

novapod™ TRANSFORMER



copper industries

lb cylinders

Introducing
nova podTM
TRANSFORMER

Our most scalable and efficient commercial heating and hot water generator yet.

The NovaPodTM Transformer is the most flexible system making it able to adapt to your specific needs. It does this with maximum efficiency to keep your running costs down like never before.

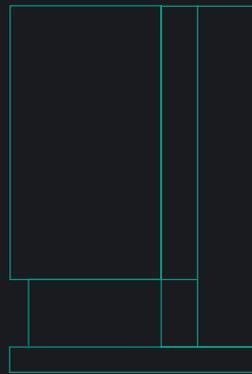


Why Choose the NovaPod™?

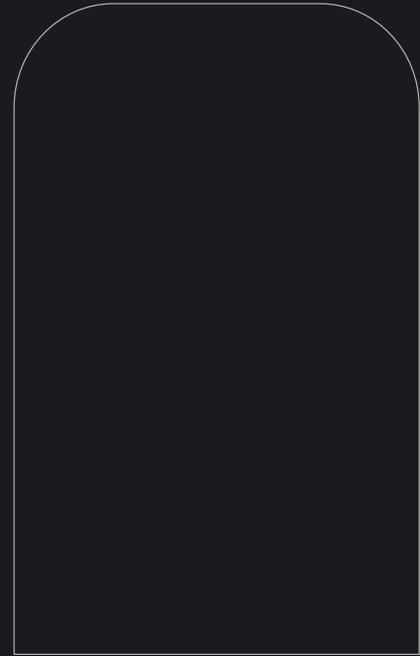
The NovaPod™ Transformer's cutting edge hot water heater and combination boiler will blow your standard commercial calorifier out of the water.

Capable of satisfying commercial hot water demands, the NovaPod™ Transformer takes up just a fraction of the floor space of your standard calorifier and boiler. With the ATAG boiler(s) pre-installed, the NovaPod™ Transformer couldn't be easier to install.

- Anti-Legionella Protection
- 5 year warranty
- ATAG boiler(s) pre-installed meaning easier install
- Modular unit saves floor space
- Instant hot water
- Lower standing heat loss
- Rapid recovery
- Lower running costs
- Integrates with renewables



NovaPod™
Transformer



Typical unvented commercial
heating system

Anti -
Legionella
Protection

Smart &
Efficient

Can Meet
Variable
Demands

Modular
With Atag
Gas Boilers

Scalable, from mid to large units

Perfect for small businesses and larger complexes alike, such as, nursing homes, hotels, schools, hospitals and Leisure Centres.

The NovaPod™ Transformer is a modular cascading system. This means it is designed to work with a combination of boilers - with the choice to expand determined by your needs.

We can tailor the NovaPod™ Transformer to meet a variety of demands with resilience inherently built in.

The boiler uses the NovaPod™ Transformer unit as the hydraulic balancer between the boiler water flow rate required to meet the modulated demand at any time, and the system flow rate, which will be different to the boiler due to different controls from the Boiler Management System.

