

# PRODUCT CATALOGUE PARTS WASHING

PK EasyLoad & FrontLoad-series



# **EFFECTIVE CLEANING OF PRESS PARTS**

The PK washing units are user-friendly parts washers, where the press parts are easily slid into the unit from the front.

### **EASY HANDLING**

The fully automatic washing units are designed for easy handling of press parts. It is possible to wash doctor blade chambers, ink trays, ink sumps and other removable press parts used with all types of inks, varnishes etc. The units can be equipped with a trolley, which makes the handling even easier.

### **QUICK & EASY OPERATION**

The quick and easy wash operation allows press operators to focus on press make-ready functions and thus reducing the changeover time and the labour involved in washing. This results in reduced down time, constant print quality and a safe and healthy cleaning and working environment.

### **CUSTOM-BUILD TO FIT YOUR NEEDS**

The Parts Washers can be customized according to each customer's specific needs. They are made with a moving nozzle arm, which ensures a more dynamic liquid flow, a higher pressure and thus an improved wash result.

# BEFORE WASH | AFTER WASH











# TAKE CARE OF YOUR PARTS

- Custom-built system enabling focused cleaning of challenging areas
- Fully automatic cleaning closed-loop process
- Ergonomically friendly grids and trolleys
- Clean all press parts in one single machine
- Low operation costs and environmentally friendly cleaning

# **HOW DOES IT WORK?**

### **TWO-STAGE CLEANING PROCESS**

The Parts Washers from Flexo Wash have a Wash & Rinse system with two separate tanks which offers an automatic two-stage cleaning process, where the first stage is for cleaning and the second stage is for rinsing.

The parts are cleaned by various high-pressure nozzles, spraying cleaning and rinse liquid from below and above.

### **OPTIONS AND ACCESSORIES**

- Trolley with slide-in grid for easy handling of parts.
- High performance rotating nozzles for ink buckets.
- Flexible jets to focus spray on difficult to clean items.
- Automatic rinse at end of wash cycle open system or closed circuit.
- 2-story wash area

#### • Racks for ink trays, cylinders and doctor blades.

- Cleaning of hoses.
- Extra tank, pump and jets for 2. cleaning liquid.
- Distillation systems and integration between parts washer, tanks and distiller.
- Wastewater treatment unit.
- Automatic liquid filling system

### WASHING

The parts are placed in the adequate holders/grids in the machine and the lid is closed by a 2-hand control. Activate the washing process by pressing START.

The first pump circulates the washing liquid from the tank, through the filter to the washing area. A moving nozzle arm sprays the liquid ensuring a very efficient washing result.

### DRAINING

The draining takes approx. 5 minutes and is designed to ensure that as much liquid as possible comes back through an automatic drain valve to the tank to be re-used.

### RINSING

The parts are rinsed with water or the same liquid as for wash, leaving the parts ready for immediate use (WR).

In WRO-units the parts are rinsed with fresh water from local water supply.







# **PK EASYLOAD & SIDELOAD**

### **COST-EFFICIENT**

With the EasyLoad units you will get a very effective and cost-efficient parts washer for various wide web press parts.

The machines are controlled by a microprocessor, where it is easy to set the different programmes such as wash time.

### **TROLLEY FOR EASY HANDLING**

The standard unit comes with one large trolley which makes it easy to move the parts directly from the printing press to the grid.

The grid is then easily slid into the PK EasyLoad from the trolley, thus eliminating handling to a minimum.

### LAYOUT EXAMPLE PK EASYLOAD



#### PARTS IN LAYOUT:

- 3 trays of various sizes
- 1 ink tray
- 1 holder
- 1 dispenser
- 2 wipers of various sizes
- 2 ink containers

### PK EASYLOAD 240

- One trolley included
- <u>Wash area (LxWxH):</u> 2150 x 1030 x 700 mm (84.6" x 40.5" x 27.6")

## PK EASYLOAD 280

- One trolley included
- <u>Wash area (LxWxH):</u>
   2550 x 1030 x 700 mm (100.4" x 40.5" x 27.6")

DAAG



#### Use together with Sedimentation Tank

# SEDIMENTATION TANK

- Reduce liquid consumption by approx. 50% depending on ink saturation etc.
- Leaves fluid sludge waste
- Continuous closed loop process for filling and emptying



# **PK FRONTLOAD**

### 360° CLEANING

With the FrontLoad units you will get highly intensive 360° cleaning by nozzles from four sides of the parts.

The machines are controlled by a PLC control system for a user-friendly and easy use of the machine.

### **TROLLEYS FOR EASY HANDLING**

The standard unit comes with two trolleys which makes it easy to move the parts directly from the printing press to the grid.

