

Breathing efficiency into Paper Production: **The Essentials of Vacuum System Audits**

The pulp and paper industry relies heavily on efficient machine operation to maintain productivity and minimize costs. One crucial aspect of machine maintenance is the implementation of regular audits, with the Vacuum System Audit being a critical component for ensuring system health and efficiency. Let's explore the essentials of this audit, its benefits, and how its outcomes can enhance operational performance.

The Audit Process

A Runtech Vacuum System Audit is a thorough examination of the vacuum systems used in paper production, particularly during the sheet dewatering process. The audit begins with a study and review of vacuum levels to ensure they are optimized for the specific production process. This includes analyzing the vacuum pumps to identify any problem areas that may be impacting performance.

One significant area of focus is the assessment of pressure bleed losses. This step is essential for understanding energy consumption and determining whether the vacuum levels are set higher than necessary, leading to wasted energy.

During the audit, the dewatering elements, such as flat boxes, save-all pans, and uhle boxes, are also carefully reviewed. This ensures that the dewatering process is functioning correctly and efficiently, which is vital for maintaining paper quality and machine performance.



The Benefits of the Audit

Conducting a Runtech Vacuum System Audit offers several tangible benefits. Firstly, it provides a clear picture of the current state of the vacuum system, highlighting any inefficiencies or malfunctions that may have gone unnoticed. This preemptive approach can prevent more significant issues from arising, saving both time and resources.

Secondly, the audit can reveal opportunities for reducing operational costs. By pinpointing areas where energy consumption can be lowered, papermakers can achieve significant cost savings. Additionally, the audit can suggest improvements to the dewatering process, which can enhance paper quality and reduce the risk of production downtime.

The Outcome

The outcome of a Vacuum System Audit is a comprehensive report that includes a summary of the findings and a detailed analysis with actionable recommendations. These recommendations are tailored to the specific equipment and processes of the facility, ensuring that they are relevant and can be effectively implemented.

For instance, the report may suggest the implementation of EP speed control technology, which can lead to energy savings. It may also provide a proposal for monitoring the dewatering rate and outline the potential benefits of a doctoring upgrade, such as increased production speeds and further cost reductions.

Implementing the Recommendations

Once the audit is completed and the recommendations are delivered, the next step is implementation. This phase is crucial for realizing the benefits highlighted in the audit report. It may involve upgrading equipment, such as installing new vacuum pumps or modifying the dewatering elements to improve efficiency.

Additionally, the audit may recommend designing a new pipeline connection diagram, complete with engineering and drawings, to optimize the vacuum system layout. Implementing these recommendations can lead to a significant return on investment (ROI), not only in terms of energy savings but also through enhanced machine reliability and longevity.

A Vacuum System Audit from Runtech is an indispensable tool for papermakers aiming to optimize their vacuum systems and improve overall machine efficiency. The process entails a meticulous examination of the vacuum levels, pumps, and dewatering elements, leading to recommendations that can significantly reduce operational costs and improve product quality. By embracing the findings and implementing the suggested changes, papermakers can ensure that their equipment operates at peak performance, contributing to the sustainable and profitable running of their facilities.



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