	1" 1/4	3/4"	1" 1/4	3/4"	1" 1/4	3/4"
Return pipe diameter	$\emptyset$	1" 1/4	3/4"	1" 1/4	3/4"	1" 1/4	3/4"	1" 1/4	3/4"
Gas inlet diameter	$\emptyset$	3/4"		3/4"		3/4"		3/4"	
Expansion vessel capacity	litri	--	8	--	8	--	8	--	12
Pump head	m.c.a.	--	2,8	--	2,8	--	2,5	--	2,5
Mains voltage	V/Ph/Hz	230/1/50		230/1/50		230/1/50		230/1/50	
Wattage	W	10	110	10	110	10	110	10	110
Dimensions: Width	mm.	450		450		450		450	
Depth	mm.	525		525		625		625	
Height	mm.	850		850		850		850	
Net weight	Kg	105	125	105	125	138	158	138	158

RTN PV 18	RTN PV 24	RTN PV 32	RTN PV 36
II 2H3+	II 2H3+	II 2H3+	II 2H3+
20	26,6	34,4	39,2
18	24	31,5	36
PIEZOELECTRIC			
89,6	90,9	90,9	90,83
89,2	91,1	89,0	90,75
★★	★★	★★	★★
3,6	2,8	3,1	1,57
0,2	0,2	0,2	0,2
6,8	6,3	6	7,6
110/120	110/120	120/130	120/130
110/120	110/120	120/130	120/130
42	56	63	70
40	53	60	64
4	4	4	4
10	10	13,4	13,4
400	520	680	770
--	--	--	--
85	85	85	85
9,5	11,0	9,5	12,0
26	26	25,5	26,8
110	130	130	130
3/4"	3/4"	3/4"	3/4"
3/4"	3/4"	3/4"	3/4"
3/4"	3/4"	3/4"	3/4"
8	8	8	12
2,8	2,8	2,5	2,5
230/1/50	230/1/50	230/1/50	230/1/50
100	100	100	100
450	450	450	450
525	525	625	625
850	850	850	850
125	125	158	158



RTN E 48	RTN E 60	RTN E 70	RTN E 80	RTN E 90	RTN E 100
II 2H3+	II 2H3+	II 2H3+	II 2H3+	II 2H3+	II 2H3+
52,8	66,0	76,3	87,3	98,2	109,7
48	60	70	80	90	100
ELECTRONIC					
91,84	91,7	91,7	91,7	91,6	91,6
90,4	90,6	90,4	90,3	90,3	90,22
★★	★★	★★	★★	★★	★★
1,76	1,8	1,7	1,6	1,5	1,2
0,2	0,2	0,2	0,2	0,2	0,2
6,4	6,5	6,6	6,7	7,0	7,2
120/130	110/120	110/120	120/130	110/120	110/120
120/130	110/120	110/120	120/130	110/120	110/120
88	114	136	144	200	223
80	134	154	158	225	252
4	4	4	4	4	4
16,8	20,2	23,5	26,8	30,1	33,4
1030	1200	1500	1700	1900	2100
0,8	0,8	0,9	0,9	0,9	0,9
85	85	85	85	85	85
12,5	11,5	13,4	12	11	11,6
26	26	26	25,5	26,8	26
150	180	180	200	220	250
1" 1/4	1" 1/2	1" 1/2	1" 1/2	1" 1/2	1" 1/2
1" 1/4	1" 1/2	1" 1/2	1" 1/2	1" 1/2	1" 1/2
3/4"	1"	1"	1"	1"	1"
--	--	--	--	--	--
--	--	--	--	--	--
230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
10	20	20	20	20	20
450	450	450	450	450	450
765	935	1052	1153	1280	1430
850	1000	1000	1000	1000	1000
173	215	250	285	320	355



# CAST-IRON BOILER WITH ATMOSPHERIC GAS-FIRED BURNER, Mod. ALTAIR

## MAIN FEATURES

ALTAIR BALANCED-FLUE					
		RTFS E 18	RTFS E 24	RTFS E 32	RTFS E 36
Class		II 2H3+	II 2H3+	II 2H3+	II 2H3+
Thermal output	kW	20	26,6	34,4	39,2
Thermal input	kW	18	24	32	36,5
Ignition		ELECTRONIC			
Actual efficiency at nominal pressure	%	89,8	90,2	93,1	93,1
Efficiency at reduced load (30%)	%	88,53	89,23	92,08	92,14
Efficiency rating CE		★★	★★	★★★	★★★
Maintaining loss at $\Delta T = 50^{\circ}\text{C}$	%	2,5	2,2	1,9	1,5
Heat loss at the chimney with burner off	%	0,2	0,2	0,2	0,2
Heat loss at the chimney with burner on	%	7,7	7,6	5	5,4
Flue gas temperature (G 20 nat. gas)	$^{\circ}\text{C}$	120/130	120/130	110/120	120/130
Flue gas temperature (G 30)	$^{\circ}\text{C}$	120/130	120/130	120/130	120/130
Flue gas mass output	Kg/h	42	55	67	76
Max. operating pressure	bar	4	4	4	4
Water content	litri	10	10	13,4	13,4
Minimum water flow rate	l/h	400	520	690	780
Load loss on the water side	m.c.a.	0,4	0,4	0,6	0,6
Maximum hot water temperature	$^{\circ}\text{C}$	85	85	85	85
Burner gas pressure (G 20 nat. gas)	mbar	9,5	11	9,5	12
Burner gas pressure (G 30)	mbar	27	26	25,5	26
Concentric outlet diameter	$\emptyset$	100/60	100/60	100/60	100/60
Split outlet diameter	$\emptyset$	80	80	80	80
Delivery pipe diameter	$\emptyset$	1"	1"	1"	1"
Return pipe diameter	$\emptyset$	1"	1"	1"	1"
Gas inlet diameter	$\emptyset$	1/2"	1/2"	1/2"	1/2"
Mains voltage	V/Hz	230/50	230/50	230/50	230/50
Wattage	W	50	50	60	60
Dimensions: Width	mm	450	450	450	450
Depth	mm	510	510	610	610
Height	mm	850	850	850	850
Net weight	Kg	125	125	160	160

NOVA FLORIDA reserves the right to modify the data contained herein at any time without notice.



HEATING ELEMENTS AND SYSTEMS

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