

Vertical screen**Size 20, built in 1967**

- New MultiFoil rotor
- C-bar screen basket
- New screen basket seats
- Overhauled bearings
- New rubber seals



The Voith Paper Fiber Systems Exchange & Repair Program

Anti-aging treatment for stock preparation machinery

When you need cost-effective, quality solutions for upgrading or rebuilding your machinery, look no further than Voith.

Our repair centers in Appleton, Wisconsin/USA, Ravensburg/Germany, Vaassen/Netherlands and Jakarta/Indonesia are staffed with competent, highly experienced professionals committed to partnering with you to get the most out of your hard-working stock preparation machines.

Ever-tightening budget restrictions, physical space limitations for process equipment, greater needs for machinery uptime, and intense competition all propel demand for aftermarket services to rejuvenate your aging, wearing equipment.

Voith repair centers also specialize in rebuilding customer components,

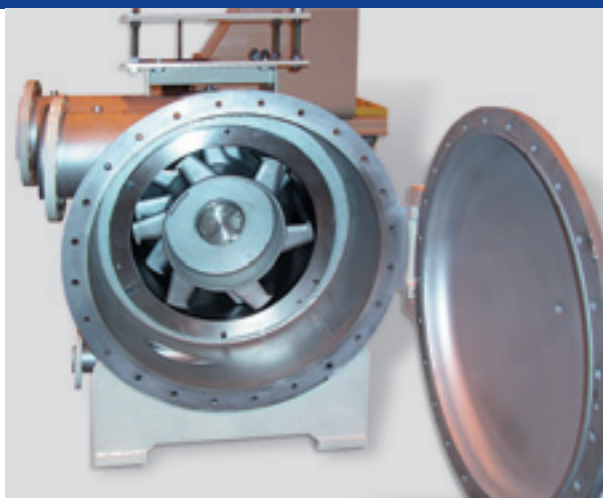
assemblies and complete machines. We can provide these items according to original equipment manufacturer (OEM) specifications. Often, we can also provide a seamless upgrade to improved technology.

The Voith aftermarket offering includes completely remanufactured (reconditioned) machines from the current Voith product line, as well as Voith legacy products and competitors' machines.

The benefits of remanufactured machines from Voith are as follows:

- Guaranteed mechanical reliability and high product quality.

- Old 6-foil rotor
- Deflected screen basket seats
- Old-generation screen basket
- Damaged rubber seals



Beloit M24 screen

For approach-flow applications

- Housing refurbished
- Bearings completely overhauled
- New energy-saving MultiFoil rotor and high-efficiency Voith C-bar screen basket



- Heavily worn housing
- All bearings in bad condition
- Outdated and inefficient rotor design
- Heavily damaged screen baskets



- In many cases fiber and energy savings as well as greater production output.

What is remanufacturing?

Remanufacturing means reconditioning a worn component or machine rather than scrapping it and replacing it with a new one. Depending on customer need and preference, Voith offers the following possibilities:

- A remanufactured machine from inventory to replace the existing machine, which can be credited in part to the cost.
- Reconditioning of customer's existing machine at a Voith repair center, where it first undergoes a functional check to establish the cost-effectiveness of remanufacturing

and/or upgrading. Voith reports findings to the customer before starting work, and can provide a replacement machine in the meantime.

In either case, Voith's objective is the same: to provide customers with a machine whose quality rivals. And it goes without saying that remanufactured machines from Voith carry a 12-month mechanical warranty.

In addition to legendary Voith quality, backed by a solid warranty, Voith aftermarket customers also save money. Because of the high raw material cost associated with building a new machine, a remanufactured machine can often be offered at 60 to 70 percent of the cost of a new one. Most Voith products are fabricated from

stainless steel, a commodity subject to volatile pricing and unpredictable lead times. In remanufactured machines, raw materials such as stainless steel are typically reutilized. The costs involved are mainly for the labor required to restore an item, and such costs are not only lower in general, but also more predictable.

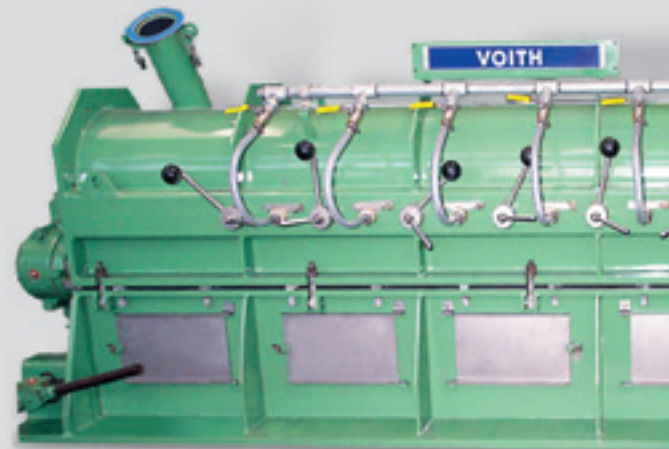
How does the Exchange & Repair Program work for complete machines?

