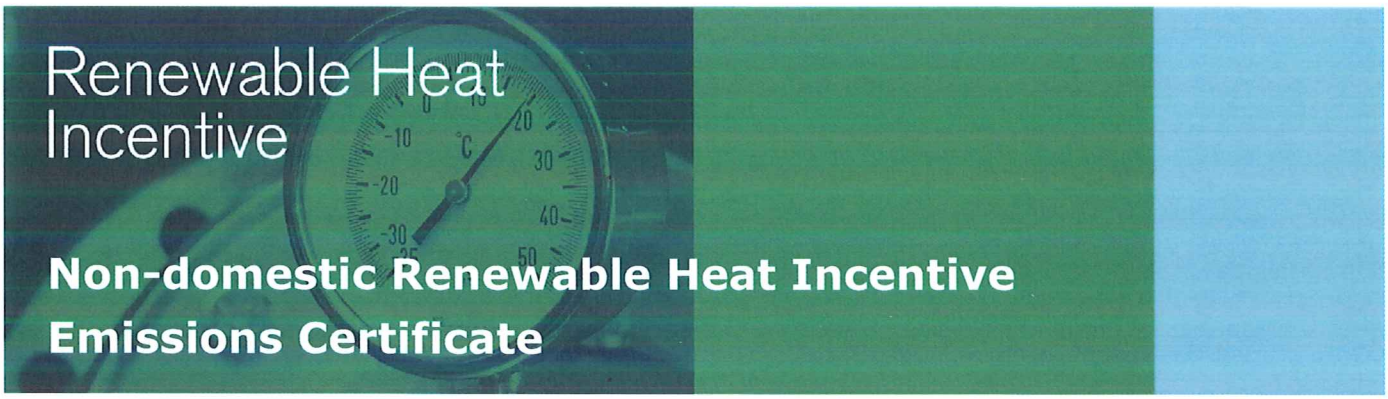
ofgem e-serve Making a positive difference for energy consumers



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.

1. TEST HOUSE	
a) name and address of testing laboratory	TÜV SÜD Industrie Service GmbH Abteilung Feuerungs- und Wärmetechnik Ridlerstrasse 65 80339 München Germany
b) name and signature of the person authorised by the testing laboratory to issue the certificate	Johannes Steiglechner
c) date of issue of the certificate together with certificate reference number	2013-11-29, 13 09 91359 002 All data is given in this certificate only for tests at nominal heat output (at ≥85% of its rated output as required, see clause 4e)
d) if testing laboratory is accredited to ISO 17025, date of accreditation and accreditation number *(note: if testing conducted after 24 September 2013, the testing laboratory must be ISO 17025 accredited)*	initial date of accreditation 1992-08-10, accreditation number: ZLS-L-023/92, actual accreditation by DAkkS (www.dakks.de), date 2013-04-29, DAkkS accreditation number: D-PL-14153-04-00

2. PLANT		
a) name of the plant tested	RHK AK ...	
b) model of the plant tested	RHK AK 30 Hackgut RHK AK 30 Pellet RHK AK 50 Hackgut RHK AK 100 Hackgut RHK AK 100 Pellet RHK AK 153 Hackgut RHK AK 300 Hackgut RHK AK 300 Pellet RHK AK 500 Z Hackgut RHK AK 500 Hackgut [a]shortnames only in certificate	AK30H[a] AK30P[a] AK50H[a] AK100H[a] AK100P[a] AK153H[a] AK300H[a] AK300P[a] AK500ZH[a] AK500H[a]
c) manufacturer of the plant tested	HEIZOMAT GmbH Maicha 21 91710 Gunzenhausen Germany	
d) installation capacity of the plant in kilowatts (kW)	35 kW 35 kW 50 kW 95 kW 95 kW 165 kW 325 kW 325 kW 500 kW 540 kW	AK30H AK30P AK50H AK100H AK100P AK153H AK300H AK300P AK500ZH AK500H
e) is the plant a manually stoked, natural draught plant? (that is, without a fan providing forced or induced draught)	no	
f) the date the plant was tested	2005-09-21 2005-09-26 2005-04-06 2006-08-09 2006-08-07 2005-06-27 2006-04-03 2006-04-05 2013-04-04 2012-07-17	AK30H AK30P AK50H AK100H AK100P AK153H AK300H AK300P AK500ZH AK500H
g) list of all the plants in the type-testing range of plants to which the certificate applies, if any[1]	RHK AK 60 Hackgut RHK AK 75 Hackgut RHK AK 200 Hackgut RHK AK 304 Hackgut RHK AK 400 Hackgut	60 kW 75 kW 198 kW 295 kW 400 kW

[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	chipped wood, B1 (EN 303-5) compressed wood, C1 (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 EN14961 or EN303-5)*	chipped wood, B1 (EN 303-5) compressed wood, C1 (EN 303-5, only AK30P, AK100P and AK300P)
c) moisture content of the fuel used during testing	w: 25 % AK30H w: 7 % AK30P w: 23 % AK50H w: 21 % AK100H w: 8 % AK100P w: 30 % AK153H w: 25 % AK300H w: 7 % AK300P w: 24 % AK500ZH w: 16 % AK500H
d) maximum moisture content of the fuel which can be used so as to ensure that the emission limits are not exceeded	w: 35 %, B1 (EN 303-5) w: 12 %, C1 (EN 303-5)

4. TESTS	
a) **if the plant is 500kW 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)*	plants tested following the requirements of EN 303-5:1999, clause 4.2 because the heat output range is partly higher than 300 kW
b) **if the plant is 500kW or lower, and BS EN 303-5:1999 or BS EN 303-5:2012 do not apply to it,** 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 500kW 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.	plant (RHK AK 500 Hackgut) tested following the requirements of EN 303-5:1999, clause 4.2 because the heat output range is partly higher than 300 kW yes no, mean value of measurements made throughout tests, each of 6 h, according to EN 303-5:1999, clause 4.2
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 no, but according to CEN/TS 15883:2009, appendix A, see also EN 303-5:2012, clause 5.2, PM measurement
e) please confirm the plant tested at ≥85% of its rated output	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.

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	9	AK30H
	18	AK30P
	8	AK50H
	16	AK100H
	8	AK100P
	26	AK153H
	17	AK300H
	19	AK300P
	17	AK500ZH
	20	AK500H
h) measured emissions of NOx in g/GJ net heat input	67	AK30H
	54	AK30P
	88	AK50H
	61	AK100H
	48	AK100P
	55	AK153H
	46	AK300H
	50	AK300P
	74	AK500ZH
	51	AK500H