



Europäisches  
Patent

Nummer  
0887606



**Eberl**

Drying Container Kilns



**Dry**

Air Classic

efficient  
compact  
economical



Actively pursuing a climate-  
neutral industry - because  
wood is our passion



Sawn timber dryer  
Heat treatment container  
Firewood dryer



EBERL premises in Bodenkirchen, Bavaria / Southern Germany.

## Your partner in drying

**As pioneering inventor of energy-efficient vacuum wood drying, Eberl has become the leading provider of vacuum kilns. Today we offer a unique and complete range of wood dryers, and drying plants for a variety of other raw materials. In addition we supply customised systems and tempering ovens for use in medical engineering, biotechnology and chemistry through collaborations with international enterprises.**

We see a solid quality achieved through excellence in engineering and an innovative drive as the foundation for our economic success and market leadership. Thanks to new energy-efficient technologies, Eberl has successfully forged the path to resource-saving wood drying. We are able to develop and produce systems that are tailored exactly to the needs of our customers. Eberl understands how to use physical circumstances to its advantage. The result is a reliable, effective and resource-saving drying technology **e-Dry**, for which no alternative exists. The standards we set ourselves convince our customers and have become a

benchmark for the whole industry.

**Competent service and qualified customer support can be taken for granted when working with Eberl.**

Company milestones:

- 1998 Georg Eberl and Harald Feuerecker founded Eberl with the launch of the energy saving kiln V-Premium.
- 2004 Development of the V-Basic and V-Comfort.
- 2007 Development of the Air Classic.
- 2008 Development of a bulk dryer.
- 2011 Development of the V-tempering range and an increase of production space to twice its previous size.

**Technologies:** Conventional air drying, vacuum drying with or without heat pump, continuous drying processes, tempering processes.



# Air Classic

## Drying Container Kilns

### The excellent but low-budget Drying Container Kilns.

The compact and new overhauled or completely new insulated containers are outstandingly suitable for heat treatment kilns. The inside walls are made of stainless steel or aluminium and they own as well as the robust base good insulation. In the factory they will be equipped with high-quality components like fans, heaters, spraying unit, exhaust fan and inlet flaps as well as climate- and wood moisture content measurement. Thanks to the control unit, the drying schedules and our experience as kiln producer make the easy containers to excellent but low-budget drying kilns which we perfectly adapt to customer requirements.



Air Classic before delivery.

- Fast and uniformly drying
- Cost-saving and economical
- Easy installation
- Very good insulation
- Easy control
- Solutions adapted on customer requirements
- Front- and track loading



Heater electrical and hot water.

# Air Classic Sawn Timber Dryer

## The drying process

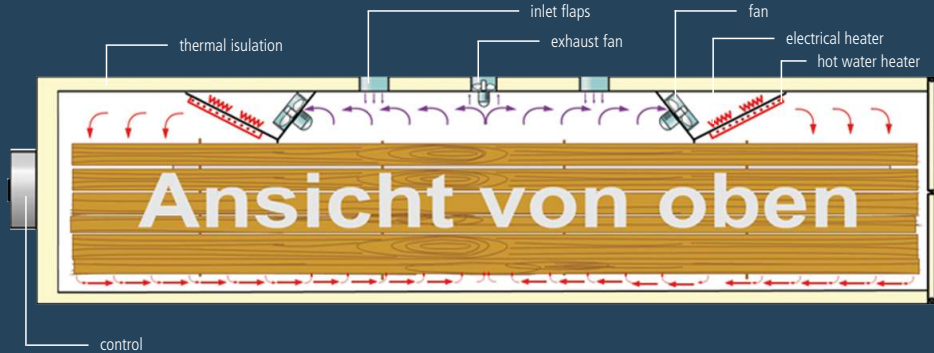
After loading the wood the drying process can be started. Lateral mounted fans press the air through hot water heater or el. heater and distribute the air equally over the complete kiln length. Due to air exchange by exhaust fan and air inlet flaps the drying climate can be exact controlled. Also a counter-flow heat exchanger can be used. In it the warm and humid exhaust air heats very effective the fresh incoming air. **This conventional drying kilns are characterised by fastness, equability and economy.**

Standard sizes are:

- 6 m container 6,1 m x 2,4 m x 2,6 m (LxWxH)
- 12 m container 12,2 m x 2,4 m x 2,9 m (LxWxH)
- **Special sizes are anytime possible**



## The drying process



The drying process in a graphic presentation from top.

