

BAXI



BAXI Luna Duo-Tec MP+



BAXI Power HT+

Commercial Gas Condensing Boilers

QUALITY HYDRONIC HEATING EQUIPMENT



BAXI

Commercial Gas Condensing Boilers

The best in European boiler design
and manufacturing providing
sustainable, efficient heating.

The BAXI commercial range of wall hung and floor mounted gas hydronic boilers uses cutting edge condensing technology to maximise efficiency and extend lifespan. BAXI are experts in producing high output, scalable modular systems for commercial applications.

BAXI World Leading Boilers

BAXI are one of the largest manufacturers of heating boilers in Europe with over 700 employees producing approximately 500,000 boilers per year, with distribution to over 82 countries globally.

The BAXI manufacturing facility in Italy includes state of the art R&D laboratories and is accredited to strict European standards. BAXI have a proud history dating back over 150 years and are part of the BDR Thermea group of companies which has an annual turnover exceeding 1.7€ billion.

HydroHeat Supplies are the leading hydronic heating supplies company in Australia and have been the BAXI Australian distributor for over twenty years, proudly supplying commercial projects the best and most efficient range of heating boilers available on the Australian market.

- › AGA Australian Gas Approvals
- › BAXI Quality European Manufacturing
- › Wall Hung and Floor Mounted Ranges
- › Cascade install up to 16 Units
- › Up to 4000kw heat load capacity
- › Warranty & Service Support
- › BAXI Installer Training
- › System Design & Schematics
- › Over 20 years in Australia

Modular Cascade Installation

BAXI MP+ and POWER HT+ models can easily be installed as cascade plants by using the included software available in both models. In cascade the master boiler is wired with a flow and return sensor, and a communication card is added to all boilers including the master. A cascade plant of up to 16 boilers (up to 4000kW) can be controlled as a modular on/off system.

The cascade software calculates the heat load requirement and only activates the burners required to achieve set temperature. It also rotates lead/lag boilers to avoid overloading single boilers.

With the addition of an outdoor temperature sensor the boilers can modulate based on the calculation between the flow/return and outside temperature, adjusting to maintain temperature setting. The outside compensation setting is perfect for nursing homes and accommodation buildings where a central thermostat is not available or practical.

Alternatively, with a 0-10 volt signal from the building management system (BMS) the entire cascade plant can be directly modulated by the BMS with efficiencies achieved by setting the plant at the lowest possible temperature.

A cascade system enables partial redundancy by taking boilers offline without shutting down the entire plant. In the event of a fault the cascade automatically switches to the next available boiler and sends the fault to the BMS. Codes are also stored in the boiler memory for service technician diagnostics.

Boiler Control Features

Push button LCD control panel allows easy access to important boiler information:

- › Heating flow & return temperatures
- › Outdoor temperature (optional)
- › Domestic hot water temperature (optional)
- › Water pressure, Flue temperature
- › Burner flame operation & working hours
- › Energy consumption kW (heating/DHW)

Energy and Cost Saving Benefits

BAXI condensing boilers have vastly superior net thermal efficiency compared to non-condensing conventional type boilers. The BAXI range of condensing boilers operates at up to 105.5% efficiency. A significant advantage considering heating is the most significant energy cost in a commercial building.

Condensing technology reuses 'latent' heat from the flue gases by incorporating the heat exchanger to increase efficiency, which in turn also lowers the temperature of the flue reducing waste gases (90% less CO and 80% less NOx) in comparison with conventional boilers.

Both the Duo-Tec MP+ and Power HT+ are ideal for retro fit applications as the compact size and light weight allows for easy installation to difficult access areas or rooftops via elevators and stairwells. If crane access is an option the boilers can be pre-assembled off-site on skids and simply dropped into position.

BAXI Warranty Support & Service

The global distribution of BAXI ensures warranty support and local availability of spare parts if needed. Parts are carried for a minimum of ten years even after a model is superseded.

BAXI Type A appliance models carry Australian approvals (AGA Cert 7023) for both Natural Gas and LPG, indoor and outdoor use. Type B models require on-site approvals. Servicing is available Australia wide by trained BAXI installers.



BAXI PowerHT+

BAXI Duo-Tec MP+

Hydronic System Integration

HydroHeat supply components and accessories needed for complete system installations. Correct integration of system components ensures efficiency targets are reached and maximises return on investment. HydroHeat can also assist with schematic installation diagrams.

- › Flue Systems
- › Thermostats & Controllers
- › Zone Management Systems
- › BackFlow Prevention
- › Expansion Tanks
- › HydroPak Turnkey Kits
- › Valve & Piping Systems
- › Fluid Management Systems
- › Relay Boxes
- › Schematic System Design



BAXI Duo-Tec MP+ condensing boilers
in cascade w' APU, Hydraulic Separator

BAXI

Luna Duo-Tec MP+

Wall Hung Commercial Gas Condensing Boiler

Wall Hung BAXI Duo-Tec MP+ gas condensing boilers for commercial applications. Rated efficiency up to 105.5% makes the Duo-Tec MP+ one of the greenest & most efficient commercial boilers on the Australian market. Available in 35kW, 50kW, 60kW, 70kW, 90kW, 110kW, 130kW and 150kW.

Class leading modulation ‘turndown’ ratios adjust heat output to suit demand, prevents on/off cycling and increases efficiency and longevity.