The Voith aftermarket business also meets the needs of mills that may lack the space or budget — or cannot afford the downtime — to purchase and install new machinery. For mills in such circumstances, the Voith advantage is clear: the complete “no worry” package of the Voith aftermarket pro-



**Fiberizer model F2
dumping machine**

- Housing refurbished
- Rotor and bearings refurbished
- Screen plate replaced according to customer's specification



Rejectsorter model RS2B

- Rotor and bearings refurbished
- Worn parts replaced
- Screen plate replaced according to customer's specification

- Heavily worn inner and outer housing surfaces
- Damaged rotor foils and screen plate



gram includes an exchange system that can lend mills a top-notch replacement machine while their existing one is being remanufactured in our repair center. Expensive alterations to process piping and existing foundations are not necessary, because the replacement machine fits exactly. As a further service, Voith also offers complete assembly and start-up supervision by our veteran team of technical professionals.

'Real World' example of the Exchange and Repair Program for complete machines

An existing vertical screen, supplied to a mill in 1977, experienced the kind of wear and tear one might expect after three decades. Screen basket seats were deflected outside of

their prescribed tolerances. The rotor hub had been damaged during periodic reworking by the mill's maintenance team and was also out of tolerance. The foil edges were damaged and far outside their design clearance from the basket face. The screen basket was also damaged. All this led to spinning trash, pulsations, excessive fractionation and thickening, and the associated fiber and energy losses.

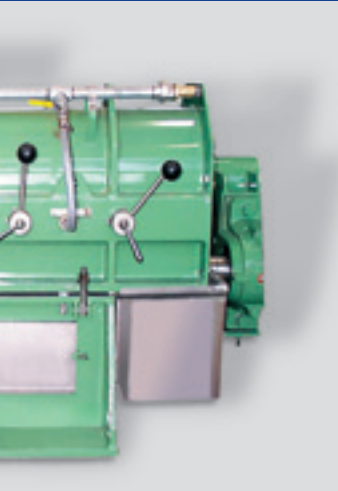
Since mill production demands left no room for the machine to be out of service for any appreciable time, Voith offered an exchange machine while the vertical screen was being remanufactured. Thanks to careful checking and planning, it fit the existing piping and foundation layouts precisely.

Since it ran exactly the same way as the machine being remanufactured, the machine operators did not need any additional instruction or training.

The customer's stock of spare parts could still be used, with full interchangeability among the mill's several machines of this type.

How does the Exchange & Repair Program work for machine components?

The remanufacturing approach we offer for complete machines can also apply to individual components. The complete Voith "no worry" package is customized through the exchange program to specific customer needs. The exchange program is a type of service contract through which Voith



Centrifilter STC 400

Filtrate screen for black liquor

- Housing refurbished
- Rotor and bearings refurbished
- Screen basket replaced
- Protection cover replaced
- New double-acting ring seals with new sealing water monitoring
- New corrosion-resistant O-rings and seals



- Rotor and housing heavily damaged



- Heavily worn housing
- All bearings in bad condition
- Damaged protection cover
- Damaged rotor
- Heavily damaged screen basket



provides punctual, pre-scheduled deliveries of a machine's wearing parts. After determining the appropriate exchange cycles, Voith and the customer contract for new or remanufactured components on a predictable basis — an important tool for mills that want to control maintenance and repair costs, minimize operational worries and maximize uptime while also reducing their own labor outlay.

Conclusions for the future

Over the last few years Voith repair centers have successfully remanufactured numerous complete machines and individual components. Voith offers both the technical expertise and industry-leading technological advancements that set us apart from competitors. The scheduled expansion

of our global repair center network for even closer customer support will make anti-aging an increasingly attractive solution for reutilizing existing machinery and components. We offer remanufactured machines that are not only mechanically dependable, but also meet the most rigorous process technology and quality requirements. Remanufactured machines from Voith also add value for customers by always incorporating the latest design advancements available for each particular product.

The results are improved mechanical reliability, often with fiber and energy savings, outstanding product quality, and enhanced production capacity from case to case.

In other words: anti-aging pays off!

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