

# Laser 2000 Anilox Cleaner

# ABOUT US

## Improving print quality worldwide

Flexo Wash is a leading cleaning solutions company specialised in cleaning equipment and eco-friendly cleaning liquids for the flexographic and converting industry.

We offer innovative and high-quality cleaning solutions to satisfy the individual needs of printers worldwide. Through our solutions, we ensure consistent print quality and high productivity with a focus on safe working conditions and sustainability.

With more than 30 years of developing innovative cleaning technology, we cover all types of cleaning machines for both solvent and non-solvent cleaning liquids – and also laser cleaning systems as a waste-free alternative.

Our journey began with a simple idea, born out of the daily challenges faced by printers, and it has evolved into a company with core values of innovation, flexibility, trust and sustainability.

That is why we say that our products are made by printers for printers.

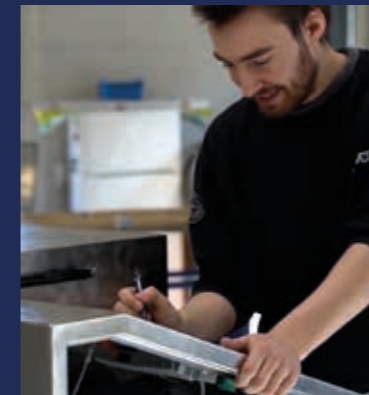
**+35**  
years of innovation

**+100**  
different countries

**+6000**  
installations worldwide

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**Innovation**



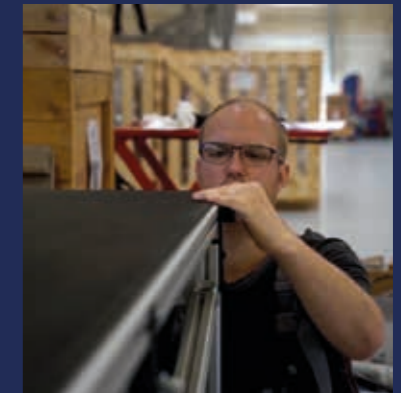
**Flexibility**



**Sustainability**



**Trust**



*Being flexible, innovative and creative, taking care of the environment, and making sure that our customers can profit from our products. To be a trusted partner and a great place to work. That's the Flexo Wash DNA.*

