



Database for the verification of energy consumption of commercial catering equipment

Basic principles and requirements for registration

(Date: August 2018)

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1 Foreword

The database “HKI CERT commercial catering equipment” provides information on the energy consumption of commercial kitchen appliances.

This document defines basic principles and requirements which are necessary for entry of an appliance in the database.

The database, including an optional label, serves as a platform for operators, merchants, planners and other interested parties to acquire information about the energy consumption of commercial kitchen appliances.

As an independent, neutral and competent body, the HKI Industrial Association for House, Heating and Kitchen Technology thoroughly analyzes and evaluates the specifications of products based on inspection records.

All benchmark tests are updated on a daily basis and can be accessed via the homepage of “HKI CERT commercial catering equipment” at <http://grosskuechen.cert.hki-online.de>

Expanding the database through the incorporation of further information can be effected at any time.

The objective of this database is to contribute to the security of high-quality, energy-efficient commercial kitchen appliances.

The database is publicly available and HKI members as well as non-members may register appliances.

2 Scope

The database “HKI CERT commercial catering equipment” applies to equipment intended for use in commercial kitchens and serves as an access point for information to other food-processing companies. It does not apply to household appliances.

Energy consumption is measured based on a predefined set of standards and uniform specifications for the methodology of measurements on energy consumption of commercial kitchen appliances.

The manufacturing company members of HKI Industrial Association for House, Heating and Kitchen Technology disclose ascertained energy consumption values and appliance data publicly and describe the quality of their products.

The results gathered throughout the measurement process will enable customers, prior to the acquisition of a new appliance, to choose the commercial kitchen appliance which is the most energy efficient for their specific business requirements.

3 Test regulations

National standards applicable to the respective product serve as basis for inspection.

DIN 18872-3: *Equipment for commercial kitchens - Refrigeration technology equipment – Part 3: Refrigerated display cases for food distribution; requirements and testing*:2006-06

DIN 18873-1 *Methods for measuring of the energy use from equipment for commercial kitchens – Part 1: Convection steamers*:2012-12

DIN 18873-2 *Methods for measuring of the energy use from equipment for commercial kitchens – Part 2: Commercial coffee machines*:2016-02

DIN 18873-3 *Methods for measuring of the energy use from equipment for commercial kitchens – Part 3: Deep fat fryers*:2018-02

DIN 18873-4 *Methods for measuring of the energy use from equipment for commercial kitchens – Part 4: Convection ovens*:2013-04

DIN 18873-5 *Methods for measuring of the energy use from equipment for commercial kitchens – Part 5: Tilting frying pans and stationary frying pans*:2016-02

DIN 18873-6 *Methods for measuring of the energy use from equipment for commercial kitchens – Part 6: Tilting pressure braising pans and stationary pressure braising pans*:2016-02

DIN 18873-7 *Methods for measuring of the energy use from equipment for commercial kitchens – Part 7: Multiple deck ovens*:2012-07

DIN 18873-8 *Methods for measuring of the energy use from equipment for commercial kitchens – Part 8: Regenerating systems*:2013-04

DIN 18873-9 *Methods for measuring of the energy use from equipment for commercial kitchens – Part 9: Cooking zones*:2012-12

DIN 18873-10 *Methods for measuring of the energy use from equipment for commercial kitchens – Part 10: Ice machines*:2012-12

DIN 18873-11 *Methods for measuring of the energy use from equipment for commercial kitchens – Part 11: Beverage cooler*:2013-04

DIN 18873-12 *Methods for measuring of the energy use from equipment for commercial kitchens – Part 12: Ovens*:2013-04

DIN 18873-13 *Methods for measuring of the energy use from equipment for commercial kitchens – Part 13: Microwave combination oven*:2013-05

DIN 18873-14 *Methods for measuring of the energy use from equipment for commercial kitchens – Part 14: Point of use water dispenser for cooling and carbon dioxide enrichment*:2014-09

DIN 18873-15 *Methods for measuring the energy consumption of commercial kitchen appliances - Part 15: Double jacketed boiling and quick boiling pans*: 2016:02

DIN 18873-16 *Methods for measuring the energy consumption of commercial kitchen appliances - Part 16: Kitchen Machinery*:2016-02

DIN 18873-17 *Methods for measuring the energy consumption of commercial kitchen appliances - Part 17: Noodle cookers:2016-09*

DIN 18873-18 *Methods for measuring the energy consumption of commercial kitchen appliances - Part 18: Wafflebaker: 2016-09*

DIN 18873-19 *Methods for measuring the energy consumption of commercial kitchen appliances - Part 19: Frying and grilling appliances:2016-09*

DIN 18873-20 *Methods for measuring the energy consumption of commercial kitchen appliances - Part 20: Crepe and Poffertjes-Baker:2016-09*

4 Product requirements

Energy consumption as well as other optional product requirements is assessed using the national standards under point 3.

