

# Alpha



## FLEXIBLE COMMERCIAL HEATING SOLUTIONS

BOILERS AND HEAT PUMPS  
FOR LARGER OUTPUTS







# MAKE ALPHA YOUR FIRST CHOICE

## **COMPREHENSIVE HEATING & HOT WATER SOLUTIONS**

A passion for product innovation and a long history of success is evidenced across our wide range of high efficiency boilers, heat pumps and hybrid systems.

As well as meeting the requirements of building owners and occupiers, Alpha commercial appliances also meet the needs of specifiers and M & E contractors. This is thanks to high quality components and systems designed to make installation and maintenance as simple as possible, while also ensuring truly outstanding product performance and reliability.

## **ADVANCED MANUFACTURING, INNOVATIVE ENGINEERING**

Our dedicated approach has enabled us to apply truly unique solutions to the supply, cost and environmental issues associated with traditional energy resources such as gas, as well as to renewable technologies.

And, as a result of significant Immergas investment and commitment to sustainable solutions, we are strongly geared to playing a vital role in shaping the future of traditional climate control technologies.

## **QUALITY ASSURED**

Furthermore, Immergas is certified ISO 9001:2000, issued by the prestigious German organisation TÜV, in recognition of the extreme reliability of company quality management processes.

All aspects of the company's operation are covered – including design and product development, incoming materials acceptance, manufacturing processes, and after-sales service.

In a specific laboratory, specialist personnel test boilers every day with nothing left to chance – even down to the technical documentation and packaging.



Part of the Italian, family-owned Immergas group - which operates in 30 countries from its 50,000m<sup>2</sup> headquarters and has manufactured over 8 million boilers - Alpha is recognised as a leading light in the UK heating industry. With one of the world's most advanced manufacturing, research and development facilities at its disposal, Alpha continues to lead the way in successfully combining a highly innovative operational approach with traditional business values.

## **MAKING A SUSTAINABLE DIFFERENCE**

Here at Alpha our key focus is in marrying new and traditional technologies; drawing on the best elements of each to deliver unique heating solutions. And, even though the UK is not yet at a stage where it can solely rely on sustainable energy resources like the sun and geothermal energy, we encourage a holistic approach to each project wherever possible.

For example, the utilisation of the familiar high efficiency gas boiler alongside advanced renewable heating technologies in the form of hybrid

systems or full heat pumps. Such solutions are practical to install and extremely cost effective, enabling householders to make an impact on their energy bills and carbon footprint sooner rather than later.

# COMMERCIAL TRAINING AND SUPPORT

Please  
**CALL**  
for full  
details



## CONTACT DETAILS





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## **BOILER TRAINING**

Learn the ins and outs of our commercial boiler range with our free of charge one-day course.

Covering our complete range, a hands-on approach provides the perfect opportunity to get the inside track on commissioning, servicing and fault-finding.

The course is available at our four regional Alpha Commercial Training Centres.

## **ENGINEERING SUPPORT**

From attending site surveys to helping with product specification, our own team of experts is always on hand to assist you.

## **CONTINUING PROFESSIONAL DEVELOPMENT**

Alpha provides a number of free of charge CPD learning opportunities covering different aspects of commercial heating.

Our courses are reviewed and assessed by C.I.B.S.E. to ensure technical content is relevant and of a high standard.

Training can be arranged at your offices or a nearby location of your choice.

# MAGIS M.



## KEY FEATURES:

- + Ultra quiet - Sound Pressure Levels as low as 35db at 3m
- + Operates in external temperatures between -25°C to 43°C
- + MCS Certified heat pump
- + 5 Year Warranty\*
- + Inverter technology enables heating and cooling

\*on approved and correctly installed/maintained installations

The Magis M range of stand-alone monobloc heat pumps with reversible air-to-water inverter technology comprises 13 models to suit a large range of heating and cooling applications in both domestic and commercial settings.

They are highly energy efficient, providing great comfort with minimal environmental impact as they operate with R32 refrigerant. The R32 is pre-loaded and the heat pumps are hermetically sealed, meaning that an F-Gas qualification is not required for

their installation. They also have many built-in features - such as a built-in primary pump and expansion vessel - to help minimise installation times and keep the technology simplistic.

All models have a factory-fitted external weather probe which allows flow temperature modulation to achieve better energy efficiency. To further their efficiency, they allow for the integration of solar; adding a further renewable energy source.

With the supplied control panel, it's easy to cascade units allowing for up to six heat pumps to work together to supply the required heat demand. A flow temperature of up to 65°C can be provided with models over 16kW providing up to 60°C.

Further accessories are available to suit all installation needs.



MAGIS M.  
CONTROL PANEL



A  
HEAT PUMPS

# MAGIS M.

## MAGIS M. Control Panel



### CONTROL PANEL

A control panel is supplied as standard with all heat pumps within the Magis M range.

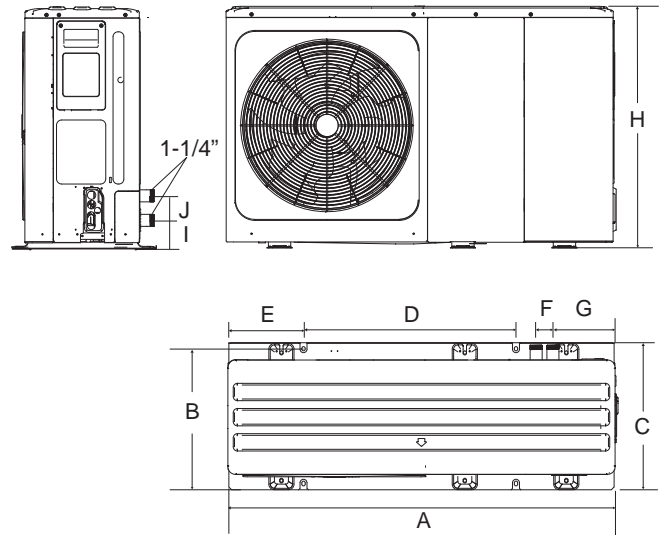
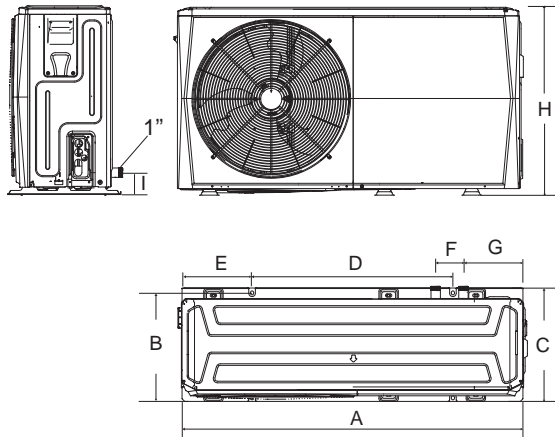
It enables the programming of system operation and the relative temperature control of the system. For example, the control panel acquires data (from the external probe on the heat pump) and adjusts the system's flow temperature to align with the pre-set climatic curve.

The control panel is connected to a specific terminal block within the heat pump and can also operate as a room thermostat. This function can be overridden and an external third-party thermostat can be used, keeping the control panel as a management system.

In addition, one control panel can be used to cascade manage six heat pumps.

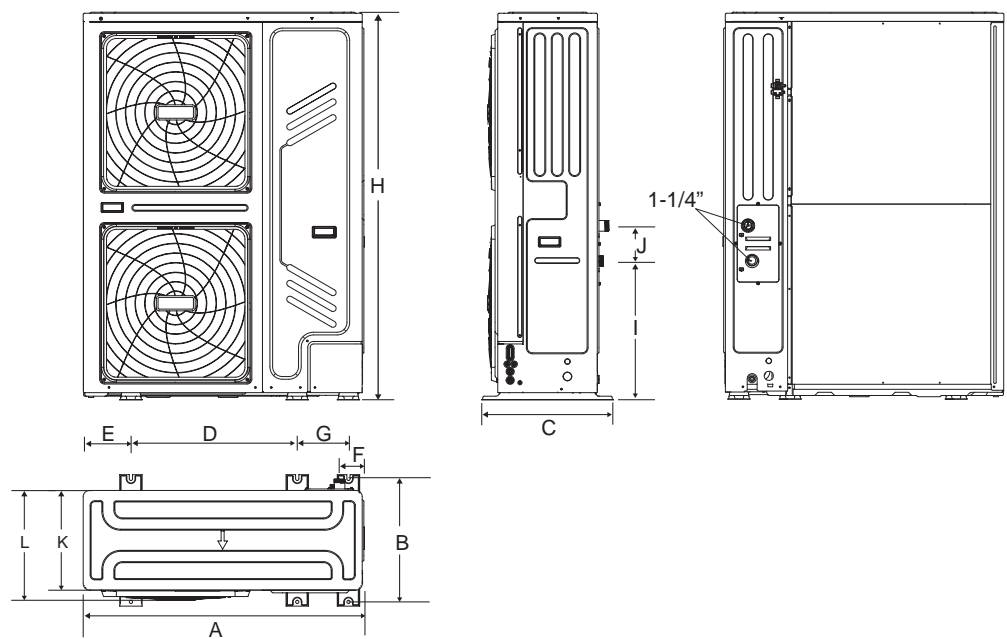


## MAGIS M. CONTROL PANEL



**A**  
HEAT PUMPS

Model	A	B	C	D	E	F	G	H	I	J
4/6kW	1295	397	429	760	265	105	225	792	161	/
8/10/12/14/16kW	1385	482	526	760	270	60	221	945	182	81



Model	A	B	C	D	E	F	G	H	I	J	K	L
18-30 kW	1129mm	494mm	528mm	668mm	192mm	98mm	206mm	1558mm	558mm	143mm	400mm	440mm

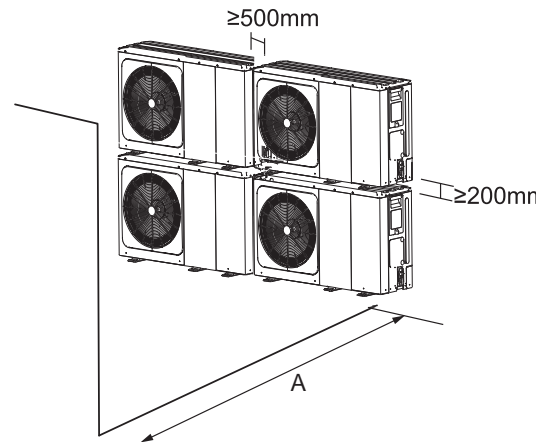
## CLEARANCE REQUIREMENTS FOR CASCADE OPTIONS

Models 4-16 kW.

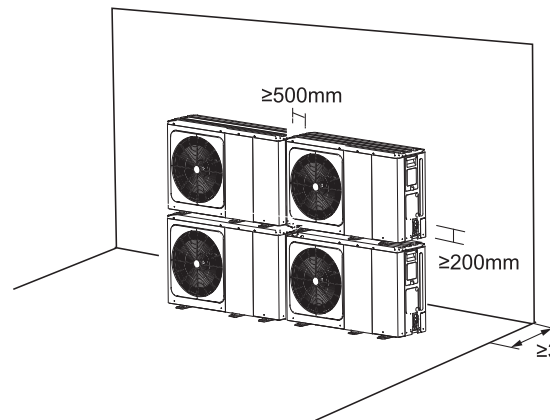
+ In case of stacked installation

1) Where there are obstacles obstructing the outlet side.

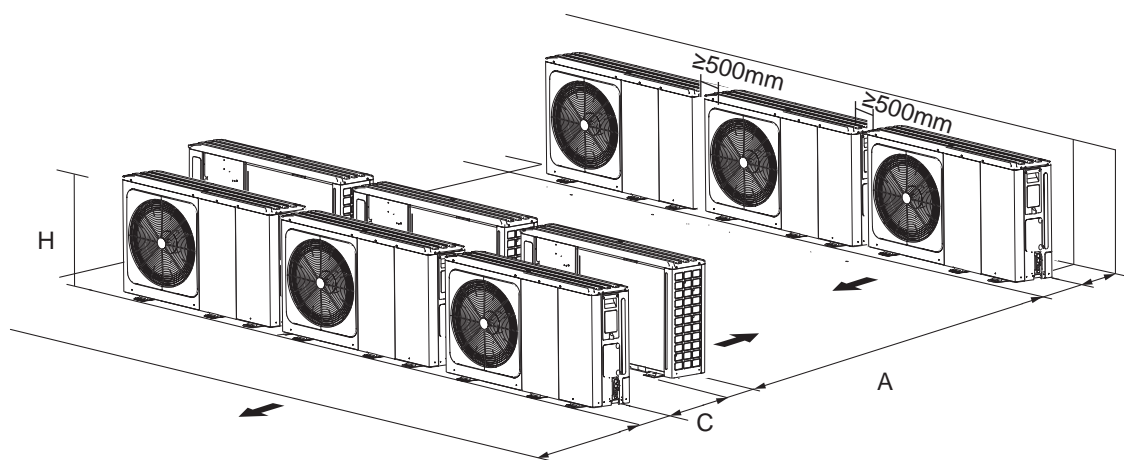
Unit	A
4-6kW	≥ 1000mm
8-16kW	≥ 1500mm



2) Where there are obstacles obstructing the air inlet.