Boiler Efficiency
105.5% at 50/30°
Net Efficiency



Commercial
Factories, hospitals,
aged care, offices



Warranty
2 Year Boiler & Parts
5 Year Heat Exchanger



Environmental
Reduced NOx waste
Reduced CO waste



Cascade Install
Cascade install
up to 16 boilers



Modulation Ratio
Adjusts heat output
saves on/off cycling



Indoor Model Shown

- #### BAXI Duo-Tec MP+ Features
- Available in eight models 35-150kW, compact wall hung
 - Type A appliance Indoor / Outdoor models, NG & LPG AGA 7023 approved
 - Rated Efficiency up to 105.5% at 50/30 °C
 - 316 Stainless Steel Heat Exchanger (5 yr warranty)
Single Chamber (35 - 70kW), Double Chamber (90 -150kW)
 - Condensing burner reuses waste flue gases reduces noxious waste (up to 80% NOx, 90% CO)
 - Room sealed option available for installations where ventilation is not sufficient
 - Front access for easy servicing
 - Easy to use backlit control panel
 - Modulating fan with electronic speed adjusting system
 - Conforms to strict European emissions standards
 - Mixed zone system (high and low temperature) option
 - Integral High-Flow Modulating Pump for increased flow rate efficiency
 - Optional HLI (*High Level Interface*) to BACnet, Modbus
 - Facility for DHW connection

- #### Modular Cascade installation
- Cascade install up to 16 boilers (16 x 150 = 2400kW)
 - Modulation ‘turndown’ ratio prevents short cycling (1:9 50-110kW, 1:7 35kW, 1:5 130-150kW)

- #### Control System
- Safety NTC sensor to prevent flue overheating
 - Pressure relief valve (4bar 35-110kW, 6 bar 130-150kW)
 - Electronic pressure switch in event of low water or high pressure
 - Electronic thermometer, heating pressure gauge
 - Heating and DHW settings in one control panel
 - Outdoor temperature compensation option with QAC34 sensor
 - Frost protection and pump anti-stick activates pump every 24hrs when in stand by mode
 - Connects to Building Management System (BMS) via AGU.2.550, stores fault codes in boiler memory



Duo-Tec MP+ Indoor Models



Duo-Tec MP+ Outdoor Models

Duo-Tec MP+		Type A appliance							
		35kW	50kW	60kW	70kW	90kW	110kW	130kW	150kW
Duo-Tec MP+ Model Code		MP+ 1.35	MP+ 1.50	MP+ 1.60	MP+ 1.70	MP+ 1.90	MP+ 1.110	MP+ 1.130	MP+ 1.150
Type (indoor/outdoor)	-	ID / OD	ID / OD	ID / OD	ID / OD	ID / OD	ID / OD	ID / OD	ID / OD
Nominal gas consumption	Mj	140	185	225	265	349	415	495	572
Minimum gas input	Mj	20	20	25	29	40	50	99	114
Maximum heat output (80/60°C)	kW	33.8	45	55	65	85	102	121.5	140.3
Minimum heat output (80/60°C)	kW	5	5	6.1	7.2	9.4	11.4	24.3	28.1
Maximum heat output (50/30°C)	kW	36.6	48.6	59.4	70.2	91.8	110.2	130.6	150.9
Minimum heat output (50/30°C)	kW	5.4	5.4	6.6	7.8	10.2	12.3	26.2	30.2
SEDBUK energy efficiency class	-	A	A	A	A	-	-	-	-
Efficiency at 50/30°C	%	105.0	105.0	105.0	105.0	105.5	105.1	105.5	105.5
Efficiency at 80/60°C	%	97.4	97.4	97.2	97.2	97.3	97.2	98.1	98.1
NOx emissions (EN 15502-1)	mg/kWh	31.8	29.8	34.1	34.8	39.5	24.7	17	23
Min - Max water heating circuit pressure	bar	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.8-6.0	0.8-6.0
Max inlet temperature heating circuit	°C	90	90	90	90	90	90	90	90
Heating temperature range	°C	25-80	25-80	25-80	25-80	25-80	25-80	25-80	25-80
Modulation Turndown Ratio	-	1:7	1:9	1:9	1:9	1:9	1:9	1:5	1:5
Water content	l	4	4	5	6	9	10	10	11
Coaxial flue duct / Separate outlets	mm	80/125 or 80/80				110/160 or 110/110			
Min / Max flue flow rate	kg/s	0.002/0.016	0.002/0.021	0.003/0.026	0.004/0.031	0.005/0.040	0.005/0.047	0.012/0.056	0.014/0.064
Maximum flue temperature	°C	90	92	96	76	70	70	70	70
Power consumption	W	180	230	230	230	275	320	360	460
Dimensions indoor (h×w×d)	mm	766 x 450 x 377			766x450x505		952 x 600 x 584		
Dimensions outdoor (h×w×d)	mm	960 x 473 x 400			960x473x530		1252 x 623 x 608		
Dry weight ID / OD	kg	40/49	40/49	40/49	50/59	83/96	93/106	93/106	96/109
Gas type (natural/propane)	-	NG/LPG	NG/LPG	NG/LPG	NG/LPG	NG/LPG	NG/LPG	NG/LPG	NG/LPG
Gas input pressure (natural/propane)	kPa	1.13/2.75	1.13/2.75	1.13/2.75	1.13/2.75	1.13/2.75	1.13/2.75	1.13/2.75	1.13/2.75
Power Supply	V/Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz
Noise level at 1 metre	db(A)	<50	<50	<50	<50	<50	<50	<60	<60

- #### Type A appliance
- Type A appliance
 - Building J Compliant
 - AGA approved for indoor, outdoor use
 - Approved for Natural Gas, Propane (LPG)
 - Electrical and fittings approvals



AS 3498 / AS 4552



AGA 7023



C Tick N28384




BAXI

Power HT+


Floor Standing Commercial Gas Condensing Boiler

BAXI Power HT+ floor standing condensing boilers for commercial applications. Leading European technology, high efficiency and compact dimensions. AGA Type A appliances approved for indoor and outdoor installation in 50kW, 70kW, 90kW, 110kW, 130kW & 150kW. Type B appliances requiring on-site approvals in 200kW and 250kW.


Single unit installations and cascade systems up to 16 boilers (16 x 250 = 4000kW).