4.1 Refrigerated Display Cases for Food Distribution

Standards are set for the methodology of measurements on energy-consumption of refrigerated display cases for food distribution for the purpose of determining energy consumption.

According to DIN 18872-3 *Equipment For Commercial Kitchens - Refrigeration Technology Equipment – Part 3: Refrigerated Display Cases For Food Distribution - Requirements And Testing:2006-06*, the following product requirements for refrigerated display cases for food distribution are shown by way of measurement data:

DIN 18872-3:2006-06 section	Product requirement	Unit
7	Energy consumption	kWh

4.2 Convection Steamers

Standards are set for the methodology of measurements on energy-consumption of commercial convection steamers for the purpose of determining energy consumption and water-consumption.

According to DIN 18873-1 *Methods for measuring of the energy use from equipment for commercial kitchens - Part 1: Convection steamers:2012-12*, the following product requirements for convection steamers are shown by way of measurement data:

DIN 18873-1:2012-12 section	Product requirement	Unit
6.2	Time needed to heat up to 165 °C in convection mode	min
6.3	Operating of empty appliances	kWh
7	Energy consumption under load conditions in convection mode	kWh
7	Water consumption under load conditions in convection mode	l
7	Quantity of used stones for measurement under load in convection mode	amount

8	Energy consumption under load in steam mode	kWh
8	Water consumption under load in steam mode	l
8	Quantity of used stones for measurement under load in steam mode	amount
9	Energy consumption under load in combi mode	kWh
9	Water consumption under load in combi mode	l
9	Quantity of used stones for measurement under load in combi mode	amount
9.3.1.2	Energy efficiency of gas heated appliances in combi mode	%
9.3.2.2	Energy efficiency of electrically heated appliances in combi mode	%
Amendment A (informative)	Latent heat output	kWh

NOTE

For gas heated appliances: the total energy consumption is the sum of gas and electricity consumption.

4.3 Commercial coffee machines

Standards are set for the methodology of measurements on energy-consumption of commercial coffee machines for the purpose of determining energy loss.

According to DIN 18873-2: *Methods for measuring the energy consumption of commercial kitchen appliances - Part 2: Commercial coffee machines*:2016-02, the following product requirements for commercial coffee machines are shown by way of measurement data:

DIN 18873-2:2016-02 section	Product requirement	Unit
5	Energy loss of hot beverage makers per day	kWh
5	Measurements of the energy loss of hot beverage makers per day by optional energy-saving operating methods	kWh
6	Output rate Espresso	Cups/hour
6	Output rate Cappuccino	Cups/hour
6	Output rate Café Creme	Cups/hour
6	Output rate hot water	Cups/hour
6	Output rate filter coffee	Cups/hour
7	Energy loss of milk refrigeration systems per day	W
7	Energy loss for milk refrigeration systems per day and per liter milk container capacity	W

NOTE

Please see manufacturer's documentation for information on complete output capacities.

4.4 Deep fat fryers

Standards are set for the methodology of measurements on energy-consumption of deep fat fryers for the purpose of determining energy consumption.

According to *DIN 18873-3: Methods for measuring of the energy use from equipment for commercial kitchens – Part 3: Deep Fat Fryers:2018-02* the following product requirements for deep fat fryers are shown by way of measurement data:

DIN 18873-3:2018-02 section	Product requirement	Unit
6.2	Energy consumption preheat cycle	kWh
6.2	Energy efficiency preheat cycle	%
7.2	Energy consumption for hot holding cycle of over 2 hours	kWh
7.2	Energy consumption for hot holding cycle of over 2 hours per kilogram of cooking oil	kWh/kg
8.3	Energy consumption deep frying cycle	kWh
8.3	Energy consumption deep frying cycle per kilogram of frozen french fries	kWh/kg
8.4.4	Production volume per hour	kg/h
9.1	Total energy use Note: The specified value includes a utilization factor for weight.	kWh
9.1	Total energy use in per kilogram deep frozen chips Note: The specified value includes a utilization factor for weight.	kWh/kg
Amendment A (informative)	Sensitive heat output	J/s (W)
Amendment B (informative)	Latent heat output	J/s (W)

4.5 Convection ovens

Standards are set for the methodology of measurements on energy-consumption of convection ovens for the purpose of determining energy consumption and water consumption.