+ For installation in rows (on roofs, etc.)



Unit	A	B1	B2	C
4/6kW	≥ 2500mm	≥ 1000mm	≥ 300mm	≥ 600mm
8/16kW	≥ 3000mm	≥ 1500mm	≥ 300mm	≥ 600mm



Model (nominal Capacity)	4kW	6kW	8kW	12kW	14kW	16kW	12kW	14kW	16kW	18kW	22kW	26kW	30kW
Power Supply	1Φ, 220~240V, 50Hz						3Φ, 380~415V, 50Hz						
COP @ 35°C flow (ext Temp 7°C)	5.1	4.95	5.15	4.95	4.6	4.5	4.95	4.6	4.5	4.7	4.4	4.08	3.91
Operating Temperature (min/max) CH	-25°C ~ 35°C												
Minimum Buffer Size	40 Litres												
Breaker Size	20A	20A	20A	32A	32A	32A	16A	16A	16A	20A	25A	25A	28A
Piping Connections	1" Male BSP						1" 1/4 Male BSP			1" 1/4 Male BSP			
Net Weight	86kg			158kg			172kg			177kg			
Pre-Charged R32	1.4kg			1.75kg			1.75kg			5kg			
Compressor	Twin Rotary Compressor												
Sound Power Level	55	58	59	65	65	68	65	65	68	71	73	75	77
Unit Casing	Single Fan									Double Fan			



# PROTEC NX



6  
Models

48-  
180kW  
Outputs

Up to  
1:10  
modulation

Low  
NOx

Stainless  
Steel  
Heat  
Exchanger

UP TO  
10 YEAR  
WARRANTY



**PROTEC NX HIGH EFFICIENCY FAN-ASSISTED CONDENSING BOILERS ARE IDEALLY SUITED TO LARGE DOMESTIC PROJECTS OR COMMERCIAL APPLICATIONS.**

Easy to install, ProTec NX boilers can be wall mounted or fixed to our free-standing frames. With outputs ranging from 48kW to over 1MW, they combine high efficiency with low emissions. They can also be configured as either a single unit or in simple modular formation for even greater outputs.

## PRODUCT CHOICE

- + Six models with outputs from 48-180kW
- + Can be cascaded for higher output requirements – up to eight boilers (1440kW)
- + Natural gas or LPG options available
- + Single unit or modular formation options

## PERFORMANCE BENEFITS

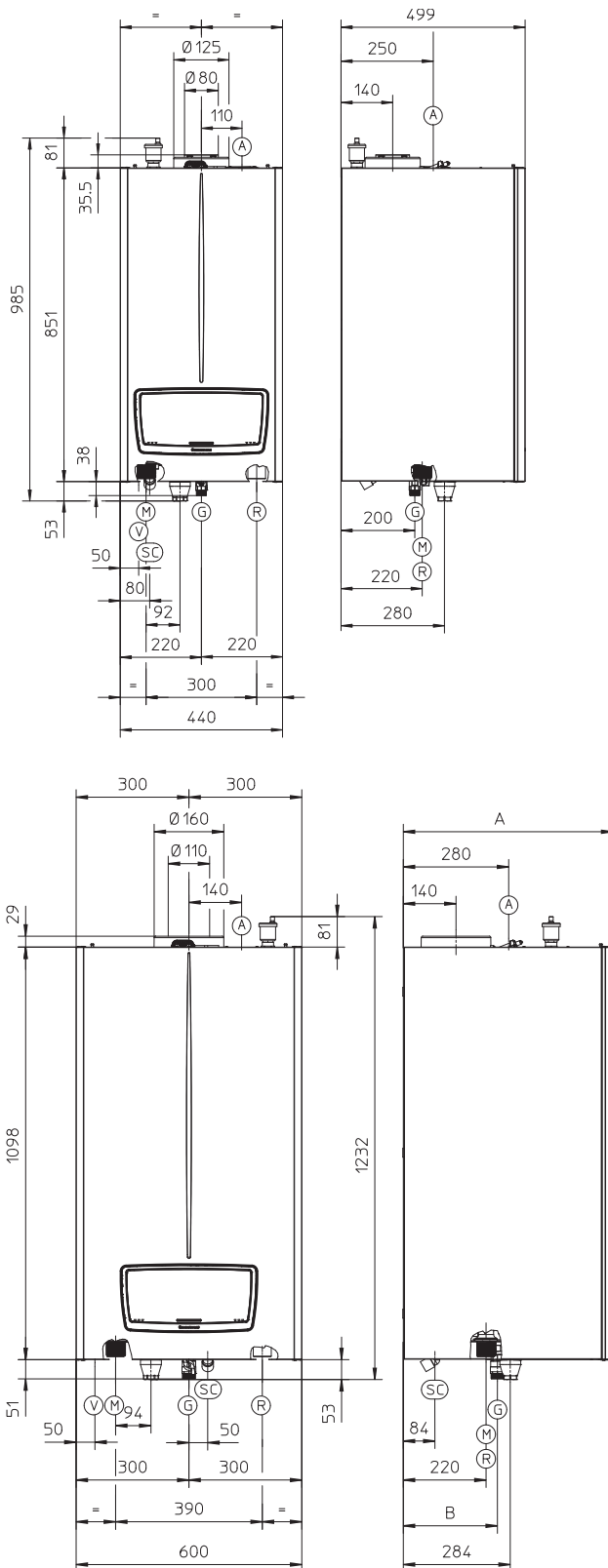
- + Wide 1:10 modulation range to enable reduced output when required
- + High energy efficiency
- + Ultra low NOx emissions
- + Stainless steel heat exchanger for maximum combustion performance and safety
- + Fully modulated built-in circulator pump
- + Weather Compensation compatible

## INSTALLATION ADVANTAGES

- + Can be wall hung or fixed to ProTec NX freestanding frames
- + Concentric (room-sealed), open or twin flueing options



## BOILER DIMENSIONS



## MAIN DIMENSIONS AND CONNECTIONS

KEY	
A	Air intake
V	Electrical connection
G	Gas supply
SC	Condensate drain
M	System delivery
R	System return

Model	Height (mm)	Width (mm)	Depth (mm)
48, 68	851 (985)	440	499
Connections			
	GAS	SYSTEM	
	G	R	M
	3/4"	1" 1/2	1" 1/2

Model	Height (mm)	Width (mm)	Depth A (mm)
90-115	1098		557
150	[1233]	600	627
Connections			
	GAS	SYSTEM	
	G	R (return)	M (flow)
	1"	1" 1/2	1" 1/2

## OPERATIONAL FEATURES

- + Frost protection
- + Fault Code displayed
- + Volt-free switching control of X2 open therm heating zones
- + Black dot matrix LCD and back light

# ProTec NX

## Technical data

### 4.3 TECHNICAL DATA TABLE

		ProTec NX48	ProTec NX68
Central heating nominal heat input	kW	51.0	75.0
Minimum heat input	kW	5.4	7.8
PoCentral heating nominal heat input with 20%H2NG gas	kW	49.3	72.0
Minimum heat input with 20%H2NG gas	kW	5.3	7.5
Central heating nominal heat output (useful)	kW	49.8	73.2
Minimum heat output (useful)	kW	5.1	7.5
*Effective thermal efficiency 80/60 Nom./Min.	%	97.6/95.2	97.6/96.2
*Effective thermal efficiency 50/30 Nom./Min.	%	106.2/106.5	105.9/106.6
*Effective thermal efficiency 40/30 Nom./Min.	%	106.8/108.3	105.8/109.4
Casing losses with burner On/Off (80-60°C)	W	115.0/50	121.0/73
Chimney losses with burner On/Off (80-60°C)	W	10.0/1144.8	10.0/1683.6
Central heating circuit max. operating pressure	bar	3.4	3.4
Maximum heating temperature	°C	85	85
Adjustable central heating temperature (min. operating field)	°C	15	15
Adjustable central heating temperature (max operating field)	°C	85	85
Appliance water content	l	2.8	3.2
Weight of full boiler	kg	59.8	64.2
Weight of empty boiler	kg	57.0	61.0
Electrical connection	V/Hz		
Nominal power absorption	A	2	3
Installed electric power	W	158	320
Equipment electrical system protection	IP	X4D	X4D
Ambient operating temperature range	°C	-5÷40	-5÷40
Ambient operating temperature range with optional antifreeze kit	°C	-15÷40	-15÷40
NO <sub>x</sub> class	-	6	6
*Weighted NO <sub>x</sub> G20	mg/kWh	39	33
Weighted CO G20	mg/kWh	24	
Weighted NO <sub>x</sub> G31	mg/kWh	30	29
Weighted CO G31	mg/kWh	25	18
Type of appliance	-		
PRV	bar	4	4

\* Efficiencies and weighted NO<sub>x</sub> refer to the net calorific value.

## PROTEC NX 48-180 KEY COMPONENTS

### 4.3 TECHNICAL DATA TABLE

		ProTec NX 90	ProTec NX 115	ProTec NX 150
Central heating nominal heat input	kW	93.0	114.5	141.0
Minimum heat input	kW	10.1	11.7	29.0
PoCentral heating nominal heat input with 20% H <sub>2</sub> NG gas	kW	88.7	109.0	131.3
Minimum heat input with 20% H <sub>2</sub> NG gas	kW	9.4	11.0	27.5
Central heating nominal heat output (useful)	kW	90.9	112.3	138.3
Minimum heat output (useful)	kW	9.8	11.3	28.3
*Effective thermal efficiency 80/60 Nom./Min.	%	97.7/96.6	98.1/96.5	98.1/97.6
*Effective thermal efficiency 50/30 Nom./Min.	%	106.2/107.3	106.3/107.6	106.3/108.1
*Effective thermal efficiency 40/30 Nom./Min.	%	108.2/107.9	108.4/108.9	107.2/108.8
Casing losses with burner On/Off (80-60°C)	W	166.0/91	209.0/112	260.0/138
Chimney losses with burner On/Off (80-60°C)	W	15.0/1998.9	19.0/2021.8	24.0/2489.8
Central heating circuit max. operating pressure	bar	5.4		
Maximum heating temperature	°C	85		
Adjustable central heating temperature (min. operating field)	°C	15		
Adjustable central heating temperature (max operating field)	°C	85		
Appliance water content	l	9.0	10.0	12.0
Weight of full boiler	kg	104.0	111.0	124.0
Weight of empty boiler	kg	95.0	101.0	112.0
Electrical connection	V/Hz	230/50		
Nominal power absorption	A	3		
Installed electric power	W	330	410	580
Equipment electrical system protection	IP	X4D		
Ambient operating temperature range	°C	-5 ÷ 40		
Ambient operating temperature range with optional antifreeze kit	°C	-15 ÷ 40		
NO <sub>x</sub> class	-	6		
*Weighted NO <sub>x</sub> G20	mg/kWh	34	30	34
Weighted CO G20	mg/kWh	23	19	20
Weighted NO <sub>x</sub> G31	mg/kWh	33	23	38
Weighted CO G31	mg/kWh	22	19	24
Type of appliance	-	B23 B23p B53 B53p C13 C33 C43 C53 C83 C93		
PRV	bar	6	6	6

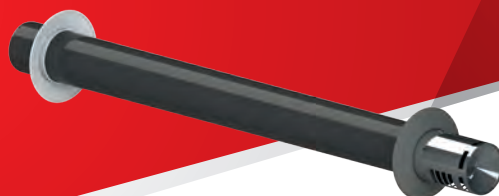
\* Efficiencies and weighted NO<sub>x</sub> refer to the net calorific value.



# ProTec NX

## Flueing and ventilation

The high output ProTec NX range has been designed with siting flexibility in mind and is compatible with our open or concentric push-fit flue systems.



Horizontal flue kit 80mm + 100mm



Vertical flue 80mm + 100mm



Horizontal flue kit concentric 80/125mm 110/160mm



The boilers are factory-fitted with a room-sealed 'C' type flue configuration, but can be changed to 'B23' or twin flue using stub kit.

Part Number: 48 & 68 - 3.033759

Part Number: 90-150 - 3.033760

### 1.49 SUMMARY TABLES OF FLUE LENGTHS

#### PROTEC NX 90

Type	Installation	VICTRIXPRO 100V2
		L = Maximum length (m)
110/160mm	C13 (horizontal+curve) C33 (vertical)	10
100/100mm	C43 - C53 - C83 (split)	25
	B23 - B23p - B33 - B53 - B53p	20a

#### PROTEC NX 115

Type	Installation	VICTRIXPRO 120V2
		L = Maximum length (m)
110/160mm	C13 (horizontal+curve) C33 (vertical)	10
100/100mm	C43 - C53 - C83 (split)	20
	B23 - B23p - B33 - B53 - B53p	15a

## MAXIMUM FLUE LENGTHS

### PROTEC NX 150

Type	Installation	VICTRIXPRO 150V2
		L = Maximum length (m)
110/160mm	C13 (horizontal+curve) C33 (vertical)	5
100/100mm	C43 - C53 - C83 (split)	15
	B23 - B23p - B33 - B53 - B53p	10a

### 1.50 FLUE GAS EXHAUST WITH CASCADE APPLIANCES

The boilers installed in cascade composed of any number between 2 and 5 boilers, can be manifolded to a unique flue exhaust pipe, which flows into a single chimney.