Boiler Efficiency
105.5% at 50/30°
Net Efficiency




Commercial
Factories, hospitals,
aged care, offices




Warranty
2 Yr Boiler & Parts
5 Yr Heat Exchanger



Environmental
Reduced NOx waste
Reduced CO waste



Cascade Install
Cascade install
up to 16 Boilers



Modulation Ratio
Adjusts heat output
saves on/off cycling

BAXI Power HT+ Features

- Available in eight models 50 -250kW floor standing
- Indoor / Outdoor models NG & LPG
- Rated Efficiency up to 105.5% at 50/30 °C
- 316 Stainless Steel Heat Exchanger (5 yr warranty)
- Condensing burner reuses waste flue gases reduces noxious waste (up to 80% NOx, 90% CO)
- Room sealed option available for installations where ventilation is not sufficient
- Modulating fan with electronic speed adjustment for constant air/gas ratio
- Conforms to strict European emissions standards
- Mixed zone system (high and low temperature) option
- Optional HLI (*High Level Interface*) to BACnet, Modbus
- Facility for DHW connection
- Readily available system accessories

Modular Cascade installation

- Cascade install up to 16 boilers (16 x 250 = 4000kW)
- Connection for indirect DHW cylinder, electrical connections for secondary heating and DHW pump
- Compact size and weight suits retro fit applications with difficult access plant rooms and roof tops
- Modulation ‘turndown’ ratio prevents short cycling (1:9 50-110kW, 1:5 130-150kW, 1:6 200-250kW)

Control System

- Safety NTC sensor to prevent flue overheating
- Pressure relief valve (4 bar 50-110kW, 6 bar 130-250kW)
- Electronic pressure switch in event of low water or high pressure
- Electronic thermometer, heating pressure gauge
- Heating and DHW settings in one control panel
- Outdoor temperature compensation option with QAC34 sensor
- Frost protection and pump anti-stick activates pump every 24hrs when in stand by mode
- Connects to Building Management System (BMS) via AGU.2.550, stores fault codes in boiler memory



Power HT+		Type A appliance						Type B appliance	
		50kW	70kW	90kW	110kW	130kW	150kW	200kW	250kW
Power HT+ Model Code		PHT+ 1.50	PHT+ 1.70	PHT+ 1.90	PHT+ 1.110	PHT+ 1.130	PHT+ 1.150	PHT+ 1.200	PHT+ 1.250
Type (indoor/outdoor)		-	ID / OD	ID / OD	ID / OD	ID / OD	ID / OD	ID / OD	ID / OD
Nominal gas consumption		Mj	185	265	349	415	495	572	687
Minimum gas input		Mj	20	29	40	50	99	114	115
Maximum heat output (80/60°C)		kW	45	65	85	102	121.5	140.3	185.9
Minimum heat output (80/60°C)		kW	5	7.2	9.4	11.4	24.3	28.1	31
Maximum heat output (50/30°C)		kW	48.6	70.2	91.8	110.2	130.6	150.9	200
Minimum heat output (50/30°C)		kW	5.4	7.8	10.2	12.3	26.2	30.2	33.1
SEDBUK energy efficiency class		-	A	A	-	-	-	-	-
Efficiency at 50/30°C		%	105.0	105.0	105.5	105.1	105.5	105.5	104.2
Efficiency at 80/60°C		%	97.4	97.2	97.3	97.2	98.1	98.1	97.3
NOx emissions (EN 15502-1)		mg/kWh	29.8	34.8	39.5	24.7	17	23	33.5
Min - Max water heating circuit pressure		bar	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.8-6.0	0.8-6.0	0.5-6.0
Max inlet temperature heating circuit		°C	90	90	90	90	90	90	90
Heating temperature range		°C	25-80	25-80	25-80	25-80	25-80	25-80	25-80
Modulation Turndown Ratio		-	1:9	1:9	1:9	1:9	1:5	1:5	1:6
Water content		l	4	6	9	10	10	11	13
Flue Type (Coaxial Flue / Dual Flue)		mm	Co-Axial Flue Room Sealed 80-125 or 80/80		Co-Axial Flue Room Sealed 110-160 or 110/110		Co-Axial Flue Room Sealed 110-160 or 110/110		Dual Flue Option 150/150
Min / Max flue flow rate		kg/s	0.007/0.075	0.014/0.111	0.018/0.144	0.018/0.169	0.043/0.201	0.005/0.230	0.054/0.322
Maximum flue temperature		°C	92	76	70	70	70	70	80
Power consumption		W	100	117	146	185	187	283	242
Dimensions indoor (h×w×d)		mm	904 x 600 x 681			1221 x 600 x 681			1238x600x1410
Dimensions outdoor (h×w×d)		mm	1130 x 610 x 750			1370 x 610 x 750			1406x610x1430
Dry weight ID / OD		kg	60 / 74	70 / 84	104 /119	109 /124	126 /141	132 /147	212/242
Gas type (natural/propane)		-	NG/LPG	NG/LPG	NG/LPG	NG/LPG	NG/LPG	NG/LPG	NG/LPG
Gas input pressure (natural/propane)		kPa	1.13 / 2.75	1.13 / 2.75	1.13 / 2.75	1.13 / 2.75	1.13 / 2.75	1.13 / 2.75	1.13 / 2.75
Power Supply		V/Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz
Noise level at 1 metre		db(A)	<50	<50	<50	<50	<63	<63	<65

Type A appliance

- 50kW - 150kW models
- Australian Building J Compliant
- AGA approved for indoor, outdoor use
- Approved for Natural Gas, Propane (LPG)
- Co-Axial Flue, Room Sealed

