



„Turning old into future – RETRO-Fit by SHW WM at VOITH PAPER makes it possible.“

„Future secured“: The comprehensively modernized GRÄSSNER machine with a new spindle head. Milling head assemblies feature state-of-the-art SHW WM technology, bringing it up to the level of a new machine.

Heidenheim, July 2025 – Anyone walking through the production halls of VOITH PAPER in Heidenheim will spot them immediately: the distinctive machines bearing the SHW WM logo. One is brand new, while others have been in use at VOITH PAPER for decades – all of them high-precision, fast, and automated, designed for maximum metal-cutting performance on large components.

But what happens when older machines in the production line are mechanically rock-solid but technologically outdated?

That's exactly the question Mr. C. Fritze, Production Manager for Mechanical Manufacturing in the Group Division Paper, and Mr. Schiele, Planning Technician at Voith Group, both based at VOITH PAPER in Heidenheim, asked themselves after the successful commissioning of a new SHW WM POWERSpeed 4000. The machine had clearly demonstrated



„Starting point“: The GRÄSSNER gantry machine, built in 1991, in use for decades – robust, but technologically outdated prior to the retrofit.



the performance capabilities of SHW WM's latest technology – and thanks to the long-standing partnership, SHW's reliable service was already well-known. Together with Mr. R. Grimm, Head of Service at SHW WM, the idea was born: instead of scrapping a decades-old GRÄSSNER gantry machine, why not bring it up to date with RETRO-Fit by SHW WM?

Strategy: Service as the Key

SHW Werkzeugmaschinen has long been known as a trusted provider of robust new machines. With the RETRO-Fit by SHW WM strategy, the company is now deliberately tapping into a second growth market. The core idea: continue using existing, heavy-duty machine structures in close coordination with the customer – but upgrade them with state-of-the-art SHW WM technology so they can compete with brand-new machines. All this without costly new construction, new foundations, or CO₂-heavy demolition.

This is made possible by SHW WM's high-performance service team: they plan, design, adapt, rebuild, and supply standard modular components. They also ensure smooth operation with CE-compliant concepts and intensive operator training.

"We see RETRO-Fit by SHW WM as a full technical and organizational service," says R. Grimm, Head of Service at SHW WM. "We don't just deliver parts – we deliver a complete working solution. Even for machines that weren't originally made by SHW."

The VOITH Project: From Idea to Showcase

The GRÄSSNER machine had served VOITH reliably for decades and was built on a solid structural foundation. However, spare parts were no longer available – the original manufacturer no longer existed. Downtime was imminent.

Together, Mr. Fritze, Mr. Schiele, and the service team led by Mr. Grimm developed a solution:

A completely new spindle head was installed, featuring a modern orthogonal milling head with new functionalities such as a parallel-swiveling A-C axis, 0.01° positioning, and more – a true leap in technology for the machine.

The milling head is one of SHW WM's proven standard components from their



The latest SHW WM machine in production at Voith Paper, built in 2024.



Completely new drive unit including milling head mounted on the existing GRÄSSNER gantry.

new machine program – known for high precision, ruggedness, and excellent service availability.

A Clear Advantage for VOITH PAPER:

Operators were already familiar with SHW WM milling head technology, opening new possibilities in programming, automation, and modern machining strategies. The drive unit used also came from the current SHW POWERPortal series – field-tested and with assured spare parts availability. The precise adaptation to the existing machine structure was carried out without changes to the foundations. A CE-compliant safety concept, test runs, and comprehensive on-site operator training rounded out the project. Once approved by VOITH, the implementation began immediately and was completed on schedule – thanks to detailed project planning jointly developed by SHW WM Service and VOITH's maintenance team.

The result:

The modernized GRÄSSNER machine now runs reliably at new-machine level, combining cutting-edge technology with

proven structural integrity.

A Lasting Value

For VOITH, this means:

No complex disassembly or reconstruction. No long downtimes due to foundation work. No disruption to ongoing production. Modern, high-precision technology that's robust and service-friendly over the long term

Minimal CO₂ footprint – with old components remaining in use

The team at VOITH PAPER knows: SHW WM Service didn't just implement the retrofit technically – they supported the project as a strategic partner from the first idea to operational readiness.

RETRO-Fit by SHW WM: A Strategic Growth Segment

RETRO-Fit by SHW WM doesn't replace the successful new machine business – it complements it strategically. Customers with solid existing machines can give them a second life through retrofitting.

Those investing in new machines will find a complete range of high-performance solutions in the SHW WM product lineup – from standard to high-end. Always included: SHW WM's service as a critical success factor.

Whether milling heads, rotary tables, tool changers, cooling systems, or extraction units – the retrofit uses the same proven components as SHW WM's new machines, enhanced with modern controls like HEIDENHAIN TNC7 or SIEMENS ONE.

The Future, Made by SHW WM

With projects like the VOITH PAPER retrofit, SHW WM shows: service is more than maintenance.

It's a growing market that makes the most of existing machine assets and ensures their future viability.

"We're experts in retrofit – even for machines we didn't build," summarizes R. Grimm, Head of Service at SHW WM.

"It was the right decision. We know what we have in SHW WM – in both new machines and retrofit projects," adds Mr. Fritze of VOITH PAPER.

Challenge us:

SHW WM – Machine Engineering with Passion