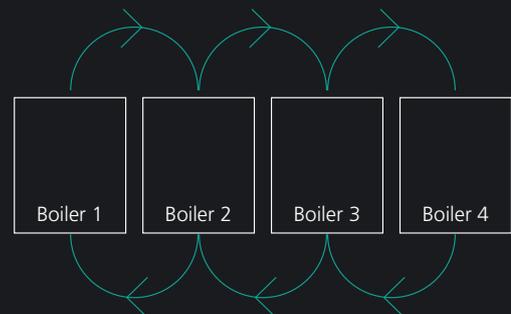
1 Boilers



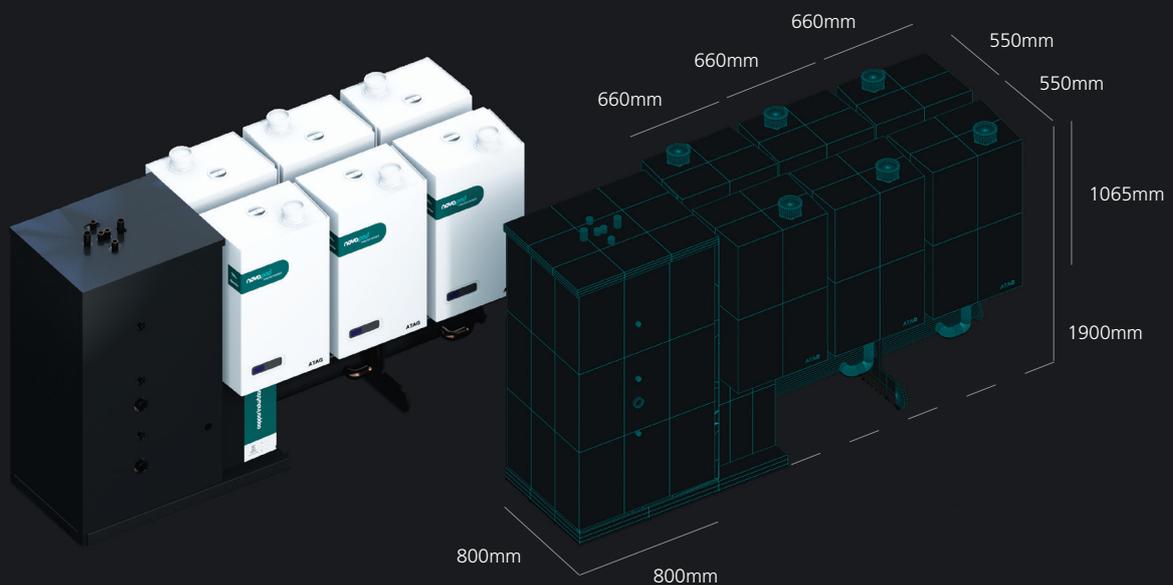
2 Boilers



5 Boilers



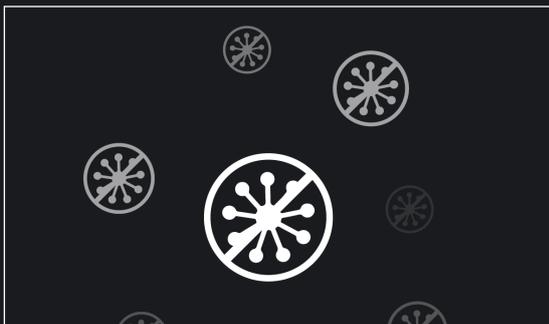
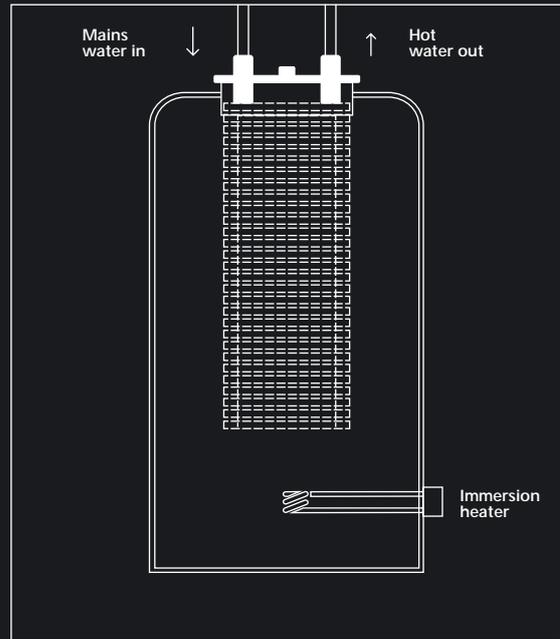
NovaPod Transformer 6 Boiler Unit