Type B appliance

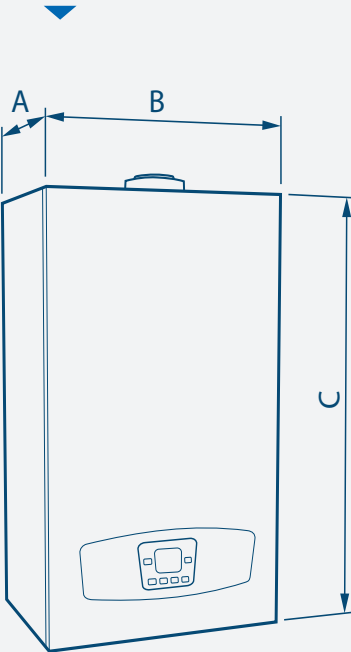
- 200kW - 250kW models
- Requires on-site install & commissioning approvals
- Dual Flue



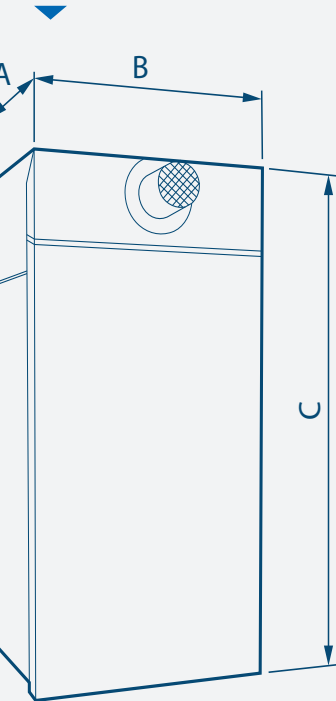
Duo-Tec MP+ 1.35 - 1.150

Dimensions & Connections

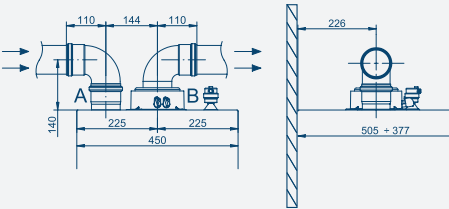
Indoor Dimensions



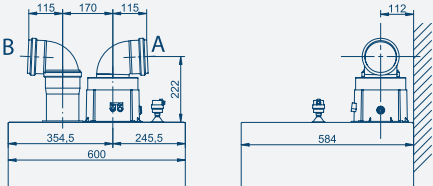
Outdoor Dimensions



Duo-Tec MP+ 1.35, 1.50, 1.60, 1.70



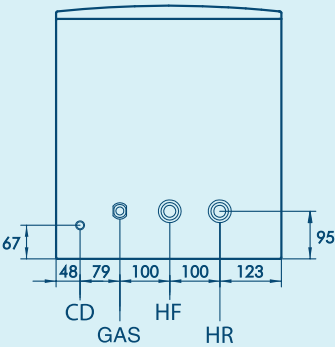
Duo-Tec MP+ 1.90, 1.110, 1.130, 1.150



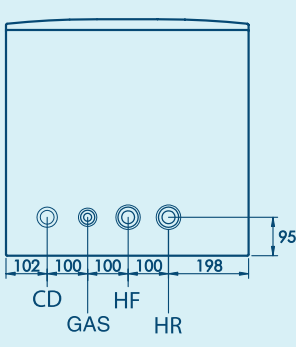
Duo-Tec MP+		1.35	1.50	1.60	1.70	1.90	1.110	1.130	1.150
A = Depth (Indoor)	mm	377	377	377	505	584	584	584	584
A = Depth (Outdoor)	mm	400	400	400	530	608	608	608	608
B = Width (Indoor)	mm	450	450	450	450	600	600	600	600
B = Width (Outdoor)	mm	473	473	473	473	623	623	623	623
C = Height (Indoor)	mm	766	766	766	766	952	952	952	952
C = Height (Outdoor)	mm	960	960	960	960	1252	1252	1252	1252

Connections

Duo-Tec MP+ 1.35, 1.50, 1.60, 1.70



Duo-Tec MP+ 1.90, 1.110, 1.130, 1.150



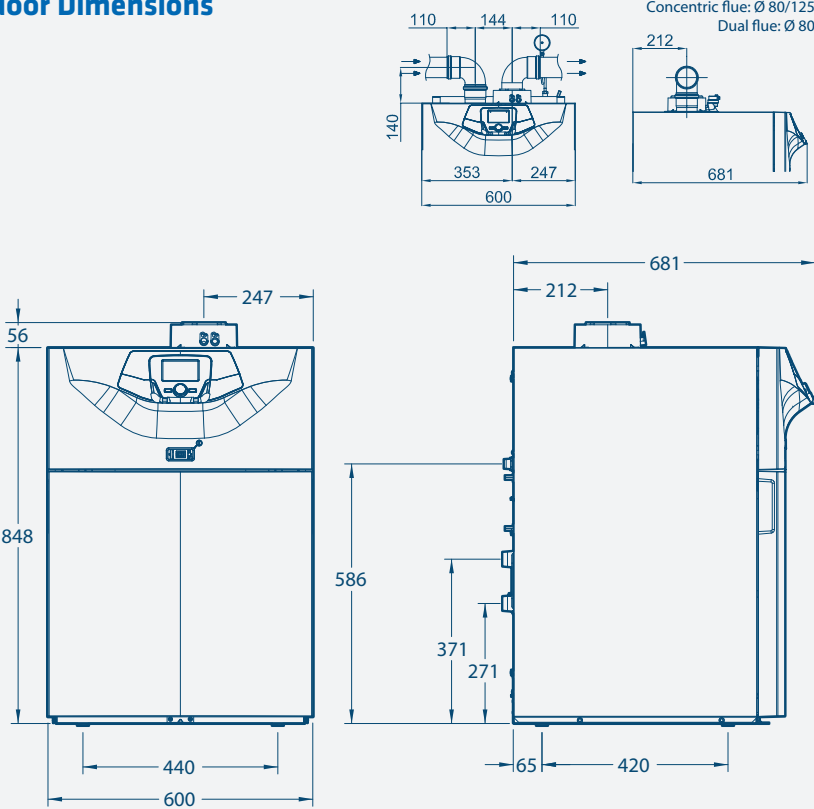
Duo-Tec MP+	1.35 - 1.70	1.90 - 1.150
HF: Heating Flow	1"	1½"
HR: Heating Return	1"	1½"
GAS: Gas Inlet	¾"	1"
CD: Condensing Discharge	Fixed ¾"	Flexible 1"

