ofgem e-serve Making a positive difference for energy consumers

Renewable Heat Incentive

Non-domestic Renewable Heat Incentive Emissions Certificate

This certificate provides evidence that the tested boiler meets the air quality requirements of the non-domestic Renewable Heat Incentive (RHI). It must be issued by a testing laboratory. Applicants applying for the RHI with biomass boilers must submit a certificate with their application, or alternatively, an environmental permit.

BLT 0792/13, Herz Energietechnik GmbH, pelletstar 10 to pelletstar 60, wood pellets

1. TEST HOUSE	
a) name and address of testing laboratory	research & testing BLT wieselburg F | J lfz wieselburg **BLT Wieselburg** HBLFA Francisco Josephinum AT 3250 Wieselburg, Rottenhauser Straße 1 blt@josephinum.at, http://blt.josephinum.at * Höhere Bundeslehr- u. Forschungsanstalt * Francisco Josephinum Schloss Weinzierl - 3250 Wieselburg
b) name and signature of the person authorised by the testing laboratory to issue the certificate	For the accredited test institute: Dipl.-Ing. Heinrich Prankl For the factual correctness: Dipl.-HLFL-Ing. Leopold Lasselsberger
c) date of issue of the certificate together with certificate reference number Plant 1 – pelletstar 10 Plant 2 – pelletstar 20 Plant 3 – pelletstar 30 Plant 4 – pelletstar 45 Plant 5 – pelletstar 60	Date of issue: 10/12/2013 Reference number: 0792/13 BLT Wieselburg test report, approval no: 001/13 BLT Wieselburg test report, approval no: 002/13 BLT Wieselburg test report, approval no: 003/13 BLT Wieselburg test report, approval no: 004/13 BLT Wieselburg test report, approval no: 005/13
d) if testing laboratory is accredited to ISO 17025, date of accreditation and accreditation number *(note: if testing conducted after 24 Sep. 2013, the testing laboratory must be ISO 17025 accredited)*	A 0112 Date of accreditation: October 19, 2009 Initial date of accreditation: September 1, 1998 Federal Ministry of Economy, Family and Youth Division I/12 – Accreditation Body

Version 1.0: Issued August 2013

2. a PLANT	Plant 1	Plant 2	Plant 3
a) name of the plant tested	pelletstar 10	pelletstar 20	pelletstar 30
b) model of the plant tested	Wood pellets heating boiler pelletstar 10	Wood pellets heating boiler pelletstar 20	Wood pellets heating boiler pelletstar 30
c) manufacturer of the plant tested	Herz Energietechnik GmbH Herzstraße 1 AT 7423 Pinkafeld, AUSTRIA		
d) installation capacity of the plant in kilowatts (kW)	3,4 – 12,0	6,2 – 21,0	6,2 – 30,0
e) is the plant a manually stoked, natural draught plant? (that is, without a fan providing forced or induced draught)	no	no	no
f) the date the plant was tested	01/07/2008	01/07/2008	01/07/2008
g) list of all the plants in the type-testing range of plants to which the certificate applies, if any[1]	Wood pellets heating boiler Herz pelletstar 10/20/30/45/60		

2. b PLANT	Plant 4	Plant 5	-
a) name of the plant tested	pelletstar 45	pelletstar 60	-
b) model of the plant tested	Wood pellets heating boiler pelletstar 45	Wood pellets heating boiler pelletstar 60	-
c) manufacturer of the plant tested	Herz Energietechnik GmbH Herzstraße 1 AT 7423 Pinkafeld, AUSTRIA		
d) installation capacity of the plant in kilowatts (kW)	10,1 – 45,0	10,1 – 60,0	-
e) is the plant a manually stoked, natural draught plant? (that is, without a fan providing forced or induced draught)	no	no	-
f) the date the plant was tested	11/03/2010	11/03/2010	-
g) list of all the plants in the type-testing range of plants to which the certificate applies, if any[1]	Wood pellets heating boiler Herz pelletstar 10/20/30/45/60		

[1] The type-testing approach enables testing laboratories to provide assurance that all boilers in a given range meet the air quality requirements, without needing to specifically test each boiler.

3. FUELS	
a) types of fuels used when testing	Wood pellets C1 according to EN 303-5
b) based on the testing, list the range of fuels that can be used in compliance with the emission limits of 30 grams per gigajoule (g/GJ) net heat input for particulate matter (PM), and 150 g/GJ net heat input for oxides of nitrogen (NOx) *(based if relevant on classifications from EN 14961 or EN 303-5)*	Wood pellets C1 according to EN 303-5
c) moisture content of the fuel used during testing Plant 1 Plant 2 Plant 3 Plant 4 Plant 5	 6,6 % 6,2 – 6,8 % 6,2 – 6,7 % 7,2 % 7,2 %
d) maximum moisture content of the fuel which can be used so as to ensure that the emission limits are not exceeded	≤ 12 % according to EN 303-5

4. TESTS	
a) **if the plant is 500 kW or lower, and BS EN 303-5:1999 or EN 303-5:2012[2] applies to it,** please confirm: - tests were conducted to whichever standard was current at the time of testing. *(please circle the applicable standard)*	 EN 303-5:1999
b) **if the plant is 500 kW or lower, and BS EN 303-5:1999 or BS EN 303-5:2012 <u>do not apply to it</u>,** please confirm: - emissions of PM represent the average of at least three measurements, each of at least 30 minutes duration and; - the value for NOx emissions is derived from the mean of measurements made throughout the PM tests.	 not applicable not applicable
c) **if the plant is 500 kW or higher**, please confirm: - emissions of PM represent the average of at least three measurements, each of at least 30 minutes duration and; - the value for NOx emissions is derived from the mean of PM measurements made throughout the PM tests.	 not applicable not applicable
d) please confirm the tests were conducted to: - EN 14792:2005 in respect of NOx, and; - EN 13284-1:2002 or ISO 9096:2003 in respect of PM[3]	 yes yes

[2] BS EN303-5:1999 and 2012 explain what should be measured and when.
[3] These standards explain how to make the PM and NOx measurements.

e) please confirm the plant tested at ≥ 85 % of its rated output	yes
f) please confirm the tests show that emissions were no greater than 30 g/GJ PM and 150 g/GJ NOx	yes
g) measured emissions of PM in g/GJ net heat input	
Plant 1 – pelletstar 10	23 g/GJ (nominal heat output) nm*) (minimum heat output)
Plant 2 – pelletstar 20	9 g/GJ (nominal heat output) 15 g/GJ (minimum heat output)
Plant 3 – pelletstar 30	11 g/GJ (nominal heat output) 15 g/GJ (minimum heat output)
Plant 4 – pelletstar 45	12 g/GJ (nominal heat output) 15 g/GJ (minimum heat output)
Plant 5 – pelletstar 60	15 g/GJ (nominal heat output) 15 g/GJ (minimum heat output)
h) measured emissions of NOx in g/GJ net heat input	
Plant 1 – pelletstar 10	80 g/GJ (nominal heat output) nm*) (minimum heat output)
Plant 2 – pelletstar 20	93 g/GJ (nominal heat output) 67 g/GJ (minimum heat output)
Plant 3 – pelletstar 30	100 g/GJ (nominal heat output) 67 g/GJ (minimum heat output)
Plant 4 – pelletstar 45	90 g/GJ (nominal heat output) 64 g/GJ (minimum heat output)
Plant 5 – pelletstar 60	93 g/GJ (nominal heat output) 64 g/GJ (minimum heat output)

*) nm ... not measured