



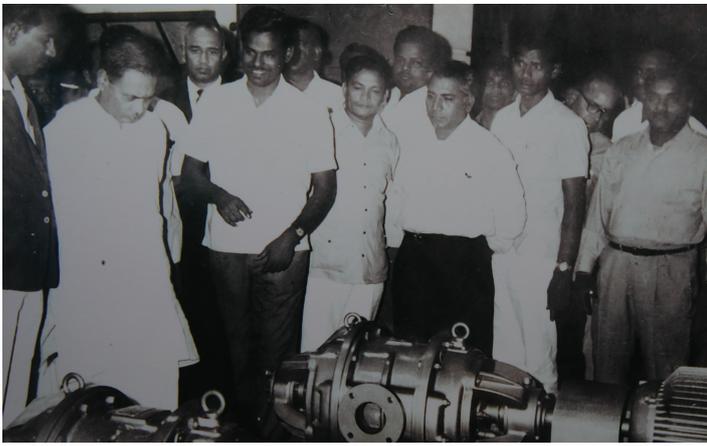
Kakati[®]

Vacuum Pumps & Systems for

Pulp & Paper Industry



www.kakatipumps.com



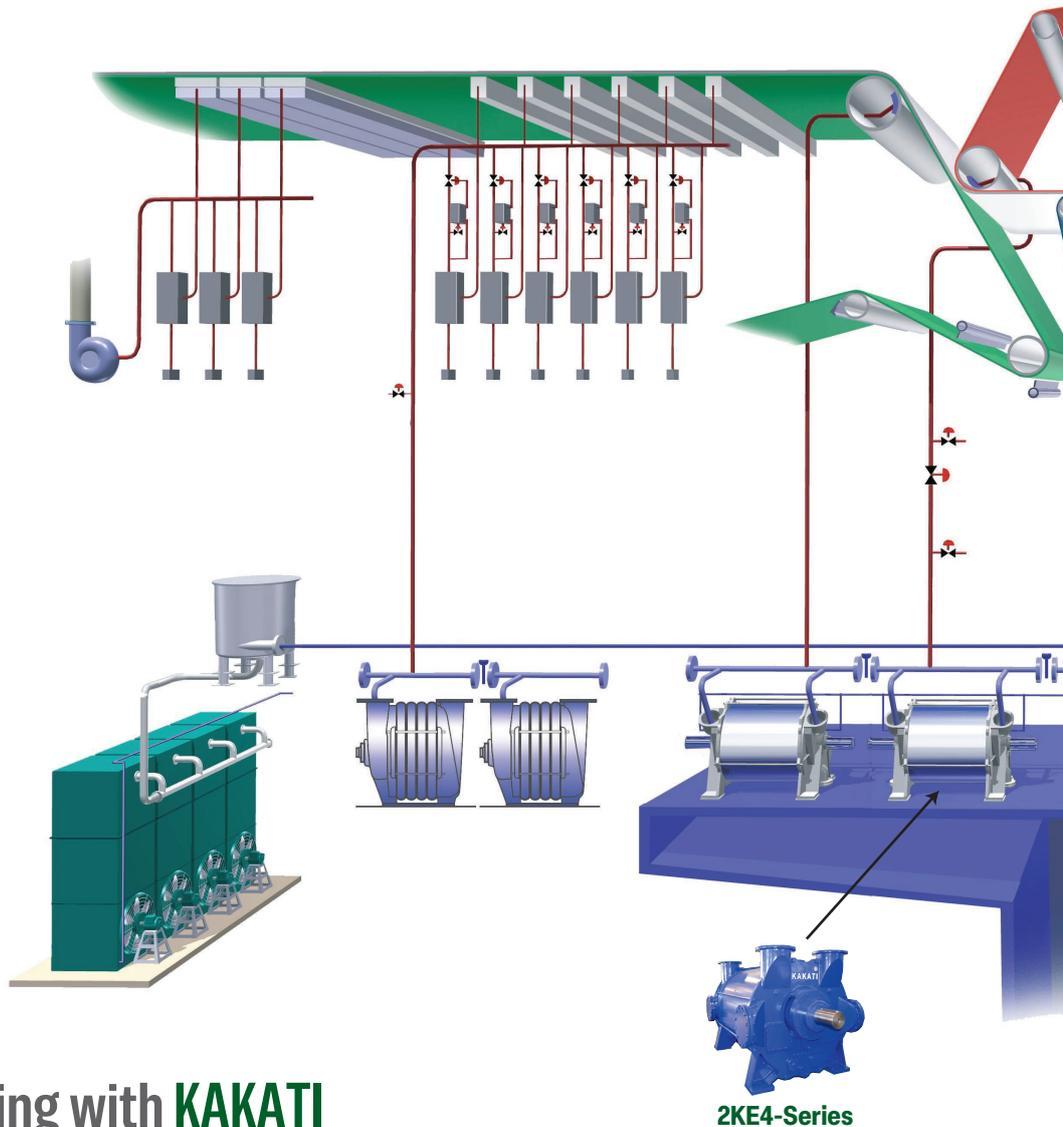


Established in 1965, today KAKATI is South-Asia's largest manufacturer of Liquid ring Vacuum pumps & Multistage Blowers. With over six decades of expertise, **KAKATI** is a trusted name across various industries in India & in many countries worldwide.

Backed by proven engineering excellence and innovation, KAKATI liquid ring vacuum pumps and dewatering systems are designed to deliver **efficient, reliable, and cost-effective** solutions for the Paper Industry.

Our strong presence and reputation in the paper industry have been earned through consistent performance, robust quality, and long-term customer satisfaction.

KAKATI's World Class Quality, Unmatched Expertise and Sustainable solutions - a combination that helps paper mills to produce high-quality paper at reduced operational costs.



Efficient Dewatering with **KAKATI**

With decades of experience serving the paper industry, **KAKATI Vacuum Pumps & Systems** deliver efficient dewatering results in:

- **Water removal efficiency**
- **Energy optimization**
- **Equipment protection**
- **Process stability**

Our vacuum pumps & systems optimise your paper mill performance at different stages of paper making.

