

# Baxi Boilers

## Commercial Boiler Product Specification

### Baxi Boiler Features

#### Boiler (single) features

- ✓ Compact Wall Hung Condensing Boiler
- ✓ AISI 316L stainless steel heat exchanger
- ✓ High Modulating Ratio 1:9
- ✓ Modulating Integral Pump
- ✓ 4 bar Pressure Relief Safety Valve
- ✓ Digital Control Panel
- ✓ Optional control set up including conventional thermostat, Baxi digital open-Therm controller, and Remote control capability through 0-10V interface
- ✓ Error (fault) and run status outputs available

#### Boiler Cascade features

- ✓ Up to 16 boilers in arrangement.
- ✓ Tidy wall hung boiler, eliminate plant room floor space.
- ✓ Cascade boilers provide a wide heat range i.e. 3 x 100kW boiler provide a output of 11kW to 300kW
- ✓ Provide greater efficiency by running at part load thus oversizing the heat exchanger
- ✓ Water Tray for condensate drain from supply air duct.
- ✓ NTC sensor for DHW cylinder control option.
- ✓ Full electronic anti-frost device.

PRODUCT CODE	PART NAME
BXDT35	Baxi Luna Duo-tec MP1.35 35kW Boiler
BXDT50	Baxi Luna Duo-tec MP1.50 50kW Boiler
BXDT70	Baxi Luna Duo-tec MP1.70 70kW Boiler
BXDT90	Baxi Luna Duo-tec MP1.90 90kW Boiler
BXDT110	Baxi Luna Duo-tec MP 1.110 110kW Boiler

### Product Specification

The condensing boilers shall be fully modulating gas-fired boilers, factory assembled within an insulated sealed cabinet and have a rated efficiency of at least 105% at 50/30°C. The boilers shall be performance tested in accordance with BS 845:1 Method for assessing thermal performance of

boilers for steam, hot water and high temperature fluids using results based on gross calorific value of the fuel with flue gas exit temperature not exceeding 230°C and CO<sub>2</sub> content not less than 11.5%. All boilers to carry necessary test certification including CSA approved, Energy Star rated and ASME H-Stamp certified. The boiler must be tested and comply with AS4552.

The boilers must have an internal modulating circulating pump, approved under the latest ErP Directive and have a minimum boiler modulating ratio of 1:9. The heat exchanger must be manufactured from AISI 316L stainless steel or equivalent.

### Installation Criteria

Flue diameter shall be 80/125mm (for 1.35-1.70) or 110/160mm (for 1.90 & 1.110) coaxial flue or single skin cascade flue in either plastic or stainless steel. The flue must be an approved flue system by the boiler manufacturer, this can be an approved plastic or stainless steel flue. It is not necessary to have an insulated flue. The flue must be installed within the parameters and maximum lengths highlighted by the manufacturer, refer to manual for details.

Best practice is to install a hydraulic separator downstream of the hydraulic connectors on the boiler. The hydraulic separator must be sized in accordingly to maximum boiler and system pressure.

A condensate trap must be connected to the boiler and flue (where applicable). The trap must be connected to the sewer via plastic pipe and tundish, in accordance with AS 3500. It is necessary to ensure the slope of the drain is continuous from the trap to the outlet.

Filtration must be installed on the return line to the boiler/hydraulic separator to ensure the heat exchangers and pumps are protected from sludge and particle build up. *{Each filter must be determined by the consultant mechanical engineer}*.

### Single Boiler Control Criteria:

BMS 0-10V or voltage free contact control required. Boiler to be supplied with outdoor air sensor to allow boiler output temperature to be modulated based on the outdoor air temperature.

### Cascade Boilers Control Criteria:

Factory cascade controls to be Siemens and include the necessary add on modules required to achieve the necessary cascade control requirements. Each boiler to be fitted with an OCi345 to allow the boilers to communicate via the LPB (local protocol bus). The boilers are commissioned as an integral cascade unit and be installed to achieve optimum performance.

In addition the boilers must also have the capability to provide individual boiler fault (error) and run status outputs.

*Standards:*

The boiler installation must comply with all local standards and regulations, specifically AS/NZS 5601.1. A certifying gas fitter must install and commission the boilers as per the manufactures guidelines.

The boiler/s shall be fixed to a suitable wall, a purpose built frame or specific outdoor cabinet and comply with NZS 4219.