Alpha supplies an appropriate and original flue exhaust system separately to the appliances.

### 1.50 SUMMARY TABLES OF FLUE LENGTHS

#### PROTEC NX 48

Type	Installation	PROTEC PRO 55V2
		L = Maximum length (m)
80/125mm	C13 (horizontal+curve) C33 (vertical)	15
80/80mm	C43 - C53 - C83 (split)	30
	B23 - B23p - B33 - B53 - B53p	25a
Ø 80mm C5	C53 (A:Ø80 1c+1m -S:Ø80 1c+1m+1c)	30
Ø 80mm flex	C53 (A:Ø80 1c+1m -S:Ø80 1c+1m+1c+ad.)	10

#### PROTEC NX 68

Type	Installation	PROTEC PRO 80V2
		L = Maximum length (m)
80/125mm	C13 (horizontal+curve) C33 (vertical)	10
80/80mm	C43 - C53 - C83 (split)	20
	B23 - B23p - B33 - B53 - B53p	20a
Ø 80mm C9	C93 (Ø80/125 1c+1m + Ø80 1c)	20
Ø 80mm flex	C53 (A:Ø80 1c+1m -S:Ø80 1c+1m+1c+ad.)	6

### 1.51 Flue gas exhaust with cascade appliances

The boilers installed in cascade composed of any number between 2 and 5 boilers, can be manifolded to a unique flue exhaust pipe, which flows into a single chimney. Alpha supplies an appropriate and original flue exhaust system separately to the appliances.

# ProTec NX

## The Cascade System

**IT IS OFTEN NECESSARY TO ADD BOILERS TO INCREASE THE OVERALL OUTPUT. IT CAN ALSO BE PREFERABLE TO SPREAD THE TOTAL HEATING OUTPUT REQUIRED OVER TWO OR MORE BOILERS IN A CASCADE SYSTEM. BOILERS CAN BE MOUNTED SIDE-BY-SIDE OR BACK-TO-BACK.**

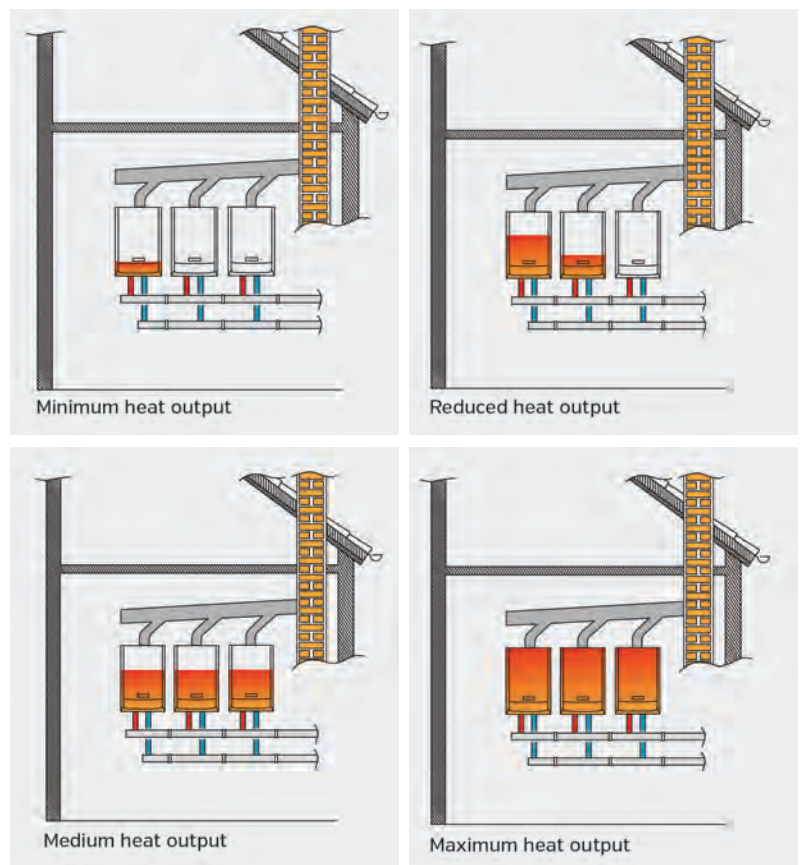
The individual boilers are connected hydraulically, something which can be easily achieved thanks to the availability of a comprehensive Alpha accessories range.

This includes a thermoregulation device which is capable of managing a maximum of eight boilers in sequence.

**DISTRIBUTING THE HEAT OUTPUT ACROSS MORE THAN ONE UNIT BRINGS MANY KEY ADVANTAGES:**

- + Higher efficiency compared with the use of a single boiler of higher heat output, which will have to work under a reduced heating load for large periods of the heating cycle, with lower system efficiency.
- + Multiple boiler cascade systems can be a very cost effective solution compared to single boiler installation.
- + Multiple boiler applications are more reliable than a single stand alone boiler and can maintain the heating function even when maintenance on one of the connected appliances is required. Alpha ProTec Plus boilers are designed to be very easy to service with commonality of parts.
- + Even distribution of the heating load on all the appliances, which avoids the premature deterioration of one lead boiler compared to the other.
- + Cascade solutions offer a very flexible space saving alternative allowing the use of wall mounted boilers where the total required output may normally only be available from larger floor standing units.

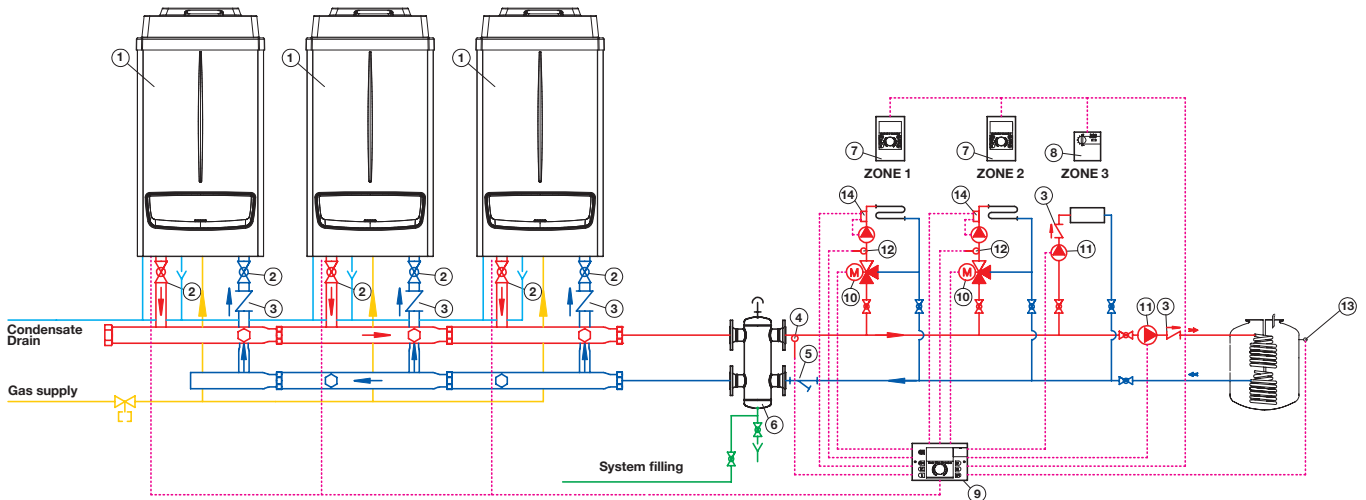
**EXAMPLE OF CASCADE FUNCTIONING**





## CASCADE SYSTEM EXAMPLE

**MULTIPLE BOILER SUPPLYING TWO MIXED AND ONE DIRECT TEMPERATURE HEATING ZONES AND STORAGE CYLINDER FOR DOMESTIC HOT WATER.**



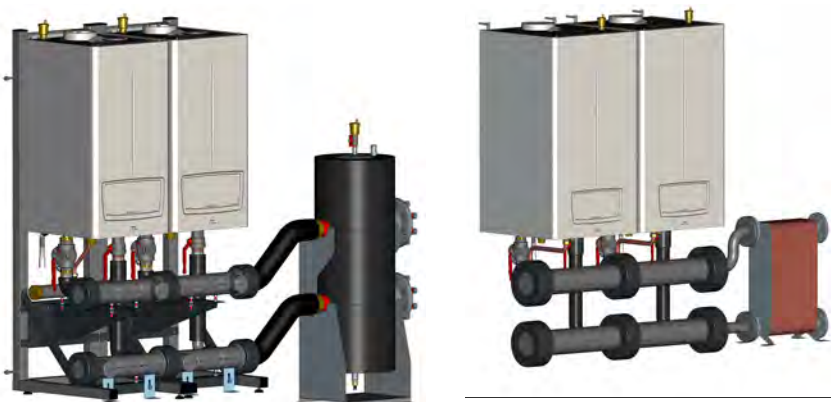
**A**  
WALL HUNG BOILERS

Cascade systems can vary in system design and the number and size of boilers used, with a maximum of 5 x ProTec Plus 180 boilers per Alpha manifold piping kit. This can be connected to the system via a low loss header unit as shown. Alternatively, a barrier heat exchanger can be used to separate the system water and the boiler circulation water; this will require fill, expansion and safety devices to each circuit.

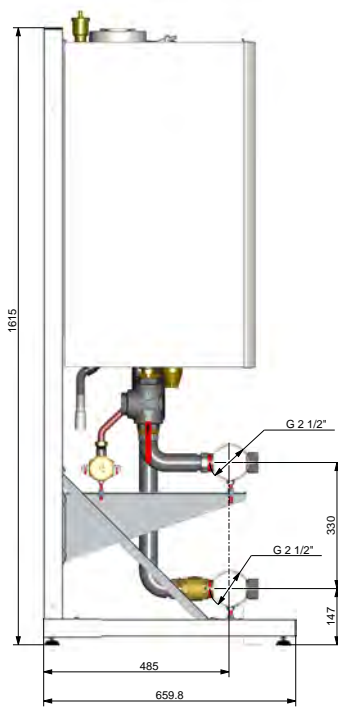
Up to a maximum of eight boilers can be cascaded and controlled by the Alpha Cascade controller with a maximum of four zones.

### KEY

1	Alpha boiler
2	Isolation valve
3	Non return valve
4	Flow temperature probe
5	Strainer
6	Low loss header
7	Zone manager
8	Modulating room thermostat
9	Cascade manager
10	Zone mixing valve
11	Circulation pump
12	Zone temperature probe
13	DHW cylinder probe
14	Zone safety thermostat