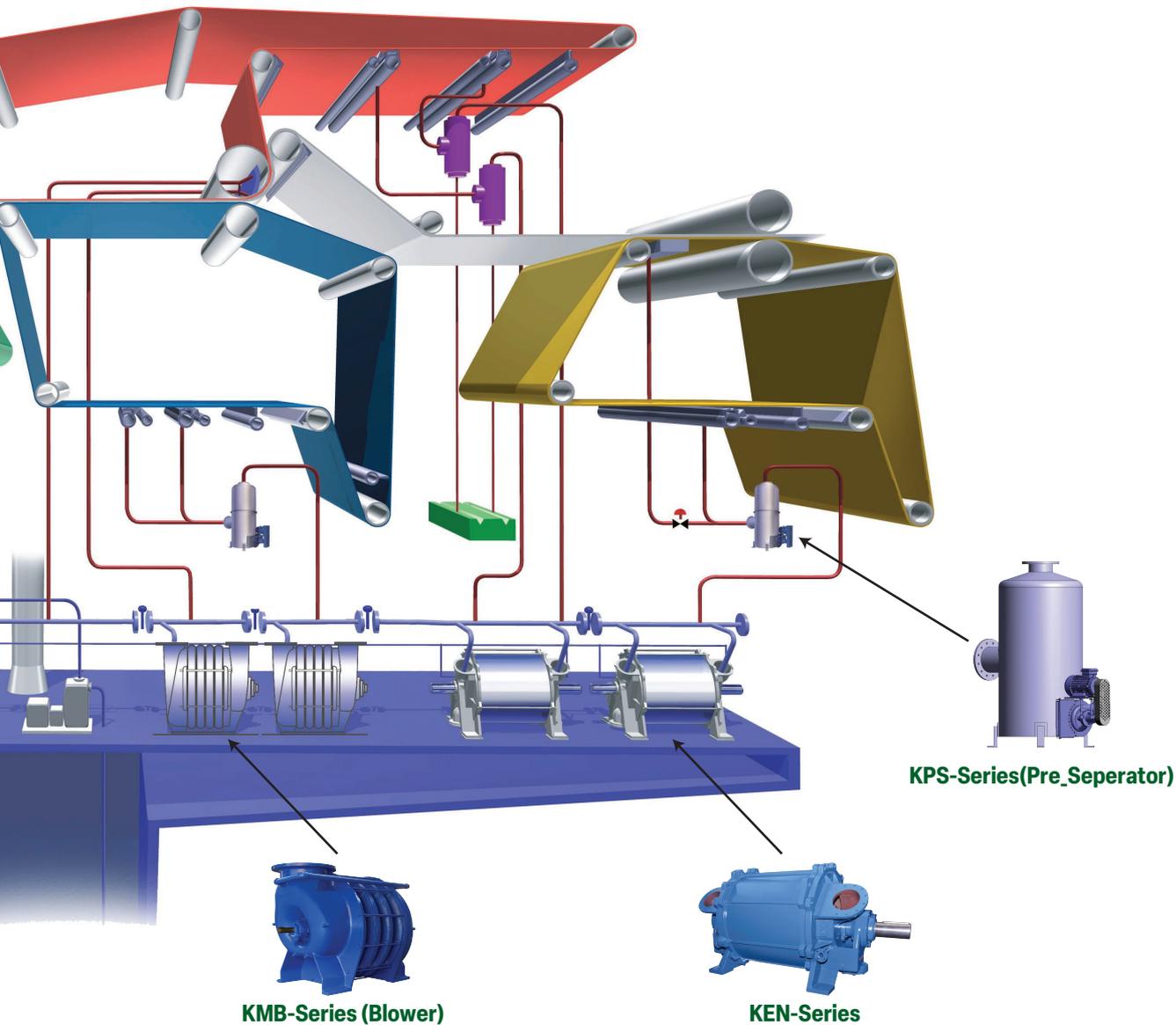
Forming Section

Efficient dewatering at the forming section is crucial for producing a **strong, consistent paper sheet** while minimizing energy usage and web breaks in later stages like the Press & Drying Sections.

In the early stages of formation, **low vacuum levels** help remove water at the foils. As the sheet progresses down the wire, **fiber alignment increases water retention**, requiring **flatboxes** to operate at slightly higher vacuum levels.

This is where **KAKATI Liquid Ring Vacuum Pumps** come into play. Engineered to operate efficiently at varying vacuum levels & handle liquid carryover, KAKATI products provide **reliable, rugged performance** — especially at the **Couch Roll**, where high-vacuum dewatering is critical for achieving optimal consistency before entering the press section.

To improve system-wide energy efficiency, **KAKATI also integrates centrifugal blower technology** for low vacuum services at the table.



Press Section

Vacuum plays a critical role in **felt conditioning**, directly affecting **sheet dryness and machine runnability**. Each Uhle box requires a vacuum source that can respond to **changes in felt permeability over time**.

As felts age and become less permeable, **higher vacuum levels are needed** to maintain effective water removal. **TAPPI guidelines recommend** a dedicated vacuum source for each felt to ensure optimal performance.

KAKATI Liquid Ring Vacuum Systems, with their inherent adaptability, automatically adjust to the required vacuum levels — ensuring consistent and efficient water removal throughout the felt's life.

System Protection and Water Management

Water extracted from felts often contains **fibers, felt hairs, and chemical contaminants** that can damage pump internals if not properly separated.

To address this, **KAKATI supplies high-efficiency air-water separators** pumps and accessories:

- **Pre-Separator pumps** with Low-NPSH centrifugal pumps
- **Separator Tanks** to separate the air and water with special internal arrangement
- **Custom separator packages** to protect system integrity

Why Choose KAKATI?

