

Report on the test on a pellet burner according to UNI EN 15270

Lab	AMRA - Fine and Utrafine Particle Lab at UNINA-DICMAPI
Burner type	B-Home
Manufacturer	ELMEC Group s.r.l. Loc. Ca' d'Oro 36020 Asigliano Veneto (VI) – Italy
Test object	Combustion parameters according to UNI EN 15270
Caldaia	Hot water/steam reverse flame boiler
Fuel	Wood pellet

Summary of the test results

Burner	B-Home	B-Home
Fuel	wood pellets	wood pellets
Fuel throughput, kg/h	3.1	5.0
Heat input, kW	16	25
CO₂ emission, %	8.00	10.00
O₂ emission, %	12.00	11.50
CO emission, %	0.05	0.05
THC emission, ppm	100	52
NO_x emission, ppm	20	50
PM₁₀, mg/m³	42	107
Ash, g/kg fuel	19.3	28.0
Flue gas temperature. °C	140	160
CO emission (10% O₂), mg/Nm³	684	720
THC emission (10% O₂) - CH₄ equivalent, mg/Nm³	65	32
NO_x emission (10% O₂), NO₂ equivalent, mg/Nm³	50	118
PM₁₀ (10% O₂), mg/Nm³	48	104

Napoli 3 Settembre 2013

sede legale
amra s.c.a.r.l.

11 nuova agnana, 80125 napoli - italia
ph. + 39 081 7685125 - fax + 39 081 7685144
www.amracenter.com - info@amracenter.com
c.f./p.iva 05155871212 - r.e.a. 736687
capitale sociale: 9.000.000,00 i.v.

sede secondaria
amra / cima filippo vinale

via petrile, palazzo della regione campania
83054 sant angelo dei lombardi (av) - italia
ph. + 39 0827 23753 - fax + 39 0827 223733
http://cima.amracenter.com
cima@amracenter.com

sede ecuador
amra

calle mariscal lamar y jose astudillo,
ed. alameda 1, 6- e ec 0901,
cuenca, ecuador - ruc 0190363376001
movil 00593 (0) 83209793
amraecuador@amracenter.com



Report on the test on a pellet burner according to UNI EN 15270

Lab	AMRA - Fine and Utrafine Particle Lab at UNINA-DICMAPI
Burner type	B-Half
Manufacturer	ELMEC Group s.r.l. Loc. Ca' d'Oro 36020 Asigliano Veneto (VI) – Italy
Test object	Combustion parameters according to UNI EN 15270
Caldaia	Hot water/steam reverse flame boiler
Fuel	Wood pellet

Summary of the test results

Burner	B-Half	B-Half
Fuel	wood pellets	wood pellets
Fuel throughput, kg/h	7.5	9.7
Heat input, kW	38	50
CO₂ emission, %	7.00	7.00
O₂ emission, %	12.50	13.00
CO emission, %	0.01	0.03
THC emission, ppm	75	65
NO_x emission, ppm	20	28
PM₁₀, mg/m³	50	60
Ash, g/kg fuel	13.5	23
Flue gas temperature. °C	205	226
CO emission (10% O₂), mg/Nm³	161	462
THC emission (10% O₂) - CH₄ equivalent, mg/Nm³	52	48
NO_x emission (10% O₂), NO₂ equivalent, mg/Nm³	53	77
PM₁₀ (10% O₂), mg/Nm³	65	89

Napoli 3 Settembre 2013

sede legale
amra s.c.a.r.l.

11 nuova agnana, 80125 napoli - italia
ph. + 39 081 7685125 - fax +39 081 7685144
www.amracenter.com - info@amracenter.com
c.f./p.iva 05155871212 - r.e.a. 736687
capitale sociale: 9.000.000,00 i.v.

sede secondaria
amra / cima filippo vinale

via petrile, palazzo della regione campania
83054 sant angelo dei lombardi (av) - italia
ph. + 39 0827 23753 - fax + 39 0827 223733
http://cima.amracenter.com
cima@amracenter.com

sede ecuador
amra

calle mariscal lamar y jose astudillo,
ed. alameda 1, 6- e ec 0901,
cuenca, ecuador - ruc 0190363376001
movil 00593 (0) 83209793
amraecuador@amracenter.com



Report on the test on a pellet burner according to UNI EN 15270

Lab	AMRA - Fine and Utrafine Particle Lab at UNINA-DICMAPI
Burner type	B-Half
Manufacturer	ELMEC Group s.r.l. Loc. Ca' d'Oro 36020 Asigliano Veneto (VI) – Italy
Test object	Combustion parameters according to UNI EN 15270
Caldaia	Hot water/steam reverse flame boiler
Fuel	Olive pellet

Summary of the test results

Burner	B-Half
Fuel	olive pellet
Fuel throughput, kg/h	9.3
Heat input, kW	50
CO₂ emission, %	8.80
O₂ emission, %	13.00
CO emission, %	0.14
THC emission, ppm	116
NO_x emission, ppm	70
PM₁₀, mg/m³	165
Ash, g/kg fuel	103
Flue gas temperature. °C	215
CO emission (10% O₂), mg/Nm³	2396
THC emission (10% O₂) - CH₄ equivalent, mg/Nm³	85
NO_x emission (10% O₂), NO₂ equivalent, mg/Nm³	197
PM₁₀ (10% O₂), mg/Nm³	242

Napoli 3 Settembre 2013

sede legale
amra s.c.a.r.l.

11 nuova agnana, 80125 napoli - italia
ph. + 39 081 7685125 - fax +39 081 7685144
www.amracenter.com - info@amracenter.com
c.f./p.iva 05155871212 - r.e.a. 736687
capitale sociale: 9.000.000,00 i.v.

sede secondaria
amra / cima filippo vinale

via petrile, palazzo della regione campania
83054 sant angelo dei lombardi (av) - italia
ph. + 39 0827 23753 - fax + 39 0827 223733
http://cima.amracenter.com
cima@amracenter.com

sede ecuador
amra

calle mariscal lamar y jose astudillo,
ed. alameda 1, 6- e ec 0901,
cuenca, ecuador - ruc 0190363376001
movil 00593 (0) 83209793
amraecuador@amracenter.com

