# Heraeus



# IR-Emitter Cool air in Warm and damp air out

# Air-Knife Infrared-Module Infrared drying with intensive air exchange

Air-Knife modules are infrared-modules equipped with an air flow system. An intensive air flow ensures a apid gas exchange in the drying zone.

An evenly distributed stream of air is blown with high speed into the drying area through the Air-Knife. The dry air takes up the vapours and removes them from the infrared zone. This air takes up the vapours and removes them from the infrared zone. The warm and damp air is extracted immediately after the drying zone. This maintains system balance and the sdvents can then be condensed out.

In the dying area, this process reduces the moisture barrier so that further evaporation is not hindered and the infrared radiation is utilised to its full extent. This air exchange shortens the drying procedure and ensures more efficient yield per unit of energy.

### Features

- High drying power
- Saves energy due to high efficiency
- Saves space due to short drying sections
- Particularly suitable on fastrunning product conveyor systems
- Modular design adaptable to equipment requirements
- Rapid switching on/off radiation energy
- Several emitter types can be used
- Long useful life of infrared emitters

### **Applications**

- Drying of paper, textiles and plastics
- Drying of printing ink
- Drying of lacquers with water-based solvents

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### **Technical Data**

### **Device description**

The Air-Knife Module requires two separate air systems:

- one to cool and purge the infrared emitters
- one to supply the Air-Knife housing

# External housing of the Air-Knife Module consisting of

- side and back walls are prepared with
   Ø 11 mm drilled holes for mounting to
   a frame or for interconnection of
   several modules
- integrated connection terminal strips
- power connection through preinstalled cable stands using heat-resistant cable 180 °C/350 °F

The output of the infrared emitter and the air exchange brought about by the Air-Knife system can be regulated by means of a control unit, thus adapting the drying process to individual product requirements.

### **Our Service**

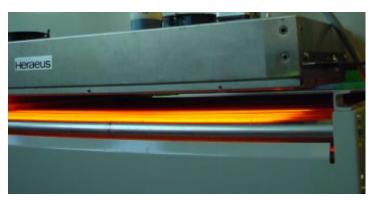
- we can loan you an Air-Knife module for tests
- Tests with drying of your materials by an Air-Knife infrared module can be carried out with the support of our technicians



### Technical Data of an Air-Knife sample module

Nominal power rating	40,8 kW
Nominal voltage	400 V
Total length	1420 mm
Total width	450 mm
Height	200 mm
Heated length	1200 mm

We will help you choosing the most suitable IR emitters and the correct dimensions of your new module.



We reserve the right to change the pictures and technical data of this leaflet. B  $55\,D$  - Printed in Germany. 04.2004



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