Energy Efficiency

At KAKATI, we understand the importance of enhancing operational efficiency, reducing energy and water consumption, and lowering overall operating costs — all without compromising performance.

Our innovative vacuum solutions are engineered to minimize power and utility usage, ensuring long-term savings and reliable operation across demanding applications. **KAKATI liquid ring vacuum pumps** are built with optimized internal porting and precision engineering to deliver **maximum efficiency even under varying load conditions.**

Paper Type	Power Consumption
Kraft Paper	30 to 50 KW/ton
Writing and Printing Paper	50 to 100 KW/ton
Tissue	100 to 130 KW/ton
Duplex Paper	30 to 55 KW/ton

Quality Control

We at KAKATI are committed to deliver quality vacuum pumps, systems and other allied products and services, meeting the standards and customer requirements. Every product undergoes rigorous testing to meet international standards such as **BS, HEI, ISO, and PNEUROP** before dispatch.

Kakati's advanced **wet air testing facility, capable of handling up to 1 MW power, sets us apart as the only liquid ring vacuum pump manufacturer in India with such capabilities. This ensures our pumps deliver reliable performance & meet the precise requirements of our clients in even the most demanding industrial environments.**

Kakati has been certified with ISO 9001:2015, ISO 140001:2015, BSOHSAS 18001:2007 and CE certificate.

Optimum Performance

Bigger or faster isn't always better. A vacuum pump running at off-design conditions can consume significantly more energy.

At **KAKATI**, our experienced engineers specialize in **accurately sizing and selecting vacuum pumps & dewatering systems** that match your exact process requirements. We ensure that your paper machine operates at **peak efficiency and performance**, helping you save on energy while maintaining consistent production quality. **Trust KAKATI** for reliable, application-specific vacuum solutions that deliver real operational value.

Experienced Engineering Team

When precision matters, rely on **KAKATI's experienced engineering team** to provide the technical expertise you need — from system design to performance optimization. Our **KAKATI-Engineering Support** ensures that your vacuum system is correctly sized, properly configured, and tailored to your specific application. We leverage **original design data, performance analytics**, and decades of field experience to deliver **customized, high- efficiency solutions.**

As part of our engineering deliverables, **KAKATI will provide:**

- P&ID (Piping & Instrumentation Diagrams)
- GAD (General Arrangement Drawings)
- Trench Layouts
- Separator Tank & Barometric Legs drawings

These documents are essential for accurate planning, seamless installation, and effective integration into your existing plant infrastructure. Whether you're executing a new installation, upgrading an existing system, or resolving performance issues, our engineering team is here to guide you with **data-driven recommendations & project-specific support.**

Pumps and Systems with Long Life

KAKATI vacuum pumps are trusted across industries for their rugged construction, dependable performance, and long service life. Many of our pumps installed in paper mills and process plants decades ago are still operating efficiently today, delivering consistent, trouble-free performance.

Select models are equipped with corrosion-resistant coatings and robust internal materials, ensuring enhanced protection against wear and tear in demanding environments.

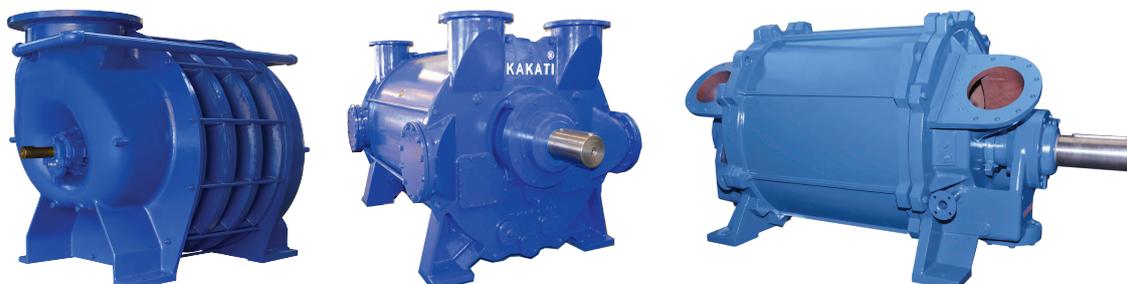
All KAKATI pumps are backed by our commitment to quality offering you peace of mind and lasting value.