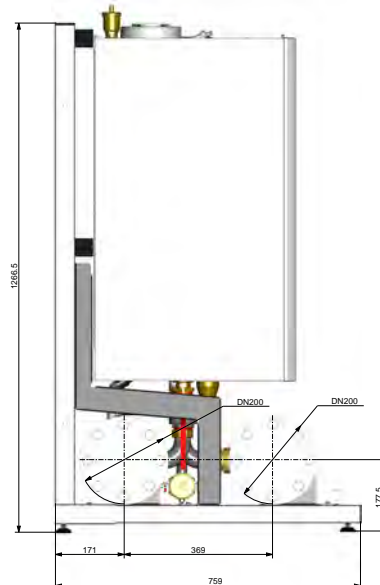


# Low and Ultra Low Frames

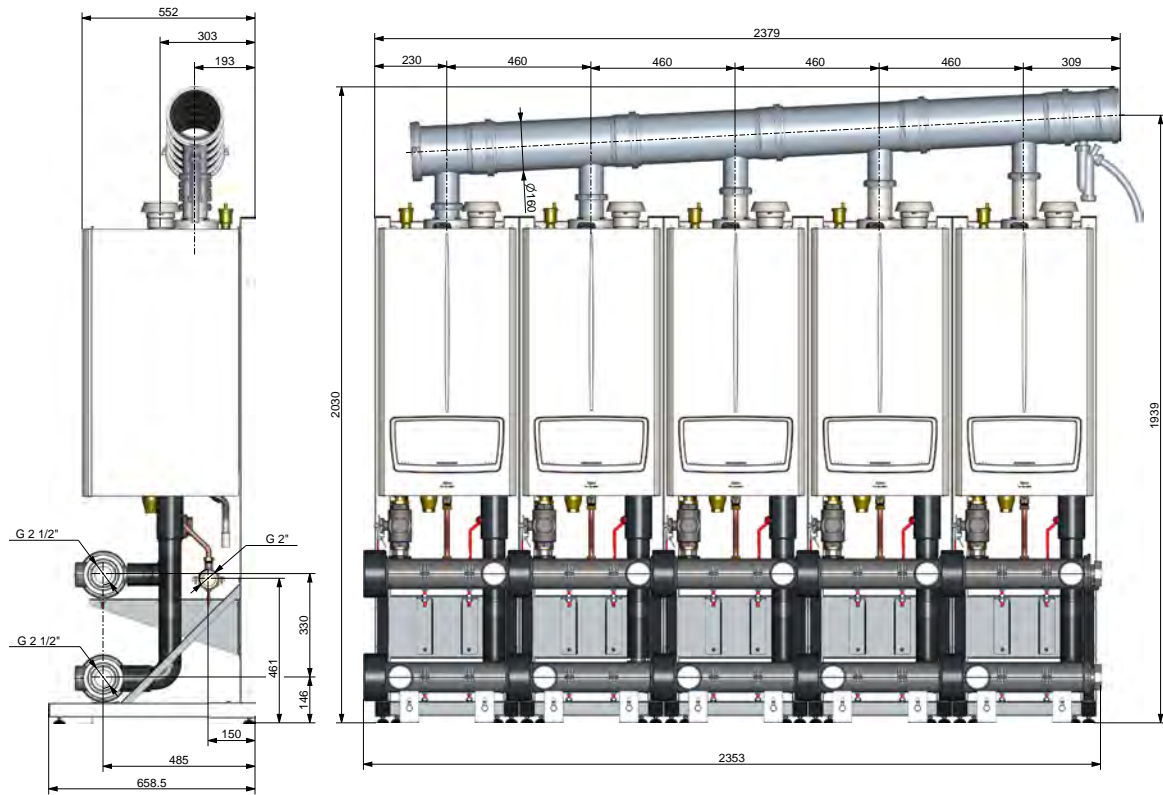


The Alpha freestanding frames can help simplify installation and overcome issues associated with uneven surfaces. Pre-drilled holes determine the position of the boiler support bracket, in turn ensuring the correct weight distribution and positioning of the ProTec NX boilers for the hydraulic and cascade pipework.

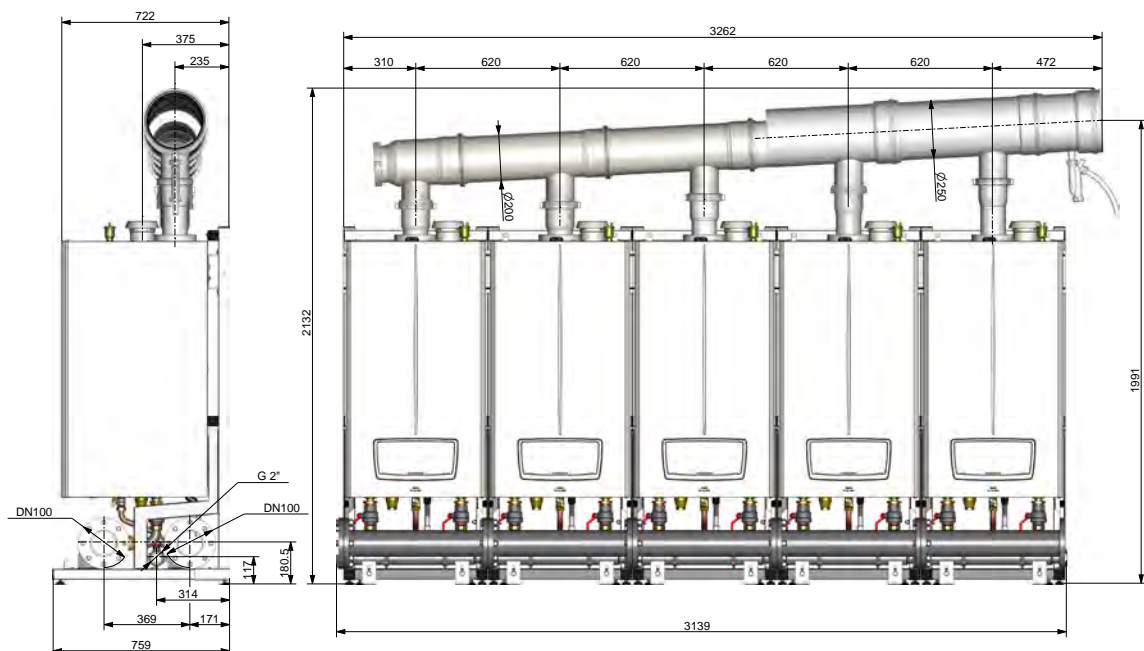
Easy to assemble, there are three height options to choose from depending on available plant room space and the building requirements.



## 48 & 68 FRAME



## 90-150 FRAME



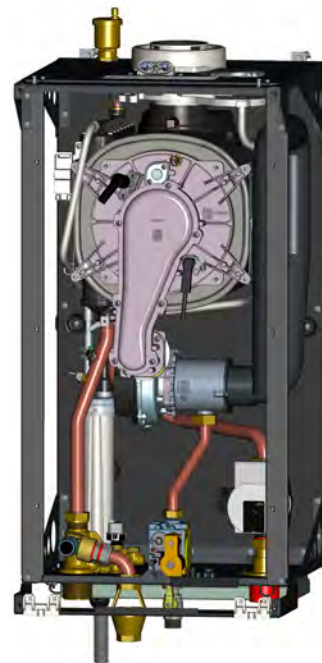


# ProTec NX

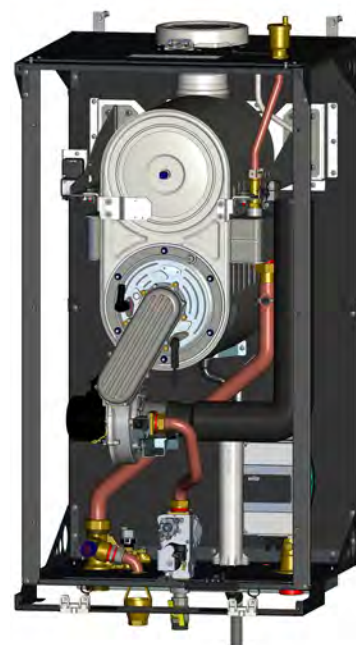
## Control Options

All Alpha ProTec NX boilers are provided with new generation electronics, offering the best performances thanks to their regulation flexibility.

- + Managed directly from the new ProTec NX range
- + New boiler electronics make it possible to manage two zones (two direct zones and a DHW zone)
- + Independent temperature control of each zone
- + Differentiated OTC curves (4-point OTC curve)
- + Two dry contact thermostats, or
- + OpenTherm can be connected
- + Possibility of parallel operation in DHW and CH
- + The pump can run continuously in CH
- + Air purge function
- + Anti-Legionella (only when connected to a NTC sensor on the storage)
- + Operating temperature in CH 20-90°C
- + Delta T Function
- + Possibility of programming the heating and DHW time bands (ECO, COMFORT, OFF)



48-68 models



90-180 models

In the case of cascade systems, it will be necessary to use a thermoregulation device able to manage the boilers and the system and display the information on the system, in order to meet the best varied operating requirements.

### CASCADE MANAGER

The central unit of the thermoregulation system can control, monitor and program the operating sequence up to a maximum of 8 boilers in cascade. The manager controls the boiler's output adjusting it to the system requirements.

The manager can control up to 3 heating zones and a DHW circuit for a separate storage tank. It is also possible to install up to 5 manager's in parallel (of which only the master will be connected to the boilers) to control up to a maximum of 15 heating zones and 5 storage tanks for the domestic hot water production.

This means that the previously set functioning parameters (turn on/off, temperatures, etc.) can be easily modified by the user, without having to operate the central manager.

### MODULATING ROOM THERMOSTAT

Connected to the cascade manager, it allows the user to regulate the room temperature of individual zones.

**EXTERNAL PROBE** Connected to the lead boiler, it optimises energy consumption, automatically adjusting the system delivery temperature to suit the outdoor temperature variations.

### SYSTEM DELIVERY PROBE

Allows the cascade and zones manager to manage the system temperature.

### SEPARATE STORAGE TANK PROBE

Allows the cascade manager to control the temperature of a separate storage tank in order to produce domestic hot water.



**Zone manager**  
Remote control for single boiler



**Modulating room thermostat**



**Wallbox for Cascade Manager**

# WATER HEATERS



## HOT WATER BLADE UNITS

The Premium Blade Water Heater Range is a high performance super-efficient DHW and/or heating unit consisting of a grade A NG or LPG condensing boiler coupled with an output matched Plate Heat Exchanger which heats a Direct Stainless Steel Cylinder using a destratification pump, pre-wired, pre-plumbed and factory tested. The heater is simple to install and it is fully maneuverable. Just wheel into place, level using legs provided and connect to Hot, Cold, DHW Return and Gas pipework. A simple electrical connection point is supplied and the unit is controlled by the built in 7 day programmer.

## FEATURES AND BENEFITS

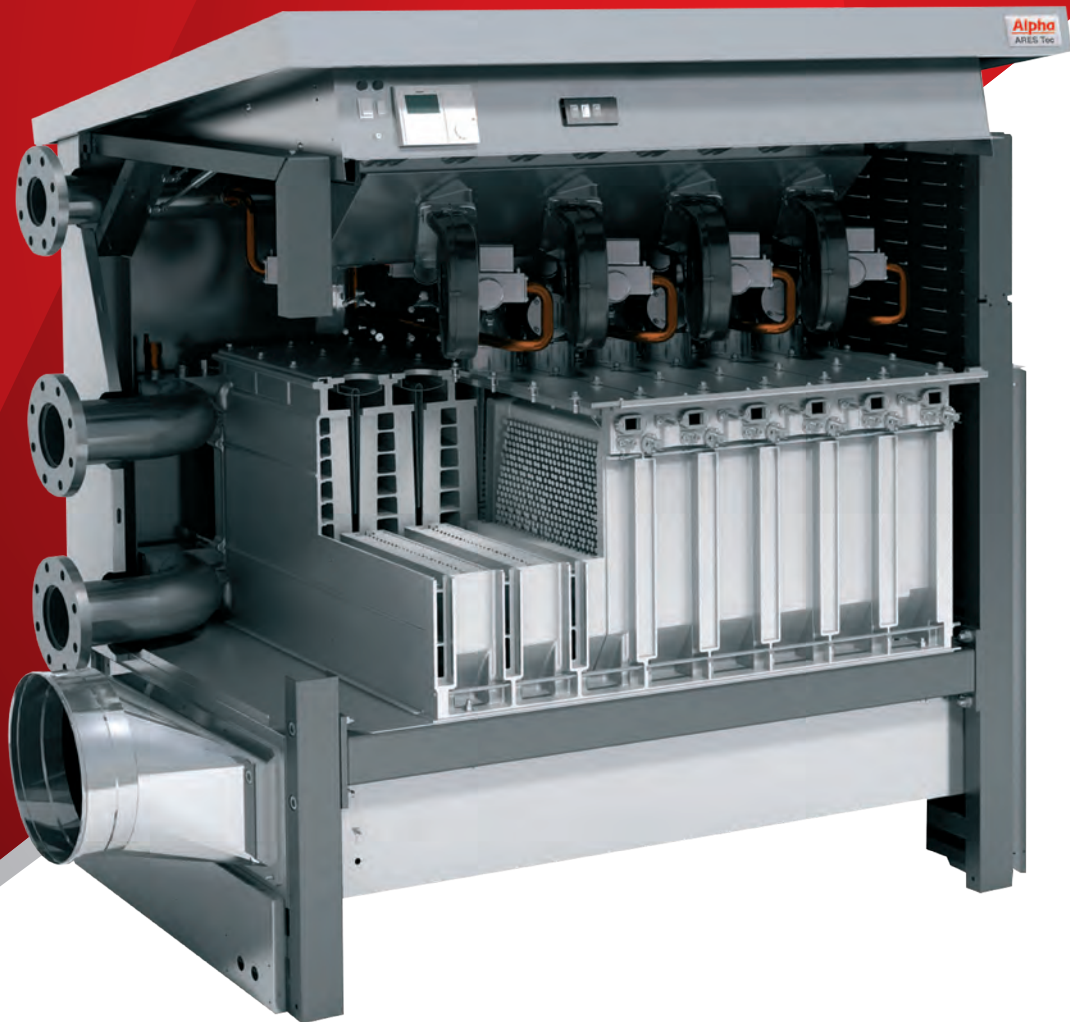
- + Space efficient with reduced cylinder size and high recovery cylinder
- + Reduces the risk of legionella with built-in anti-stratification facility
- + Suitable for gravity and mains pressure systems
- + Standardised modular design pre-configured factory assembled and tested prior to delivery to site reduces installation, commissioning and down time
- + The standard module design with uniform connection locations makes replacement of future upgrades very cost effective
- + The freestanding self-contained rigid frame format allows the Blade units to be easily integrated into existing plant rooms during the boiler replacement program.
- + 10 year warranty and ERP compliant boilers, all other components 2 year warranty
- + Unique Stainless Steel cylinder with life time warranty comes complete with optional 3kW or 6kW immersion heater
- + All major components readily accessible for easy maintenance or future replacement



Model		30/300	40/300	50/300	70/300	90/300	115/300
Boiler Size	kW	30	38	50	70	90	115
Cylinder Capacity	litres	300	300	300	300	300	300
Total Frame Length	mm	1100	1100	1253	1297	1427	1427
Total Frame Width	mm	700	700	700	700	700	700
Total Frame Height	mm	1910	1910	1910	1910	1910	1910
Weight Empty	kgs	155	155	210	240	260	267
Weight Full	kgs	460	460	556	586	613	662
SAP/SEDBUK seasonality efficiency 2009	%	89	89	88.5	88.6	88.7	88.5
Nat Gas Consumption (max)	m <sup>3</sup> /hr	3.45	4.13	5.43	7.4	9.77	12.07
LPG Consumption (max)	l/ph	4.95	5.92	7.7	10.4	13.8	17
Heat Up from Cold 10°C	minutes	35	27.5	21	15	12	9.5
Variable Recovery	minutes	*	*	*	*	*	*
Cold Water Connection Copper	mm	22	28	35	35	42	42
Hot Water Connection Copper	mm	22	28	35	35	42	42
DHW Return Connection Copper	mm	22	22	28	28	28	28
Gas Connection Copper	mm	22	22	28	28	28	28
Combined Relief	mm	28	28	28	28	28	28
Immersion Heater (back up only)	kW	3	3	3	3	3	3
Total Electrical Consumption	watts	205	205	230	270	465	505

\*Denotes: once the cylinder is up to operating temperature the cylinder recovery rate is variable dependant on HW draw-off and mains water temperature. However, owing to our progressive heat gain system, this recovery rate will be significantly reduced by up to 40% than the heat time quoted.