(All male BSP threads)

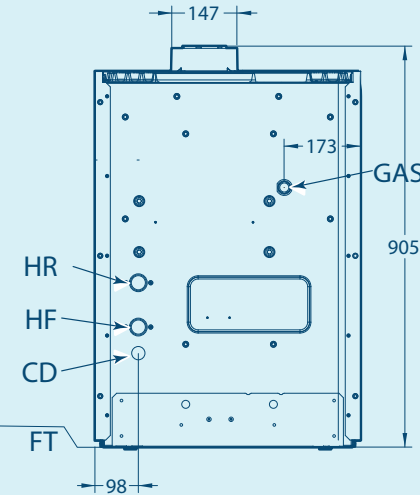
Power HT+ 1.50 - 1.70

Dimensions & Connections

Indoor Dimensions



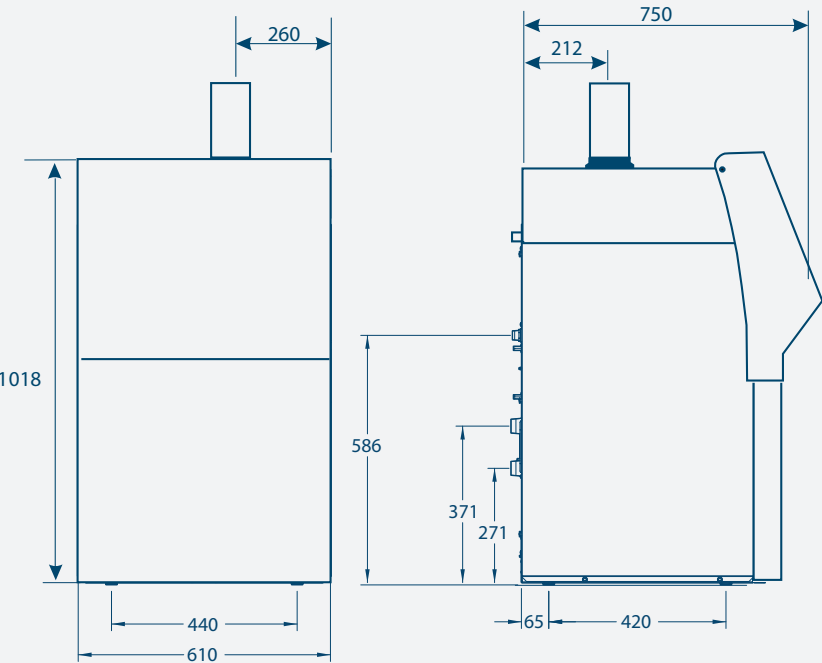
Connections



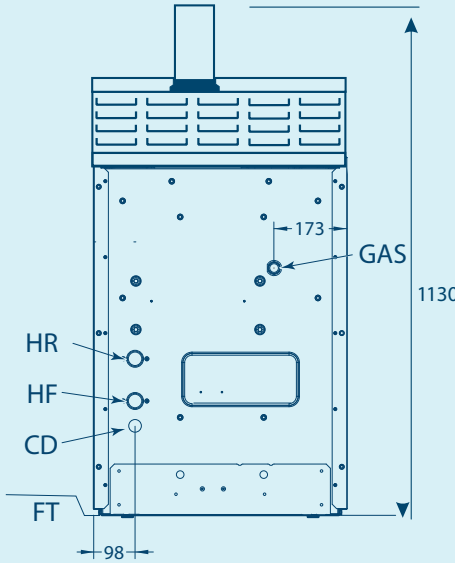
Power HT+ Indoor Model	
HF: Heating Flow	1"
HR: Heating Return	1"
GAS: Gas Inlet	¾"
CD: Condensing Discharge	DN18
FT: Adjustable Feet	

(All male BSP threads)

Outdoor Dimensions



Connections



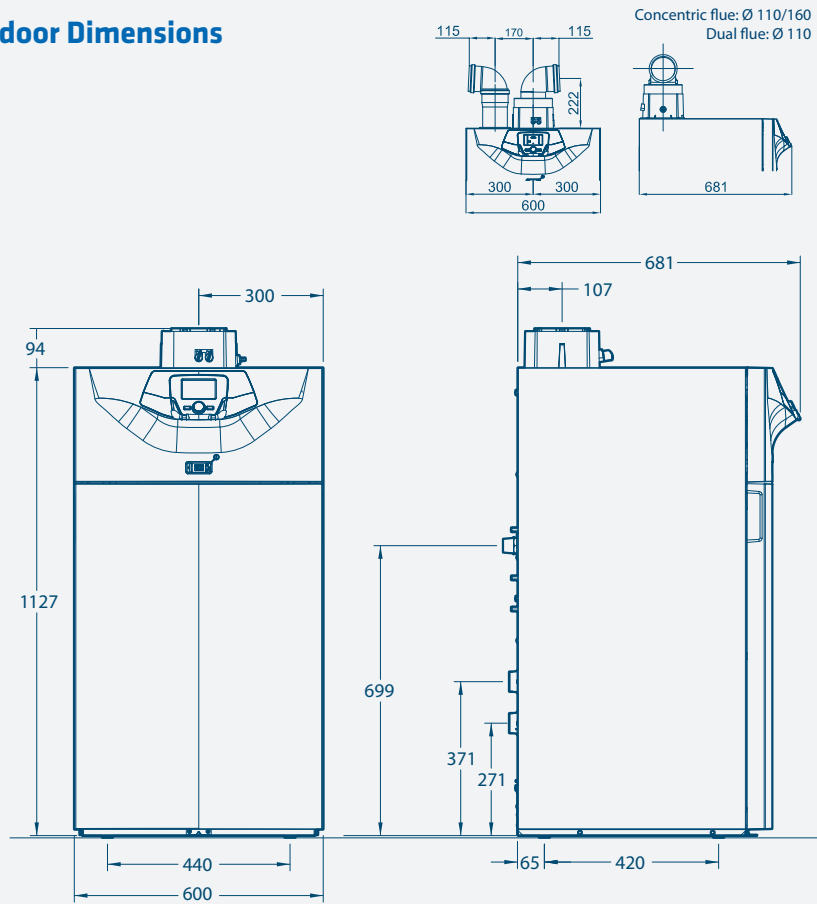
Power HT+ Outdoor Model	
HF: Heating Flow	1"
HR: Heating Return	1"
GAS: Gas Inlet	¾"
CD: Condensing Discharge	DN18
FT: Adjustable Feet	