Technical data	Typ	HC6	HC12	TC6	TC12	TC6WP	TC12WP
Stack room length	m	5,55	11,6	5,55	11,6	5,55	11,6
Stack room width	m	1,25	1,25	1,25	1,25	1,25	1,25
Stack room heights	m	2,0	2,2	2,0	2,2	2,0	2,2
Stack room gross capacity	m <sup>3</sup>	13,9	31,9	13,9	31,9	13,9	31,9
Total length incl. track	m	13,0	25,0	13,0	25,0	13,0	25,0
El. power supply with E-Htg.	kW	19,6	38,2	20,2	39,5	20,2	46,0
El. average consumption with E-Htg.	kW	17,0	34,0	9,0	18,0	6,5	13,0
El. average consumption with E-Htg. and heat recovery	kW	-	-	6,8	13,5	4,5	9,0
El. power supply with HW-Htg.	kW	3,6	6,2	4,2	7,5	-	-
El. average consumption with HW-Htg.	kW	2,5	4,5	2,5	4,5	-	-
HW-Htg. power consumption	kW	25,0	50,0	25,0	50,0	-	-
HW-Htg. average consumption	kW	20,0	40,0	12,5	25,0	-	-

## Drying Container Kiln with heat pump

- No heating connection necessary
- Very economical through heat recovery
- Only electrical power connection required, thus giving complete flexibility in choice of location
- Efficient drying up to 70° C
- Very high condensation power
- Friendly electricity price through heat pump rate
- 50% energy saving



## Front loading

- No track necessary
- Space saving



## Heat Treatment Container Kiln

- For heat treatment of wood packaging material in accordance with IPPC Standard ISPM No. 15
- Version with longitudinal or transverse ventilation
- Adapted to different national standards
- Available with electric or hot water heat
- Quickly and cheaply



# Air Classic

## Firewood Drying Container Kiln

Whether 25 cm, 33 cm, 50 cm or 1 m logs, whether bulk in wire baskets or stacked logs we offer solutions for all customer requirements and an energy efficient drying of the firewood.

- Compact - effective - economical
- Short drying times
- Even drying
- High energy efficiency through heat recovery



### Firewood drying for bulk firewood in boxes with grating floor Type BTC

The fans press the air over the heating to the top. The firewood in the boxes is evenly ventilated from top to the bottom. In a counterflow heat exchanger the warm and humid exhaust air heats very effectively the fresh incoming air which cut down the heating costs.



Technical Data	Type	BTC6	BTC12	BTC6Z	BTC12Z	BTC6WP	BTC12WP
Stack room length	m	4,80	11,67	5,60	11,70	4,80	11,67
Stack room width	m	2,20	1,88	1,00	1,00	2,20	1,88
Stack room height	m	1,60	1,81	2,00	2,00	1,60	1,81
Stack room gross capacity	LCM	16,90	38,40	-	-	16,90	38,40
Stack room gross capacity	Ster	-	-	10,00	22,00	-	-
El. power supply with E-Htg.	kW	27,70	54,30	27,70	54,30	27,70	54,30
El. average consumption with E-Htg.	kW	15,00	30,00	15,00	30,00	8,00	16,00
El. average consumption with E-Htg. and heat recovery	kW	13,50	27,00	13,50	27,00	8,00	16,00
El. power supply with HW-Htg.	kW	3,70	6,90	3,70	6,90	-	-
El. average consumption with HW-Htg.	kW	3,20	6,40	3,20	6,40	-	-
HW-Htg. power supply	kW	25,00	50,00	25,00	50,00	-	-
HW-Htg. average consumption	kW	16,00	31,00	16,00	31,00	-	-

## Firewood boxes

- For uniform ventilation with closed sides
- Easy to fill
- Easy discharging by rotation device
- For loose bulk firewood



## Firewood drying for stacked firewood Type BTC/Z

Stacked firewood can't be easily ventilated, therefore an exact air flow is necessary to avoid mould formation through build-up of moisture.