According *DIN 18873-4: Methods for measuring of the energy use from equipment for commercial kitchens – Part 4: Convection ovens:2013-04* the following product requirements for Convection ovens are shown by way of measurement data:

DIN 18873-4:2013-04 section	Product requirement	Unit
6.2	Time needed to heat up to 180 °C	min
6.2	Energy consumption to heat up	kWh
7	Energy consumption without load conditions	kWh

8.2	Energy consumption in convection mode without steam injection	kWh
8.2	Water consumption under load with steam injection	kg
9.2	Energy consumption in convection mode with steam injection	kWh
9.2	Water consumption under load with steam injection	kg

4.6 Tilting frying pans and stationary frying pans

Standards are set for the methodology of measurements on energy-consumption of tilting frying pans and stationary frying pans for the purpose of determining energy consumption.

According *DIN 18873-5: Methods for measuring the energy consumption of commercial kitchen appliances - Part 5: Tilting frying pans and stationary frying pans*:2016-02 the following product requirements for tilting frying pans and stationary frying pans are shown by way of measurement data:

DIN 18873-5:2016-02 section	Product requirement	Unit
6.3.2	Energy consumption preheat cycle	kWh
6.3.3	Energy consumption preheat cycle per unit area	Wh/dm ²
7.3	Energy consumption for hot holding cycle of over 1 hour	kWh
7.4.1	Energy consumption for hot holding cycle of over 1 hours per unit area	Wh/dm ²
8.3	Energy consumption frying cycle	kWh
8.4.2	Energy consumption frying cycle per kilogram ground beef chilled plate(s)	kWh/kg
8.4.4	Production volume per hour	kg/h
9.3	Energy consumption of heating up of water	kWh
9.4.3	Energy consumption of heating up of water per kilogram water	kWh/kg
9.4.5	Energy efficiency of heating up of water	%
10.1	Total energy consumption Note: The specified value includes a utilization factor for weight.	kWh
10.1	Total energy consumption per kilogram of ground beef chilled plate(s) Note: The specified value includes a utilization factor for weight.	kWh/kg

4.7 Tilting pressure braising pans and stationary pressure braising pans

Standards are set for the methodology of measurements on energy-consumption of tilting pressure braising pans and stationary pressure braising pans for the purpose of determining energy consumption.

According *DIN 18873-6: Methods for measuring the energy consumption of commercial kitchen appliances - Part 6: Tilting pressure braising pans and stationary pressure braising pans:2016-02* the following product requirements for tilting pressure braising pans and stationary pressure braising pans are shown by way of measurement data:

DIN 18873-5:2016-02 Section	Product requirement	Unit
10.1	Total energy consumption frying Note: The specified value includes a utilization factor for weight.	kWh
10.1	Total energy consumption frying per kilogram of ground beef chilled plate(s) Note: The specified value includes a utilization factor for weight.	kWh/kg
DIN 18873-6:2016-02 Section	Product requirement	Unit
6.2.4.2	Total energy consumption pressure steaming cycle Note: The specified value includes a utilization factor for weight.	kWh
6.2.4.3	Total energy consumption pressure steaming cycle per kilogram potatoes Note: The specified value includes a utilization factor for weight.	kWh/kg
7.2.4.2	Total energy consumption pressure cooking cycle	kWh
7.2.4.3	Total energy consumption pressure cooking cycle per kilogram water	kWh/kg
8.1	Total energy consumption frying and pressure cooking	kWh
8.1	Total energy consumption frying and pressure cooking per kilogram food	kWh/kg

4.8 Multiple deck ovens

Standards are set for the methodology of measurements on energy-consumption of multiple deck ovens for the purpose of determining energy consumption and water consumption.

According *DIN 18873-7: Methods for measuring of the energy use from equipment for commercial kitchens – Part 7: Multiple deck ovens:2012-07* the following product requirements for multiple deck ovens are shown by way of measurement data:

DIN 18873-7:2012-07 section	Product requirement	Unit
7	Energy consumption in idle	kWh
8	Energy consumption under load without steam injection	kWh
8.1	Energy consumption under load with steam injection	kWh
8.1	Water consumption under load with steam injection	kg

4.9 Regenerating systems

Standards are set for the methodology of measurements on energy-consumption of regenerating systems for the purpose of determining energy consumption.

