



## ICS HotAir Compact Drying with biomass energy



## Mobile hot air generator for agro & industry

ICS HotAir Compact is the answer to rising energy prices and the need for flexible, sustainable solutions in drying technology. The mobile hot air generator system combines high-performance industrial technology with the efficiency of regional biomass – for lower operating costs, maximum reliability and maximum versatility in agriculture and industry.





Low energy costs

Easy installation



### Efficient drying with a system: mobile, robust, economical.

The ICS HotAir Compact product line has been specially developed for drying processes in the agricultural and industrial sectors. The aim is to drastically reduce energy costs – by using cheap, regionally available biomass as fuel. Thanks to the compact container system, customers benefit from fast implementation times, easy installation and maximum flexibility.

The modular systems are based on proven ICS industrial technology, which is in continuous use throughout Europe. In the power range from 850 to 5.000 kW, HotAir Compact offers a scalable solution for a wide range of applications - robust, durable and economical.



Maximum versatility

# Wherever **hot air** is needed.

ICS HotAir Compact can be used flexibly – in agriculture as well as in industry. Our systems deliver reliable hot air – clean, powerful and exactly where it is needed.

#### Stone and mineral drying

Drying of mineral raw materials such as sand, gravel, clay or rock flour – robust and powerful even under dusty and harsh industrial conditions.



### Agricultural drying

Efficient drying of corn, soybeans, cereals and other crops – directly on the farm or in the agricultural centre.

### Indirect clean hot air f

Wood drying

Indirect, clean hot air for technical wood drying – energy-efficient and adaptable to different types of wood and moisture levels.



## Fruit and spice drying

Gentle drying of sensitive natural products such as herbs, berries or spices – with precisely controlled hot air temperature.



Process heat for industrial coating systems – uniform drying and curing of paints and powders for the highest surface quality. Brick production Safe and uniform drying of formed

clay products in building material production – for stable shaping and reduced reject rates.







## Why ICS HotAir Compact? Because efficiency counts.

Our mobile hot air generation system impresses not only with its technology, but also with its costeffectiveness, flexibility and durability – made for year-round use under real conditions.

- Reduction of energy costs through cheap, regional biomass
- Replacement of fossil fuels sustainable & CO<sub>2</sub> -reduced
- Investment subsidies through national and EU funding programmes
- Robust industrial technology for continuous operation









- High hot air temperatures of up to 150 °C guaranteed
- Indirect, clean hot air thanks to heat exchanger technology
- Compact design & fast commissioning
- No need for steam, hot water or thermal oil







## That's what it contains: Technology, that sets standards.





#### Hot air outlet

Outlet flange with emergency flap for secure connection to drying systems

#### Hot air heat exchanger

High temperature tube heat exchanger for clean, indirect air heating

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### Flexible in use – efficient in consumption.

ICS HotAir Compact was specially developed for the combustion of low-cost, sometimes difficult-to-process biomass. The robust technology allows the use of a wide variety of fuels with high water content and variable sizes – without any loss of performance.

#### Wood chips



**Recycling wood** 



**Corn cobs** 



### Three power levels – many possibilities.

Technical parameter	HAC 1500	HAC 3000	HAC 5000
Rated power	850 - 1500 kW	2.000 - 3.000 kW	4.000 - 5.000 kW
Max. hot air temperature	150 °C	150 °C	150 °C
Max. hot air flow	45.000 m³/h	90.000 m³/h	150.000 m³/h
Fuel water content W%	20 – 50 %	20 – 50 %	20 – 50 %
Fuel consumption at W35%	540 kg/h	1.080 kg/h	1.800 kg/h

Success that multiplies: **Customers all** over Europe.





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We were very impressed by the industrial and robust design of the system. Thanks to the plant's power reserves, we were able to further expand our drying capacity. ICS is definitely a specialist in the energy supply of drying plants and has an eye on the entire process.

Mitja Krajnc, CEO of ZIPO d.o.o.



## "

We have been running the ICS boiler plant for more than 10 years with sophisticated fuels such as corn cobs, straw and residual wood. We supply a total of 4 different drying systems with the heating system and are very satisfied with the performance of the system.

Harald Tschiggerl, CEO Tschiggerl Agrar GmbH

#### ZIPO d.o.o. / Slovenia

+ Heating capacity: 3.000 kW + Drying capacity: 15 to/h + 5 o/h + Drying product: corn, soy, alfalfa + Fuel: wood chips, corn cobs, bark

### Tschiggerl Agrar / Austria

+ Heating capacity: 3,000 kW + Drying capacity: 16 to/h + 2 to/h + 1 to/h + Drying product: corn, beans, pumpkin seeds + Fuel: corn cobs, straw, residual wood



#### Mitterer / Austria

- + Heating capacity: 2,000 kW
- Drying capacity: 8 to/h
- Drying product: corn, soy
- Fuel: bark and residual wood

### "

We already converted our oil burner to an ICS biomass hot air system in 2007, the efficiency and reliability of the hot air generation system is unbeatable.

Karl Mitterer, CEO Mitterer GmbH



#### Quality Corn / Spain

- + Heating capacity: 14.500 kW + 3.000 kW
- + Drying capacity: 40 t/h + 10 t o/h + 10 t/h
- + Drying product: corn
- + Fuel: Residual wood

### "

We have converted our three corn dryers with a throughput of more than 100.000 tons per year from liquid gas to biomass. ICS's plant is very robustly built, highly automated and probably the largest biomass hot air generator in Europe. In the meantime, we have already successfully commissioned another ICS boiler plant at our site.

Agustin Marine Trias, CEO Quality Corn Spanien

### "

We are happy about the decision to have realized our new drying project with ICS. The ICS system runs fully automatically, very efficiently and reliably supplies our dryer with hot air for the drying of corn and alfalfa.

Andreas Sieder, CEO Sieder KG

### "

In the meantime, we already have two ICS plants in operation and dry more than 40.000 tons of corn annually at our site with the hot air generated from biomass. The cost advantage over fossil fuels is enormous.

Michael Niemann, CEO Agrarservice Grafenegg GmbH

### Sieder KG / Austria

+ Heating capacity: 4.000 kW + Drying capacity: 20 to/h + Drying product: corn, alfalfa + Fuel: wood chips, bark

#### Agrarservice Grafenegg / Austria

+ Heating capacity: 4.000 kW + 1.500 kW + Drying capacity: 40 t/h + 10 t o/h + 10 t/h + Drying product: corn

+ Fuel: wood chips



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