(All male BSP threads)

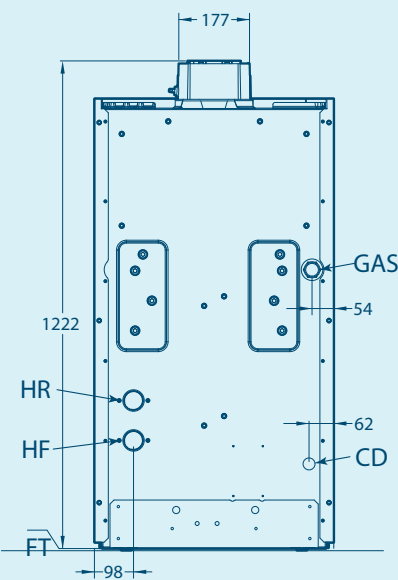
Power HT+ 1.90 - 1.110

Dimensions & Connections

Indoor Dimensions



Connections



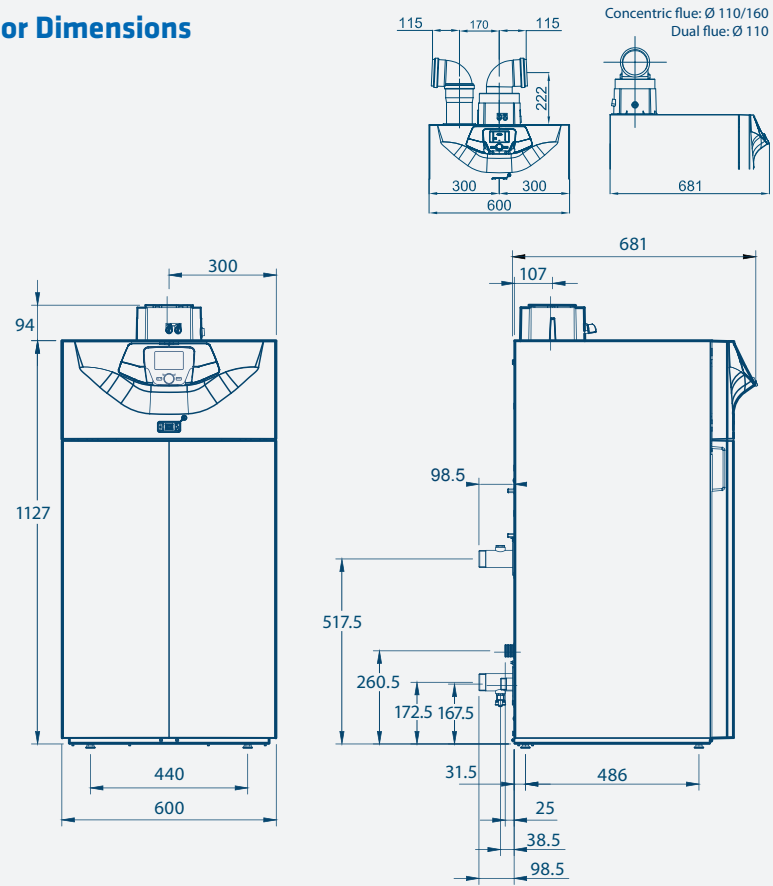
Power HT+ Indoor Model	
HF:	Heating Flow 1-½"
HR:	Heating Return 1-½"
GAS:	Gas Inlet 1"
CD:	Condensing Discharge DN18
FT:	Adjustable Feet

(All male BSP threads)

