



TESTING OF SOLID FUEL BURNING APPLIANCES

ACCREDITED TESTING FOR EUROPE AND THE US



**DANISH
TECHNOLOGICAL
INSTITUTE**

Danish Technological Institute - research & technology

Danish Technological Institute is a leading research and technology Institute. We currently employ 1074 specialists and we help in excess of 12.000 clients a year – representing 67 different countries.

We pride ourselves of being a multi-disciplinary Institute, which also means that we often look at your challenge in an innovative manner – tapping into different specialties in order to find the best-suited solution for you.

We are experts in production, materials, life science, business, energy, agro technology, meat research and more. We have 80 different laboratories.



Her Majesty Queen Margrethe II of Denmark
is patroness of the Danish Technological Institute.



1.124 million Dkk revenue



364 million R&D activities



1.000+ specialists



446 R&D projects



12.000+ clients



80+ laboratories



67 countries



17.000+ course participants



“ The practical knowledge and advice that we have gained at DTI has been essential for our development of stoves with proper design elements and combustion.

- Luke Smith, Head of Development, Hunter Stoves



Laboratory for Solid Fuel Burning Appliances

Welcome to Denmark's leading laboratory in measuring and logging performance and emissions for solid fuel burning appliances. Since 1932 we have been testing wood stoves and since 1980 also biomass boilers. Today, we perform accredited testing and is also Notified Body.

Tests for the entire European and US market

Our laboratory is a one stop shop. We provide type testing for all applicable standards in Europe. For wood stoves, we are also accredited for the US-EPA.

Our laboratory has following test stands:

- Test stands for wood stoves (for the EN standard, Norwegian particle test and US-EPA)
- Test stand for Norwegian firewall test (safety test)
- Test stands for biomass boilers up to 300 kW
- Mobile test stand for field testing 300-1000 kW

Dedicated time and counselling

Our promise to you as a customer is that we dedicate our time to you in a testing situation. This means that you receive more than just test results but also explanations to possible problems with eg. shortage of air and thereby a deeper knowledge of your stove or boiler

Experienced staff

Our staff consist of highly skilled test engineers with between 5-25 years of testing experience and minimum bachelor degree. They have had many technologies between their hands and are experts in their field.

Counselling on standards and legislation

Apart from testing, we also advise our customers on standards and legislation across Europe. We participate in standardization committees and advise Danish and Norwegian energy authorities. Consequently, our customers always receive up to date knowledge.



GET COUNSELLING FREE OF CHARGE

As our customer you receive counselling free of charge on legislation, Ecodesign, Energy Label, CE-mark, standards and market control.



PARTICIPATE DURING TESTING

Customers are welcome to participate in the entire testing procedure thereby gaining knowledge from our experienced staff.



