TURBAIR® vacuum systems
For the paper industry
TURBAIR® vacuum systems

Specially developed for paper sheet dewatering and felt conditioning on paper, board, tissue and pulp machines. The ecological and economic advantages offered by TURBAIR® effectively enhance the competitiveness of the production processes.

Multistage design

Blower type RC
Multi-stage radial blower with up to four different vacuum levels (up to 2,800 m³/min and 75 kPa)

Blower type RCL
Multi-stage, compact radial blower with one vacuum level (up to 250 m³/min and 55 kPa)

Blower type RT
Single-stage radial blower with integrated automatic performance control (up to 2,300 m³/min and 55 kPa)

Water separator
- Tank-type separator (concrete or steel) with extraction pumps
- Cyclone-type separator of made steel with barometric drop leg

Energy efficient
TURBAIR® blowers achieve a thermo-dynamic efficiency of up to 83%. The power consumption varies as a function of the vacuum requirements of the paper machine, i.e. even at part load conditions, the blower operates at maximum efficiency. Due to the compression process in the blower, the process air reaches temperatures of up to 160 °C. This hot discharge air can be passed through heat exchangers, enabling the recuperation of up to 80% of the power, and ensuring that the blowers are able to adapt ideally to changing operating requirements. The blowers are designed so that vacuum changes are kept within narrow limits, even under widely varying air flow conditions.

Zero water consumption
TURBAIR® blowers require no sealing water whatsoever, and are, therefore, not effected by the quality of the water available.

Flexibility
In the event of changes to the paper machine specifications, system modifications can be easily implemented.

Space saving
Thanks to the compact and space-saving design of the blowers, the few units required take up a minimum amount of floor space. This also means that fewer drive units and control cabinets are needed. As the water separators also operate as collectors, the amount of piping is kept to a minimum.

Reliability
The plant service and maintenance requirements are limited to inspections routinely performed in multi-year intervals. As TURBAIR® blowers are largely wear-free, maintenance costs are minimal.

Control system
Fully automatic control system with
- Motor overload protection
- Antisurge control
Our system solution

Well over 1,000 TURBAIR® vacuum systems are in service successfully throughout the world. Innumerable plants have been in operation for more than 60 years and, thanks to the special design features, it has always been possible to adapt them cost-effectively to the changing technical demands of the paper machine. This successful performance continues with TURBAIR® vacuum plants on paper machines incorporating the latest paper production technology.

Your benefits

The ecological and economic advantages offered by TURBAIR® vacuum systems effectively enhance the competitiveness of all paper, board, tissue and pulp manufacturers. Our comprehensive know-how with regard to the associated process technology, system engineering, quality management and customer service has enabled the TURBAIR® vacuum system to consolidate its position as the leading solution in the field of paper sheet dewatering and felt conditioning.
Dewatering of the paper sheet
- with the multi-stage RC type vacuum blower
  - Up to four different vacuum levels
  - Maintenance-friendly, robust design
  - Operating range from 300 to 2,800 m³/min

Felt conditioning
- with the specially developed single-stage RT type vacuum blower:
  - Automatic diffuser adjustment as a function of the production requirement and the felt condition
  - Operation at optimal duty point at all times 2,800 m³/min

Technical data

Selection diagram of RC, RCL and RT

TURBAIR® systems satisfy all requirements with vacua up to 75 kPa. The model sizes relate to the impeller diameters measured in centimeters.
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