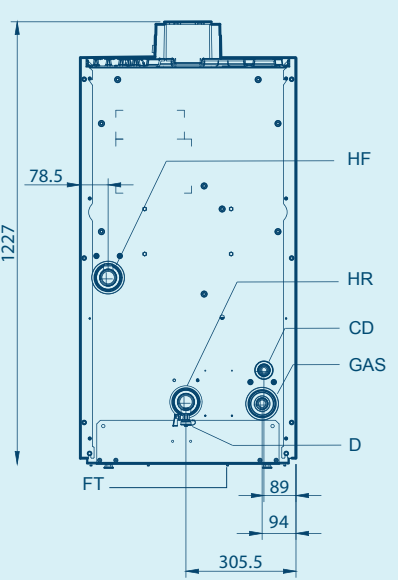
Power HT+ 1.130 & 1.150

Dimensions & Connections

Indoor Dimensions



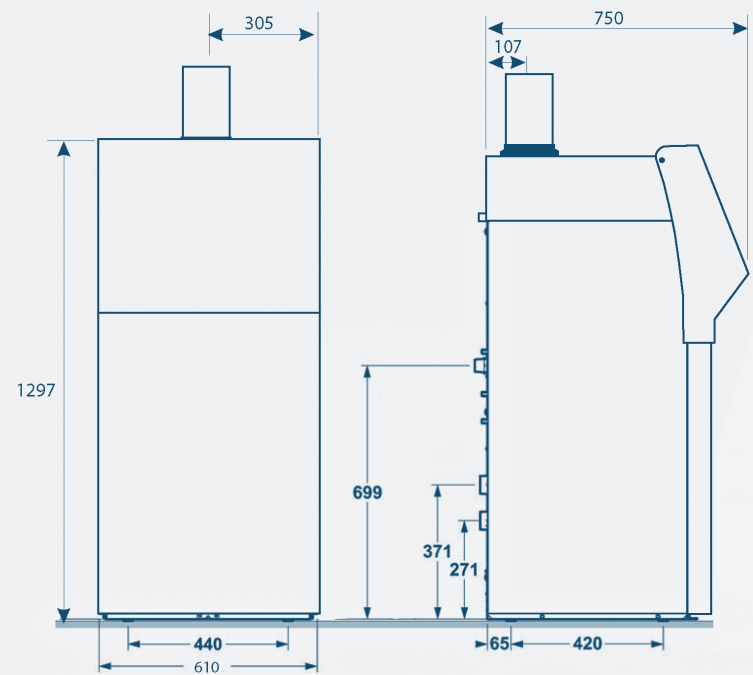
Connections



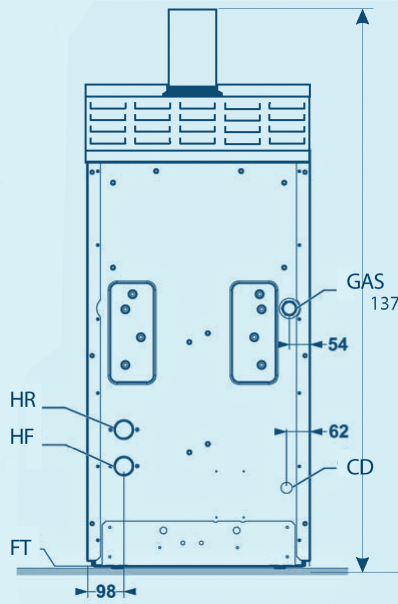
Power HT+ Indoor Model	
HF:	Heating Flow 1-½"
HR:	Heating Return 1-½"
GAS:	Gas Inlet 1"
CD:	Condensing Discharge DN18
D:	Drain ½"
FT:	Adjustable Feet

(All male BSP threads)

Outdoor Dimensions



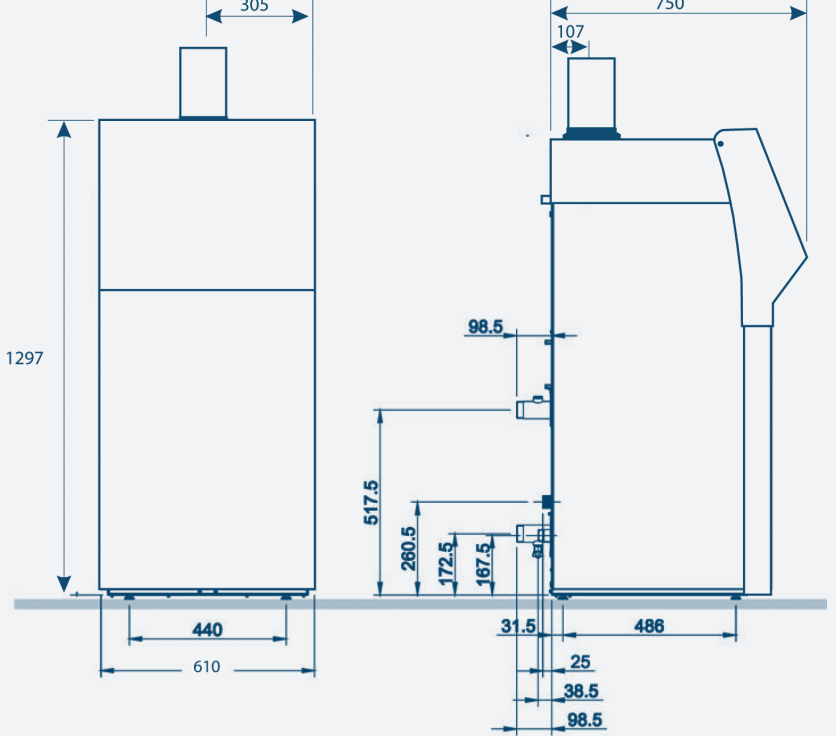
Connections



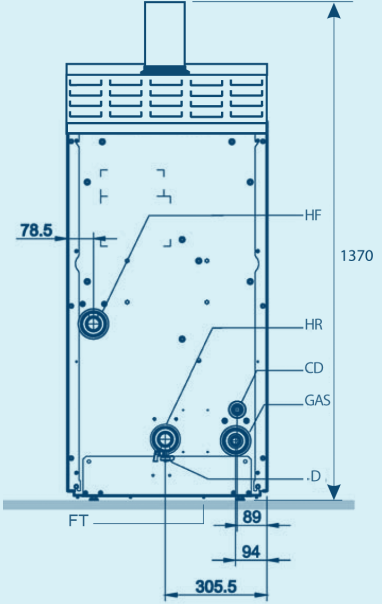
Power HT+ Outdoor Model	
HF:	Heating Flow 1-½"
HR:	Heating Return 1-½"
GAS:	Gas Inlet 1"
CD:	Condensing Discharge DN18
FT:	Adjustable Feet

(All male BSP threads)