# ARES Tec



- 10**  
Models
- 150-900 kW**  
Outputs
- Up to **1:40**  
modulation
- Compact size**
- Low NOx**

**UP TO 10 YEAR WARRANTY**

## ARES Tec floor-standing condensing boilers provide infinitely flexible solutions for buildings requiring a high output heating system.

Each boiler is made up of a number of self-contained heat generating modules linked together within a single casing. This modular design enables ARES Tec boilers to optimise energy efficiency and comfort levels for occupants of a wide range of projects from hotels to office buildings, schools to sports centres.

In addition, consultants, system designers and contractors also benefit from ARES Tec's advanced technology which greatly eases the installation process, increases siting options and simplifies maintenance.

### PRODUCT CHOICE

- + Ten models with outputs ranging from 150-900kW
- + Can be cascaded for higher output requirements
- + Natural gas or LPG options

### PERFORMANCE BENEFITS

- + Very high modulation range up to 1:40 optimises comfort levels
- + Exceptional energy efficiency (up to 109% at the minimum modulated capacity)
- + High seasonal efficiency (+30% compared to standard efficiency boilers)
- + Low emissions 30Mg/kWh

### SITING ADVANTAGES

- + Compact dimensions
- + Ultra-low operating noise levels (<49 dBA)
- + IPX5D rated for optional siting outdoors

### EASIER INSTALLATION AND MAINTENANCE

- + Excellent power to weight ratios
- + Fewer connections
- + Easy access internal layout
- + Each module shares a single set of ancillary components including flow and return pipes, electronic controls and flue

### COMPLIANCE

- + Building Regulations Part L 2010
- + NOx Class 6 – EN 15420 and EN 297/A3

# ARES Tec

## The modular approach

**Each heat generating module within ARES Tec boilers is self-contained, with its own down-firing pre-mix gas burner, fan, ignition and safety controls.**

As system load decreases, a built-in Boiler Cascade Manager modulates the boiler down to the combined minimum. As loads continue to reduce, individual modules are switched off as necessary down to a minimum output of a single module – 12 kW for 150-350 kW models and 22kW for 440-900 kW models.

This ensures optimum load matching and minimises wasteful boiler cycling; maximising energy efficiency in the process. The combination of a high modulation ratio up to 1:40 and a high output plus very low water content ensures rapid warm-up and turn-down times thereby enabling quick response to changing demands throughout the day.

Thanks to their modular design, ARES Tec boilers will also continue to operate even in the unlikely event of single module malfunction

### KEY MODULE COMPONENTS

- + PCB to manage the boiler
- + Automatic and pre-programmed electronic management and thermal regulation
- + Individually controlled premix modelling burners
- + Electronic ignition with flame ionisation
- + Modulating gas valve
- + Integrated fan inlet non-return valve
- + Temperature and safety sensors

### SEAMLESS INSTALLATION

- + One-piece interconnecting flow and return manifolds
- + Three flue position options (rear or either side)
- + Reversible left/right handed water and gas connections (150-350kW models)
- + A range of complementary accessory kits

### MAXIMUM HEAT TRANSFER

Each heating module is a counter flow heat exchanger featuring:

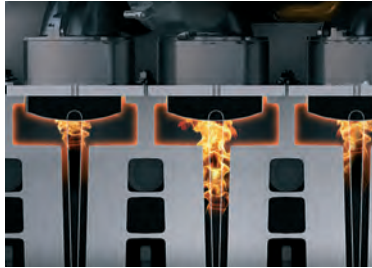
- + Cast aluminium alloy with silicon and magnesium construction for lightness, strength and corrosion resistance
- + Serpentine water ways to optimise heat transfer
- + Cast pin design to increase surface area and boiler efficiency

### SUMMARY

- + Optimum load matching
- + Minimal boiler cycling
- + Rapid warm-up time
- + Quick response to changing demands
- + Boiler able to operate even if one module fail



## TECHNICAL



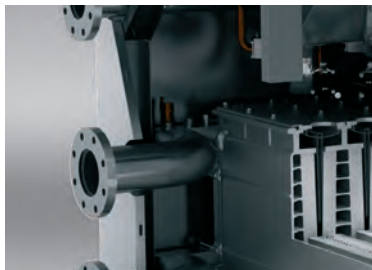
Cross-section of modular burners.



Pre-mix burners with individual fans and gas valves.



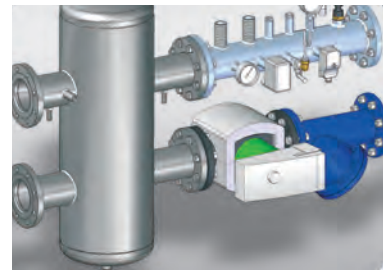
Easy access safety temperature sensors, ignition electrodes and ionisation probes.



Single hydraulic manifolds for simple connection.



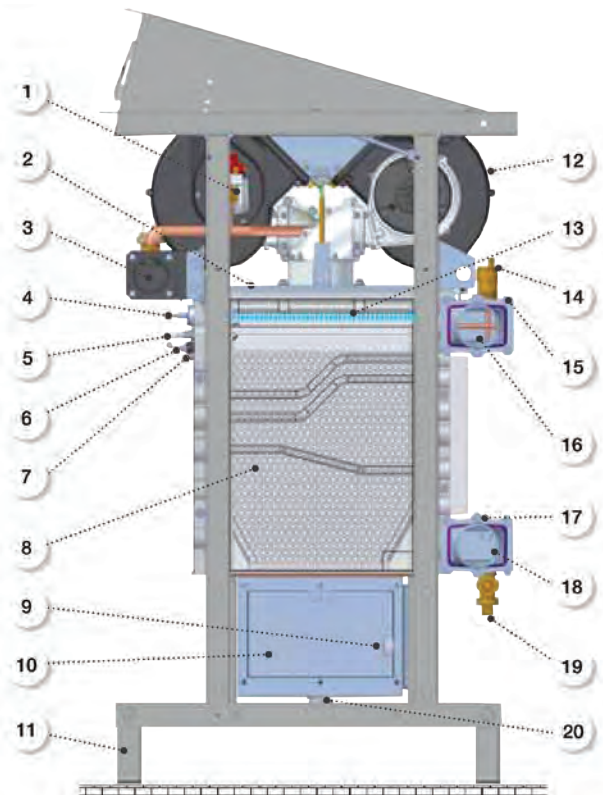
Integrated non-return flue valves.



Accessories include a pre-assembled primary connection kit with low loss header.

### KEY

- 1 Gas valve
- 2 Burner cover
- 3 Gas pipe
- 4 Ignition electrode
- 5 Ionisation probe
- 6 Local NTC temperature sensor
- 7 Limit thermostat
- 8 Aluminium alloy heat exchanger
- 9 Condensate level sensor
- 10 Condensate and flue tray with flue connection
- 11 Frame
- 12 Fan
- 13 Burner
- 14 Automatic air vent
- 15 Global NTC flow temperature sensor
- 16 Central Heating flow
- 17 Global NTC return temperature sensor
- 18 Central Heating return
- 19 Boiler drain tap
- 20 Condensate evacuation



# ARES Tec

## Specification

ARES Tec model		150	200	250	300	350	440	550	660	770	900
Nominal input on N.C.V.	kW	150	200	250	300	348	432	540	648	756	864
Number of heating modules		3	4	5	6	7	4	5	6	7	8
Nominal output in condensation 30°/50°C	kW	150	200.4	251.3	302.7	354.6	445.0	557.8	670.1	783.2	900.3
Minimal input in condensation 30°/50°C	kW	12.8	12.8	12.8	12.8	12.8	23.9	23.9	23.9	23.9	23.9
Nominal output in standard conditions 60°/80°C	kW	146.1	195.2	244.5	294.0	342.2	424.35	530.44	636.53	742.62	849.05
Net efficiency at maximum load condensing	%	100.0	100.2	100.5	100.9	101.9	104.0	104.0	104.0	104.0	104.0
Net efficiency at part load condensing	%	107.3	107.3	107.3	107.3	107.3	107.3	107.5	108.3	107.8	107.6
Efficiency at full load 80°/60°C	%	97.4	97.6	97.8	98.0	98.2	98.2	98.2	98.2	98.2	98.2
Boilers seasonal efficiency Part L	%	97.4	95	95	95	95.1	95.1	95.2	95.8	95.4	97.3
NOx Class		6	6	6	6	6	6	6	6	6	6
NOx emissions	mg/kWh	27	27	27	27	27	27	27	27	27	27
Natural gas consumption ( <i>gross</i> )	m <sup>3</sup> /h	15.9	21.1	26.4	31.7	37.0	45.68	57.1	68.52	79.94	91.36
Flue gas temperature rise (max) 30°/50°C	°C	45.1	46.5	47.3	48.2	49.1	46.7	46.7	46.7	46.7	45.8
Flue gas mass flow ( <i>max</i> ) 30°/50°C	kg/h	245	326.9	408.6	490.3	572.0	693.0	866.0	1040.0	1213.0	1386.0
Max flue resistance	Pa	100	100	100	100	100	100	100	100	100	100
Maximum operational electrical consumption	W	210	290	362	435	507	626	783	940	1096	1252
Stand-by consumption	W	10	10	10	10	10	20	20	20	20	20
Flue connection	mm	150	150.0	200.0	200.0	200.0	250.0	250.0	300.0	300.0	300.0
Gas connection (G)	mm (inch)	50 (2)	50 (2)	50 (2)	50 (2)	50 (2)	80 (3)	80 (3)	80 (3)	80 (3)	80 (3)
C.H. Flow/Return (F/R)	mm (inch)	64 (2.5)	64 (2.5)	64 (2.5)	64 (2.5)	64 (2.5)	100 (4)	100 (4)	100 (4)	100 (4)	100 (4)
Water flow rate at 15°C temp. rise	l/s	2.73	3.1	3.89	4.68	5.48	6.76	8.45	10.14	11.83	13.51
Hydraulic resistance at 15°C temp. rise	kPa	19.61	21.6	24.5	23.7	24.0	21.6	31.4	42.1	34.1	33.3
Water flow rate at 20°C temp. rise	l/s	1.75	2.33	2.92	3.51	4.11	5.06	6.33	7.6	8.87	10.14
Hydraulic resistance at 20°C temp. rise	kPa	10.7	11.8	12.8	13.7	14.7	13.7	15.7	19.6	20.6	17.6
Maximum condensate production	ltr/hr	23	30.6	38.3	45.9	53.6	73.4	91.7	110.0	128.4	146.7
Protection degree	IP	X5D	X5D	X5D	X5D	X5D	X5D	X5D	X5D	X5D	X5D
Min-max water pressure	bar	0.5-6.0	0.5-6.0	0.5-6.0	0.5-6.0	0.5-6.0	0.5-6.0	0.5-6.0	0.5-6.0	0.5-6.0	0.5-6.0
Water content	ltr	14.2	18.3	22.4	26.5	30.6	67.0	80.0	94.0	108.0	122.0
Width L (see diagrams on pages 12 and 13)	mm	764	1032	1032	1300	1300	1087	1355	1355	1623	1623
Width L1 (see diagrams on pages 12 and 13)	mm	706	974	974	1242	1242	1039	1307	1307	1575	1575
Gross weight including packaging	kg	236	295	325	386	419	585	643	707	806	858

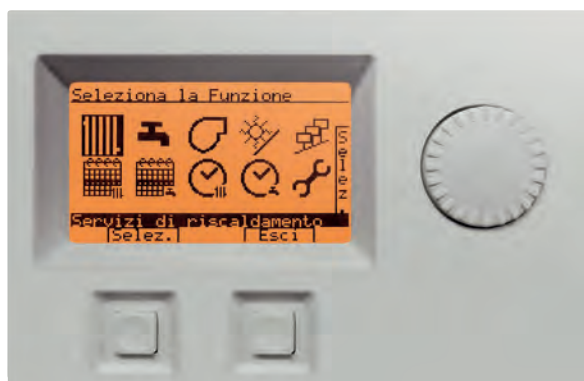
## CONTROLS

All electrical functions on ARES Tec boilers are operated by a single integrated set of advanced microprocessor-based controls – a Boiler Control Module and HSCP Heating System Control Panel

Housed in a pneumatically operated lift-up casing that can be closed to obscure them from view and prevent them from being tampered with, these provide full commissioning and fault diagnostic displays for individual modules.