Inspections and System Analysis

Preventive maintenance starts with smart inspection. At KAKATI, we offer comprehensive inspection and system analysis services to identify early signs of calcification, erosion, scaling, and mechanical wear — before they lead to costly breakdowns or performance losses.

Our diagnostic services include:

- Paper Machine Audits
- Vacuum Pump Efficiency Test Audits
- Fiber scope Inspections
- Vibration Analysis
- Overhauling/Refurbishment of Old Pumps



KAKATI – Engineered in India, Trusted Worldwide.

Post Installation Service and Support

When it comes to **repairs, overhauls, and rebuilds**, there's no better choice than the original manufacturer.

KAKATI is equipped with **skilled technicians, genuine OEM parts**, and access to **original design specifications and engineering drawings** to restore your pump to factory standards.

In addition, we offer **performance-enhancing upgrades** and apply the **latest design improvements** to ensure your vacuum pump operates with **optimal efficiency, reliability, and longevity**.

Performance Enhancements for Existing Installations

In a constantly evolving industry, you need vacuum systems that are flexible, efficient, and built to adapt. You also need a reliable partner who can deliver tailored solutions that grow with your operational demands.

At KAKATI, we offer expertise in upgrading and re-engineering existing vacuum installations — whether it involves increasing or redirecting capacity, optimizing water removal equipment, or modifying system configurations to improve performance and efficiency.

Our Products for Paper Industry



KEN-Series Liquid Ring Vacuum Pumps

The KEN Series Cone Type Liquid Ring Vacuum Pump is one of the most trusted and successful vacuum solutions in the paper industry. With **capacities ranging from 80 m³/min to 375 m³/min**, it delivers powerful, stable vacuum for critical processes such as sheet formation, couch roll dewatering, and press section operation. Its cone-type design is engineered for optimal efficiency, providing consistent performance across a wide range of paper grades and machine speeds.



MAX-Series Liquid Ring Vacuum Pumps

The Max Series Cone Type Liquid Ring Vacuum Pump is created to meet the high-performance demands of paper manufacturing. With a **capacity of up to 320 m³/min**, it delivers stable, efficient vacuum for key processes such as sheet formation, dewatering, and press section operation.



2KE4-Series Liquid Ring Vacuum Pumps

The 2KE4 Port Plate Type Liquid Ring Vacuum Pump is engineered to deliver unmatched performance for large-scale paper production lines, with high **capacities ranging from 80 m³/min to 700 m³/min**. Its robust port plate design ensures optimal vacuum generation and smooth airflow, supporting critical processes such as sheet formation, dewatering, and press section operation.



KMB-Series Multi-Stage Centrifugal Blowers

The KMB Multistage Centrifugal Blower is designed to deliver reliable, energy-efficient performance for vacuum and airflow applications in the paper industry. With a **capacity of up to 600 m³/min**, it is ideal for lower to medium vacuum ranges, supporting essential processes such as sheet dewatering, felt cleaning, and air supply systems. Its advanced aerodynamic design eliminates the need for sealing water, ensuring a cleaner and more sustainable operation while reducing overall running costs and lower power bills.



KPS-Series Pre-Separator Pumps

The KPS Series Pre-Separator Pumps are specially developed to handle excess water entering through the inlet pipeline, which otherwise affects the performance of liquid ring vacuum pumps. Installed with a separator tank, these pumps ensure smooth, reliable operation and extended life of the vacuum system. Available in **capacities from 300 LPM to 3000 LPM**.

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