Anders Kongstad, CEO

**FLEXO WASH**  
Leading Cleaning Solutions

# FW LASER 2000

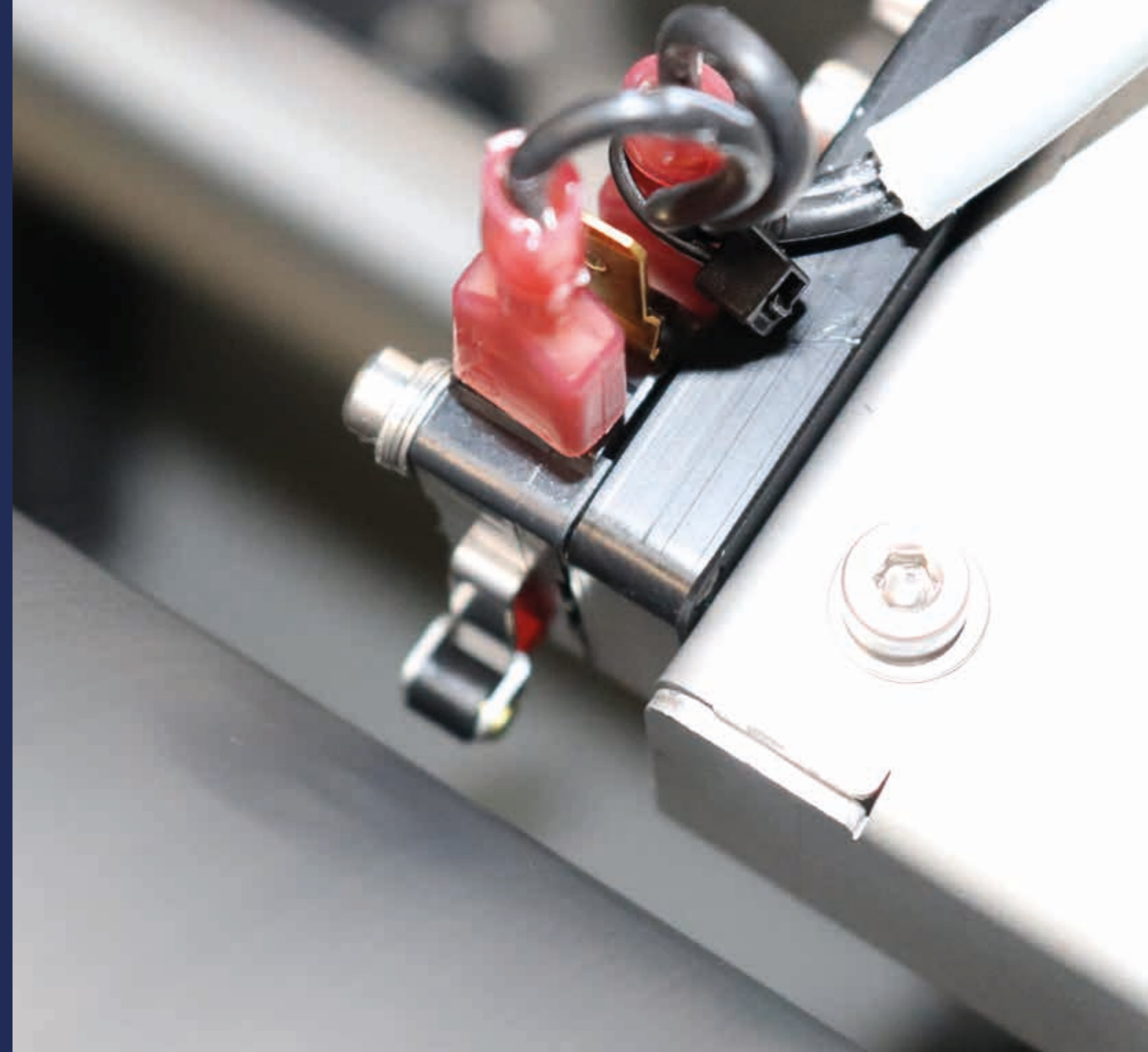
## A safer, smarter and more consistent approach to laser anilox cleaning.

In flexographic printing, consistent ink transfer begins with a clean anilox. When cells are not cleaned thoroughly and predictably, print quality suffers, downtime increases and valuable aniloxes are exposed to unnecessary wear.

The FW Laser 2000 has been developed to meet these challenges with a more controlled approach to laser cleaning. Rather than relying on raw laser power alone, Flexo Wash has

engineered a complete system that combines precision, process stability, operator safety and intelligent control.

The result is a modern laser cleaning solution designed to help printers improve consistency, protect valuable aniloxes and create a safer, more efficient production environment.



## Key customer benefits

- Galvo laser system instead of direct laser
- Fully enclosed class 1 welded steel construction to secure stability
- Safe operation directly beside the machine
- High-efficiency steel spark arrestor
- Reliable extraction system and 3-stage filtration system
- Integrated database to secure cleaning results based on data
- Automatically adjusted power and speed for each anilox
- Powered by German PLC technology
- Upgraded Precision Motion Control

# Designed Around Control, Not Just Power

The FW Laser 2000 is based on a clear principle: successful laser cleaning depends on control. Control of energy, control of movement, control of air handling and control of the overall process.

That is why the machine is designed as a fully integrated cleaning environment rather than simply a laser source aimed at the surface of the anilox. Every part of the system has been developed to support sta-

ble, repeatable cleaning quality while reducing the risk of overexposure, unnecessary heat concentration and process variation.

For printers, this means greater confidence in the cleaning result and more predictable day-to-day performance.

## Laser Anilox Cleaning process

The process of restoring cell volume ensures consistent print quality and less downtime.

### 1 Dirty Roll



Used anilox enters the system with ink, coating, and debris trapped in the ceramic cells.

### 2 Inspection & Setup



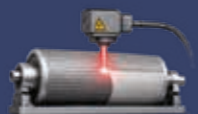
The roller is identified, mounted, and the correct cleaning parameters are selected.

### 3 Controlled Rotation



The anilox rotates at a steady speed so the full surface can be cleaned evenly.

### 4 Pulsed Laser Cleaning



Focused laser pulses clean the surface. Contaminants absorb the energy and are removed by ablation, while the ceramic surface is preserved.

