# BAXI

# Commercial Gas Condensing Boilers



**BAXI Power HT** 





# **BAXI** Commercial Gas Condensing Boilers

The BAXI commercial range of wall and floor mounted commercial boilers uses cutting edge gas condensing technology to maximise efficiency and extend lifespan. BAXI are experts in the field of high output condensing boilers and producing compact and scalable systems making them ideal for a range of commercial applications.

Available in outputs from 35kW to 150kW.

#### A World Leader in Heating Technology

BAXI are specialised boiler manufacturers based in Vicenza, Italy. As a world leading manufacturer, BAXI are committed to environmentally sustainable, water based heating solutions. BAXI have a long and proud history dating back over 30 years and are one of the largest manufacturers of heating boilers in Europe, producing approximately 1 million boilers per year. As BAXI expertise is dedicated to boiler manufacture and development, this enables BAXI to stay at the forefront of cutting edge heating solutions and anticipate market demand, always with quality and sustainability as the driving force. This expertise is what sets BAXI boilers apart.

#### **BAXI** in Australia

HydroHeat Supplies are the exclusive importer of BAXI Boilers in Australia. As the BAXI presence in Australia HydroHeat Supplies are proud to support and maintain one of the leading European boiler brands, and arguably the most efficient heating boilers available on the Australian market.

HydroHeat Supplies are the premier hydronic heating supplies company in Australia, having been established since 1990. HydroHeat supply boilers as part of complete heating system solutions and are synonymous with the BAXI ethos, being drivenby sustainability and excellence in heating products. HydroHeat head office and warehousing is based in Melbourne with national distribution across seven states.

- Leading European Manufacturer
- Full Warranty & Service Support
- Spare Parts Availability Minimum 10 Years
- > Over 10 years in Australia
- Complete System Solutions
- Certified Installer Training
- System Design Consultation
- AGA Australian Approvals
- > Wall Hung and Floor Mounted
- Cascade up to 16 Units
- DHW & Solar Integration



### Why choose BAXI Condensing Boilers?

- > High Modulation Ratios
- > Flexible Cascade Install
- > Compact, Light Weight
- > Indoor & Outdoor Use
- > Stainless Steel Heat Exchangers



#### **Complete System Solutions**

HydroHeat supply all boiler accessories needed for complete system solutions. The BAXI commercial range is compatible with a full range of system components and accessories, in addition HydroHeat provide system specification advice and consultation to ensure efficiency targets are reached and to maximise return on investment.

- > Flue Systems
- > Thermostats & Controllers
- > Partage Controllers
- > Relay Boxes
- > Expansion Tanks
- > Power HT Plinth Kits
- > Valve & Piping Systems
- > Fluid Management Systems
- > BackFlow Prevention



#### **Gas Condensing Boiler Technology**

Gas Condensing Boiler technology has been used successfully overseas for over 25 years and is now legislated for mandatory use throughout Europe. In Australia, however condensing boilers are more recent, and careful selection is critical to ensure longevity and ability of the secondary heat exchanger to withstand corrosion. Most condensing boilers have typical net thermal efficiency of 90-95% as opposed to non-condensing types of around 80%. The BAXI range of condensing boilers operates at up to 97% efficiency. A significant advantage considering heating makes up 15-30% of a building's energy requirements.

Condensing technology reuses 'latent' heat from the flue gases which in turn lowers the temperature of the flue. By doing this the flue gases emit 90% less CO and 80% less NOx in comparison with conventional boilers. Crucially by incorporating the heat exchanger as an integral part of the boiler helps create maximum efficiency.

#### **BAXI Support & Training**

The BAXI Australia network is supported by HydroHeat trained BAXI installers. HydroHeat installers are trained on the specific requirements of BAXI boiler commissioning and maintenance. HydroHeat reinforce the importance that units are installed and commissioned in accordance with BAXI guidelines and maintained by competent contractors. Servicing is supported Australia wide.

BAXI boilers carry Australian approvals for both Natural Gas and Propane (LPG). Approved for both indoor and outdoor use.

#### **Retro Fit**

Boilers are the most significant component in an existing buildings HVAC systems. Most Australian commercial buildings are typically heated by boilers as part of an HVAC system. It is achievable for a 30-50 year old building to gain a 2.5 star to 4.5 star energy efficiency *increase* by retrofitting condensing boilers in place of the existing conventional boilers.

As heating makes up such a large proportion of a buildings total energy requirements this is a common building upgrade.

On a typical 30 year old building, condensing boilers have the potential to reduce annual gas running costs for space heating by as much as 30% providing careful selection and maintenance.

Both the Duo-Tec MP and Power HT are ideal for retro fit application 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.



#### **Energy and Cost Saving Benefits**

Class leading 'turndown' modulation ratios enable smooth and energy efficient operation, providing significant savings and return on investment when incorporating condensing boiler technology into buildings.



# **BAXI**Luna Duo-Tec MP

# WALL HUNG COMMERCIAL GAS CONDENSING BOILER

High Ouput BAXI Duo-Tec MP gas condensing boilers for light commercial heating applications. Condensing technology extracts and reuses heat from burnt gases to deliver a genuine rated efficiency of 97% making the Duo-Tec MP range one of the most efficient light commercial boilers on the Australian market.

