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WEB

# PRODUCT CATALOGUE

# GRAVURE CLEANING

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*FW 2000-4500-series*



**FLEXO WASH**  
Leading Cleaning Solutions

# EFFECTIVE CLEANING OF CYLINDERS

The Flexo Wash system is based on cleaning liquid and high-pressure water. Therefore, the fully automatic FW Cylinder Cleaners are designed to deep clean rotogravure cylinders of all sizes. The system is effective for all types of rotogravure cylinders.

## ROTATING BRUSHES REMOVES EVEN THICK INK LAYERS

The PLC controlled machines can be equipped with rotating brushes thus making it possible to clean gravure cylinders in the machine. The brushes ensure in depth cleaning at the engraved parts of the cylinder thus leaving it clean on all surfaces.

The machines can also be equipped with rotating brushes for cleaning of gravure cylinder shafts, where there is often a heavy build-up of ink, which can be difficult to remove.

## CLEAN ON ALL SURFACES

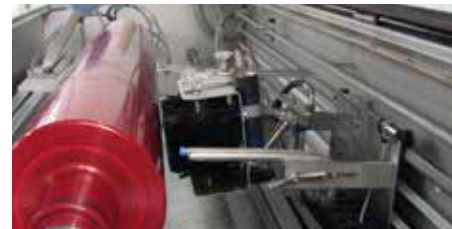
The hard rotating and oscillating brushes will remove all ink from the shaft and the end of the cylinder making it clean on all surfaces. The cylinder can then be taken to production, storage or re-chroming without any manual treatment.



## TAKE CARE OF YOUR CYLINDERS

- Designed to deep clean rotogravure cylinders of all sizes.
- Rotating brushes for cleaning of gravure cylinder ends.
- Quick and gentle cleaning process, wash, rinse and dry cycle.
- Automatic liquid filling & emptying system.

## BEFORE WASH



## AFTER WASH



# HOW DOES IT WORK?

## ECO-FRIENDLY CLEANING

The FW Cylinder Cleaners work with environmentally friendly cleaning liquid, which is specially made for cleaning of cylinders used with all types of ink.

The water from the high-pressure rinse is automatically led directly either to the drain, to a tank for re-use or to one of our water treatment units.

## OPTIONS AND ACCESSORIES

- Double tank system for 2nd cleaning liquid.
- Drain tank for re-use of rinse water.
- Automatic liquid filling system.
- Extra traction system for extra cylinder
- Servo driven traction system
- Gear Covers

## WASHING

The cleaning liquid facilitates easy removal of the ink from the gravure cylinder.

Average washing time is 5-10 minutes.



## DRAINING

After the washing cycle the liquid is drained back to the wash tank for re-use.

Drain time is 2-3 minutes.



## RINSING

High pressure adjustable water nozzles complete the cleaning process and removes any remaining ink particles and cleaning liquid.

Rinse cycle is approx. 2-3 minutes.



## DRYING

High pressure air drying completes the cleaning process leaving the anilox ready for immediate use or storage.

Duration is 1-3 minutes, depending on cylinder length.



# CYLINDER CLEANERS FOR ALL NEEDS

## WIDE RANGE OF MODELS

The Flexo Wash Cylinder Cleaners comes in many different models which each can be modified by combining the standard unit with one or more of the various models.

We have been leading experts in cleaning technology for 25 years and our large portfolio of units and options reflects the flexibility needed to meet all the needs of the gravure industry.

## PLC CONTROLLED MACHINES

All larger FW Cylinder Cleaners are equipped with a PLC control, which enables easy change of the various program settings e.g. washing time, rotation speed and temperature. It is also possible to enter an alarm log.

## FW 3000-4000

The FW 3000-4500 Cylinder Cleaners are designed to clean larger and heavier rolls and sleeves. They can all be adapted to fit your specific needs by for example adding an extra traction system to clean more cylinders per wash or reinforcing the machine to clean even heavier rolls.

## FW 2000-2 & 3000-2

With a deeper width the FW 2000-2 & 3000-2 Cylinder Cleaners are designed to clean two cylinders per wash. By adding an extra traction system these units can wash as many as four cylinders per wash.

## FW 3000-4500

- 1 cylinder per wash\*
- PLC controlled
- Max diameter:  
300 mm (11.8")
- Max cleaning length:  
FW 3000: 2400 mm (94.5")  
FW 3500: 2900 mm (114.2")  
FW 4000: 3400 mm (133.9")  
FW 4500: 3900 mm (153.5")
- Max weight per cylinder:  
600 kg (1 323 lbs)/800 kg (1763.7lbs)\*\*

## FW 2000-2 & 3000-2

- 2 cylinders per wash\*\*
- PLC controlled
- Max diameter:  
300 mm (11.8")
- Max cleaning length:  
FW 2000-2: 1400 mm (55.1")  
FW 3000-2: 2400 mm (94.5")
- Max weight per cylinder:  
600 kg (1 323 lbs)/800 kg (1763.7lbs)\*\*

\* Clean up to two cylinders per wash with option.

