

**PUSH-THROUGH FURNACES  
FOR TREATING POWDERS AND GRANULES**

# PUSH-THROUGH FURNACES FOR TREATING POWDERS AND GRANULES

## FIELDS OF APPLICATION

It can be used to thermally treat a wide range of products e.g.

- Catalysts and chemical powders such as metal oxides
- Carbon for batteries
- Carbon nanotubes (CNT)
- Recycling

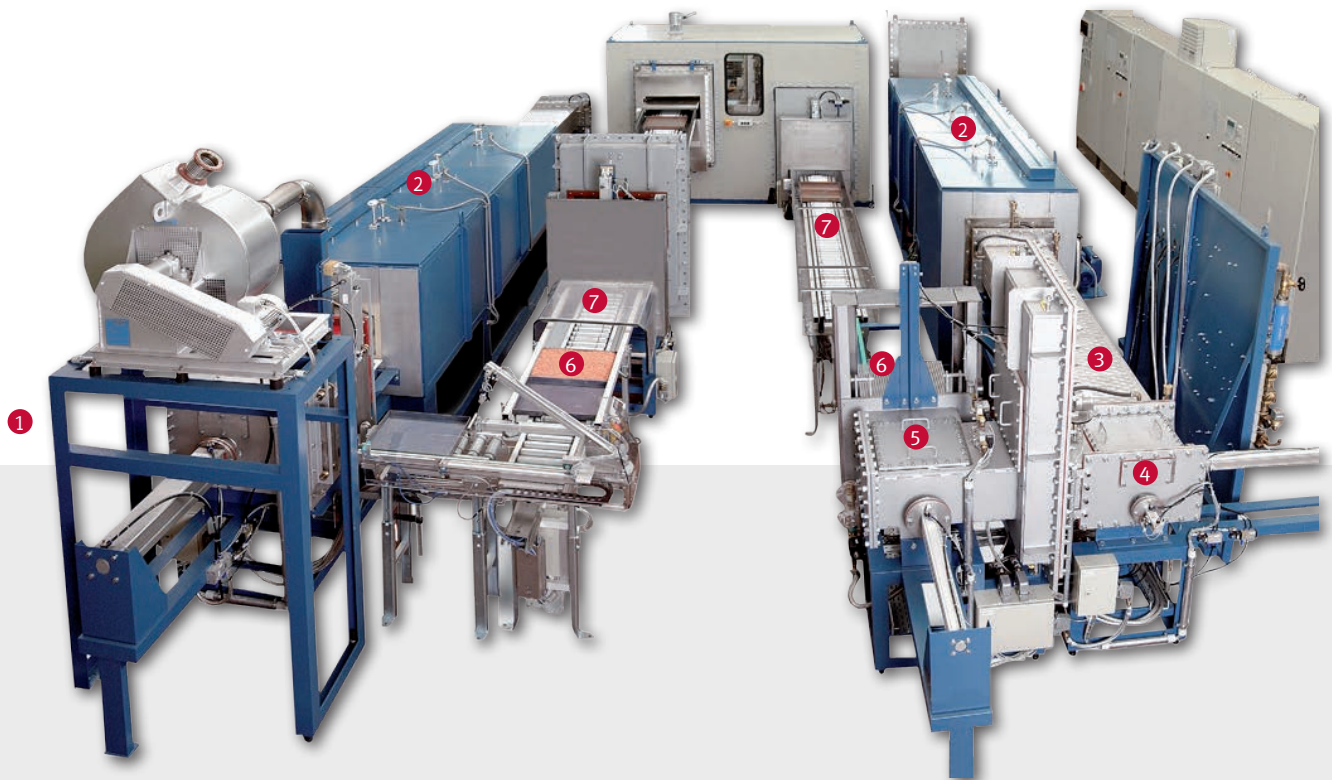
## PROCESSES

- Calcination
- Carbonisation
- Pyrolysis
- Reduction and oxidation
- Separation from gas phase (CVD)

## SYSTEM DESCRIPTION

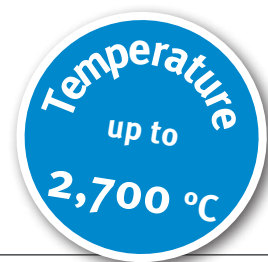
An ONEJOON push-through furnace system consists of the following key components:

- 1 Inlet lock
- 2 Furnace
- 3 Cooling zone
- 4 Transverse push station
- 5 Outlet lock
- 6 Unloading station
- 7 Return track



▲ Two linked push-through systems for thermal treating of powdery chemicals

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## THE BENEFIT FOR YOU

- Several trays on top of one another allow for a larger throughput for each time unit
- Continuous process
- Gas tight and dust tight design due to atmospheric separation using airlock systems in the inlet and outlet area,
  - Process gas consumption is lower as a result
  - Prevents the furnace interior being contaminated with air, and the environment with harmful gases
  - Optimum process gas conditions
  - Lower heat losses
- Can be operated with flammable and non-flammable gases
- Metal-free products can be handled in the furnace and periphery on request

## TEST PUSH-THROUGH FURNACE FOR PRODUCT AND PROCESS DEVELOPMENT

We offer the option of testing short and long-term test series in our test centre. To do so, we will agree on all test parameters with each customer.

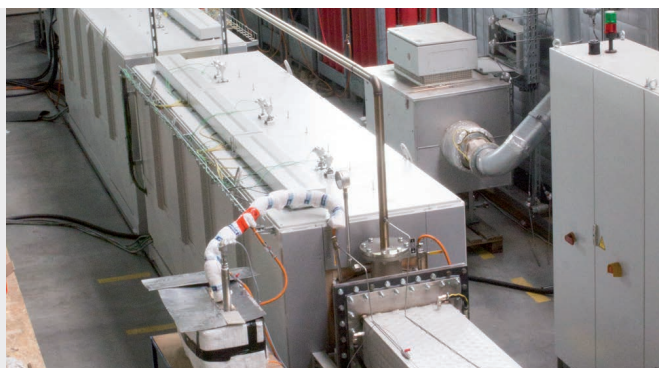
### Technical data

Flow width	Effective width to 250-2,500 mm
Length	up to 50 metres
Operating temperature	to 2,700 °C
Furnace atmospheres	Hydrogen, nitrogen, argon, forming gas
Heating type	heated by gas or electricity
Muffle material	Steel, graphite or ceramic
Cooling medium	Water or air

*\* other dimensions, materials and various accessories on request*

### Technical data for test push-through furnace

Atmosphere	Air or protective gas
Temperatures Zone 1-3	to 700 °C
Temperatures Zone 4-6	to 1,100 °C
Number of heating zones that can be controlled separately	6
Heated length for each furnace segment	approx. 4,400 mm
Muffle cross-section	Width approx. 500 mm Height approx. 200 mm





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