

Closed-Loop Heat Pump Dehydration Dryer

SAVE Drying Cost
Upto **70%**



- ▶ Unique Drying Technology
- ▶ Ideal Drying Quality
- ▶ Outstanding Energy Saving
- ▶ Advanced Structural Design
- ▶ Easy Installation
- ▶ Easy to operate & Maintain
- ▶ Very Low Pay back Period



An ISO 9001-2008 Company



5 Great Innovations



1

Advanced Drying Principle

Dehumidification drying replaces traditional heat drying

IKE's creative dehumidification drying method can achieve excellent drying results under many weather conditions.

Dehumidification drying at low temperatures does no harm to the material to be dried and its active ingredient will not be lost. Strong air convection guarantees even drying. The water film on the surface of the material will disappear only after a few hours of drying. The material seldom deteriorates.

3

Outstanding Energy Saving Thanks to Closed-Loop Energy Recycle

Drying efficiency is independent of surrounding weather conditions. Only water is discharged from the drying house. No energy is lost. In house heat energy is completely recycled.

2

Good Drying Quality

High Qualified Rate and Consistency

5

Easy Installation Structure

Thanks to all-in-one design hardware and intelligence controlled operation system, no human is required on duty for the drying.

4

Clean - No Secondary Pollution

With an insulated drying house, it is impossible for outside pollutants to contaminate the material and for the active ingredient in the material to evaporate. Even dehumidification drying keeps the material in excellent condition.

Unique Features of IKE - OPEL Closed-loop Heat Pump Dryer

Taking away the moisture, not its temperature, from the material to be dried is the essence of drying, and the key element for drying efficiency is the relative humidity in the surrounding space. Using this principle, Opel creatively developed and manufactured a Closed-loop Dehydration Dryer, changing drying from the traditional "baking" to "dehumidifying". It has many unique features that a traditional heat pump dryer cannot match:

No air exchange with outside keeps active ingredients in the material, prevents contamination, and maintain efficient drying.



Feature One

Hot air only circulates inside and no energy is lost. The energy saving is incomparable to traditional drying machines.

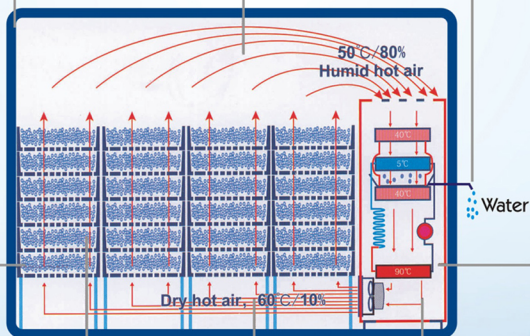


Feature Two

Drying efficiency is independent of external weather conditions. Only water is released from a drying house. Internal energy is 100% recycled.



Feature Three

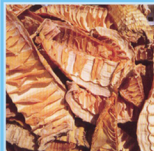


Feature Four



No active ingredient exchange with low temperature drying, hence different materials can be dried together to increase productivity.

Feature Five



With dehumidification drying at low temperatures, the material can be dehydrated quickly and will seldom deteriorate.

Feature Six



Closed loop design makes strong wind convection and even drying. No human labor is needed to flip material

Feature Seven



Since the core machine is pushed in directly with no pipe connection, it can be installed within ten minutes.

Feature Eight



With inside core machine, the performance of the dryer is independent of external weather conditions and it can be installed in any location

► Comparison of Different Drying Methods

Many traditional drying methods usually use coal, fossil oil, natural gas or electricity as the power source for drying. A more advanced one uses air-sourced energy for drying. We made a comprehensive comparison among several drying systems, using 1 kilogram of water dehydrated from the material to be dried as the comparison standard.

Heating method	Heating by electricity	Coal furnace	Fossil Oil	Natural Gas	Traditional open-loop heat pump dryer	Opel closed-loop heat pump dehydration dryer
Fuel type	Electricity	Coal	Diesel	Natural gas	Electricity	Electricity
Heating power	860kcal/kwh	5500kcal/kg	10200 kcal/kg	8600kcal/m ³	860kcal/kwh	860kcal/kwh
Heat efficiency	95%	60%	80%	80%	200%	500%
Effective heating power	817 kcal	3300 kcal	8160kcal	6880kcal	1720kcal	4300kcal
Unit price of the fuel (Rs.)	8/lkwh	6/kg	60/kg	40/m ³	8/lkwh	8/lkwh
Operation cost (Rs.)	11.75	2.2	7.35	6.9	5.6	2.2
Human administration cost	Higher	High	High	High	Average	Low
Maintenance cost	Lower	Higher	Higher	Higher	Lower	Very Low
Safety feature	Unsafe	Unsafe	Unsafe	Unsafe	safe	safe
Pollution extent	No	Very Heavy	Heavier	Less	No	No
Equipment lifetime	5-7 years	8-10 years	8-10 years	8-10 years	10-15 years	10-15 years

The above parameters are calculated assuming 1200 kcal of energy is required to dehydrate 1 kilogram of water.

IKE - Opel closed-loop heat pump dehydration dryer is bringing a revolution to the drying industry !

► WRH-100B Series - Cabinet-style All-in-one Mid-temperature Dryer

Model	WRH-100B	
Power supply	V/Hz	220V ~50Hz
Power Input	KW	1.0
Running Current	A	5.0
Fast heating-up	KW	1
Maximum Power	KW	2.0
Dehydration Amount	Kg/h	3.3(@50°C,80%)
Best Drying Temperature	°C	55~65
Max. Hot Air Temperature	°C	65
Working ambient Temperature	°C	-20~50
Noise Level	dB(A)	<60
Wind Volume	m ³ /h	1100
Dimension (LxWxH)	mm	1180x680x1800
Tray Size (LxWxH)	mm	780x510x40
Net Weight	Kg	153
Gross Weight	Kg	165



► Available capacity upto 100 kg per Hour Dehydration



Manufacture by - IKE, China

Marketed & Serviced in India by - Opel Energy Systems Pvt. Ltd.

A-003, Harshwardhan Pride, S. No. 54/7 C, Next to Garve Motors,
Near Bangalore Highway, Wadgaon Bk, Pune - 411030, Maharashtra, INDIA

Website : www.opelenergysystems.com/ www.wasteheatrecovery.co.in

E-mail : sales@opelenergysystems.com/

Contact : (+91) 9921000930 Tel. : (020) 24377646

Branch Offices : | Delhi | Bangalore | Chennai | Dubai