\*\* Clean up to four cylinders per wash with option.

\*\*\* Requires option.



# ...AND ALL CYLINDERS SIZES

## NEED MORE? GO XL!

The FW 3000-4500 XL models are designed to hold an even larger diameter than the FW 3000-4000 standard units. Same options for extra traction systems, sleeve adaptors and heavier rolls among various other options.

## NEWEST LASER TECHNOLOGY

The FW laser cleaners are developed with newest laser technology and software systems. The design is both aesthetic and highly functional with a drawer system for easy handling.

## FOR ADHESIVES, VARNISH & 2K INKS

If you wish to clean your cylinder clean from adhesives, varnish or difficult 2K inks, the FW LASER is an excellent choice. Most importantly it is a waste-free and sustainable cleaning method with no liquid handling or consumption.

## FW 3000 XL-4500 XL

- 1 cylinder per wash
- PLC controlled
- Max diameter:  
450 mm (17.7")
- Max cleaning length:  
FW 3000 XL: 2400 mm (94.5")  
FW 3500 XL: 2900 mm (114.2")  
FW 4000 XL: 3400 mm (133.9")  
FW 4500 XL: 3900 mm (153.5")
- Max weight per cylinder:  
800 kg (1763.7lbs)/1500 kg (3307lbs)\*



## FW 2000-3000 LASER

- 1-2 cylinders per wash\*\*
- Max diameter:  
FW 2000: 230 mm (9")  
FW 3000: 300 mm (11.8")
- Max cleaning length:  
FW 2000: 1730 mm (68")  
FW 3000: 2730 mm (107.5")
- Max weight per cylinder:  
FW 2000: 200 kg (440lbs)  
FW 3000: 800 kg (1763.7lbs)



\* Requires option. Heavier roll can be cleaned on request.

\*\* Total maximum cleaning length reduces by 50 mm for each cylinder.

# MACHINE DETAILS

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## PLC CONTROL (only FW 2000-4500XL)

Enables easy change the various program settings e.g. washing time, rotation speed and temperature. It is also possible to enter an alarm log.

## PUMPS

One diaphragm pump for spraying of cleaning liquid and another high-pressure pump for high-pressure rinse water.

## FILTER

The 50 microns-filter for collection of the ink particles gives a longer lifetime of the cleaning liquid. It is accessible from the front and can easily be changed or cleaned. Should normally be changed once a month or after approx. 100 wash cycles.

## NOZZLES

Two types of nozzles are installed; air nozzles made of PWDF and high pressure water nozzles made of stainless steel.

## TANK

One tank for cleaning liquid (optional two tanks) has a built-in heating element.  
Cleaning liquid can easily be filled into the tank through the filling funnel and furthermore the tank has a valve in the bottom, which makes it easy to empty it.

## LIQUID LEVEL

The tank has a indicator to visualise the liquid level and a high level switch.

## SENSORS

Three sensors determine the route of the slide in proportion to the length of the cylinder.

## ALARMS

Filter alarm: Indication that it is time to change the filter.  
Service alarm: Alert the operator to arrange service for the machine.  
Liquid level alarm: Alerts of low liquid level. No washing is possible before the liquid level is back to normal.

# MACHINE DETAILS

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## TRACTION STATIONS

The electrically driven traction stations are adjustable according to the length of the cylinder.

## EXHAUST

Automatic opening and closing of exhaust function via the PLC control.

## RINSE WATER

Disposal of liquid waste and rinse water must be in accordance with local rules and authorities. It is the customers responsibility to ensure that any disposals are approved by all the required local authorities.

## CLEANING LIQUID

For all ink types, Flexo Wash recommends the following cleaning liquid:

- FW UV/Solvent Cleaner (When gravure)

This loosens the ink so it can subsequently be removed by high-pressure cleaning, which is a very gentle method and completely safe for all cylinder types. The cleaning liquid is heated by a heating element (1, 5 KW). The temperature is visible on the display. The liquid is filtered and reused.

## CONSUMPTION DATA PLC MACHINES (per wash)

Electricity: Approx. 1-1,5 kWh.

Liquid (when mixed 1:1 with water): Approx. 0,1-0,3 l. per wash