



**HOT AIR GENERATOR** for technological processes



drying technology

# Principle

## Direct air heater

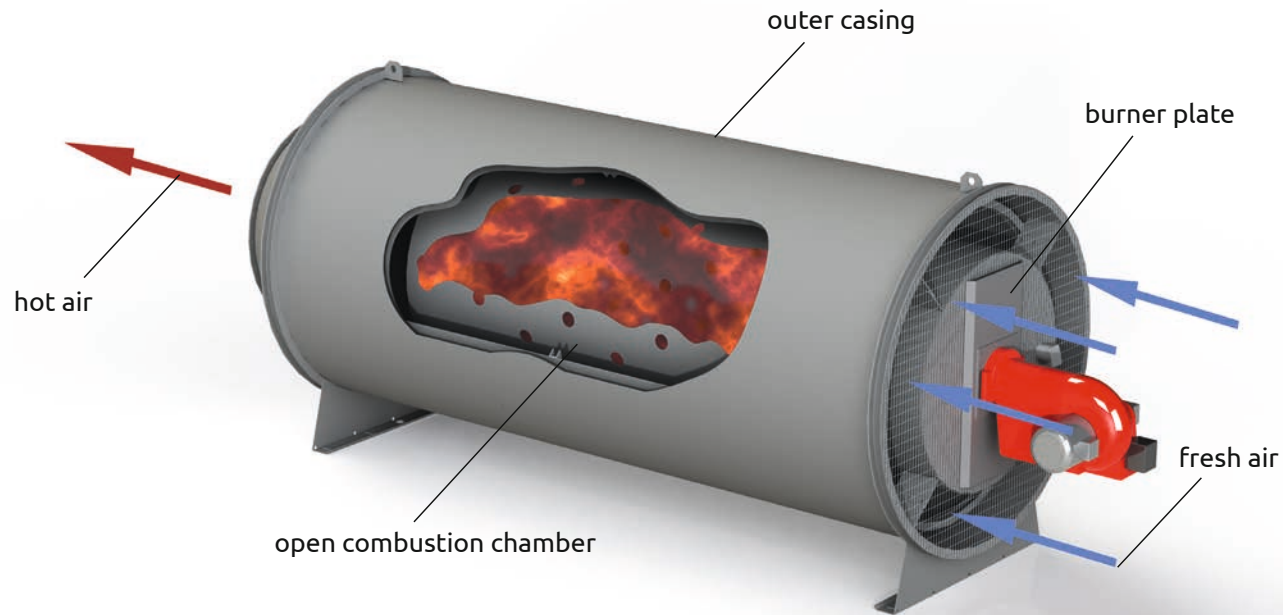
### Direct air heater

stela direct air heaters are used for firing oil or gas fuels. They are applied for heating up the air for STELA dryers as well as for other industrial products, for example in the brick making industry.



### Hot air generation with direct air heater

The direct air heater consists of an outer shell, an intermediate shell against radiation losses and a perforated combustion chamber made of highly heat-resistant steel, which is placed centrally in the shell. The hot exhaust gases are mixed with the fresh air heated along the wall of the combustion chamber and hot air of a homogeneous temperature is produced. Thus the energy of combustion is directly led into the dryer. The firing efficiency is 100%.



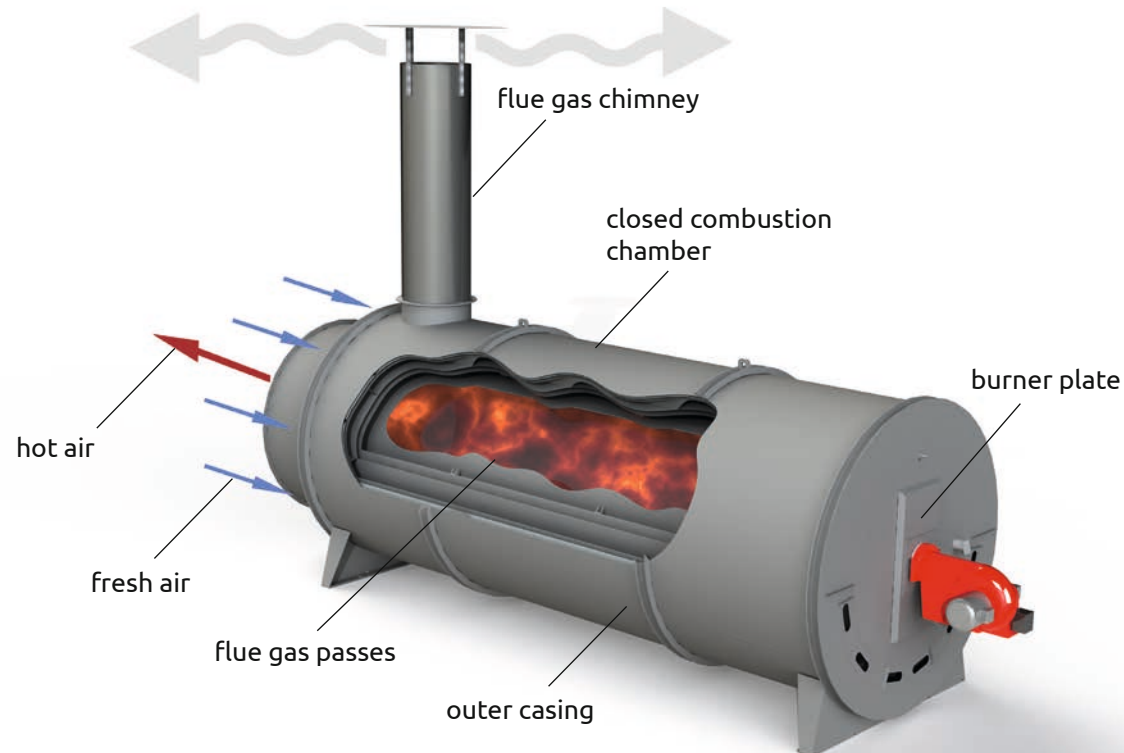
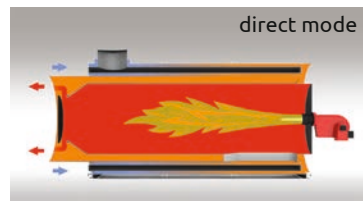
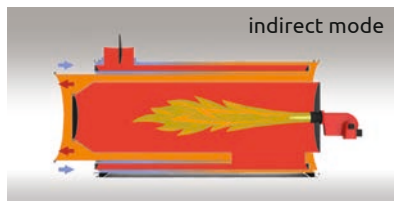
## Indirect air heater