Instantaneous Domestic Hot Water

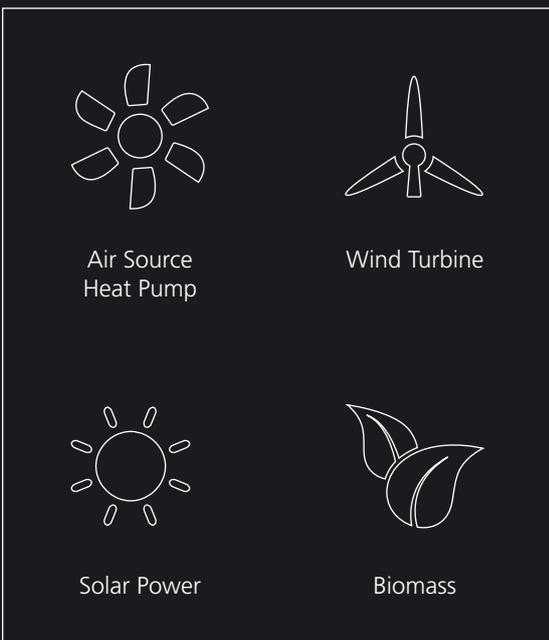
Once the cylinder water is hot, fresh water from the mains is passed through the heat emitter, meaning fresh, drinkable, hot water is instantaneous and constant.

With the NovaPod™ Transformer you aren't wasting energy reheating the entire cylinder every time hot water is used, therefore there's less running costs.



Anti-legionella Protection

The constant cycle of fresh indirectly heated water from the mains reduces bacterial build up and the risk of legionella, making your hot water much safer!



Integrates with Renewable Energy

The NovaPod Transformer can be integrated with any combination of renewables, such as:

- Air Source Heat Pump
- Wind Power
- Solar
- Biomass

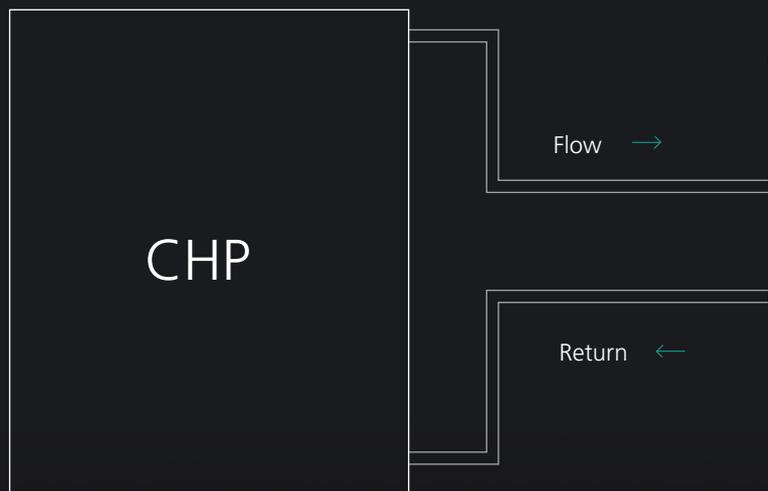
Making it one of our most sustainable hot water systems yet!

Accepts Combined Heat and Power

Combined Heat and Power (CHP) is an efficient method of generating heat and electricity from a single process and fuel source.

Benefits of this technique include:

- Lower Energy Costs
- Efficient even at low heat demand



The NovaPod™ Transformer has the ability to accept the Combined Heat and Power thermal load, integrating this into the system to ensure CHP is most effective when operating, particularly during the summer periods.

In the summertime CHP's have difficulty in losing thermal heat, which results in the units switching off. We can connect the CHP (size dependant) to the NovaPod™ Transformer to allow heat dissipation to be utilised by domestic hot water and the heating load.

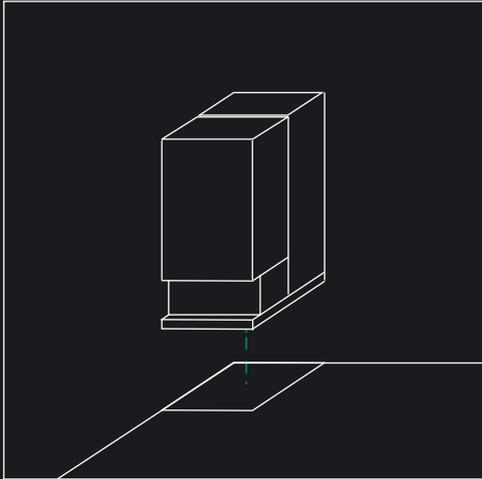
For most CHP's operating during low heating load periods, problems occur as they require a boiler to assist due to the load being slightly larger than the

CHP can deliver.