### 5 Residue Extraction

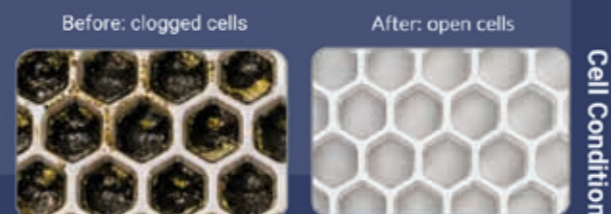


A vacuum or fume extraction system removes vaporized particles and loosened residue from the cleaning chamber.

### 6 Clean & Ready



The cells are reopened, volume is restored, and the roller is ready for consistent ink transfer again.



## Why Laser Cleaning is a Good Alternative

As inks, coatings and production demands become more advanced, anilox cleaning must keep pace. Conventional cleaning methods can be limited when contamination is trapped deep inside the microscopic cell structure.

Laser cleaning offers a more precise, non-contact way to remove residues while supporting a more sustainable production process.

Because the process does not rely on water or liquids during cleaning, it also provides a cleaner and more waste-conscious alternative for modern pressrooms.

For printers looking to improve print quality, reduce downtime and strengthen process control, laser cleaning represents a significant step forward.

## What Makes the FW Laser 2000 Different?

### Galvo Technology for a More Controlled Clean

When comparing laser cleaning systems, the difference between direct laser and Galvo technology is important. A direct laser system concentrates energy in a more localised way, which can increase the risk of overlap, hot spots and uneven treatment.

The FW Laser 2000 uses Galvo technology, where a high-speed motorised mirror steers the beam rapidly and precisely across the surface. This allows energy to be distributed more evenly and supports a gentler, more controlled cleaning pattern.

In practice, this gives printers a solution that is designed to reduce local heat build-up, improve uniformity and support better protection of the anilox surface.

### Advanced MOPA Laser

At the heart of the system is advanced near-infrared MOPA laser technology. Flexo Wash has refined this technology for anilox cleaning by significantly reducing pulse width, allowing a more precise and controlled treatment of the surface.

This high level of pulse control helps the machine clean effectively while supporting a gentle process for aniloxes. Combined with intelligent scanning, it creates a more stable and repeatable cleaning result across changing applications and anilox conditions.

# Built As a Complete Controlled Environment

The FW Laser 2000 has been developed as more than a cleaning machine. It is a complete engineered platform built to support safe operation, clean air and repeatable process control.

## Safety First

Operator safety and system safety are built into the machine from the outset. The FW Laser 2000 is designed as a Class 1 laser system and is fully enclosed within a solid welded steel construction. This allows safe operation directly beside the machine without the need for special goggles or external safety zones.

To further strengthen operational safety, the system also includes an integrated spark arrestor in the filtration system.

## Clean Air in Production

Laser cleaning generates particles, gases and vapours that must be handled correctly. The FW Laser 2000 therefore includes a robust extraction solution and an advanced three-stage filtration system designed to support a clean and safe working environment.

The filtration system combines HEPA filtration, activated carbon filtration and high-capacity particle filtration, with filter detection and automatic service notification to support reliable long-term operation.

## Intelligence and Repeatability

To reduce variation and remove guesswork from the cleaning process, the machine uses an integrated database together with advanced PLC control. This allows the required settings for different aniloxes to be selected more consistently and supports a more standardised cleaning routine.

The upgraded Precision Motion Control system plays an important role here by ensuring highly stable and reproducible process execution throughout the cleaning cycle. This helps printers achieve repeatable cleaning quality from one cycle to the next.

