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# Test report no. H-A 1240-05/16

## supplementary to test report no. H-A 1240-04/16 dated 2016-06-10

| | |
|---|---|
| Test laboratory | TÜV SÜD Industrie Service GmbH<br>Feuerungs- und Wärmetechnik<br>Prüfbereich Wärmetechnik |
| Subject of test | Heating boiler for solid fuels |
| Type: | LogWIN Premium T or LWP T |
| Sizes/ Models: | LogWIN Premium 180T or LWP 180T<br>LogWIN Premium 185T or LWP 185T<br>LogWIN Premium 250T or LWP 250T<br>LogWIN Premium 255T or LWP 255T<br>LogWIN Premium 300T or LWP 300T<br>LogWIN Premium 305T or LWP 305T<br>LogWIN Premium 360T or LWP 360T<br>LogWIN Premium 365T or LWP 365T<br>LogWIN Premium 500T or LWP 500T<br>LogWIN Premium 505T or LWP 505T |
| Fuel: | Log wood A |
| Customer | Windhager Zentralheizung Technik GmbH<br>Anton-Windhager-Strasse 20<br>5201 SEEKIRCHEN, ÖSTEREICH |
| Basis of test | EN 303-5:2012 |
| Period of test | Oktober 2016 |

Date: 2016-10-20

Our reference:
IS-TAF-MUC/td

Report No. H-A 1240-05/16
Order no. 2625563

Document:
HA12400516_Erg_LogWin-Premium-T_eng.doc



This document includes 2 pagesn and 1 enclosure



The test results refer exclusively to the units under test.

This test report is also issued in a German version. In any case of doubts the German version is binding.
In this test report a comma is used as a decimal separator.

DAkkS Deutsche Akkreditierungsstelle D-PL-14153-04-00

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**Designation of interpolated values of not on performance requirements tested intermediate sizes LogWIN Premium 185T (LWP 185T), LogWIN Premium 250T (LWP 250T), LogWIN Premium 255T (LWP 255T), LogWIN Premium 300T (LWP 300T), LogWIN Premium 360T (LWP 360T), LogWIN Premium 365T (LWP 365T) and LogWIN Premium 505T (LWP 505T)**

The heating boilers LogWIN Premium 185T (LWP 185T), LogWIN Premium 250T (LWP 250T), LogWIN Premium 255T (LWP 255T), LogWIN Premium 300T (LWP 300T), LogWIN Premium 360T (LWP 360T), LogWIN Premium 365T (LWP 365T) and LogWIN Premium 505T (LWP 505T) are not on boiler performance tested intermediate sizes according to EN 303-5, clause 5.1.4. The manufacturer determinded interpolated values on efficiency and emissions which are documented in enclosure A of this test report together with the values of the tested heating boilers.

A test on plausiblity on the interpolated values was carried out on the basis of the measured values as tested and documented in report no. H-A 1240-04/16 dated 2016-06-10. The test on plausiblity on the interpolated values by the manufacturer shows a positive result.

According to the Summarised Validation the heating boiler range including the different models fulfils the requirements of EN 303-5, clauses 4.1, 4.2, 4.3.1 to 4.3.8, 4.3.9.2, 4.4, 5.4, 5.16.1, 7.2, 8.2 and 8.3.

Feuerungs- und Wärmetechnik
Prüfbereich Wärmetechnik

i. A.

Johannes Steiglechner
Leiter
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The expert

Thomas Dambor

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## Heating boiler range, type: LogWIN Premium T or LWP T

| Heating boiler | Fuel[1] | Nominal Heat output | Necessary flue gas draught | Flue gas temperature | Boiler class | Efficiency | Emission values[2] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | η | CO | $NO_X$ | $C_XH_Y$ | Dust |
| **Models/Sizes[5]** | | kW | Pa | °C | | % | mg/m³ | mg/m³ | mg/m³ | mg/m³ |
| **180** | A | 18,0 | 10 | 105 | 5 | 91,5 | 271 | 126 | 7 | 30 |
| **185** [3] | | 13,4 | | 97 | | 91,2 | 601 | 130 | 14 | 19 |
| **250** [3] | A | 25,0 | 10 | 126 | 5 | 91,8 | 176 | 164 | 5 | 25 |
| **255** [3] | | 13,4 | | 97 | | 91,2 | 601 | 130 | 14 | 19 |
| **300** | A | 30,0 | 15 | 143 | 5 | 92,0 | 96 | 196 | 4 | 20 |
| **305** [3] | | 13,4 | | 97 | | 91,2 | 601 | 130 | 14 | 19 |
| **360** | A | 36,0 | 20 | 151 | 5 | 91,5 | 104 | 192 | 4 | 21 |
| **365** [3] | | 23,7 | | 109 | | 91,6 | 256 | 161 | 4 | 27 |
| **500** | A | 49,8 | 20 | 175 | 5 | 90,1 | 130 | 179 | 2 | 24 |
| **505**[3] | | 23,7 | | 109 | | 91,6 | 256 | 161 | 4 | 27 |

| Heating boiler | Nominal Heat output | Emission values[4] | | | | |
|---|---|---|---|---|---|---|
| | | CO | $NO_X$ | OGC | Staub | Particles[6] (PPBT) |
| **Models/Sizes[5]** | kW | mg/m³ | mg/m³ | mg/m³ | mg/m³ | mg/m³ |
| **180** | 18,0 | 197 | 91 | 5 | 22 | 24 |
| **185** [3] | 13,4 | 437 | 95 | 10 | 13 | 17 |
| **250** [3] | 25,0 | 128 | 119 | 4 | 18 | 20 |
| **255** [3] | 13,4 | 437 | 95 | 10 | 13 | 17 |
| **300** | 30,0 | 70 | 143 | 3 | 14 | 15 |
| **305** [3] | 13,4 | 437 | 95 | 10 | 13 | 17 |
| **360** | 36,0 | 77 | 140 | 3 | 15 | 16 |
| **365** [3] | 23,7 | 186 | 117 | 3 | 20 | 21 |
| **500** | 49,8 | 95 | 130 | 1 | 18 | 18 |
| **505**[3] | 23,7 | 186 | 117 | 3 | 20 | 21 |

1) A: Log wood B1: Chipped wood (water content 15 to 35 %) C1: Compressed wood Pellets (6 mmØ) D: Sawdust

2) related to 10 % $O_2$ in flue gas

3) not tested intermediate size, data given by manufacturer

4) related to 13 % $O_2$ in flue gas

5) LogWIN Premium ..0T (modulating)
LogWIN Premium ..5T (fix at set heat output)

6) CO or particels (mg/m³) = dust (mg/m³) + 0,42*OGC (mg/m³) at 13% O2-Content in flue gas according to *DECRETO 28 dicembre 2012 - "Incentivazione della produzione di energia termica da fonti rinnovabili ed interventi di efficienza energetica di piccole dimensioni"*, table 11