Most boilers when assisting operate on minimum firing, can instantly double the heat generated to the system by both boiler on minimum fire and the CHP, which can result in the CHP turning off. This is not ideal for efficient use of CHP.

We have found a solution by using Atag XL boilers. The minimum firing from the initial boiler is so much lower, allowing the CHP more opportunity to maintain operation.

Making the NovaPod™ Transformer particularly efficient in low heat demand periods as well as high demand!



Easy to install

On a singular boiler application the NovaPod™ Transformer unit is pre-plumbed.

On multiple boiler applications, for ease of installation the boiler frame is simply attached to the modular NovaPod™ Transformer.

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On Multiple boiler applications, for ease of installation the boiler frame is simply attached to the modular NovaPod™ Transformer.



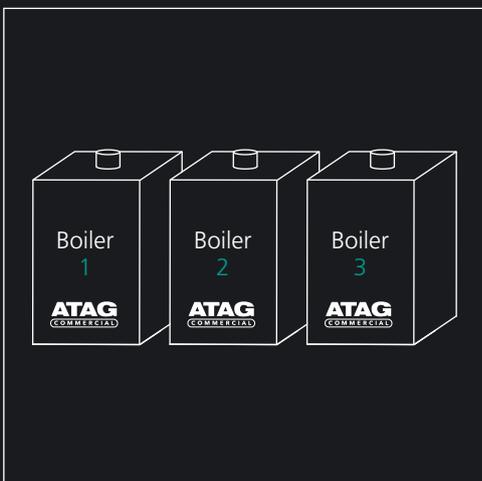
All-in-one

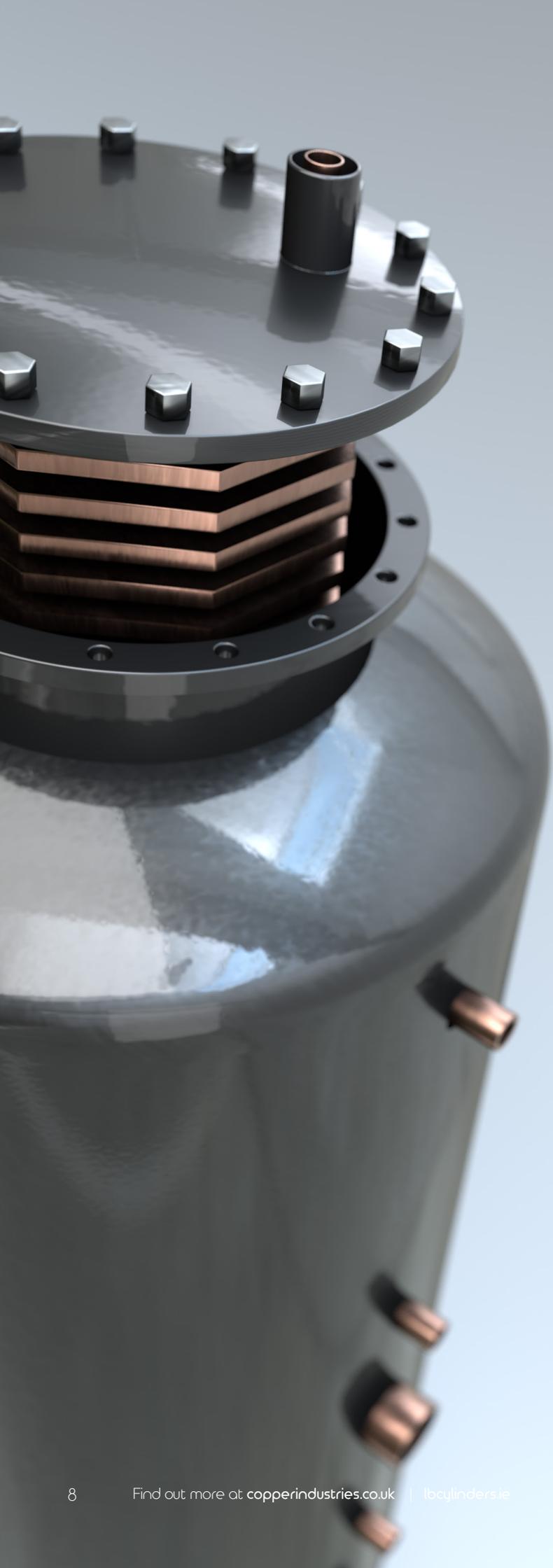
The NovaPod™ Transformer is supplied combined with high quality Atag XL gas boiler(s), in an all-in-one self contained hot water and heating generator.