### SAFETY FIRST

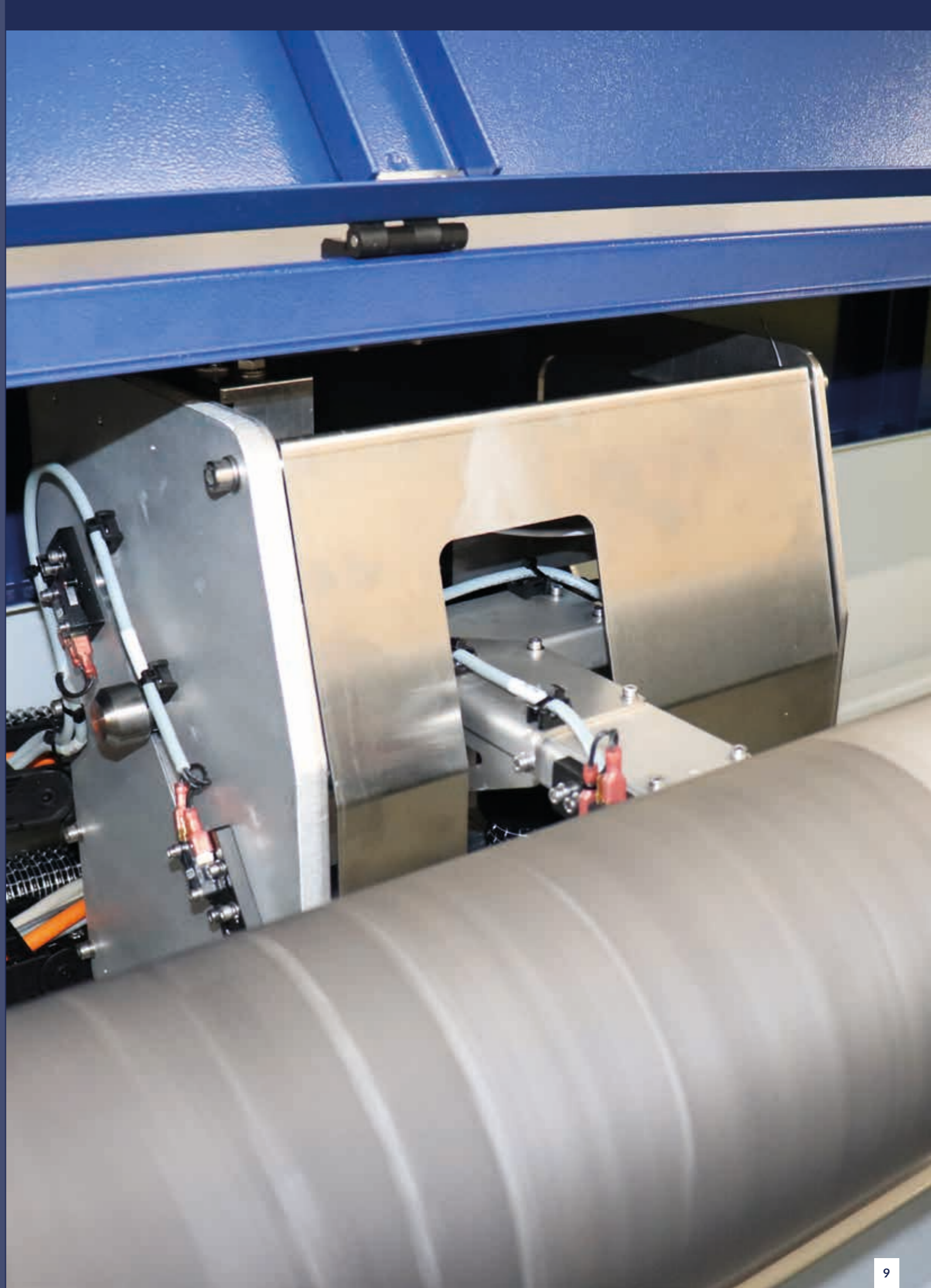
Fully enclosed system

### AIR QUALITY

HEPA & Carbon filters

### INTELLIGENCE

German PLC system

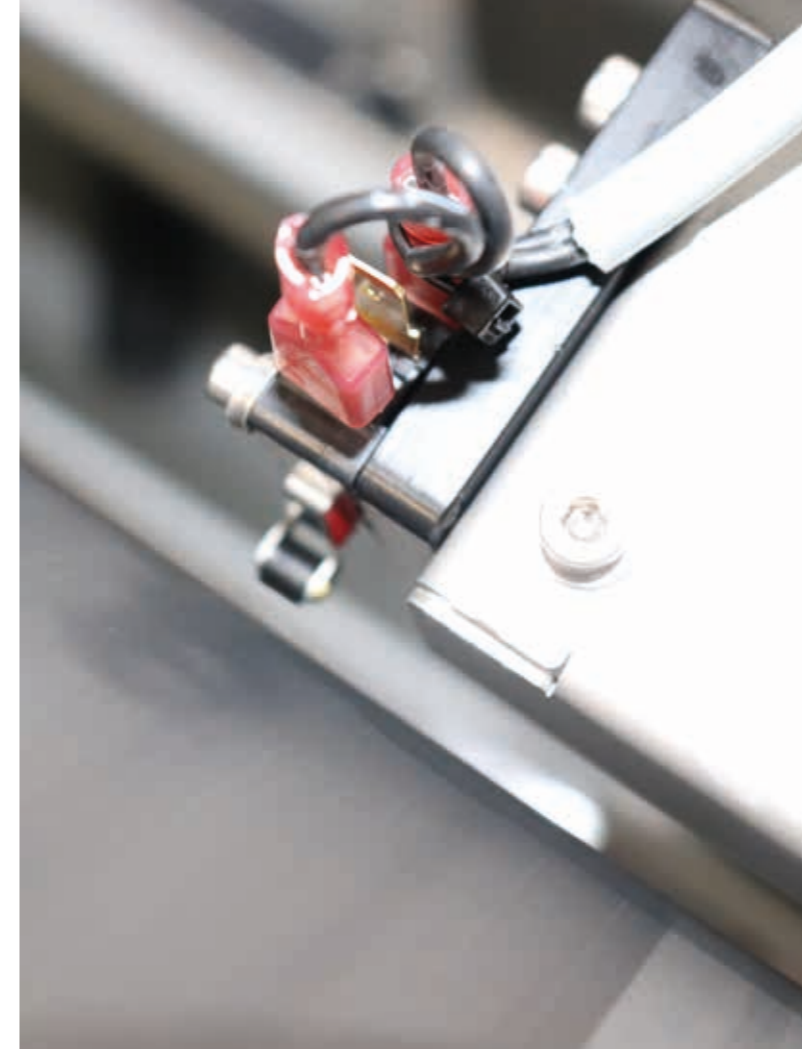


# Engineered for Industrial Reliability

Performance in laser cleaning does not depend on the laser source alone. It depends on how the entire system is engineered and how well each part works together in daily production.

The FW Laser 2000 is built on a strong mechanical platform designed to maintain stability and accurate positioning during cleaning. Flexo Wash also designs and engineers the complete system architecture, ensuring that laser technology, machine structure and process control work as one integrated solution.

Critical laser components are positioned horizontally to minimise lens contamination and support long-term stability and precision. The machine also includes electrical power protection to help maintain stable operation and protect the laser system against voltage spikes and power disturbances.