## Firewood Drying Container Kiln with heat pump Type BTC 6 and 12 WP

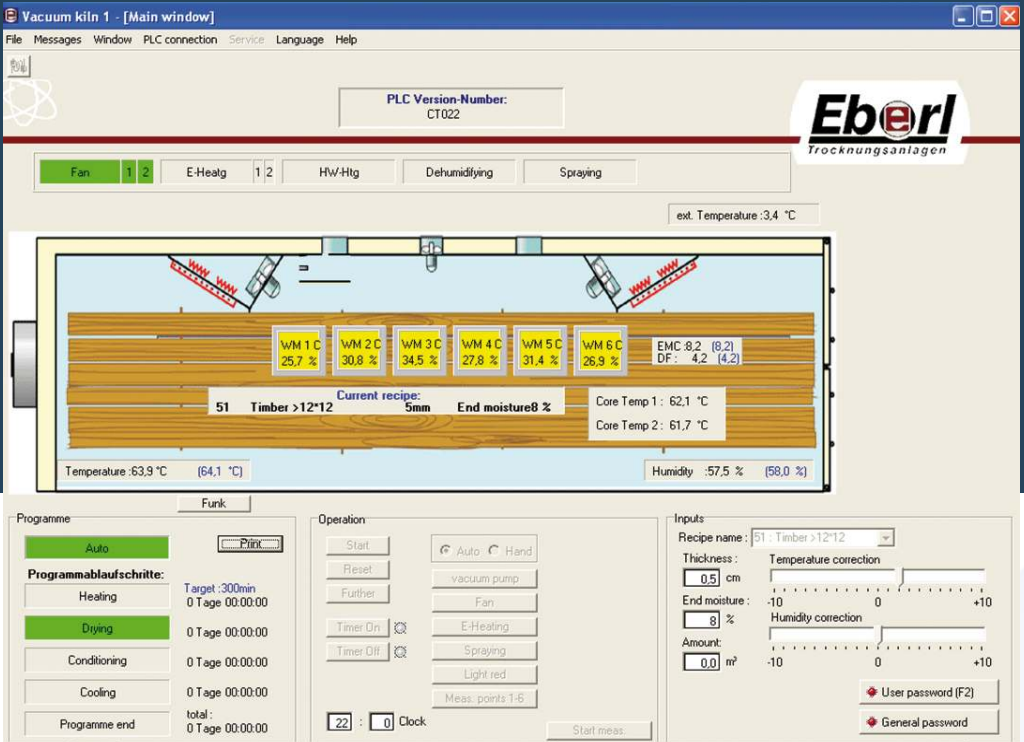
- No heating connection necessary
- Very economical through heat recovery
- Only electrical power connection required, thus giving complete flexibility in choice of location
- Efficient drying up to 70° C
- Very high condensation power
- Friendly electricity price through heat pump rate
- 50% energy saving



# Operation

## Simple, intuitive, quick

On our user-friendly touch panel, simply enter the wood type, wood thickness and the desired final moisture content. After that, all you have to do is press the start button, and the kiln will take care of the rest by itself.



Visualisation as displayed on a PC.

In order to facilitate your daily work with our kilns, we offer a visualisation program. With this you can comfortably monitor and control your kiln from your office computer. The simple interface allows you to enter all relevant data and settings as well as saving and

printing logs or diagrams of the drying process. It is even possible to remotely control your kiln using your smartphone.



# Special equipment

## Heat treatment ISPM No. 15

This IPPC-standard is a legal requirement for the export of wood packaging abroad, for example to the USA, Canada, Mexico or China.

First the core temperature sensors are inserted into the thickest timber section. Then you can start the corresponding program using the touch panel or visualisation program. The batch is heated until the core temperature of the wood is at 56° C for at least 30 minutes. After a short cooling period the packaging timber is retracted from the kiln. For the required drying logs a printer is necessary.



## EBERL-Remote-Measurement

The wireless wood-moisture measuring device saves the time-consuming laying of cables, which would otherwise be required. After connecting the transmitters to the electrodes, the data is automatically transferred to the control unit.



## Heat recovery

By a cross-flow heat exchanger the air coming from outside is heated from the air coming from inside the kiln. This system saves up to 25% energy.



# Service

**EBERL not only produces first-class equipment, but also provides excellent after-sales service. Our project technicians and engineers, as well as our managing directors are personally available for you.**

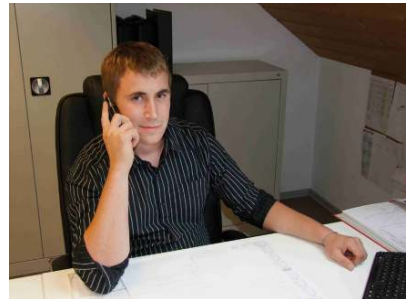
## Remote access

If you grant us access to your machine, we can access the data of your kiln online. Thanks to desktopsharing, we can see what you see. Especially in the early stages, when you are not yet that familiar with the kiln, we can support you with its operation. You can still access the control system from your PC or smartphone at the same time.

A lot of customers of other manufacturers actually use our excellent service too and we happily assist them. Please do not hesitate to contact us. We have a service team ready to promptly assist you on site in each country that we currently deliver to.

## If you should have any questions concerning:

- Drying guidance
- Special types of wood, special products
- Program updates
- Selection of the suitable kiln
- Possible error messages
- Original spare parts
- ISPM compliance




Technical advisor

**then please simply call or write to us.**

**Phone number: +49 (0) 8745 964460 or E-mail: [info@eberl-trocknungsanlagen.de](mailto:info@eberl-trocknungsanlagen.de)**

**We are always ready to help.**

# Further products

 Dry e-bulk-dryer



 Dry V-BASIC



 Dry V-PREMIUM / V-COMFORT



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