Impulse™ Rotor

Custom Design, Tailored Results

**Applications**
The Impulse rotor is a customizable rotor for use in mechanical, chemical, and recycled fiber applications. The sloped foil design improves cylinder back flushing while the foil’s leading edge mechanically assists debris movement into the screen rejects.

**Features & Benefits**

- **Available in multiple sizes** – The impulse rotor can be used in nearly all screen models.
- **Very low power is required** – The foil pattern is designed to minimize energy requirements and offers low power consumption.
- **Minimal cost to upgrade** – Existing drum-style rotors can often be retrofitted.
- **Long lasting rotor** – Solid foils cast from hardened materials provide extended operating life.

Screening sub-system analysis

The two most critical components influencing pressure screen performance are the screen cylinder and the rotor. While substantial improvements in screening system performances have been achieved with advancements in screen cylinder designs, rotor development has been limited to incremental changes that were commonly applied as a one-size-fits-all approach. Kadant Black Clawson’s customizable approach to rotor design offers a new way of thinking to optimize screening system performance. Screening system improvements and optimization begin with a thorough process audit. A thorough process audit is a systematic method used define key rotor design parameters that will deliver specific system improvements. Using the data collected from the audit, a customized rotor with optimal foil patterns and shapes is designed and presented along with a complete analysis and recommendation for increasing the performance of the screening system.

Tailored results

Following the audit, rotor characteristics are specifically tailored to optimize the screening system. The key variables considered in the custom-design include rotor speed, foil design, rotor clearance, number of foils, and foil configuration. As a result, fiber yield and runnability are maximized while energy consumption is minimized.

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**Screen Basket Comparison**
(type, opening, spi, contour)

**Rotor Type & Tip Speed**

**Consistency / % Debris**

**Flow Balance / Debris Balance / Reject Rates**

**System Goals**

**Optimized Screen System Recommendation**

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**Rotor Speed**
- Maximum Capacity / Reduced Energy

**Foil Design**
- Increased Yield / Improved Runnability

**Rotor Clearance**
- Better Efficiency / Improved Runnability

**Number of Foils**
- Reduced Energy / Increased Yield / Improved Runnability

**Foil Configuration**
- Increased Yield / Improved Runnability / Reduced Energy
Mill Objectives

Process Conditions

Screen Cylinder Specifications

Impulse Rotors are customizable to provide optimum results for specific mill screening objectives.

Recondition or upgrade: The choice is yours

In many installations, reconditioning the rotor may be all that is required to breathe new life into an existing rotor. Utilizing the findings from a process audit, Kadant Black Clawson can offer reconditioning when possible, or replacing when needed. In the end, cost-effective solutions are provided to maximize the performance of your screening system based on your unique operating environment and needs.

Before and After

About Kadant

For more than a century, Kadant subsidiaries have been delivering smart and efficient solutions to process industries. As a global leader in fiber processing, fluid handling, water management, and doctoring systems, we design and manufacture products used in industries ranging from paper to plastics and textiles to tires.

At Kadant, we are proud to offer innovative products and technologies that help reduce energy consumption, improve water management, and enhance efficiencies for long-term sustainability. Kadant brand products and services are sold to industries worldwide through our subsidiaries located in more than 18 countries. Our approach is simple: know our customers, understand their process, and use our specialized expertise to deliver the right solutions.

Specifications and information subject to change without notice.