Class leading 1:9 modulation 'turndown' ratio adjusts heat output to suit demand, enabling ultra smooth energy efficient operation and increased longevity. Wall hung for compact installation, suitable for indoor and outdoor use.



#### **Features**

- > Six models 35kW 110kW
- > Wall hung, compact size and minimal weight
- 'think' intelligent system management to maximise component integration efficiency
- > Indoor / Outdoor, NG, LPG and AGA approved
- Digital control panel with push buttons and backlit LCD display
- > Complete soundproofing for quiet operation
- > 316 Stainless Steel Heat Exchanger (5 year warranty)
  - Single Chamber (35, 50, 60, 70kW)
  - Double Chamber (90, 110kW)
- > 4 Bar pressure relief valve included
- Cascade installation option (up to 16 Boilers)
- > Complete range of accessories
- > Frontal access for easy servicing
- > Frost protection, as well as pump and diverter valve seize prevention
- > Built-in outdoor temperature compensation option
- > Facility for DHW and solar integration

#### **Benefits**

- ➤ Rated Efficiency 97% @ 50 °C, 90% @ 80 °C as per AS 4552
- ▶ 1:9 modulation 'turndown' ratio prevents short cycling (1:9 50-110kW, 1:7 35kW)
- ➤ Condensing pre-mix burner, reuses waste flue gases reduces noxious waste (up to 80% of NOx, 90% of CO)
- > Modulating fan with electronic speed adjusting system
- > Integral High Efficiency Modulating Pump
- Mixed zones system (high and low temperatures) option
- > System to prevent pump sticking, cycles every 24 hours



#### **Environmental** Reduced N0x waste Reduced CO waste



think
Intelligent Integrated
Operating System



**Warranty**2 Year Boiler & Parts
5 Year Heat Exchanger



**High Efficiency**Class leading
Energy Efficiency



Cascade Install
Cascade install
up to 16 boilers



**1:9 Modulation**Adapts heat output, save short cycling

#### **Control System**

- Overheat limit thermostat for water/flue exchanger, electronic temperature control by NTC probes
- > Hydraulic differential pressure switch in event of low water or high pressure
- > Electronic thermometer, heating pressure gauge
- > Heating and DHW integrated in the control panel
- > Flow over-temperature thermostat



Duo-Tec MP **Indoor Models** 



Duo-Tec MP
Outdoor Models

#### **Specification & Performance**

		Duo-Tec MP 35kW	Duo-Tec MP 50kW	Duo-Tec MP 60kW	Duo-Tec MP 70kW	Duo-Tec MP 90kW	Duo-Tec MP 110kW
Model Code		MP 1.35	MP 1.50	MP 1.60	MP 1.70	MP 1.90	MP 1.110
Type (Indoor / Outdoor)		ID/OD	ID/OD	ID/OD	ID/OD	ID/OD	ID/OD
Gas Used (Natural / Propane)		NG/LPG	NG/LPG	NG/LPG	NG/LPG	NG/LPG	NG/LPG
Nominal Gas Consumption	MJ/h	140	186	227	268	351	415
Turn Down Gas Consumption	MJ/h	20	20	25	30	39	47
Modulation Ratio		1:7	1:9	1:9	1:9	1:9	1:9
Max Heat Output at 80/60 °C	kW	33.8	45	55	65	85	102
Min Heat Output at 80/60 °C	kW	5.0	5.0	6.1	7.2	9.4 NG / 12.2 LPG	11.4
* Efficiency at 80/60 °C		90	90	90	90	90	90
Max Heat Output at 50/30 °C	kW	36.6	48.6	59.4	70.2	91.8	110.2
Min Heat Output at 50/30 °C	kW	5.4	5.4	6.6	7.8	10.2 NG / 13.1 LPG	12.3
*Efficiency at 50/30 °C		97	97	97	97	97	97
Min - Max Water Circuit Pressure	bar/kPa	0.5-4.0 / 50-400	0.5-4.0 / 50-400	0.5-4.0 / 50-400	0.5-4.0 / 50-400	0.5-4.0 / 50-400	0.5-4.0 / 50-400
Flue Duct Diameter	mm	80 / 125	80 / 125	80 / 125	80 / 125	110 / 160	110 / 160
Max Flue Temperature	C°	90	92	96	76	70	70
Waste NOx Emissions	mg/ kWh	31.8	29.8	34.1	34.8	39.5	24.7
Gas Input Pressure (NG / LPG)	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
Power Supply	V/Hz	230V / 50Hz					
Power Consumption	w	180	190	210	210	275	320
Net Weight (Indoor / Outdoor)	kg	40 / 47	40 / 47	40 / 47	50/57	83 / 95	93 / 105
Boiler Capacity (Water Volume)	ltr	4	4	5	6	9	10
Noise Level at 1 metre	db(A)	<50	<50	<50	<50	<50	<50

<sup>\*</sup> Australian Efficiency Ratings as per AS 4552

#### **AUSTRALIAN APPROVALS**

- > BAXI Duo-Tec MP boilers are tested and approved for Australian use
- > Indoor and Outdoor applications
- Natural Gas and Propane Gas
- > Relevant Electrical and Fittings approvals







AGA Cert No. 7023





# BAXI Power HT

## FLOOR STANDING COMMERCIAL GAS CONDENSING BOILER

BAXI Power HT floor standing condensing boilers for commerical applications.