## Get in Touch

Interested in learning more, or do you have questions for our team?



# Optional Inspection & Connectivity Features

For printers who want an even more data-driven process, the FW Laser 2000 can be equipped with an integrated microscope system that supports automated 3D inspection before cleaning.

This creates a more objective basis for assessing contamination levels, reduces manual judgement and helps avoid unnecessary cleaning.

The machine also supports live visual inspection of the cleaning process through on-screen camera monitoring, allowing operators to follow the process without opening the machine.

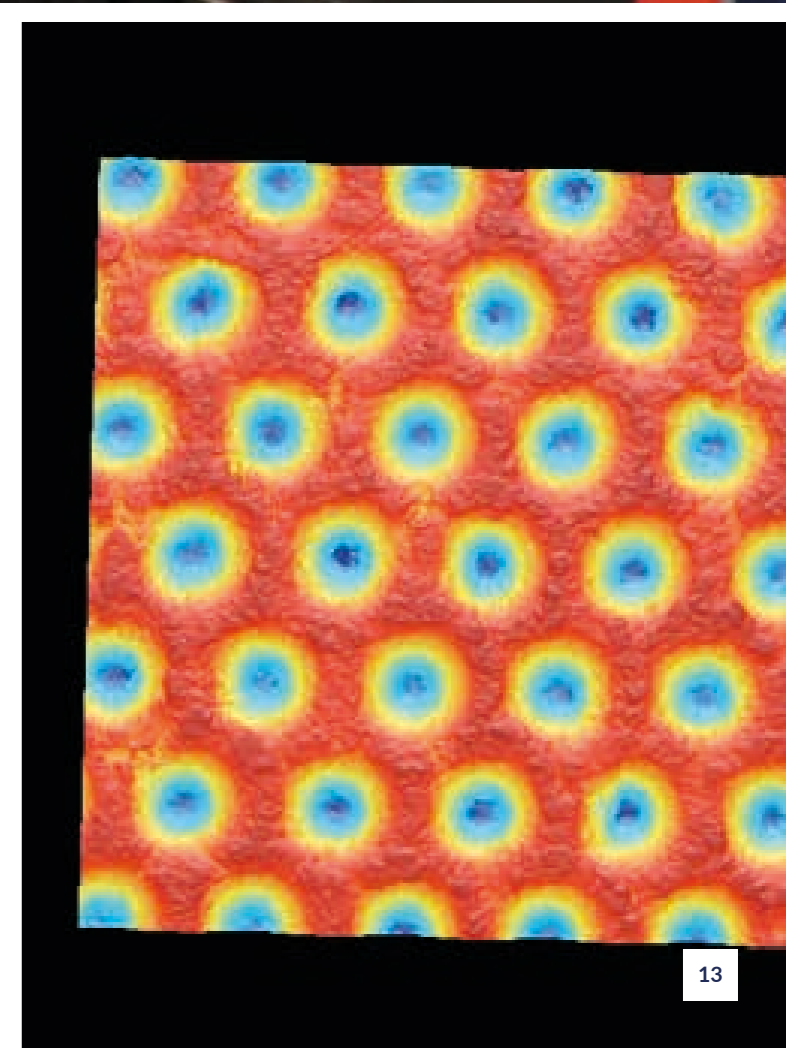
By using Flexo Washes CleanLink app, users get connectivity and remote service support, they also gain better visibility into machine activity, alerts and service needs, helping improve uptime and simplify support.