NovaPod™® is a water heater/combination boiler with the capability to meet variable water demands. We use the Atag XL boilers to satisfy the heating demand and the flexibility to closely match the demand required for a building we can ensure best value for a customer by reducing the excess capital expenditure.

There are currently three options available to deliver 1407 Ltrs/hr, 1689 Ltrs/hr and 1987 Ltrs/hr at 50C delta from a 10C Supply (see specification tables).

You tell us your hot water needs and we'll specify the boilers to suit. It's that easy.





copper industries

Copper Industries are the UK and Ireland's largest independent suppliers & manufacturers of a wide range of standard and bespoke hot water cylinders, calorifiers and buffer tanks.

All our cylinders are manufactured from the highest grade copper as standard. Our primary emphasis is on supplying superior hot water cylinders and delivering the best quality and service, with every cylinder carefully crafted and double-checked to ensure 100% customer satisfaction.

Our attention to detail and dedication to the quality of our products has led to Copper Industries being awarded the internationally recognised ISO 9001 quality assurance certification, which ensures that all of our products are manufactured in line with British Standards and best practices governing the production of stainless steel and copper cylinders.



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Macfarlane Environmental have been selling to the Building Services Industry for over 40 yrs.

Our Philosophy is responsibility for conserving energy and protecting the environment, ensuring our product range offers solutions which not only meet the current regulations and standards but provide quality products and services backed up by our many years of experience.

We have a long established association with many leading manufacturers, including Atag Commercial, who specialise in high-efficiency technology for central heating and hot water.



ATAG
HEATING TECHNOLOGY

ATAG XL boilers utilise the highest quality components to ensure maximum durability & product life.

The XL boiler utilises tried and tested technology, with the patented OSS heat exchanger delivering class leading efficiencies of up to 110% – making the ATAG XL the most efficient boiler on the market. The use of durable materials and the stainless steel OSS heat exchanger results in minimal maintenance intervals (every 4 yrs) and maximises the operating life of the XL boiler.

The ATAG XL commercial boiler range is available with outputs from 70kW to 960kW. There are 3 boilers in the range all of which can be installed in-line or back-to-back as wall mounted or free standing cascade arrangements. XL boilers can be installed in a cascade arrangement of up to 8 boilers, providing maximum output with exceptionally low emissions and all in a compact footprint.



Atag XL Boiler

Specification

All our cylinders are manufactured from the highest grade material as standard.