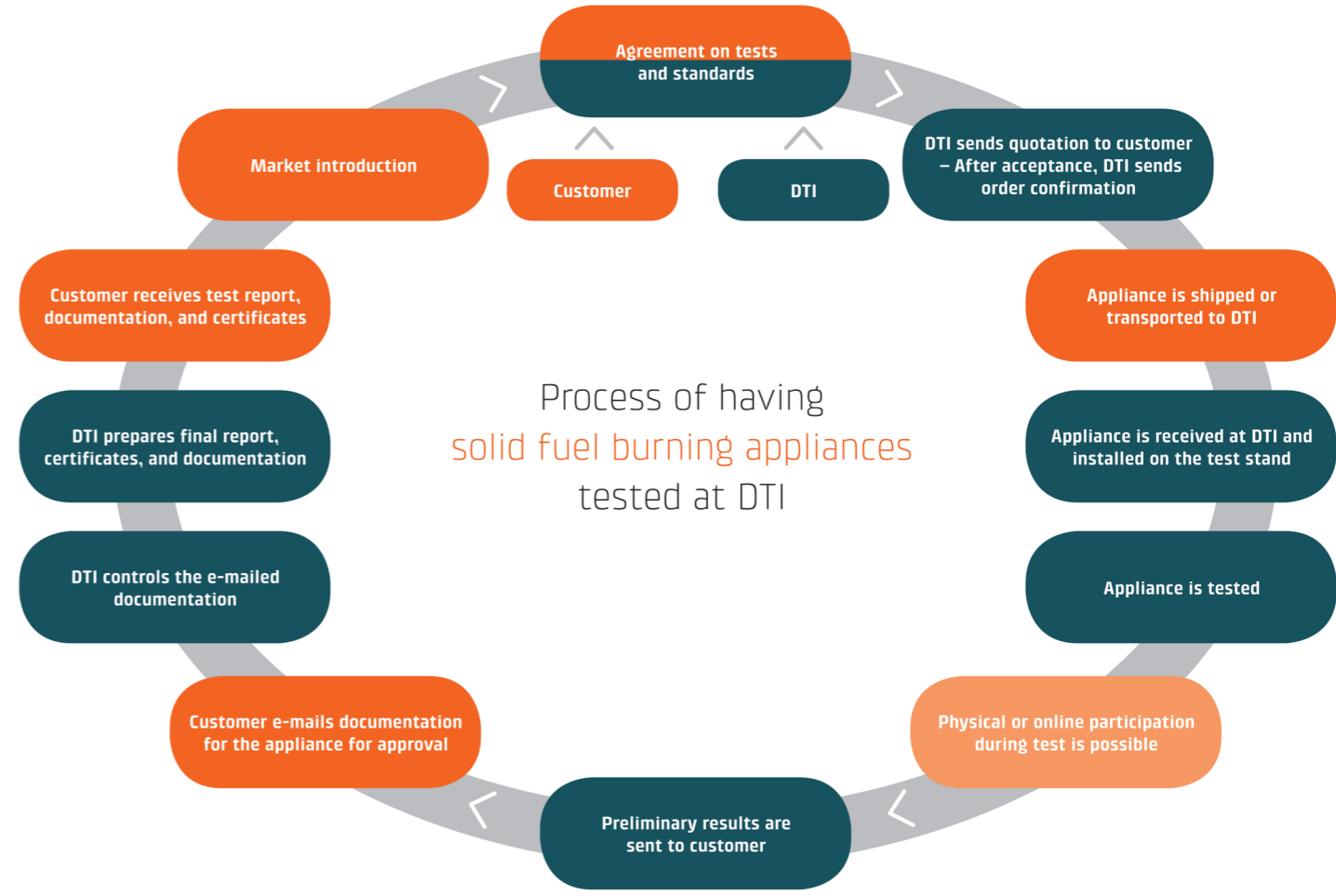
GAIN KNOWLEDGE

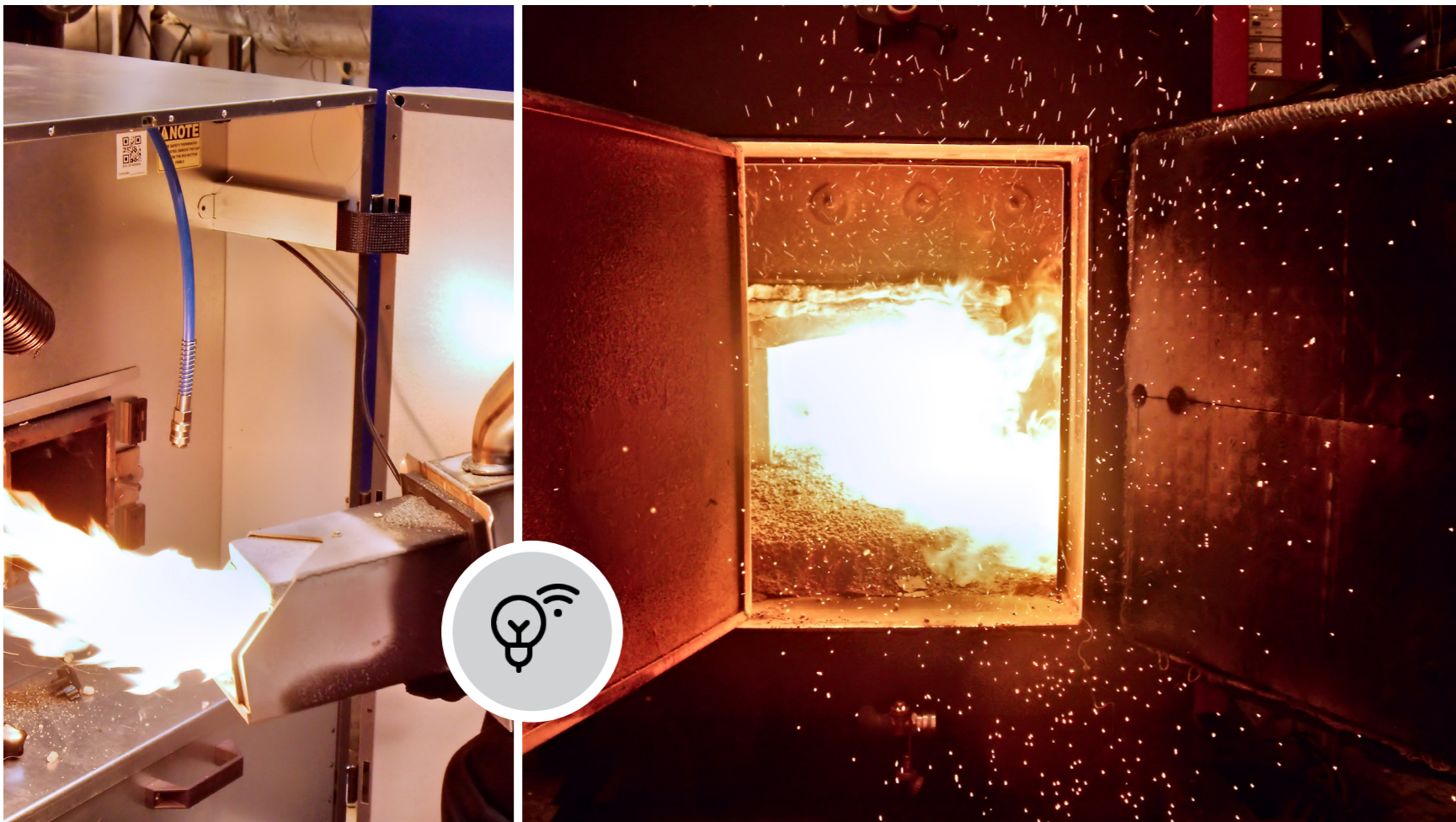
In a testing situation we provide explanations to possible problems and thereby you gain a better understanding of your stove or boiler.