## A New Generation of Laser Anilox Cleaning

The FW Laser 2000 has been developed for printers who need more than cleaning power alone. They need consistency, control, safety and confidence in the result.

With advanced Galvo scanning, refined MOPA Laser, robust filtration, intelligent process management and complete system engineering, the FW Laser 2000 delivers a more modern approach to anilox cleaning - designed for performance in real production environments.



# Data & Facts

The automated process in a Flexo Wash Laser 2000 ensures full internal coverage while reducing operator handling and exposure.

- **Capacity:** 1 Anilox roll (2 to 4 on special requests)
- **Laser system:** MOPA Laser (Galvo system)
- **Application:** Anilox rolls
- **Process:** Fully automatic
- **Control system:** PLC
- **Options:** Microscope & barcode reader

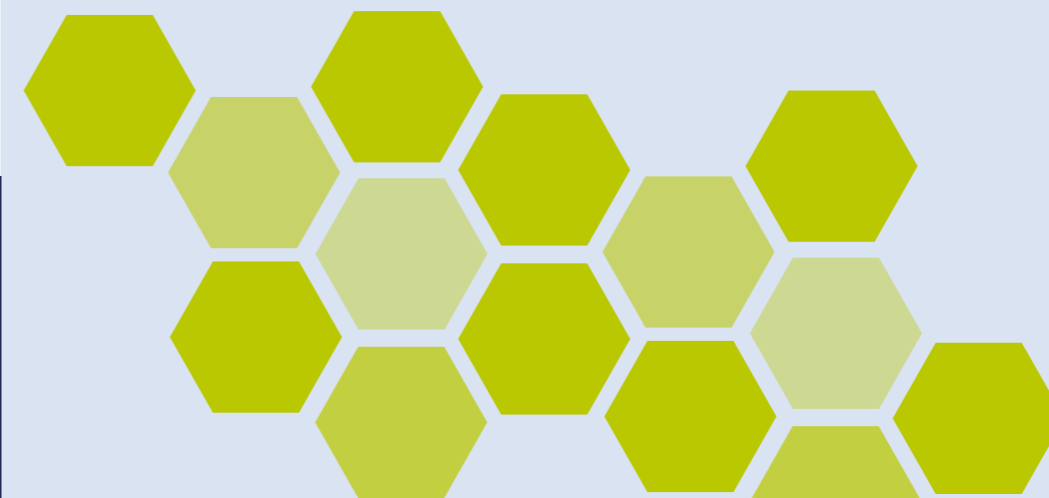


# Practical Advantages For Printers

The FW Laser 2000 is designed to deliver clear operational value in everyday production. It helps printers achieve:

- ✓ More consistent cleaning quality
- ✓ Improved print performance through cleaner anilox cells
- ✓ Reduced downtime and less manual intervention
- ✓ Safer working conditions in the pressroom
- ✓ Better protection of valuable aniloxes
- ✓ Cleaning results based on valid & documented data

By combining precise energy control, intelligent process management and a robust industrial design, the machine supports a more predictable and reliable cleaning workflow.



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