



TEST Reg.nr. 300



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TEKNOLOGISK INSTITUT

Akkrediteret prøvningsorgan, DANAK-akkreditering nr. 300

Notificeret prøvningsorgan med ID-nr. 1235

Prøvningsattest II

Uddrag af rapport nr. 300-ELAB-1961-EN og 300-ELAB-1961-NS samt bedømmelse af Omega rev. 1 dateret d. 24 juli 2015

Emne: Brændeovne Omega High, Omega Chef og Omega Core

Rekvirent: Jydepejsen A/S

Ahornsvinget 3-7, 7500 Holstebro

CVR nr.: 88387716 P-nr.: 1002792475

Procedure:

X	Prøvning efter DS/EN13240/A2:2004
X	Prøvning efter NS3058-1 & -2 (partikelmåling)
X	Emissionsmåling efter CEN/TS 15883 (støv og OGC)

Prøvningsresultater

Akkrediteret prøvning af brændeovn iht. EN 13240 er foretaget med brænde der påfyres manuelt, og følgende resultater blev opnået:

Nominel ydelse:	7,0 kW
CO-emission:	0,09 % - henført til 13 % O ₂
Virkningsgrad:	79 %
Røggastemperatur:	291 °C

Informationen i denne attest omfatter kun oplysninger om nominel ydelse og emissionsegenskaber for Omega. For afstande til brændbar materiale se vejledningen.

Emissioner iht. NS 3058 og/eller CEN/TS 15883:

Partikler efter NS 3058:	2,81 g/kg (tørstof) middelværdi (krav 2015:5 / 2017:4)
Partikler efter NS 3058:	6,35 g/kg (tørstof) maksimalt (krav 2015:10 / 2017:8)
OGC efter CEN/TS 15883:	84 mgC/Nm ³ ved 13% O ₂ (krav 2015:150 / 2017:120)
Støv efter CEN/TS 15883:	15 mg/Nm ³ ved 13% O ₂ (krav 2015:40 / 2017:30)

Bemærk venligst, at de oplyste værdier er et uddrag af prøvningsrapporten. For yderligere oplysninger henvises til prøvningsrapporten, se nummer ovenfor.

Aarhus, den 28. august 2015 Kim Sig Andersen Konsulent	Skorstensfejerpåtegning
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På baggrund af ovennævnte emissioner attesteres det hermed, at fyringsanlægget opfylder emissionskravene i bilag 1 til Bekendtgørelse nr. 46 af 22/01-2015 om regulering af luftforurening fra fyringsanlæg til fast brændsel under 1 MW, for så vidt:

Krav fra 2015 til januar 2017 opfyldt:	X	Krav efter januar 2017 opfyldt:	X
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Jydepejsen A/S
Att.: Mads Trolle Westermann
Ahornsvinget 3-7, Nr. Felding
DK-7500 Holstebro

27. March 2015
KMSA

Assessment of the stove Omega concerning EN 13240 & NS 3058/3059 based on the stove Sirius.

Jydepejsen A/S wishes the stove Omega assessed based on the previous tested stove Sirius.

The new stove Omega has an identical combustion chamber as well as identical channels supplying air to the combustion chamber compared with the tested stove Sirius.

The only significant difference in design of the Omega compared to the design of Sirius is that Omega is slightly lower in the upper convection compartment, has a sloping discharge pipe up to the flue connector and has a rectangular bottom grate. The two first mentioned changes will affect the temperature impact of the flue gas in Omega's surroundings.

It is estimated that the above variant has a rated output and a particulate emission, identical to the tested stove Sirius. It is estimated simultaneously that Omega with a modified flue ways compared to Sirius cannot have the same distances to combustible thus forcing a separate safety test.

Jydepejsen A/S has supplied the following documentation for this assessment:

- Drawing of Omega dated 03-09-2014

The documentation material is provided as separate digitally signed .pdf document.

Test reports for the initial testing of the stove Sirius:

- 300-ELAB-1961-NS, dated 31.01.2014 (Test report)
- 300-ELAB-1961-EN, dated 31.07.2014 (Test report)
- Additional documentation material used for these test reports.

Sincerely,

Kim Sig Andersen

Consultant
Biomass and Biorefinery
Energy and Climate
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Bioraffinering\ELAB\Drift\Brændeovne\Bedømmelser\2014\Jydepejsen\Bedømmelse af
Omega\Bedømmelse af Omega UK.docx



Jydepejsen A/S
Att.: Mads Trolle Westermann
Ahornsvinget 3-7, Nr. Felding
DK-7500 Holstebro

24. July 2015
KMSA

Assessment of combustion properties of Omega High, Omega Chef and Omega Core concerning EN 13240, NS 3058/3059 and the Clean Air Act (Smoke Control Area exemption) approval.

Jydepejsen A/S wishes three more variants; Omega High, Omega Chef and Omega Core assessed based on the previously tested stove Sirius.

Sirius was initially tested in 2013 under ELAB no. 1961.

- 300-ELAB-1961-NS, type test to NS3058/59, the Norwegian particle emission test.
- 300-ELAB-1961-EN, type test to EN13240 - room heaters fired by solid fuel.
- 300-ELAB-1961-AEA, type test to the Clean Air Act for Smoke Control Area exemption.

The new stoves Omega High, Omega Chef and Omega Core have identical combustion chambers as well as identical channels supplying air to the combustion chamber compared with the tested stove Sirius.