### Advanced integrated controls

- + A single set of electronic controls for regulation and management of individual modules
- + Controls housed in a tamper-proof 'disappearing' panel



### HSCP - HEATING SYSTEM CONTROL PANEL

This gives local control of settings and parameters, as well as managing external pumps, valves and sensors.

In addition to modular control, it can directly compensate the boiler flow temperature using an outdoor sensor.

The HSCP is capable of managing a direct heating circuit, a mixed heating circuit and a DHW circuit with the possibility of secondary circulation.

### BCM - BOILER CONTROL MODULE

The Boiler Control Module spreads load evenly between individual modules, ensuring optimum efficiency relative to demand.

It also alternates ignition of the modules every 24 hours to ensure equal daily rotation and even running times.

In the unlikely event of failure of the HSCP controller, the Boiler Control Module has a manual override switch that enables the boiler to continue operating at 50% of its nominal output.

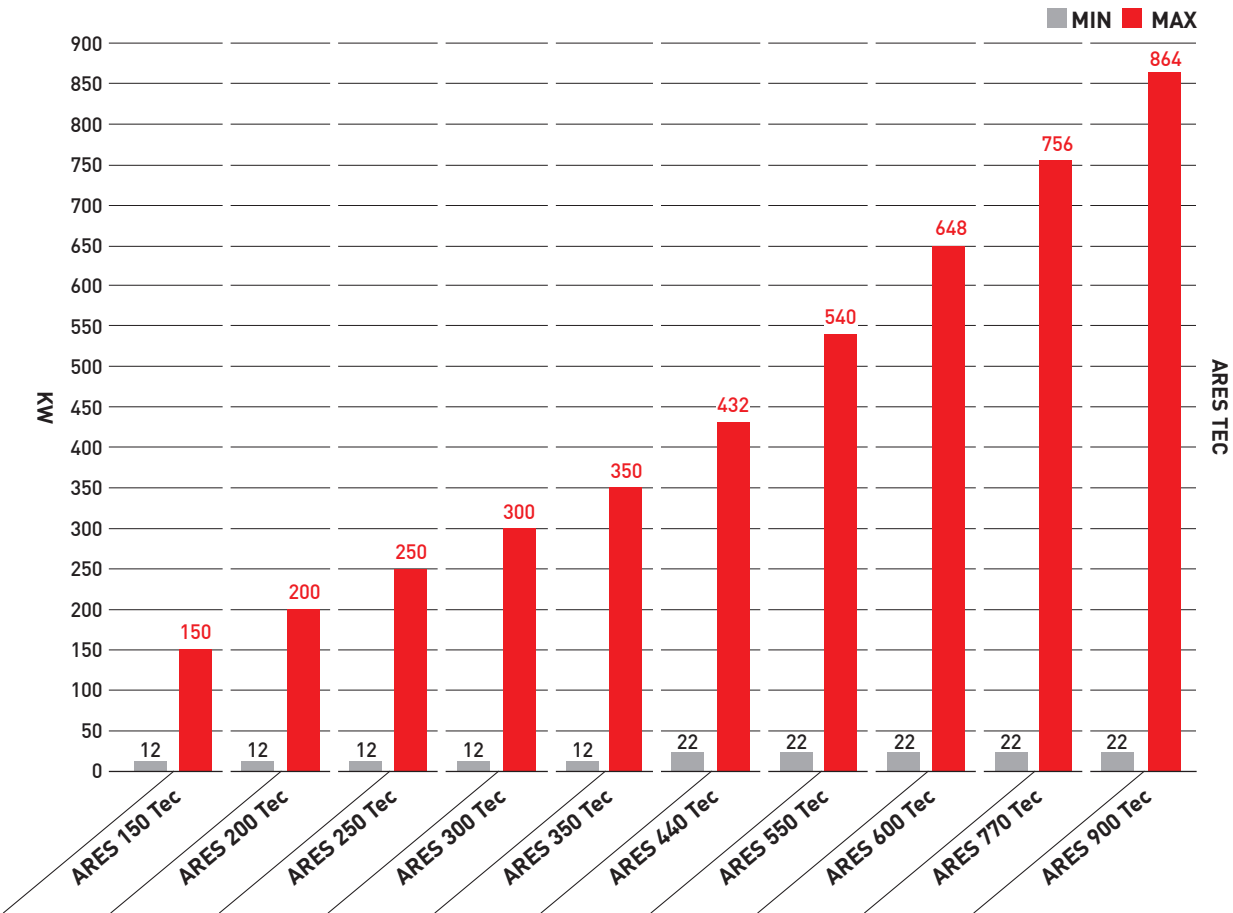
It is supplied complete with:

- + External temperature sensor for weather compensation
- + Flow temperature sensor for a mixed zone
- + Boiler temperature sensor
- + DHW storage tank temperature sensor

# ARES Tec

## Compliance

VERSATILE MODULATION RANGE TO MEET THE DEMANDS OF COMMERCIAL BUILDINGS





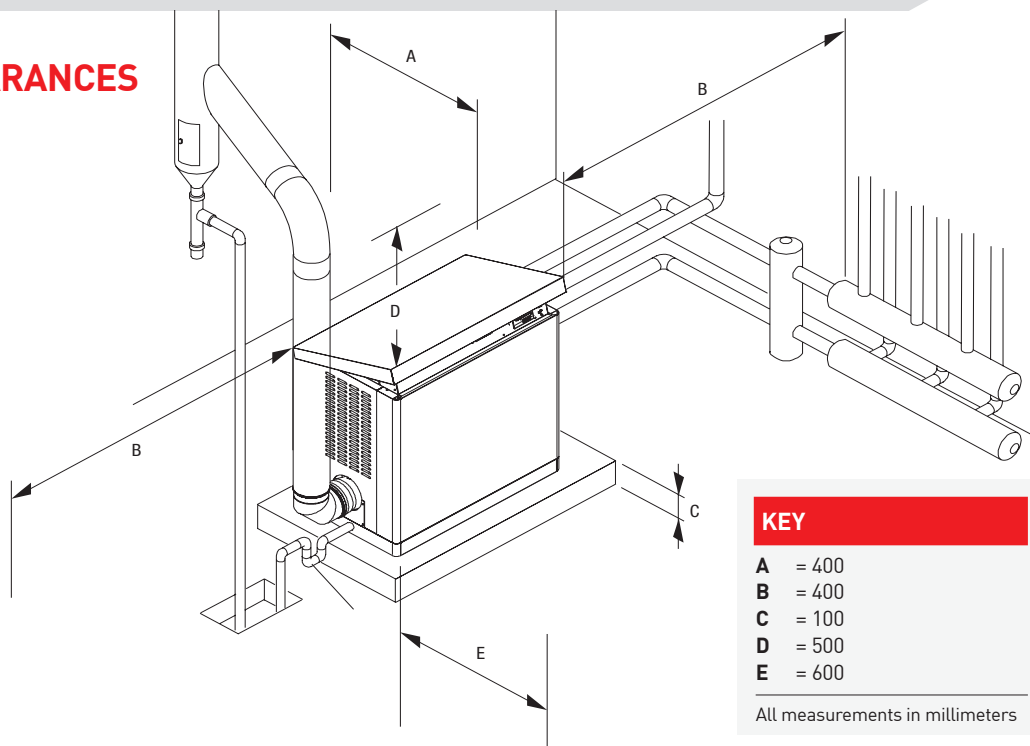
## INSTALLATION



**A**

FLOOR-STANDING BOILERS

## CLEARANCES



# ARES Tec

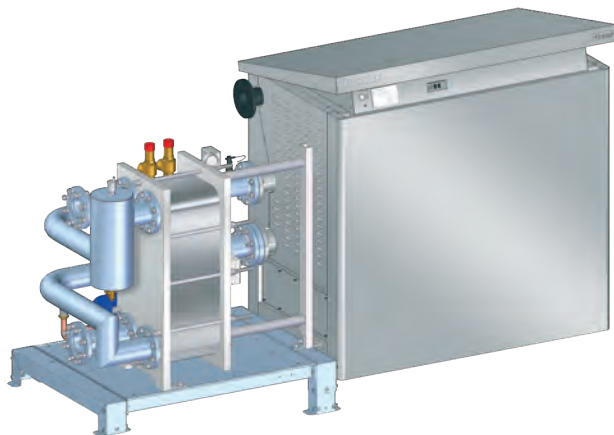
## Accessory Kits

There is a selection of complementary accessories to choose from, making ARES Tec the ultimate one-stop flexible heating solution for commercial buildings.

### PRE-ASSEMBLED PRIMARY SAFETY GROUP WITH LOW LOSS HEADER

Available in four versions to cover all ARES Tec boiler models, this kit includes:

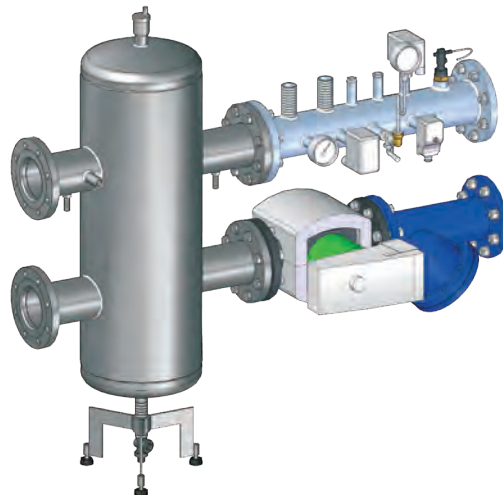
- + Safety kit
- + Dirt separator/strainer
- + Class A modulating pump
- + Low loss header
- + PN16 flange connections



### PRE-ASSEMBLED PRIMARY SAFETY GROUP WITH PLATE HEAT EXCHANGER:

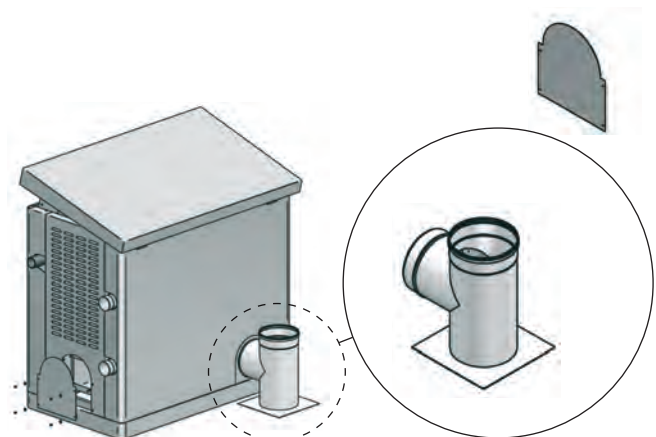
There are six versions of this boiler circuit kit to cover all ARES Tec models. Each one includes:

- + One safety valve two safety valves for 660-900 kW models)
- + Class A modulating pump
- + Expansion tank (8 litres capacity for 200-350 kW models and 24 litres capacity for 440-900 kW models)
- + Automatic air vent
- + Delivery/return pipe
- + Drain valve (3/4 inch)
- + Flanges/adapters, connectors and adjustable support components

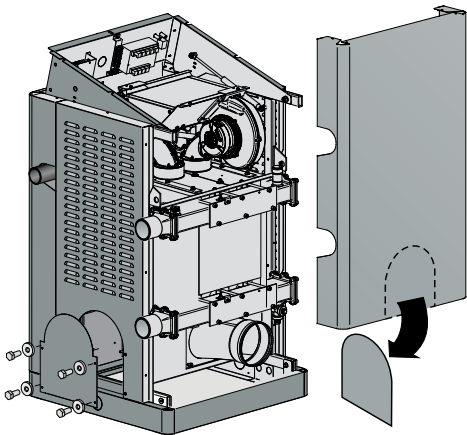


## FLUE CONNECTION KIT

The standard flue position is on the right for ARES Tec 200-350 kW models and on the left for 440-900 kW models. Kits are available to enable flueing on the non-standard side as well as the rear of all boilers in the range.



