

## Case study: **Shrink-fitting unit for cables and heater cables**



### **Fast, accurate shrinking of heater cables for underfloor heating systems**

A customer manufactures a wide range of different underfloor heating systems. The cable ends of the heater mats for electric underfloor heating systems must be shrunk-fitted and crimped for this purpose.

A recirculating system was developed in which the heater mats are fed to different positions on workpiece carriers. The products are manually fitted with PTFE heat shrink sleeves and shrunk-fitted in a specially developed heat chamber.

To this end, an LE-R air heater with nozzle unit and a medium-pressure blower were installed in the seven-metre-long installation. The shrinking process takes place at a temperature of approx. 400 °C. Finally, the cable ends are then crimped in a machine. The entire process is controlled by a PLC.





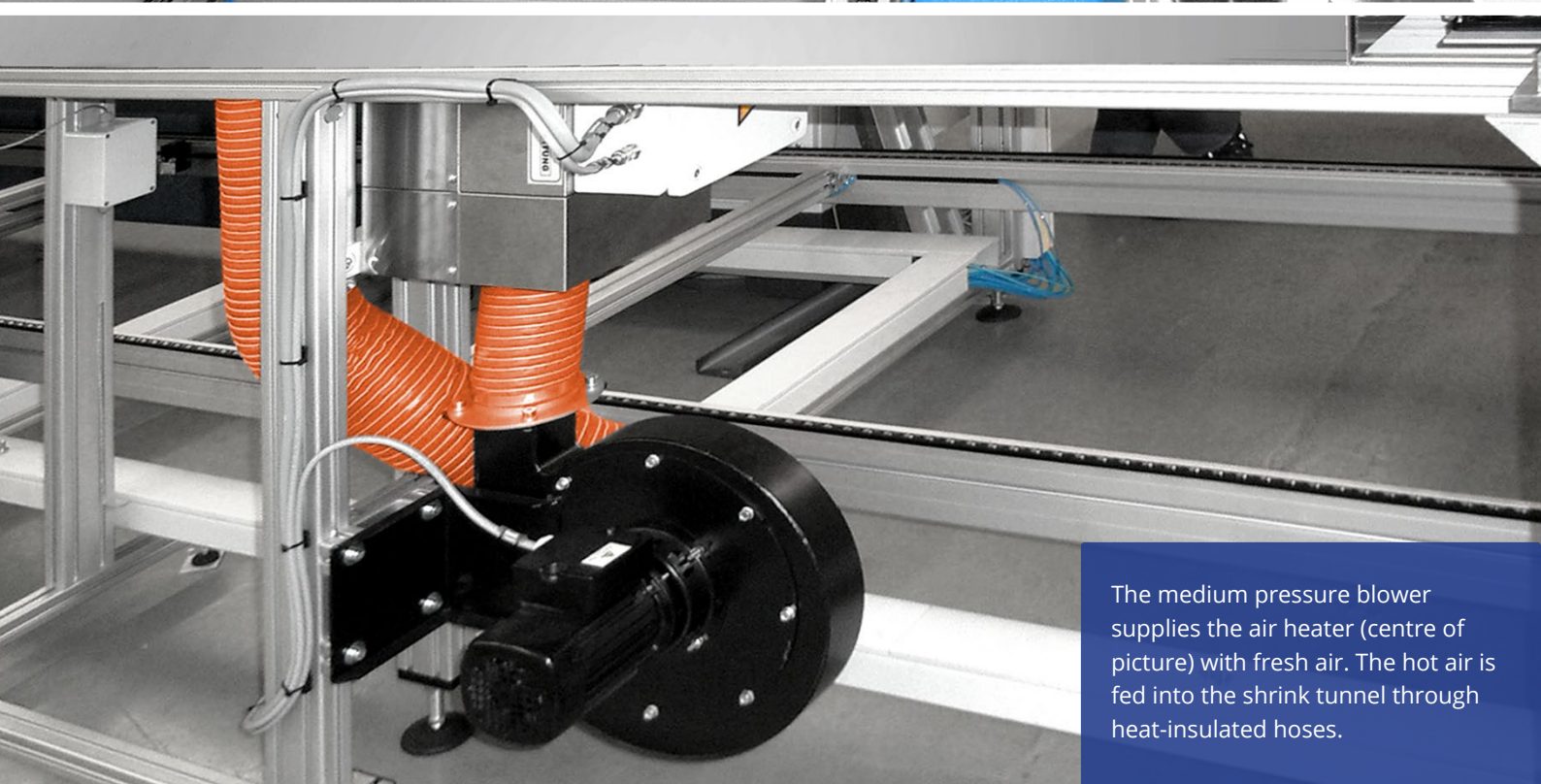
On the far left of the picture you can see the crimping unit, and behind it the shrink tunnel. The switch cabinet is on the right and the controls can be seen in the background.



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Transfer system to the  
shrink tunnel



The medium pressure blower  
supplies the air heater (centre of  
picture)  
with fresh air. The hot air is  
fed into the shrink tunnel through  
heat-insulated hoses.

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### Technical data of the installation

#### Air heater

Air heater LE-R

#### Blower

HAPROVENT M TYP S

#### Controller

Control cabinet  
PLC-controlled

  
**Thermodynamic Engineering.**  
Product Line of WiTec Elektrotechnik GmbH

#### WiTec Elektrotechnik GmbH

Hauptstraße 41  
D-42799 Leichlingen / Witzhelden  
Phone: +49 (0) 2174 / 7901-0  
info@hapro.de  
www.hapro.de