### Indirect air heater

The indirect STELA air heaters are applied in processes where it is undesirable that the flue gases are mixed with the air to be heated up, e. g. when drying breadstuff by means of light oil. stela air heaters are TÜV approved and have an efficiency of more than 91% with outlet temperatures up to 120° C. All indirect air heaters can be changed to direct operation.

### Hot air generation with indirect air heater

The indirect air heater consists of an outer casing, an intermediate casing against radiation losses, flue gas passes and a closed combustion chamber made of highly heat-resistant steel, which is arranged centrally in the casing. Here the heating energy is transmitted to the fresh air only via the heat exchanger surfaces of the closed combustion chamber and the flue gas passes. The cooled combustion gases are drawn off into the open air via a chimney. Thus the hot air is completely free of flue gases.



# Types of burners

Oil or gas burners



Ölbrenner Monarch® WM-L20



Gasbrenner Monarch® WM-G20



Zweistoffbrenner WM-GL 10

**Optional designs:**

- Stage, gliding stage and modulating control
- Design with exhaust gas reduction (Low-Nox design)

**Heating medium:**

- Heating oil
- Heavy fuel
- Natural gas
- Liquefied gas
- Biodiesel
- Biogas

## Design types and capacities

**Direct air heater**

		SLD		SID	
Type		from	to	from	to
hot air temperature	°C	50	250	50	450
nominal capacity	kW	100	5.000	100	5.700
air flow rate	m <sup>3</sup> /h	5.000	150.000	5.000	150.000

**Indirect air heater**

		SLI		SII	
Typ		from	to	from	to
hot air temperature	°C	50	250	50	300
nominal capacity	kW	100	3.000	100	4.000
air flow rate	m <sup>3</sup> /h	5.000	120.000	5.000	120.000

Special designs are possible on request.

# Advantages

- heating capacities up to 5700 kW
- highly heat-resistant special materials
- long life
- homogeneous hot air temperatures
- suitable for all types of fan burners
- high efficiency
- low resistance at air side
- constant air flow rate
- hot air temperatures up to 450 °C
- permissible temperature difference up to 400 K
- air flow rates up to 150000 m<sup>3</sup>/h
- manufactured by stela
- Certified quality



# Everything from one single source - Made in Germany

## Everything from one single source

From the first concept to the finished dryer, all competences are united at one location.

## Specialisation in drying technology

stela has specialised in the complex field of drying technology in order to deliver the optimal solution for your project.

## Head start through innovation

State-of-the-art technology and efficient manufacturing processes are the basis of stela's sustainable growth.

## Research and development

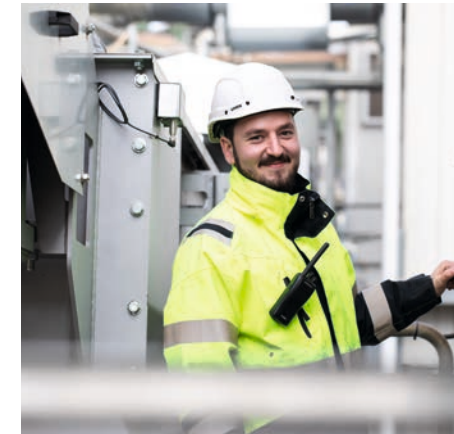
In its in-house R&D lab, stela examines specific product properties for your project and thus determines individual drying curves.