According *DIN 18873-8 Methods for measuring of the energy use from equipment for regenerating systems – Part 8: Regenerating systems:2013-04* the following product requirements for regenerating systems are shown by way of measurement data:

4.9.1 Regenerating systems for tray systems

4.9.1.1 Cooling with consideration of the cooked menu component

DIN 18873-8:2013-04 section	Product requirement	Unit
5.1.3	Total energy consumption	kWh
5.1.4	Energy consumption per tray	kWh

4.9.1.2 Regenerating without consideration of the cold menu component

DIN 18873-8:2013-04 section	Product requirement	Unit
5.2.3	Total energy consumption	kWh
5.2.4	Energy consumption per tray	kWh

4.9.1.3 Active cooling and regenerating with consideration of the cold menu component

DIN 18873-8:2013-04 section	Product requirement	Unit
5.3.3	Total energy consumption	kWh
5.3.4	Energy consumption per tray	kWh

4.9.2 Regenerating systems for bulk systems with radiate heat air and contact heat

4.9.2.1 Cooling

DIN 18873-8:2013-04 section	Product requirement	Unit
6.1.3	Total energy consumption	kWh
6.1.4	Energy consumption per container	kWh

4.9.2.2 Regenerating

DIN 18873-8:2013-04 section	Product requirement	Unit
6.2.3	Total energy consumption	kWh
6.2.4	Energy consumption per container	kWh

4.10 Cooking zones

Standards are set for the methodology of measurements on energy-consumption of cooking zones for the purpose of determining energy consumption.

According *DIN 18873-9 Methods for measuring of the energy use from equipment for commercial kitchens – Part 9: Cooking zones:2012-12* the following product requirements for cooking zones are shown by way of measurement data:

DIN 18873-9:2012-12 section	Product requirement	Unit
8.1	Total energy consumption per kilogram water	kWh/kg

4.11 Ice machines

Standards are set for the methodology of measurements on energy-consumption of ice machines for the purpose of determining energy consumption.

According *DIN 18873-10 Methods for measuring of the energy use from equipment for commercial kitchens – Part 10: Ice machines:2012-12* the following product requirements for ice machines are shown by way of measurement data:

4.11.1 Cyclically producing ice machines

DIN 18873-10:2012-12 section	Product requirement	Unit
5.2	Energy consumption per kilogram ice	kWh/kg
5.2	Ice temperature measured at the surface	°C
5.2	Ice loads by energy consumption	mm
5.2	Water consumption	l
5.2	Ice loads by water consumption	mm

4.11.2 Continuous producing ice machines

DIN 18873-10:2012-12 section	Product requirement	Unit
5.2	Energy consumption per kilogram ice	kWh/kg
5.2	Ice temperature measured at the surface	°C
5.2	Ice loads by energy consumption	mm
5.2	Water consumption	l
5.2	Ice loads by water consumption	mm

4.12 Beverage cooler

Standards are set for the methodology of measurements on energy-consumption of beverage cooler for the purpose of determining energy consumption.

According *DIN 18873-11 Methods for measuring of the energy use from equipment for commercial kitchens – Part 11: Beverage cooler:2013-04* the following product requirements for beverage cooler are shown by way of measurement data:

DIN 18873-11:2013-04 section	Product requirement	Unit
7	Electrical energy consumption per 24 h without beverage output	kWh
7	Maximum electric energy consumption per 24 h	kWh

4.13 Ovens

Standards are set for the methodology of measurements on energy-consumption of ovens for the purpose of determining energy consumption.

According *DIN 18873-12 Methods for measuring of the energy use from equipment for commercial kitchens – Part 12: Ovens:2013-04* the following product requirements for ovens are shown by way of measurement data:

DIN 18873-12:2013-04 section	Product requirement	Unit
9.1	Total energy consumption at convection	kWh
9.1	Total energy consumption at radiate heat	kWh

4.14 Microwave combination ovens

Standards are set for the methodology of measurements on energy-consumption of microwave combination ovens for the purpose of determining energy consumption.