Outdoor Dimensions



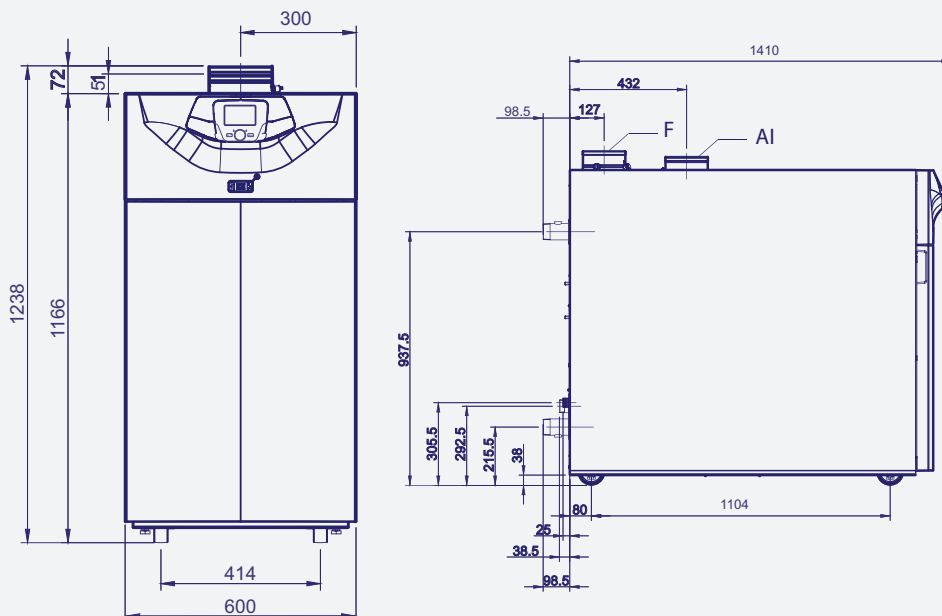
Connections



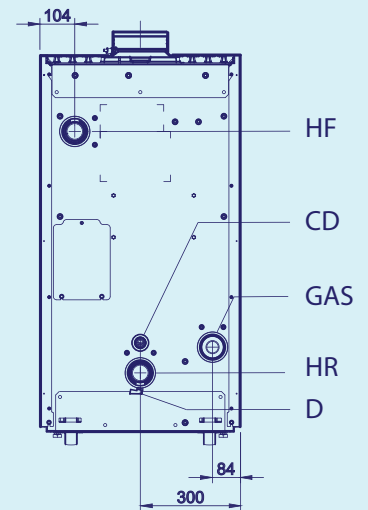
Power HT+ Outdoor Model	
HF:	Heating Flow 1½"
HR:	Heating Return 1½"
GAS:	Gas Inlet 1"
CD:	Condensing Discharge DN18
D:	Drain ½"
FT:	Adjustable Feet

(All male BSP threads)

Indoor Dimensions



Connections

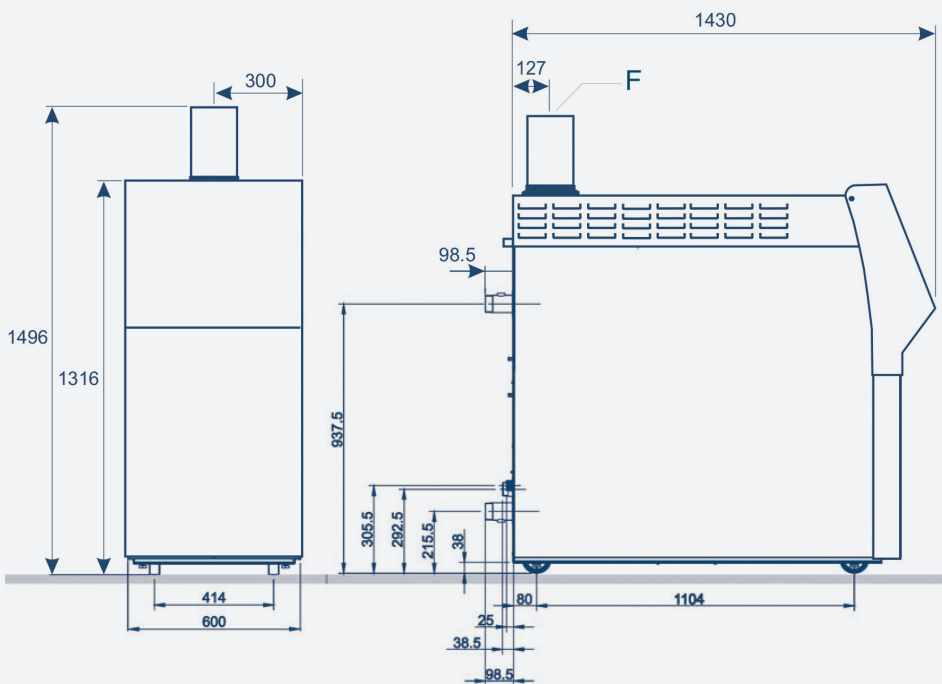


Power HT+ Indoor Model

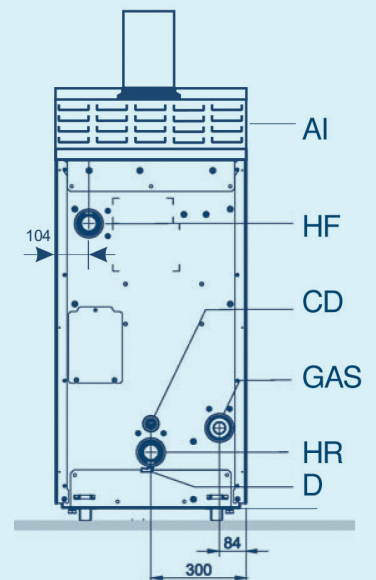
HF:	Heating Flow	R2"
HR:	Heating Return	R2"
GAS:	Gas Inlet	1½"
CD:	Condensing Discharge	DN18
D:	Drain	½"
F	Flue Gas Outlet	150mm
AI:	Air Inlet	150mm

(All male BSP threads)

Outdoor Dimensions



Connections



Power HT+ Outdoor Model

HF:	Heating Flow	R2"
HR:	Heating Return	R2"
GAS:	Gas Inlet	1½"
CD:	Condensing Discharge	DN18
D:	Drain	½"
F	Flue Gas Outlet	150mm
AI:	Air Inlet	150mm

(All male BSP threads)