Building Regulations (Amendment) 2010
Part L Compliance
Seasonal Efficiency

Hamworthy

Heating *at work.*

GAS FIRED BOILER SERIES	STRATTON mk2 WALL HUNG MODELS S2-40 to S2-120 FULLY MODULATING CONDENSING

Part L REQUIREMENT	SEASONAL EFFICIENCIES (Gross) %			
	New Buildings		Existing Buildings	
	The seasonal efficiency of a single boiler within a multi-boiler heating system should not be less than	The seasonal efficiency of a single or multi-boiler heating system should not be less than	The seasonal efficiency of a single boiler as a stand alone or within a multi-boiler heating system should not be less than	The effective heat generating seasonal efficiency of a single or multi-boiler heating system should not be less than
Minimum Seasonal Efficiency **Natural Gas**	82	86	80	84
Minimum Seasonal Efficiency **LPG Propane**	82	87	81	85

The above figures have been extracted from sections 2.5 and 2.6 of the Non-Domestic Heating, Cooling and Ventilation Compliance Guide (N-DHCVCG) to Approved Documents L2A and L2B.

BOILER MODEL	SEASONAL EFFICIENCIES (Gross) %	
	Natural Gas	LPG Propane
Stratton mk2 S2-40 Wall Hung Boiler	95.8%	97.9%
Stratton mk2 S2-60 Wall Hung Boiler	96.1%	98.3%
Stratton mk2 S2-70 Wall Hung Boiler	95.5%	97.6%
Stratton mk2 S2-80 Wall Hung Boiler	95.5%	97.6%
Stratton mk2 S2-100 Wall Hung Boiler	96.0%	98.2%
Stratton mk2 S2-120 Wall Hung Boiler	95.9%	98.1%

All models of Stratton mk2 Wall Hung fully modulating condensing boilers can be installed in both New and Existing Buildings as their seasonal efficiencies exceed the required values and they are therefore fully compliant.
However, all systems for both new and existing buildings should be installed with the minimum controls package detailed in the N-DHCVCG. See overleaf for basic information on control packages.
For existing buildings, Heating Efficiency Credits may be used to improve the building energy rating.

Signed
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NEW BUILDINGS : Minimum controls package for new boilers or multi-boiler systems (depending on boiler plant or combined boiler plant outputs)		
Boiler plant output	**Minimum controls package**	**Minimum controls package contents**
<100kW	A	• Timing and temperature demand control which should be zone-specific where the building floor area is greater than 150m^2 • Weather compensation except where a constant temperature is required.
100kW to 500kW	B	• Control package A above PLUS: • Optimal start/stop control is required with night set-back OR frost protection outside occupied periods • Boiler with 2 stage high/low firing facility or multiple boilers should be installed to provide efficient part-load performance. For multiple boilers, sequence control should be provided AND boilers, by design or application, should have limited heat loss from non-firing modules, for example by using isolation valves or dampers. For boilers with low standing losses isolation valves and dampers would not be required. Individual boilers, by desiign or application, should have limited heat loss, for example by using isolation valves or dampers
>500kW – individual boilers	C	• Controls packages A and B above PLUS: • The burner controls should be fully modulating for gas-fired boilers or multi-stage for oil-fired boilers

EXISTING BUILDINGS : Minimum controls package for replacement boilers	
Minimum controls package	**Suitable controls**
Zone controls	Zone control is required only for buildings where the floor area is greater than 150m^2. As a minimum, on/off control (eg. through an isolation valve for unoccupied zones) should be provided. This is achieved by default for a building of floor area 150m^2 or less/
Demand controls	Room thermostat which controls through a diverter valve with constant boiler flow water temperature. This method of control is not suitable for condensing boilers
Time controls	Time clock

EXISTING BUILDINGS : Heating Efficiency Credits (HECs) for measures applicable to boiler replacement					
Measure		**HECs % points**	**Measure**		**HECs % points**
A	Boiler oversize ≤ 20%	2	**F ii)**	Weather (inside/outside temperature) compensation system that is direct acting	2
B	Multiple boilers	1	**F iii)**	Addition of TRV or temperature zone control to F i) or F ii) above to ensure full building temperature control	1
C	Sequential control of multiple-boiler systems	1	**G i)**	Optimised start	1.5
D	Monitoring and targeting	1	**G ii)**	Optimised stop	0.5
E i)	Thermostatic radiator valves (TRV) alone. Would also apply to fanned convector systems	1	**G iii)**	Optimised start/stop	2
E ii)	Weather (inside/outside temperature) compensation system using a mixing valve	1.5	**H**	Full zoned time control	1
E iii)	Addition of TRV or temperature zone control to E ii) above to ensure full building temperature control	1	**I**	Full building management system (BMS)	4
F i)	A 'room' thermostat or sensor that controls boiler water temperature in relation to heat load	0.5	**J**	Decentralised heating systems	1

The above tables are extracted from the Non-Domestic Heating, Cooling and Ventilation Complliance Guide for initial information only. The full text of the appropriate section should be read to ensure these tables are used correctly, particularly the Heating Efficiency Credits table which contains Comments/Definitions on each item. The Guide can be downloaded from www.planningportal.gov.uk/england/professionals/en/ and follow the links through Building Regulations, Technical Guidance, Part L and Associated Documents.