According *DIN 18873-13 Methods for measuring of the energy use from equipment for commercial kitchens – Part 13: Microwave combination ovens:2013-05* the following product requirements for microwave combination ovens are shown by way of measurement data:

DIN 18873-13:2013-05 section	Product requirement	Unit
7	Total energy consumption	kWh

4.15 Point of use water dispenser for cooling and carbon dioxide enrichment

Standards are set for the methodology of measurements on energy-consumption of Point of use water dispenser for cooling and carbon dioxide enrichment for the purpose of determining energy consumption.

According *DIN 18873-14 Methods for measuring of the energy use from equipment for commercial kitchens – Part 14: Point of use water dispenser for cooling and carbon dioxide enrichment:2014-09* the following product requirements for Point of use water dispenser for cooling and carbon dioxide enrichment are shown by way of measurement data:

DIN 18873-14:2014-09 section	Product requirement	Unit
8	electrical energy without potable water consumption	kWh/day
8	maximum electrical energy under potable water consumption	kWh
8	output rate	l/min

4.16 Double jacketed boiling and quick boiling pans

Standards are set for the methodology of measurements on energy-consumption of double jacketed boiling and quick boiling pans for the purpose of determining energy consumption.

According *DIN 18873-15 Methods for measuring the energy consumption of commercial kitchen appliances - Part 15: Double jacketed boiling and quick boiling pans:2016-02* the following product requirements for double jacketed boiling and quick boiling pans are shown by way of measurement data:

DIN 18873-15:2016-02 section	Product requirement	Unit
8.1	total energy consumption	kWh
8.1	total energy consumption per kilogram water	kWh

4.17 Kitchen Machinery

Standards are set for the methodology of measurements on energy-consumption of kitchen machinery for the purpose of determining energy consumption.

According *DIN 18873-16 Methods for measuring the energy consumption of commercial kitchen appliances - Part 16: Kitchen Machinery:2016-02* the following product requirements for kitchen machinery are shown by way of measurement data:

4.17.1 Planetary mixers

DIN 18873-16:2016-02 section	Product requirement	Unit
6.3	Energy consumption per kilogram load	Wh/kg

4.17.2 Vegetable cutting machines with circulation cutting tool

DIN 18873-16:2016-02 section	Product requirement	Unit
6.3	Energy consumption per kilogram load	Wh/kg

4.17.3 Semi- or fully automatic cutting machine

DIN 18873-16:2016-02 section	Product requirement	Unit
6.3	Energy consumption	Wh

4.17.4 Manual cutting machine

DIN 18873-16:2016-02 section	Product requirement	Unit
6.3	Energy consumption	Wh

4.17.5 Band saw machines

DIN 18873-16:2016-02 section	Product requirement	Unit
6.3	Energy consumption per m ²	Wh/m ²

4.17.6 Mincers, uncooled

DIN 18873-16:2016-02 section	Product requirement	Unit
6.3	Energy consumption per kilogram load	Wh/kg

4.17.7 Mincers, cooled

DIN 18873-16:2016-02 section	Product requirement	Unit
6.3	Energy consumption per kilogram load	Wh/kg

4.17.8 Cutter

DIN 18873-16:2016-02 section	Product requirement	Unit
6.3	Energy consumption per kilogram load	Wh/kg

4.17.9 Blender

DIN 18873-16:2016-02 section	Product requirement	Unit
6.3	Energy consumption per kilogram load	Wh/kg

4.17.10 Hand-held blenders and whisks

DIN 18873-16:2016-02 section	Product requirement	Unit
6.3	Energy consumption in the load cycle	Wh

4.17.11 Beam Mixers

DIN 18873-16:2016-02 section	Product requirement	Unit
6.3	Energy consumption in the load cycle	Wh

4.17.12 Vegetable Peelers

DIN 18873-16:2016-02 section	Product requirement	Unit
6.3	Energy consumption per kilogram load	Wh/kg

4.17.13 Cheese grater

DIN 18873-16:2016-02 section	Product requirement	Unit
6.3	Energy consumption per kilogram load	Wh/kg

4.18 Noodle cookers

Standards are set for the methodology of measurements on energy-consumption of noodle cookers for the purpose of determining energy consumption.

According *DIN 18873-17 Methods for measuring the energy consumption of commercial kitchen appliances – Part 17: Noodle cookers:2016-09* the following product requirements for noodle cookers are shown by way of measurement data:

DIN 18873-17:2016-09 section	Product requirement	Unit
9.1	Total energy consumption	kWh
9.2	Total energy consumption per kilogram water	kWh/kg

4.19 Wafflebaker

Standards are set for the methodology of measurements on energy-consumption of wafflebaker for the purpose of determining energy consumption.

