

GUIDE

MANUAL OR AUTOMATED GRAVURE CYLINDER CLEANING?

Which is the best method to clean gravure cylinders?

STAY AHEAD IN THE GAME!

This guide focus on how to **clean** your gravure cylinders and why it is **vital** for your printing business

The demand for clean cylinders and time saving solutions is a constant battle for the gravure industry.

The need to clean cylinders effectively and correctly is essential to survive in our competitive world.

It is critically important to optimize your operation flows and internal logistics to ensure high quality print with minimal downtime.

If you want to excel, you need to install a rigid regime of thorough cleaning to stay ahead of your competition.



The guide will help you answer these questions:

How to clean my cylinders?

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What are the pros & cons of manual and automated cleaning?

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What to consider?

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What is the right solution for me?

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HOW TO CLEAN?

You can choose between three methods when deciding to focus on clean cylinders:

MANUAL cleaning w/solvents

The risks of manual cleaning often overshadow the benefits.

The handling of the heavy cylinders and tools used for manual cleaning provides an inconsistent result. Especially **built-up ink at the end face** of the cylinder is difficult to clean manually and often requires mechanic tools to remove. Furthermore, manual cleaning station quickly becomes a **bottle neck** in production due to lack of capacity. Finally, you should take **health and safety** concerns derived from manual cleaning into consideration.

There are a lot of good systems available for automated cleaning of cylinders. The systems using solvents for cleaning are effective in providing **quality cleaning results**. However, the handling and working with solvents still means health and safety risks. Furthermore, the system requires an EX room. The larger start-up investment in this system may soon **lower your quality cost** and give you a **higher output**.

AUTOMATED cleaning w/solvents

AUTOMATED cleaning w/non-solvents

The non-solvent systems are a great alternative to the solvent-based solutions. The benefits of prioritizing your employees healthy and safety conditions will **improve your working environment without increasing the operation costs**. This environmentally friendly alternative gives you the same **high-quality cleaning** and can be placed right next to the printing press (EX room not required). This gives other opportunities for cylinder logistics and **less handling** of the heavy cylinders.

PROS

- ⦿ Effective and constant cleaning flow
- ⦿ Limited manpower needed
- ⦿ Effective cleaning of all types of inks
- ⦿ Ensures high-quality cleaning of all cylinder's surfaces

AUTOMATED CLEANING

CONS

- ⦿ Larger start-up investment
- ⦿ Requires space (machine footprint)
- ⦿ System requires maintenance
- ⦿ Needs trained operators

MANUAL VS. AUTOMATED CYLINDER CLEANING

PROS

- ⦿ Low or no start-up investment
- ⦿ Reuse of solvents from production
- ⦿ Requires less space
- ⦿ Well-known method

MANUAL CLEANING

CONS

- ⦿ Inconsistent cleaning quality
- ⦿ Health & safety risk of employees
- ⦿ Risk of damaging cylinders
- ⦿ Built-up of bottlenecks due to lack of capacity

WHAT TO CONSIDER?

How do you choose which method is the best for your printing business?

As a converter, you need to consider which solution makes sense to you by asking yourself **a few questions:**

Do I have more or less than 50 cylinders to clean per day?

At peak load, how many cylinders do I need to clean per hour?

Where should the cleaning system/area be placed?


Do I wish to improve health and safety conditions of my employees?

Do I have manpower limitations or reduction targets on cleaning?

Regarding sustainability: are there any corporate targets, policies or concerns to consider?

Do I have trouble with ink building up at the cylinder ends/shafts?

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View the
scoring board
on the next page to how
the methods perform
with different qualities
and consider which are
most important for
you

SCORING THE PARAMETERS

In the below scoring board you can see how the three methods perform with different qualities - **which is most important for you?**

QUALITIES	MANUAL: SOLVENTS	AUTOMATED: SOLVENTS	AUTOMATED: NON-SOLVENTS	CONCLUSION
Low impact on environment	●	●	●	Solvents (VOCs) have a negative impact on environment where non-solvent alternatives are an eco-friendlier alternative.
Ability to clean end faces effectively	●	●	●	Automated cleaning systems are especially excellent in removing heavy ink build-up on the end face of the cylinder.
Cleaning time	●	●	●	It takes longer time cleaning cylinders by hand - with automated cleaning system you can clean as many as 22 cylinders per hour.
Operation costs	●	●	●	The consumables costs are similar with all three methods. However, manual cleaning has higher cost of man hours.
Effect on health of employees	●	●	●	Solvents have a negative influence on the health condition of your employees. Non-solvents alternatives create a healthier work environment.
Safe handling and operation	●	●	●	Handling solvents are a risk; however, the risk is lower with automated cleaning. The safest choice is to clean with non-solvents.
Start up investment	●	●	●	Manual cleaning need low/no start-up investment - automated cleaning systems require investment in equipment. However, automated cleaning requires less manpower.
Space required	●	●	●	Systems with solvents requires an EX room, which takes up space. Non-solvents systems can be placed next to the press. It still requires more space than a manual cleaning area. However, automated cleaning optimizes the logistics and less space needed for storing of dirty cylinders.

**CLEAN
IS CLEAN**
YOU DECIDE HOW!

However, we are always ready to
help and guide you to the right solution!

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