Water Heaters Only – Single Boiler			
Model	kW Output @ 80-60 C	Water Delivery	Heating Min/Max kW
Model 18 -1-95	95	1407 lts/hr	15-95
Model 18 -1-120	120	1407 lts/hr	40-120
Model 24 -1-95	95	1689 lts/hr	-Nil
Model 24 -1-120	120	1689 lts/hr	25-120
Model 36 -1-120	120	1987 lts/hr	-Nil

At a delta T of 50°C Hot water out (°C): 60
 Coil size: 18 / 25 / 36 Flow rate (litres/hour):
 Cold water in (°C): 10 1407 / 1686 / 1987

Combination Boilers – Model 18			
Model 18	Total kW	DHW Options kW	Heating Min kW
Model 18 -2-95 2 – XL 110	190	80	110
Model 18 -2-120 2 – XL 140	240	80	160
Model 18 -3-95 3 – XL 110	285	80	205
Model 18 -3-120 3 – XL 140	360	80	280
Model 18 -4-95 4 – XL 110	380	80	300
Model 18 -4-120 4 – XL 140	480	80	400

80 kW DHW Cold water in (°C): 10
 DHW Size: 24 / XL 110 Hot water out (°C): 60
 kW Rating (kW): 80.35 Flow rate (litres/hour): 1407

Combination Boilers – Model 24			
Model 24	Total kW	DHW Options kW	Heating Min kW
Model 24 -2-95 2 – XL 110	190	95	95
Model 24 -2-120 2 – XL 140	240	95	145
Model 24 -3-95 3 – XL 110	285	95	190
Model 24 -3-120 3 – XL 140	360	95	263
Model 24 -4-95 4 – XL 110	380	95	283
Model 24 -4-120 4 – XL 140	480	95	385

95 kW DHW Cold water in (°C): 10
 DHW Size: 24 / XL 110 Hot water out (°C): 60
 kW Rating (kW): 95.67 Flow rate (litres/hour): 1689

Combination Boilers – Model 36			
Model 36	Total kW	DHW Options kW	Heating Min kW
Model 36 -2-95 2 – XL 110	190	114	76
Model 36 -2-120 2 – XL 140	240	114	126
Model 36 -3-95 3 – XL 110	285	114	171
Model 36 -3-120 3 – XL 140	360	114	246
Model 36 -4-95 4 – XL 110	380	114	266
Model 36 -4-120 4 – XL 140	480	114	366

114 kW DHW Cold water in (°C): 10
 DHW Size: 36 / XL 120 Hot water out (°C): 60
 kW Rating (kW): 114.86 Flow rate (litres/hour): 1987

