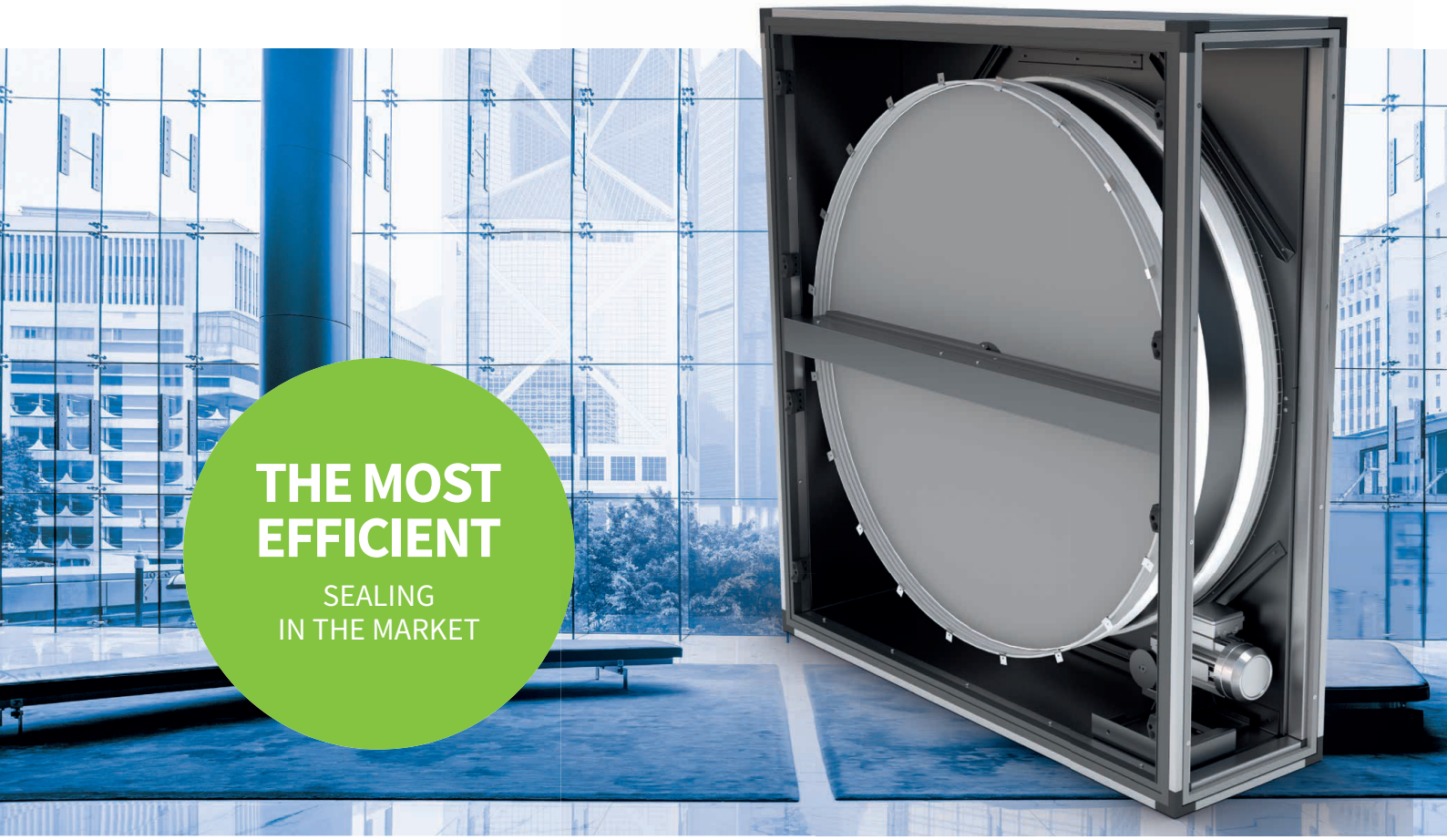
KASTT

VINCI ENERGIES | BUILDING SOLUTIONS

ENERGY FOR
NEW SOLUTIONS



THE MOST EFFICIENT

SEALING
IN THE MARKET

LABYRINTH SEALING

In order to increase the tightness of the rotary heat exchanger, Kastt developed and patented a unique system of rotor sealing elements. This solution considerably reduces the overall untightness of rotor, up to 1.5 % of air volume at maximum. Our special labyrinth sealing is the most efficient, fully functional sealing for rotary heat exchangers in the market.

The new sealing system significantly limits contamination of intake air and minimizes passive losses of intake and outtake air. While designing air-handling units, the need of energy to cover these losses is therefore considerably lower. Air-handling units with exchangers fitted with labyrinth sealing show the highest energy efficiency.

Key benefits

- Significant reduction of intake air contamination (EATR – Exhaust Air Transfer Ratio)
- Reduction of passive losses caused by untightness between intake and exhaust channel (OACF – Outdoor Air Correction Factor)
- Higher energy efficiency of air-handling units - lower specific power consumption of fans (SFP)
- Maintenance of maximum rotor efficient area for energy transmission
- Possible use in buildings with increased requirements for indoor environmental quality
- Long lifetime

For more information visit www.kastt.cz

Application

Rotary heat exchangers with the patented KASTT labyrinth sealing show the total tightness of at least 98.5 %! Such a tightness predetermines exchangers for use in all modern and energy efficient air-handling systems. They are also recommended for applications that require high quality of indoor environment and energy savings.

Technical parameters

Untightness ranges from 0.9 to 1.5 % of the nominal volumetric air flow rate (based on the results of tests pursuant to EN 308:1997 by the accredited testing laboratory at the Lucerne University of Applied Sciences and Arts).

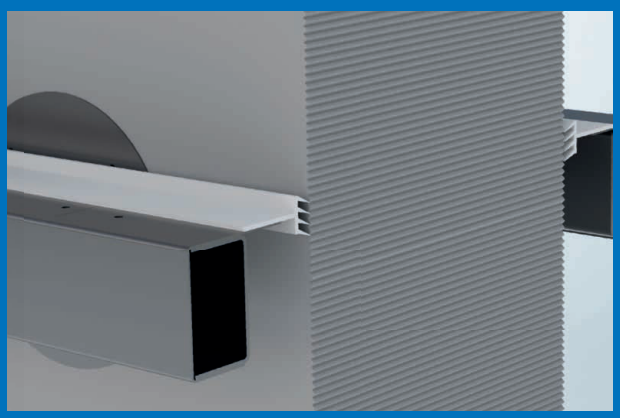
The labyrinth sealing system consists of two separate parts – a sealing along the rotor perimeter and a sealing in the dividing plane between the intake and exhaust air channels.

Sealing along the rotor perimeter

The sealing between the rotor and the cabinet comprises of two special profiles. A fixed profile attached along the rotor perimeter and a flexible profile – sleeve fitted to the front segment of the exchanger frame. These profiles form a closed labyrinth without interfering into a free rotation of the rotor.

Sealing in the dividing plane

In the dividing plane area there is a special plastic profile with lamella edges that are in contact with the rotor front side. The system of lamellas forms a barrier that prevents from contamination of intake air by exhaust air.



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Version 07/25. Subject to change.