Side blanking kit with flue support elbow (250-350 kW models)

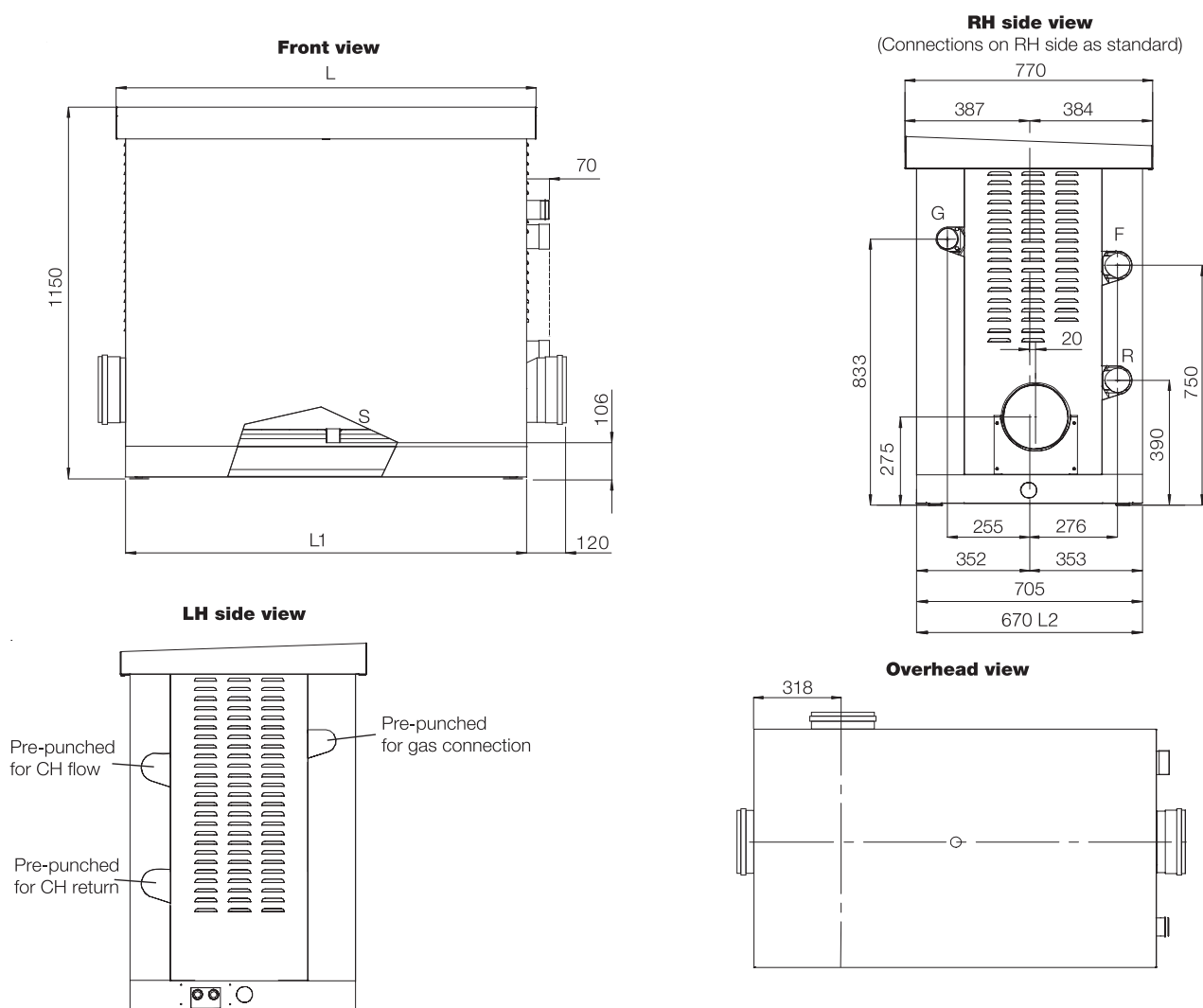


Side blanking kit for rear flue option (200 kW model)

# ARES Tec

## Dimensions and connections

### MODELS 150-350 kW



#### KEY

- G** Gas connection
- S** Condensate drain
- F** CH flow
- R** CH return

All measurements in millimeters

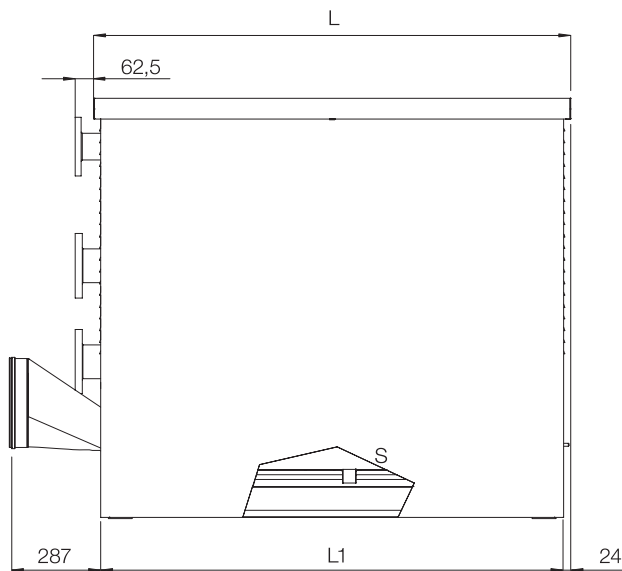
ARES Tec model	150	200	250	300	350
Width (L) mm	764	1032	1032	1032	1300
Width (L1) mm	706	974	974	1242	1242
Flue connection mm	150	150	200	200	200
Gas connection (G) mm (inch)	50 (2)	50 (2)	50 (2)	50 (2)	50 (2)
Condensate drain (S) mm	40	40	40	40	40
CH flow/return (F/R) mm (inch)	64 (2.5)	64 (2.5)	64 (2.5)	64 (2.5)	64 (2.5)
Case off L2	670	670	670	670	670



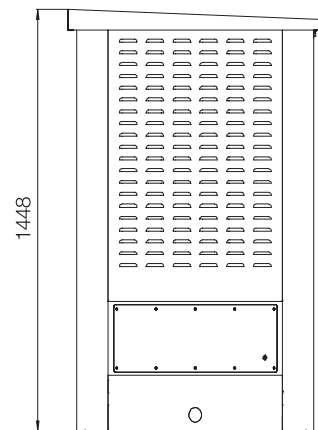
## MODELS 150-350 kW MODELS 440-900 kW

### MODELS 440-900 kW

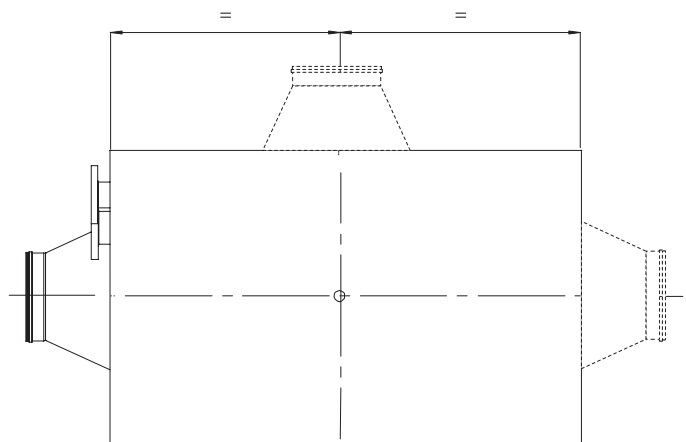
**Front view**



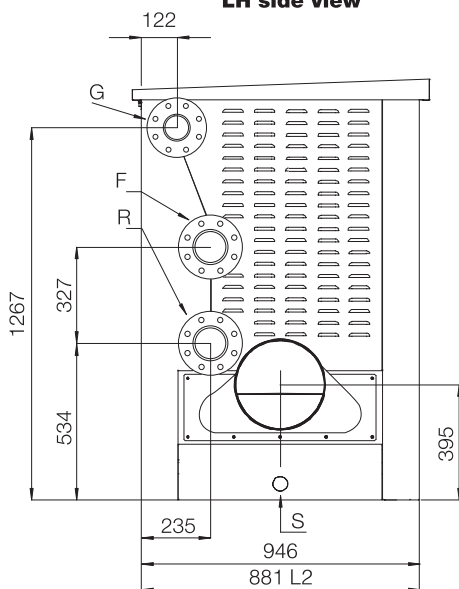
**RH side view**



**Overhead view**



**LH side view**



ARES Tec model	440	550	660	770	900
Width (L) mm	1087	1355	1355	1623	1623
Width (L1) mm	1039	1307	1307	1575	1575
Flue connection mm	250	250	300	300	300
Gas connection (G) mm (inch)	80 (3)	80 (3)	80 (3)	80 (3)	80 (3)
Condensate drain (S) mm	40	40	40	40	40
CH flow/return (F/R) mm (inch)	100 (4)	100 (4)	100 (4)	100 (4)	100 (4)
Case off L2	881	881	881	881	881

# ARES Pro



**7**  
Models

**150-  
600 kW**  
Outputs

**High  
Water  
Content**

**Ideal for  
retrofit**

**Stainless  
Steel  
Heat  
Exchanger**

**UP TO  
7 YEAR  
WARRANTY**

Featuring high performance components including a stainless steel heat exchanger, ARES Pro boilers offer many advantages to specifiers and building occupiers alike. Delivering superior and reliable functionality this powerful workhorse is designed to aid quick installation and ensure long term performance and cost efficiency.

#### PRODUCT CHOICE

- + Seven models available in range
- + Outputs ranging from 150-600kW

#### PERFORMANCE BENEFITS

- + High water content design reducing burner switch on/off cycles and improving seasonal efficiency
- + Stainless steel heat exchanger for maximum combustion performance and safety
- + Financial savings as pump and hydraulic separator/plate heat exchanger not required
- + Low resistance waterways

#### SITING & INSTALLATION ADVANTAGES

- + Less installation space needed due to compact footprint
- + Direct connection to the system, not necessary to use headers
- + Option to use existing pump to minimise install work

**THE ARES PRO RANGE OF HIGH WATER CONTENT CONDENSING BOILERS HAVE BEEN DESIGNED AND MANUFACTURED TO MEET THE NEEDS OF NEW AND REPLACEMENT/RETROFIT APPLICATIONS, WITH THE ADDED ADVANTAGE OF BEING TOLERANT TO OLDER HEATING SYSTEMS.**



## BOILER CONFIGURATION

- + Heat exchanger constructed in 316 stainless steel
- + Easy to maintain vertical tube burner assembly
- + Patented pipes in stainless steel, with multi-fin inserts, tilted to improve flow of condensate
- + Low NOx metallic multi-fibre cylindrical burner
- + Double ignition electrodes to ensure smooth and safer operation
- + Premix system with pneumatic control of the combustion ratio
- + Flue non-return valve (clapet) fitted to fan outlet

## MAIN FEATURES

- + Easy access combustion chamber with pneumatic lift up burner assembly
- + Retractable step, supplied as standard for the 348, 400, 500 and 600 models (optional for 150 to 300 models)
- + Integrated HSCP (Heating System Control Panel) manages programming and settings
- + HSCP preprogrammed to manage 1 direct heating zone and 1 DHW cylinder

## DESIGN AND CONSTRUCTION

- + The stainless steel tube bundle is immersed directly into the system water
- + System return pipe is located diagonally to the flow pipe, ensuring maximum efficiency
- + Large hydraulic manifolds to obtain maximum water circulation and low head losses
- + No return temperature limit for a range of system temperatures with adjustable temperature difference