RECEIVE TEST RESULTS QUICKLY

We deliver your tests results quickly so that you can move forward with your marketing proces.





Take a short cut to innovation

We offer counselling and assistance in developing your wood stove, fire-box or biomass boiler. If you're in an innovation process but would like to take a shortcut to an improved or new product – we are able to counsel you through this process.

Innovation on the basis of research

Our counselling is based upon the latest available research. Through our research work, we have extensive knowledge on the combustion process and the possibilities for improving the performance of wood stoves or biomass boilers.

An innovation proces begins at any level of your innovation proces. We are able to review and perform counselling based on a physical model or drawings. It is also possible to perform test firings and have your product evaluated and innovations considered on the basis of a test output.

Testing of wood burning stoves, pellet stoves and inset appliances

DTI is your all-inclusive partner when it comes to the necessary international and national tests of stoves and inset appliances.

Tests for entire European market and the US

Our laboratory meets standards throughout Europe (incl. Flamme Verte) and also the US-EPA measurement needed for entering the US market.

We offer type testing and quality assurance of wood stoves, inset appliances, pellet stoves and slow heat release appliances.

For CE-marking we offer following tests:

- Wood stoves according to EN13240
- Inset appliances according to EN13229
- Pellet stoves according to EN14785
- Masonry stoves according to EN15250

Follow testing online or personally in the laboratory.



Your contact

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Read more: www.dti.dk/37274



“ We receive incredibly useful feedback and advice from DTI. This means a lot to us and our business.

- Villy Jacobsen, R&D Manager, RAIS



Tests and certificates

-  Nordic countries: Nordic Swan label
-  EU: Ecodesign Energy label
-  Denmark: BEK 49
-  France: Flamme Verte
-  Italy: Conto Termico, Aria Politu
-  Germany: 1. BImSchV, DINplus, DIBt for roomsealed appliances
-  England: DEFRA Smoke Control Area
-  Austria: Art 15a-B-VG
-  Switzerland: VKF
-  USA: US-EPA, safety test

Testing for the US market

DTI is approved and certified to perform US-EPA testing for the US market as only one out of three laboratories in Europe.

We offer following tests for the US market

- Pre-testing to clarify US-EPA readiness
- Entire testing for US-EPA
- Safety testing

Save time and travel expenses – perform testing in Denmark

Save travel expenses to a laboratory in the US and perform testing in Denmark. If you have any doubts whether your stove will pass EPA testing? We offer pre-testing. If your wood stove performs according to the norm, we go straight to EPA testing.



“ During initial testing we gained valuable feedback on how to proceed and what small changes to make on our stove for the US market.

- Christoff Anneken, Spartherm



“ It is very positive that we can be present in the lab during testing. That way, we can set operating parameters correctly before testing.

- Mikael Jeppson, constructor, Värmebaronen, Sweden

Testing of biomass boilers and pellet burners



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The Laboratory for Solid Fuel Burning Appliances offers accredited testing according to EN 303-5, accredited analysis of fuel, assistance in adjusting/preparing the boiler before testing and assistance in finalizing the needed documentation. The tests are as follows:

- Type test of biomass boiler up to 500 kW in accordance with EN 303-5:2012
- Type test of pellet burners up to 70 kW in accordance with EN 15270:2008
- Field test of biomass boilers from 200 – 1000 kW (with mobile laboratory) in accordance with EN 303-5:2012

Follow the test

It is possible to follow the test in our lab or online. During pre-testing, settings can be re-adjusted for the dust measurement.

Testing of biofuels in Biomass Laboratory

We are also able to test fuels in our biomass laboratory. We offer accredited testing of wood pellets, straw, wood chips and other biomass. With the test results in your hand you have an unbiased documentation for your product quality.

Our biomass laboratory is accredited (DANAK No 300) according to ISO 17025 for the unbiased quality control of biomass.

We offer following tests and services:

- Testing of moisture content, ash content, mechanical durability, dust, bulk density and calorific value
- Determination of particle size distribution of disintegrated pellets
- Slagging test
- Chemical analysis
- Single pelletizing (from 100 g.) test of friction, pellet strength and burn value
- Pelletizing with addition of additives



Your contact

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“ We have great confidence in the biolab and their tests. Also, we receive useful advice on new raw material.

- Thomas Trebbien, Sales Manager, Blue Point Pelles

Follow us



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FIND US

Teknologiparken, Kongsvang Allé 29
DK - 8000 Aarhus C

NEWSLETTERS

Newsletter on wood stoves: www.dti.dk/38497
Newsletter on biomass boilers: www.dti.dk/38696



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