The only significant difference in the design of the Omega High compared to the design of Sirius is that Omega High is higher in the upper convection compartment, Omega Chef is similar but utilizes the higher compartment to a baking section and Omega Core is also similar but utilizes the higher compartment to store heat in a stone placed around the flue. Common changes for the three variants are that they have a flue gas channel located closer to the back of the stove and a rectangular bottom grate, both that will affect the temperature impact of the flue gas in Omega's surroundings.

It is estimated that the above variant has a rated output and a particulate emission, identical to the tested stove Sirius. It is estimated simultaneously that Omega with a modified flue ways compared to Sirius cannot have the same distances to combustible thus forcing a separate safety test.

Jydepejsen A/S has supplied the following documentation for this assessment:

- Drawing of Omega High dated 03-06-2015
- Drawing of Omega Chef dated 03-06-2015
- Drawing of Omega Core dated 20-07-2015

The documentation material is provided as separate digitally signed .pdf document.



Test reports for the initial testing of the stove Sirius:

- 300-ELAB-1961-NS rev. 1, dated 14.11.2014 (Test report)
- 300-ELAB-1961-AEA, dated 31.01.2014 (Test report)
- 300-ELAB-1961-EN rev. 2, dated 31.07.2014 (Test report)
- Additional documentation material used for these test reports.

Best regards

Danish Technological Institute

Biomass and Bio refinery, Stoves & Boiler test lab

Kim Sig Andersen
Consultant



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TEST REPORT

Date: 2014.07.31 Report No.: 300-ELAB-1961-EN rev. 2 Page 1 of 9

Initials: KMSA/REHV/LSHA Order No.: 524089 No. of appendices: 3

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Ordered by: Contact person: Jens Skov
Company: Jydepejsen A/S
Address: Ahornsvinget 3
Postcode/town: 7500 Holstebro Country: Denmark
Tel.: +45 9610 1200 Email: js@jydepejsen.dk

Product: Solid fuel stove Sirius Test fuel: Wood
Manufacturer: JP Production s.r.o.
Address: Pri rybniku 1862/15
Postcode/town 091 01 Stropkov Country: Slovakia
Manufacturer: Kipech Production Hotel s.r.o.
Address: Volgogradska 13B
Postcode/town 080 01 Prešov Country: Slovakia

Deadlines: Date of receipt: 2013.04.22
Date of testing: 2013.05.14- 2013.05.16

Procedure: Testing of a solid fuel stove in accordance with DS/EN 13240:2003 and DS/EN 13240/A2:2004. Emission measurements in accordance with DS/CEN/TS 15883. The uncertainty of the measurements meets the requirements of DS/EN 13240 paragraph A3 and DIN Plus requirement.


Result: The stove meets the requirements of EN 13240 and DIN plus with regard to nominal testing.

Remarks: See paragraph 2.

Terms:

Accredited testing was carried out in compliance with the current guidelines laid down by DANAK (Danish Laboratory Accreditation Scheme), cf. www.danak.dk, and in compliance with Danish Technological Institute's General Terms and Conditions Regarding Commissioned Work Accepted by Danish Technological Institute, February 2013. The test results apply to the tested products only. This test report may be reproduced in extract only if the Laboratory has approved the extract in writing. Danish Technological Institute is Notified Body with identification number 1235 and DIN Certco test laboratory, PL 168.

Place: Danish Technological Institute, Energy Laboratory

**Signature/
Contact:** 
Kim Sig Andersen
Consultant



5. Test results

5.1. Nominal test in accordance with EN 13240 A.4.7 with wood as test fuel

Parameter	Value			Requirement	Unit
	1 st charge	2 nd charge	3 rd charge		
No. of wood logs per charge	3	3	3	-	Pcs.
Weight per charge	2.17	2.19	2.17	-	kg
Fuel moisture (wet matter)	15	15	15	16 ± 4	%
Lower calorific value	15.2	15.2	15.2	-	MJ/kg
Test duration	0.88	0.96	0.86	Min. 0.75h (in one charge)	h
Fuel consumption per hour	2.48	2.28	2.53	-	kg/h
Mean ambient temperature	30	31	30	-	°C
Flue gas temperature ¹⁾	303	295	287	-	°C
CO ₂ , mean value	11.5	10.7	10.9	-	%
CO, mean value	0.17	0.13	0.13	-	%
THC, mean value	315	153	248	-	ppm
NO _x , mean value	45	48	50	-	ppm
Dust at actual O ₂	29	33	18	-	mg/m ³ _n
Flue draught, mean value	12	12	12	12 ± 2	Pa

1. At 20 °C ambient temperature.

Mean values calculated based on 2 nd and 3 rd charge			
Flue gas temperature ¹⁾	291	-	°C
Flue gas mass flow	6.4	-	g/sec.
Efficiency	79.1	=50	%
Nominal heat output, ambient (measured)	8.0	-	kW
CO ₂ , mean value	10.8	-	%
CO at 13 % O ₂	0.0904	=1.0	%
OGC at 13 % O ₂ (carbon equivalents)	84	-	mg/m ³ _n
NO _x at 13 % O ₂ (NO ₂ equivalents)	70	-	mg/m ³ _n
Dust at 13 % O ₂	15	-	mg/m ³ _n

1. At 20 °C ambient temperature.

Declared by the manufacturer			
Nominal output stated	7	7 - 8 ¹⁾	kW
Refuelling interval p. charge at the stated output	62	Min. 45	minutes

1. The stated output must be less than or equal to the measured output - however maximum 15% under the measured output