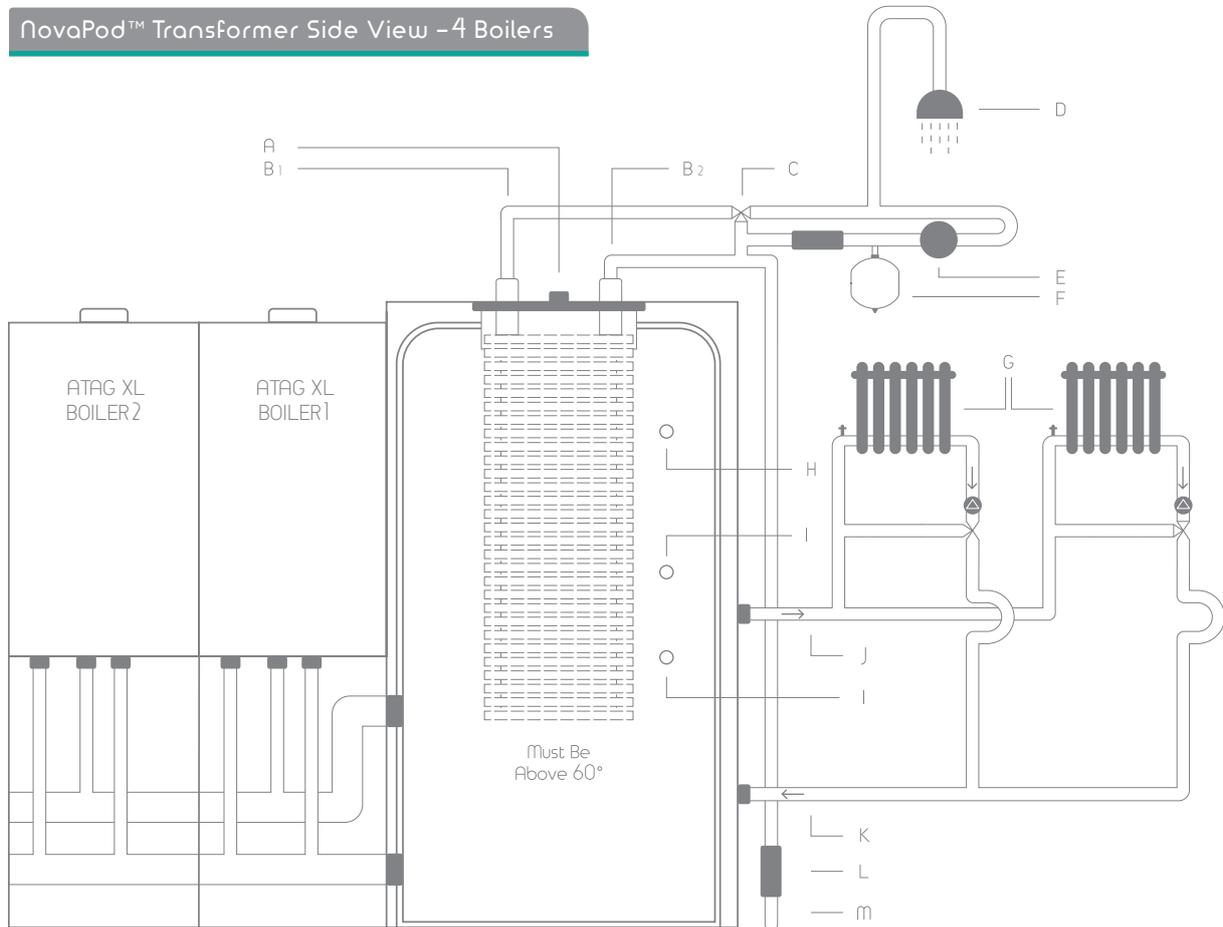
ATAG XL

Atag XL Boiler		XL70	XL110	XL140
Nominal heat output at 80/60°C	kW	60.1	95	120
Nominal heat output at 50/30°C	kW	56.1	102.3	130
Nominal heat input (Gross)	kW	68.5	107.9	136.4
Efficiency according to EN677 (Net) at 80/60°C	%	97.3	97.6	97.6
Efficiency min load (Net) at 50/30°C	%	110.2	110.3	110.2

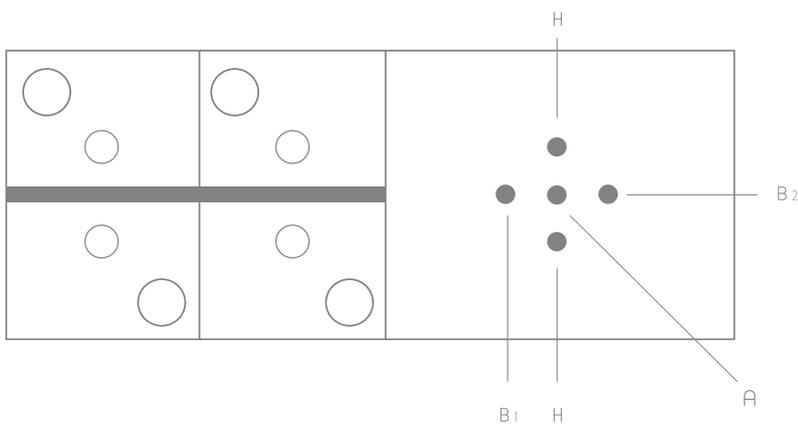


Installation diagram

NovaPod™ Transformer Side View - 4 Boilers



NovaPod™ Transformer Top View - 4 Boilers



- A Connection for AAV
- B1 Domestic hot water out
- B2 Domestic cold water in
- C 50mm blending valve
- D Shower
- E Secondary return pump
- F Flow through expansion vessel
- G Radiators / underfloor heating
- H P.T.R Valve
- I 1/2" Stat
- J 2" flow
- K 2" Return
- L 50mm none return valve
- M 50mm cold in let

copper
industries

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