## Always at your side

From project idea and installation to commissioning and after sales services, the stela team is always at your side.

## In-house production

Our high degree of in-house production of over 90% gives us full control over quality, time and costs. So you can rely on every single part of a stela dryer. At the same time, this allows us to guarantee a fast supply of spare parts.



# References

Günter Badenhop Fleischwerke KG, Germany



- **Type:** SID 2500
- **Nominal power:** 2,834 kW
- **Supply air temperature:** 350 °C

Alland & Robert, France



- **Type:** SII 2500
- **Nominal power:** 1,630 kW
- **Supply air temperature:** 138 °C

SC Raja, Constanta, Romania



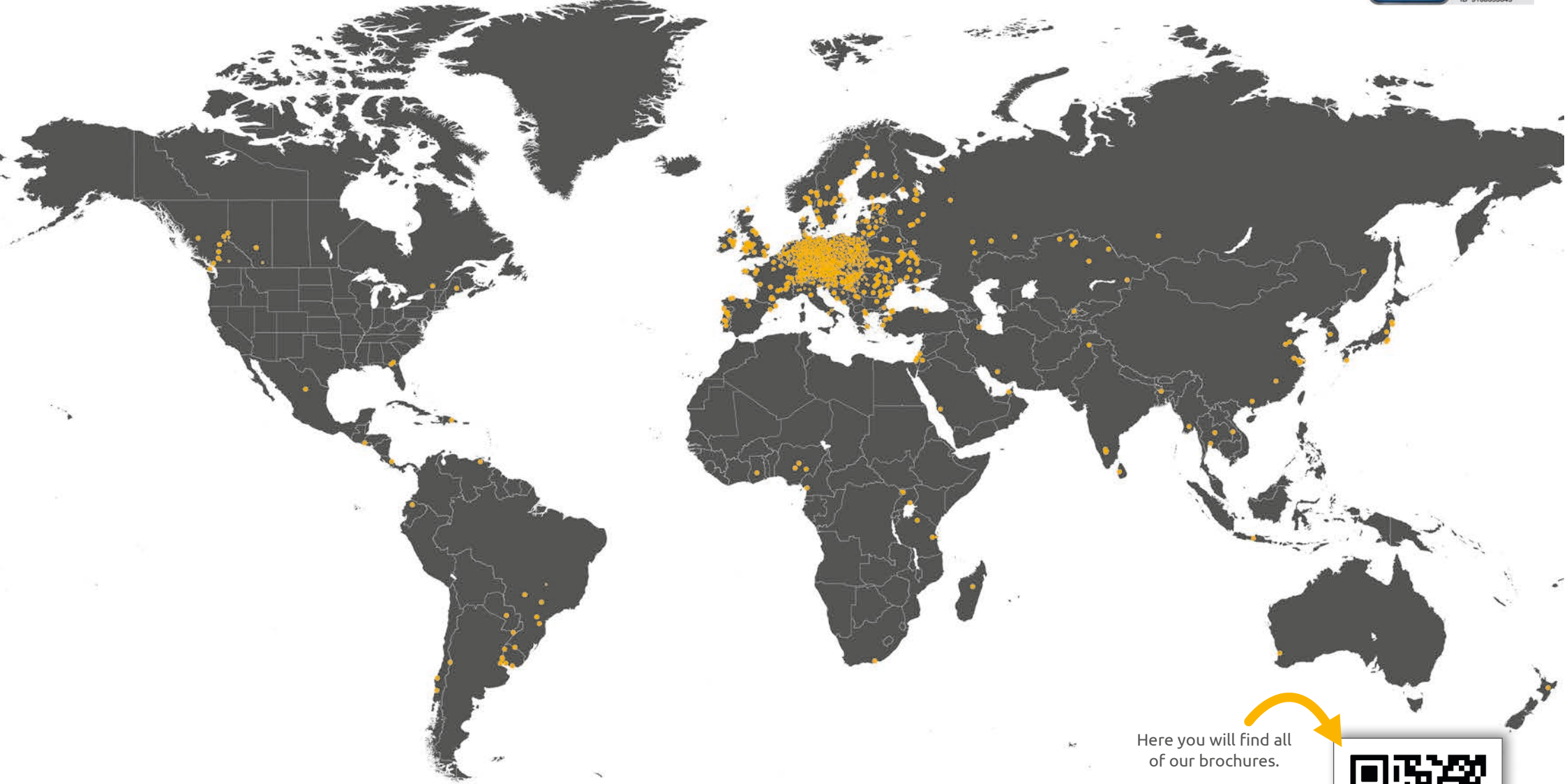
- **Type:** SID 3500
- **Nominal power:** 3,100 kW
- **Supply air temperature:** 130 °C

GePro, Germany



- **Type:** SID 2500
- **Nominal power:** 2,822 kW
- **Supply air temperature:** 280 °C

# stela worldwide



Here you will find all of our brochures.



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