According *DIN 18873-18 Methods for measuring the energy consumption of commercial kitchen appliances – Part 18: Wafflebaker*: 2016-09 the following product requirements for wafflebaker are shown by way of measurement data:

DIN 18873-18:2016-09 section	Product requirement	Unit
8.1.2	Total energy consumption in the baking cycle	kWh
8.1.2	Total energy consumption per kilogram baked dough	kWh/kg

4.20 Frying and grilling appliances

Standards are set for the methodology of measurements on energy-consumption of frying and grilling appliances for the purpose of determining energy consumption.

According *DIN 18873-19 Methods for measuring the energy consumption of commercial kitchen appliances – Part 19: Frying and grilling appliance*:2016-09 the following product requirements for frying and grilling appliances are shown by way of measurement data:

4.20.1 One-sided frying method

DIN 18873-19:2016-09 section	Product requirement	Unit
8.1.1	Total energy consumption	kWh
8.1.1	Total energy consumption per kilogram frozen minced meat plate	kWh/kg

4.20.2 Double-sided frying method

DIN 18873-19:2016-09 section	Product requirement	Unit
8.1.1	Total energy consumption	kWh
8.1.1	Total energy consumption per kilogram frozen minced meat plates	kWh/kg

4.21 Crepe- and Poffertjes-Baker

Standards are set for the methodology of measurements on energy-consumption of frying and grilling appliances for the purpose of determining energy consumption.

According *DIN 18873-20 Methods for measuring the energy consumption of commercial kitchen appliances – Part 20: Crepe- and Poffertjes-Baker*:2016-09 the following product requirements for Crepe- and Poffertjes-Baker are shown by way of measurement data:

DIN 18873-20:2016-09 section	Product requirement	Unit
8.1.2	Total energy consumption in the baking cycle	kWh
8.1.2	Total energy consumption per kilogram baked dough	kWh/kg

5 Evaluation of requirements

5.1 Testing laboratory

Testing may be carried out by the following institutions:

- A manufacturing company has to have its own suitable in-house laboratory available which was accredited by a separate third party or which is certified as part of the overall certification of the company according to DIN EN ISO 9001:2008. An acceptance protocol of testing laboratories conducting energy measurements is available at the HKI Industrial Association for House, Heating and Kitchen Technology and has to be handed in at the same as documented evidence.
- An external, independent and accredited testing laboratory according to DIN EN ISO/IEC 17025, whereas the required measurements are to be carried out by an external, independent and accredited testing laboratory, specifically the resident professional staff thereof.
- An external, independent and accredited testing laboratory according to DIN EN ISO IEC 17025, whereas the required measurements are to be carried out in a suitable laboratory within the company and to be carried out by or accompanied by a professional from an external, independent and accredited testing laboratory.

The consignment of the application for admission contains the result of the tests in form of an inspection record according to the respective annex of these basic principles. If more than three sets of data are to be entered into the database, the applicant shall transmit the data in the form of a table to the HKI Industrial Association for House, Heating and Kitchen Technology. The required table in the form of a commonly used file format can be requested electronically from the HKI Industrial Association for House, Heating and Kitchen Technology.

5.2 Request for inclusion in the database and inspection record

For commercial catering equipment to be entered into the database “HKI CERT commercial catering equipment”, dependent upon the type of commercial catering equipment, a complete application for admission and an inspection record on product testing, in accordance with the latest national standards as specified in section 3 of this document, have to be handed in to the HKI Industrial Association for House, Heating and Kitchen Technology.

The following annexes and inspection records are to be handed in to the HKI Industrial Association for House, Heating and Kitchen Technology:

Annex A

For the verification of product specifications of refrigerated display cases for food distribution for entry into the HKI CERT database according to DIN 18872-3: *Equipment for commercial kitchens - Refrigeration technology equipment – Part 3: Refrigerated display cases for food distribution; requirements and testing:2006-06*

Annex B

For verification of product specifications of convection steamers for entry into the HKI CERT database according to DIN 18873-1: *Methods for measuring of the energy use from equipment for commercial kitchens – Part 1: Convection steamers:2012-12*

Annex C

For verification of product specifications of commercial coffee machines for entry into the HKI CERT database according to *DIN 18873-2: Methods for measuring of the energy use from equipment for commercial kitchens – Part 2:Commercial coffee machines:2016-02*