Leading European technology, high efficiency and compact dimensions. Suitable for indoor and outdoor installation and available in 85kW, 100kW, 120kW and 150 kW.

Ideal for single unit installations and cascade systems of up to 16 boilers (1800kW). AGA approvals for natural and propane gas.



#### **Features**

- Comes in four models 85kw 150kW, indoor and outdoor use
- > Stainless Steel Heat Exchanger, Anti-frost device
- BAXI by Siemens remote controller and outdoor probe option for outdoor compensation
- Digital boiler programming and control / double
   CPU microprocessor for performance optimisation
- > System to prevent pump sticking, cycles every 24 hours
- > Mixed system control (high and low temperature)
- > Indoor / Outdoor, NG, LPG and AGA approved
- > Facility for DHW and solar integration

#### **Flexible Cascade Installation**

- > Cascade installation up to 16 boilers (1800kW)
- Connection available for indirect DHW cylinder electrical connections for secondary heating and DHW pump

#### **Retro Fit**

> Compact size and weight ideal for retro fit applications, difficult access plant rooms and roof tops.

#### **High Efficiency**

- > Rated Efficiency 96% @ 50 °C, 90% @ 80 °C as per AS 4552
- > Condensing pre-mix burner, reuses waste flue gases reduces noxious waste (up to 80% of NOx, 90% of CO)
- Modulating fan ensures maximum efficiency and constant air/gas ratio across whole range of outputs
- Used in low temperature systems, condensing boilers typically facilitate a reduction of up to 30% in gas expenditure



**Environmental** Reduced N0x waste Reduced CO waste



**High Efficiency**Class leading
Energy Efficiency



**Commercial**Factories, hospitals, aged care, offices



Cascade Install
Cascade install
up to 1800kW



**Warranty** 1 Yr Boiler & Parts 5 Yr Heat Exchanger



**Compact**Compact size for easy install



#### **Complete System Accessories**

- Complete range of system accessories to support system installations
- > Cascade pipe kits, hydraulic separators, relay boxes, flue kits, partage controllers, expansion tanks, valves, fluid management, plinth stands available
- > 1 Year Boiler warranty including parts and labour
- > 5 Year Heat Exchanger warranty





**Specification & Performance** 

		Power HT 85kW	Power HT 100kW	Power HT 120kW	Power HT 150kW
Model Code		PHT 1.0850	PHT 1.1000	PHT 1.1200	PHT 1.1500
Type (Indoor / Outdoor)		ID/OD	ID/OD	ID/OD	ID/OD
Gas Used (Natural / Propane)		NG/LPG	NG/LPG	NG/LPG	NG/LPG
Nominal Gas Consumption	MJ/h	350	367	444	554
Turn Down Gas Consumption	MJ/h	112	128	155	194
Modulation Ratio		1:3	1:3	1:3	1:3
Max Heat Output at 80/60 °C	kW	85	100	120	150
Min Heat Output at 80/60 °C	kW	32.2	35.8	39.0	40.4
* Efficiency at 80/60 °C	%	90	90	90	90
Max Heat Output at 50/30 °C	kW	89.3	105	126	157.8
Min Heat Output at 50/30 °C	kW	34.9	38.8	42.1	43.7
* Efficiency at 50/30 °C	%	96	96	96	96
Min-Max Water Circuit Pressure	bar/kPa	0.5-4.0 / 50- 400	0.5-4.0 / 50- 400	0.5-4.0 / 50- 400	0.5-4.0 / 50- 400
Heating Circuit Temp Range	°C	25 - 80	25 - 80	25 - 80	25 - 80
Waste NOx Emissions	mg/kWh	38	35	32	35
Gas Input Pressure (NG/ LPG)	kPa	1.13 / 2.75	1.13 / 2.75	1.13 / 2.75	1.13 / 2.75
Flue Connection	mm	100	100	100	100
Max Flue Temperature	C°	78	80	77	75
Power Supply	V/Hz	240V / 50Hz	240V / 50Hz	240V / 50Hz	240V / 50Hz
Power Consumption	w	100	160	235	235
Net Weight (Indoor / Outdoor)	kg	75 / 80	83 / 88	95 / 100	103 / 108
Boiler Capacity (Water Volume)	lt	13.7	21	23.3	25.3

<sup>\*</sup> Australian Efficiency Ratings as per AS 4552

**Noise Level at 1metre** 

#### **AUSTRALIAN APPROVALS**

- > BAXI Power HT boilers are tested and approved for Australian use
- > Indoor and Outdoor applications
- > Natural Gas and Propane Gas
- > Relevant Electrical and Fittings approvals







AGA Cert No. 7023





# Technical Diagrams