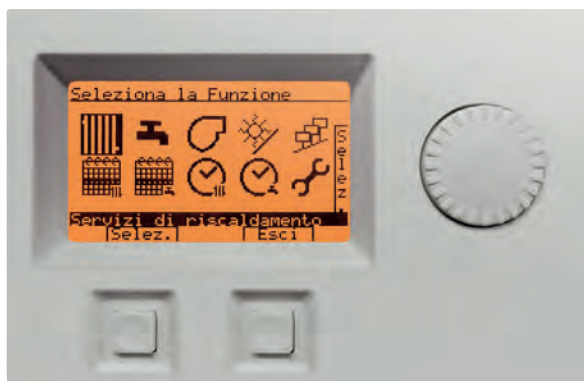
# ARES Pro

## Technical data

Technical characteristics	Unit of measurement	ARES PRO 150	ARES PRO 230	ARES PRO 300	ARES PRO 348	ARES PRO 400	ARES PRO 500	ARES PRO 600
Maximum nominal heat input	kW	140	214	280	348	380	450	550
Minimum nominal heat input	kW	35	50	65	90	90	115	125
Nominal heat output (80/60 °C)	kW	136,36	209,29	274,54	341,42	373,01	441,95	540,32
Minimum heat output (80/60 °C)	kW	32,52	48,25	63,57	87,67	87,80	111,09	118,53
Nominal heat output (50/30 °C)	kW	145,88	226,84	292,88	363,31	399,00	427,05	581,19
Minimum nominal heat output (50/30 °C)	kW	36,54	54,60	70,01	99,09	97,20	124,09	135,88
Efficiency at nominal heat output (80/60 °C)	%	97,4	97,8	98,05	98,11	98,16	98,21	98,24
Efficiency at minimum heat output (80/60 °C)	%	92,92	96,50	97,80	97,41	97,55	96,60	94,82
Efficiency at nominal heat output (50/30 °C)	%	104,2	106,0	104,6	104,4	105,00	104,90	105,67
Efficiency at minimum heat output (50/30 °C)	%	104,4	109,2	107,7	110,1	108	107,9	108,7
Stack losses with burner ON	%	2,21	2,14	1,84	1,78	1,77	1,78	1,72
Stack losses with burner OFF	%	0,22	0,18	0,12	0,27	0,27	0,27	0,24
Casing losses with burner ON	%	0,4	0,1	0,1	0,1	0,10	0,03	0,04
Casing losses with burner OFF	%	0,22	0,18	0,12	0,27	0,27	0,27	0,24
NOx Class		6	6	6	6	6	6	6
CO at maximum heat input [0% O <sub>2</sub> ]	mg/kWh	13,73	18,05	28,08	25,27	18,25	22,46	22,10
Gas flow rate to burner at max, and min. heat output with natural gas (G20)	m <sup>3</sup> /h	14,80 - 3,70	22,63 - 5,29	29,61 - 6,87	36,80 - 9,52	40,18 - 9,52	47,58 - 12,16	58,15 - 13,22
Maximum pressure at the base of chimney	Pa	100	100	100	100	100	100	100
Flue exhaust mass flow rate at nominal heat output	kg/h	229	350	458	569	621	735	899
Maximum fan available head	%	9,1 - 9,1	9,1 - 9,1	9,1 - 9,1	9,1 - 9,1	9,1 - 9,1	9,1 - 9,1	9,1 - 9,1
Flue exhaust max temperature (setting temperature 20 °C and operation at 80/60 °C)	°C	44,2	42,7	36,7	35,6	35,4	35,5	34,3
Maximum operation temperature	°C	90	90	90	90	90	90	90
Set heating temperature	°C	20 - 85	20 - 85	20 - 85	20 - 85	20 - 85	20 - 85	20 - 85
Central heating circuit max pressure	bar	6	6	6	6	6	6	6
Maximum condensate production		11,5	13,7	15,8	29,1	28,5	28,8	31,0
Power supply	V/Hz	230/50	230/50	230/50	230/50	230/50	230/50	230/50
Installed electric power	kW	0,190	0,195	0,210	0,270	0,425	0,555	0,590
Electric protection index	IP	X4D	X4D	X4D	X4D	X4D	X4D	X4D
Empty appliance weight	kg	347	399	459	610	610	610	755
Appliance water content	l	153	210	270	340	340	340	425



## CONTROLS



HSCP Control Panel

### HSCP CONTROL PANEL

- + Backlight Liquid Crystal Display, rotating knob and 2 buttons, one to select and one to exit from the menu
- + Stand-alone functioning to manage one heating zone and one hot water zone
- + Recirculation DHW pump management
- + Anti-legionella function
- + Works as thermostat if connected to room sensor



BCM Control Panel

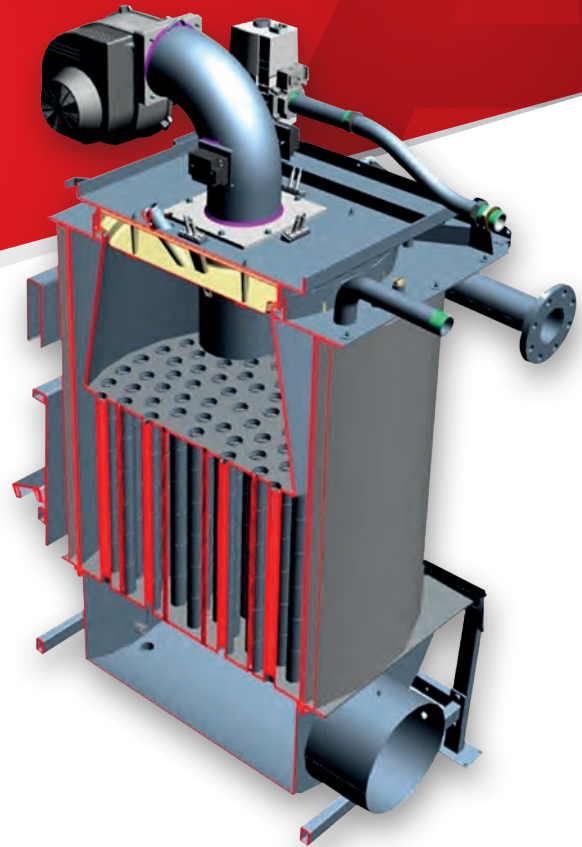
### BCM CONTROL PANEL

- + DHW sensor
- + DHW cylinder pump
- + Room thermostat contact
- + 0-10V analogic input
- + Heating zone pump
- + Modulating or fixed speed pump for the primary ring
- + Alarm output
- + Emergency manual override
- + Run signal

# ARES Pro

## Design and Construction

- + Flue pipes are positioned in the vertical tube bundle tilted at 3° to improve:
  - + Condensate drain and to avoid acidic deposit
  - + Gravity self-cleaning of exchange surfaces
  - + Air removal operation
  - + High thermal conductivity
  - + Wide exchange surface
  - + Easy access burner and heat exchanger cleaning



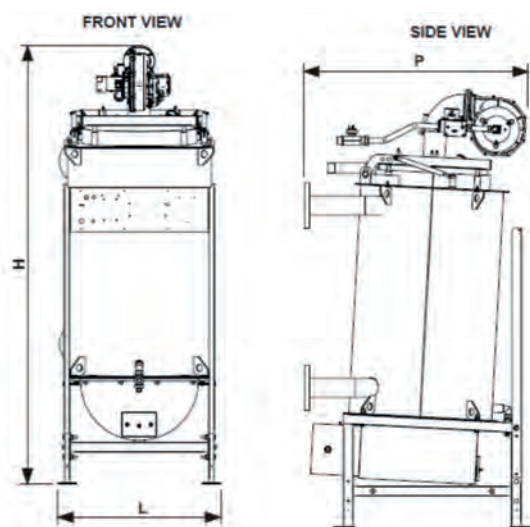
Aluminium multi-fins

316L external pipe

## INSTALLATION

### BOILER DIMENSIONS

Removal of the casing can provide easier handling and a reduction of overall dimensions for lifting and installation

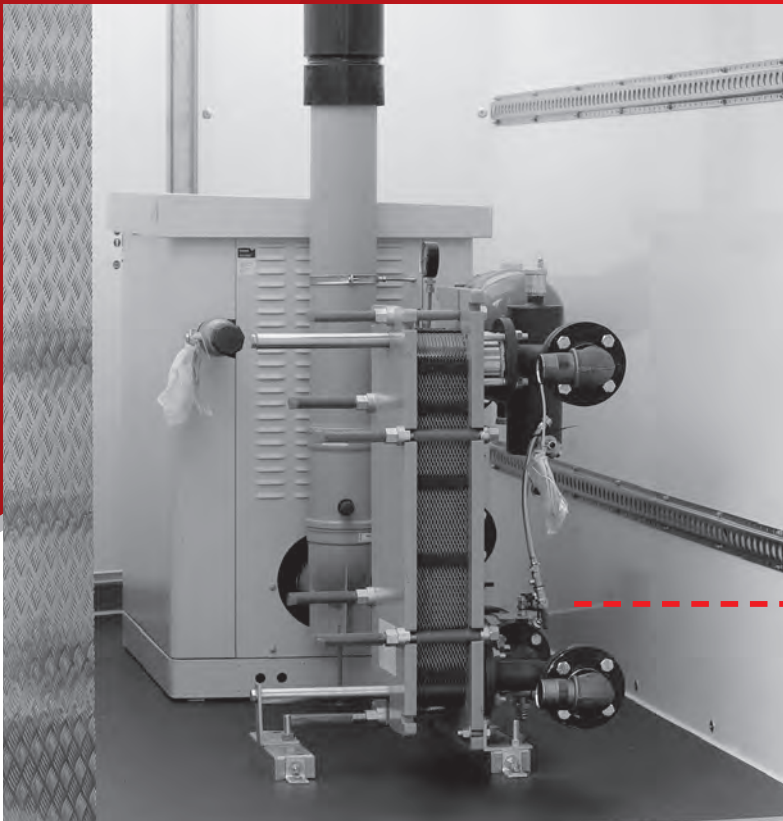


ARES Pro model	150	230	300	348	400	500	600
Width (P) mm	917	1027	1134	1258	1258	1258	1313
Width (L) mm	655	795	845	965	965	965	1065
Height (H) mm	1785	1895	1910	2075	2075	2075	2186
Flue Connection	200	250	250	300	300	300	300

The boiler is approved in B23p configuration: the combustion air is taken directly from the room the boiler is installed in (room sealed kits for type C installation are available).

- + Residual available pressure is 100 Pa for flue design calculations

# MOBILE Plant room





The ARES Tec Mobile Plant Room provides temporary heating and hot water to the commercial boiler market. Ideal as a solution for disaster recovery, it is easily transported and can be up and running within an hour of arrival on site. It also allows a seamless transfer to a new system during planned upgrades.



- + Boiler sizes from 150kW - 900kW
- + Integrated electronic controls for time and temperature
- + Plate kit included to protect the boiler
- + Low operating noise levels <49 dba
- + Safe, sealed room, extracting air from outside
- + Easy to transport and position on site





# ALPHA

## Case studies



## TRANSFORMING BLENHEIM PALACE GROUNDS WITH SUSTAINABLE HEATING SOLUTIONS

The UNESCO World Heritage Site of Blenheim Palace in Woodstock, Oxfordshire is a world-class visitor attraction which is the seat of the Dukes of Marlborough and the birthplace of Sir Winston Churchill. Yet whilst the magnificent country estate enjoys a rich history, Blenheim is by no means stuck in the past. Taking positive action in combatting climate change and protecting future generations, Blenheim made a five-year pledge in 2017 to become a net generator of green energy and has committed to be carbon neutral on scopes 1-3 across all operations by 2027.

As of August 2023, Blenheim's illustrious grounds are now home to a stunning collection of lodge retreats from Darwin Escapes. The holiday accommodation offers visitors an indulgent and high-end escape with the lavish lodges set within ancient woodlands, just a short walk from the palace. As part of the Estate's commitment to sustainable operations, the management decreed for any new development on its grounds to be free from fossil fuels, embracing renewable energy wherever possible. Staffordshire-based Seaton Heating & Engineering Services Ltd. was assigned the task of installing eco-friendly heat pumps which would heat the main reception, shop, laundry and staff areas of the resort.

Given the brief, the team consulted Alpha's heating experts and worked together to pinpoint the best solution for the building design. They homed in on two heat pumps, opting for models. While a 6kW Magis M heat pump from Alpha's parent company, Immergas, was installed for the main reception and shop, a 14kW Magis M heat pump – accompanied by an external 50L volumiser/buffer tank – was the ultimate choice for the laundry and staff area.

These models allowed for simple installation and will offer flexible operation for those running and maintaining the site. Designed for outdoor use, the monobloc heat pumps feature a reversible air-water block with inverter technology to fulfil heating and cooling requirements. They are distinguished by their high energy efficiency values and low sound levels, providing maximum comfort with minimal environmental impact; whilst ensuring that their operation would not disrupt the tranquil surroundings of the lodges.

The successful installation and commissioning of the heat pumps were followed by the supply of a commissioning certificate and a five-year warranty to Darwin Escapes, ensuring peace of mind and long-term sustainability. The project has encapsulated the perfect blend of heritage, luxury and sustainability – with the installation of these heat pumps not only ensuring efficient heating for the Darwin Escapes facilities at Blenheim Palace, but also marking a significant stride towards their goal of creating eco-friendly holiday experiences.



## ARES TEC TAKES CARE OF ENERGY EFFICIENCY AT HIGH DEPENDENCY HOUSING FACILITY

The high efficiency, compact size and speed of installation of Alpha's Ares Tec condensing boiler have together ensured a successful heating solution for Summers Farm high dependency care home in Harlow, Essex.

Specified by Harlow Council's Technical Services division, the high performance ARES Tec 300 with plate kit replaces three existing 100kW boilers to deliver greater energy efficiency than the previous system. The speed at which the ARES Tec could be installed was also a key factor in the specification, along with its space-saving advantages once in-situ.

Further comfort and reassurance for the residents is ensured by Ares Tec's emergency override feature which obviate situations where residents might otherwise be left without heating or hot water.

# Alpha

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