Annex D

For verification of product specifications of deep fat fryers for entry into the HKI CERT database according to *DIN 18873-3: Methods for measuring of the energy use from equipment for commercial kitchens – Part 3:Deep fat fryers:2018-02*

Annex E

For verification of product specifications of convection ovens for entry into the HKI CERT database according to *DIN 18873-4 Methods for measuring of the energy use from equipment for commercial kitchens – Part 4:Convection ovens:2013-04*

Annex F

For verification of product specifications of tilting frying pans and stationary frying pans for entry into the HKI CERT database according to *DIN 18873-5: Methods for measuring of the energy use from equipment for commercial kitchens – Part 5:Tilting frying pans and stationary frying pans:2016-02*

Annex G

For verification of product specifications of tilting pressure braising pans and stationary pressure braising pans for entry into the HKI CERT database according to *DIN 18873-6 Methods for measuring of the energy use from equipment for commercial kitchens – Part 6:Tilting pressure braising pans and stationary pressure braising pans:2016-02*

Annex H

For verification of product specifications of multiple deck ovens for entry into the HKI CERT database according to *DIN 18873-7 Methods for measuring of the energy use from equipment for commercial kitchens – Part 7:Multiple deck ovens:2012-07*

Annex I

For verification of product specifications of regenerating systems for entry into the HKI CERT database according to *DIN 18873-8 Methods for measuring of the energy use from equipment for commercial kitchens – Part 8:Regenerating systems:2013-04*

Annex J

For verification of product specifications of cooking zones for entry into the HKI CERT database according to *DIN 18873-9 Methods for measuring of the energy use from equipment for commercial kitchens – Part 9:Cooking zones:2012-12*

Annex K

For verification of product specifications of ice machines for entry into the HKI CERT database according to *DIN 18873-10 Methods for measuring of the energy use from equipment for commercial kitchens – Part 10:Ice machines:2012-12*

Annex L

For verification of product specifications of beverage cooler for entry into the HKI CERT database according to *DIN 18873-11 Methods for measuring of the energy use from equipment for commercial kitchens – Part 11:Beverage cooler:2013-04*

Annex M

For verification of product specifications of ovens for entry into the HKI CERT database according to *DIN 18873-12 Methods for measuring of the energy use from equipment for commercial kitchens – Part 12:Ovens:2013-04*

Annex N

For verification of product specifications of microwave combination ovens for entry into the HKI CERT database according to DIN 18873-13 *Methods for measuring of the energy use from equipment for commercial kitchens – Part 13: Microwave combination ovens:2013-05*

Annex O

For verification of product specifications of Point of use water dispenser for cooling and carbon dioxide enrichment for entry into the HKI CERT database according to DIN 18873-14 *Methods for measuring of the energy use from equipment for commercial kitchens – Part 14: Point of use water dispenser for cooling and carbon dioxide enrichment:2014-09*

Annex P

For verification of product specifications of double jacketed boiling and quick boiling pans for entry into the HKI CERT database according to DIN 18873-15 *Methods for measuring of the energy use from equipment for commercial kitchens – Part 15: Double jacketed boiling and quick boiling pans:2016-02*

Annex Q

For verification of product specifications of kitchen machinery for entry into the HKI CERT database according to DIN 18873-16 *Methods for measuring the energy consumption of commercial kitchen appliances – Part 16: Kitchen Machinery:2016-02*

Annex R

For verification of product specifications of kitchen machinery for entry into the HKI CERT database according to DIN 18873-17 *Methods for measuring the energy consumption of commercial kitchen appliances – Part 17: Noodle cookers:2016-09*

Annex S

For verification of product specifications of kitchen machinery for entry into the HKI CERT database according to DIN 18873-18 *Methods for measuring the energy consumption of commercial kitchen appliances – Part 18: Wafflebakers:2016-09*

Annex T

For verification of product specifications of kitchen machinery for entry into the HKI CERT database according to DIN 18873-19 *Methods for measuring the energy consumption of commercial kitchen appliances – Part 19: Frying and grilling appliances:2016-09*

Annex U

For verification of product specifications of kitchen machinery for entry into the HKI CERT database according to DIN 18873-20 *Methods for measuring the energy consumption of commercial kitchen appliances – Part 20: Crepe and Poffertjes-Baker:2016-09*

With his signature, the applicant commits himself to acknowledge the basic principles of this database.

It is required that product testing be performed on only those appliances which are available on the market.

The application for admission and the inspection records have to be submitted in the original to:

HKI Industrieverband Haus-, Heiz- und Küchentechnik e. V.
Lyoner Straße 9
60528 Frankfurt/Main
Germany

For a proper assessment and for entry into the database “HKI CERT commercial catering equipment”, the application for admission and the inspection records have to contain the following details:

- Applicant
- Producer's name
- Producer's address
- Internet address
- Email
- Classification
- Equipment components
- Nominal power input [kW]
- Nominal value load [kW]
- Year of testing
- Testing laboratory
- Optional: additional requirements
- Optional: picture file (png, jpg)
- Optional: producer's comments (e.g. explanation of components or special modes of operation)
- Possibility to connect to an intelligent energy management system according to DIN 18875 Equipment for commercial kitchens – Interface for power optimization
- Product specifications (analogous to points 4.1 to 4.9)

5.3 Entry in the database

After successful examination and evaluation of the submitted documents, the producer is entered into the database along with the respective type. The producer receives feedback regarding the completed entry.

The database-entry is only realized for the type of commercial kitchen appliance for which the producer requested an entry and for which permission has been granted.

5.4 Publications

The registered products can be accessed via a publicly available homepage, accessible through the homepage of HKI Industrial Association for House, Heating and Kitchen Technology www.hki-online.de, and the products can be found through a search function which is split into the categories <DEVICES ACCORDING TO MANUFACTURER> and <DEVICES ACCORDING TO TYPE>. Operators, merchants, project consultants and interested parties may use this as an option to find information on the energy consumption of commercial kitchen appliances.

In addition to producers' contact details, interested parties have access to technical specifications of corresponding commercial kitchen appliances as well.

The following data is displayed in the database:

- Core data
 - > Date of entry
 - > Producer
 - > Type
 - > Nominal power input [W]
 - > Year of testing
 - > Reference number of testing center
- Picture (optional)
- Product specifications (analogous to points 4.1 to 4.13)
- Testing standards (analogous to point 3)
- Equipment (optional)
- Requirements (optional)
- Producer's comments (optional, e.g. explanation of components or special modes of operation)
- Possibility to connect to an intelligent energy management system (abcd-interface)

5.5 Amendments

An entry will be amended if additions, upgrades or modifications were made to the respective commercial kitchen appliance, which affect the underlying basic principles according to section 5.1.

In particular cases, nature and extent of inspections will be determined by the HKI Industrial Association for House, Heating and Kitchen Technology in coordination with the applicant.

5.6 Cost contributions

For HKI members, costs of registration and entry of commercial kitchen appliances in this database are covered by the membership fee. To cover costs, the fee for non-members is 600 € for each commercial kitchen appliance the first year beginning with the entry, and a fee of 300 € each the following years. In cases where there are more than three commercial kitchen appliances to be entered, non-members are kindly asked to contact the HKI Industrial Association for House, Heating and Kitchen Technology. A discount for non-HKI-members is possible.

5.7 Defects

Should submitted product specifications be questioned, any errors may be corrected once free of charge, e.g. if the error in the entry arose during or because of transmission. If published data is questioned by a third party, the HKI Industrial Association for House, Heating and Kitchen Technology will bring this to the attention of the manufacturer and ask him to comment. Does the manufacturer attest to the correctness of the published data, the HKI is authorized to have it checked by a neutral testing center by way of reference point measurements. The HKI will arrange for this fee-based audit only when both the party who lodged the objection and the manufacturer sign that, in case of defeat as dependant on the outcome of the test, the defeated party will be held liable for any resultant costs.

This progress shall be concluded within three months after the appeal was lodged. During this progress, the relevant data will be marked to indicate its ongoing review.

5.8 Expiration of entries

Any defects determined during above mentioned progress will void the entry in the database as well as any right for endorsement through the help of the database “HKI CERT commercial catering equipment”, and the HKI Industrial Association for House, Heating and Kitchen Technology will inform the applicant of this outcome.

5.9 Logo

Appliances registered in the database “HKI CERT commercial catering equipment” at <http://grosskuechen.cert.hki-online.de/>, and which are in compliance with the standardized product requirements, may be labeled and promoted with the logo of the database.

The HKI Industrial Association for House, Heating and Kitchen Technology will make the label (Picture 1 below) available to applicants in the form of a commonly used picture file format.

The logo may be used for registered appliances only.



Picture 1 — Logo for appliances registered in the database “HKI CERT commercial catering equipment” and in compliance with the standardized product requirements