The grid is then easily slid into the PK FrontLoad from the trolley, thus eliminating handling to a minimum.

### LAYOUT EXAMPLE



#### PARTS IN LAYOUT:

- 5 ink pans of various sizes
- 1 ink pot
- 1 lid
- 3 chambers

### **PK FRONTLOAD 250**

- Two trolleys included
- <u>Wash area (LxWxH) per trolley:</u> 1800 x 950 x 700 mm (70.9" x 37.4" x 27.6")
- Available as XL/XXL versions\*

# PK FRONTLOAD 300

- Two trolleys included
- <u>Wash area (LxWxH) per trolley:</u> 1800 x 1200 x 700 mm
  - (70.9" x 47.2" x 27.6")
- Available as XL/XXL versions\*



 $^{*}$  XL increases the length by 300 mm (11.8") / XXL increases the length by 800 mm (31.5")



# **PK FRONTLOAD 350**

- Two trolleys included
- <u>Wash area (LxWxH) per trolley:</u> 1800 x 1450 x 700 mm (70.9" x 57.1" x 27.6")
- Available as XL/XXL versions\*



# LOADING POSSIBILITIES - EASYLOAD

We recommend to custom build the washing area to your specific needs and applications. Below you will find examples of how the wash area can be designed using different options according to your needs and applications. For illustration purpose only.



### Parts in layout:

- 2 buckets
- 2 bucket lids
- 2 circular tubes
- 2 ink trays
- 2 chambers



# Parts in layout:

- 1 ink pan
- 1 ink container
- 2 dr. blade splash guards



# Parts in layout:

- 4 trays of various sizes
- 3 dispensers of various sizes

# LOADING POSSIBILITIES - FRONTLOAD

We recommend to custom build the washing area to your specific needs and applications. Below you will find examples of how the wash area can be designed using different options according to your needs and applications. For illustration purpose only.



### Parts in layout:

- 4 ink buckets
- 7 drip trays
- 7 dr. blade chambers



# Parts in layout:

- 10 ink pans of various sizes
- 12 dr. blade chambers of various sizes
- 4 ink buckets



### Parts in layout:

- 4 ink pans
- 5 dr. blade chambers
- 4 ink buckets

# **MACHINE DETAILS**

### MICROPROCESSOR CONTROL (PK EasyLoad)

The unit is controlled by a microprocessor and equipped with a user friendly panel, which makes a large variety of washing programmes available.

It is possible to adjust e.g.:

- Wash time
- Drain time
- Rinse time
- Liquid temperature

It is possible to check the following:

- Number of washes and working hours the unit has run
- Check all functions individually

Choice of programs and settings depend on applications and parts

### PLC CONTROL (PK FrontLoad)

The unit is controlled by a user friendly PLC panel, which makes a large variety of washing programmes available.

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It is possible to check the following:

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Choice of programs and settings depend on applications and parts

### PUMPS

#### PK EasyLoad:

The unit has 2 electrical centrifugal pumps. (1,5kW each). One for washing and one for rinsing. Both pumps circulate 150L/min at 3-4 bar

#### PK FrontLoad:

The unit has 2 electrical centrifugal pumps. The pump for the washing tank circulates 500L/minute at 5-6 bar and the pump for the rinse tank circulates 300L/minute at approx. 1-3 bar.

# **MACHINE DETAILS**

#### FILTERS

The machine has a filter in the wash tank and one in the rinse tank. These filters collect the vast majority of ink particles when the Flexo Wash Liquid flows from the washing area and back to the two tanks for reuse there by extending the lifetime of the cleaning and the rinse liquid.

As the cleaning liquid and the rinse liquid continuously flow from the wash and the rinse tank through the nozzles and back into the washing area, it passes through a stainless steel filter, which protects the nozzles for any residual ink particles.

The stainless steel filters are easy to clean and change. Its capacity of the cleaning cycle is larger than that of the after rinse cycle, as most of the residual ink sludge is collected in the cleaning process.

| ALARMS   |  |
|--|--|
| To ensure optimal performance the cleaning machine is equipped with alarms programmed to send messages to the front screen telling the operator what to do when the machine needs service. |  |
| Liquid level alarm:  | The liquid level alarm consists of a level float switch which is placed in the tanks. The switch registers the liquid level and a message will appear on on the screen telling the operator when the liquid level is too low. On the same time the machine stops running to protect the pumps, which means that liquid has to be filled into the tank before the machine can wash again. |
| Service alarm:   | The microprocessor/PLC control is programmed to remind the operator to make a service check on the machine after a number of washes. This is done to ensure regular maintenance.   |
| Temperature alarm:   | If the pre-set temperature at the display is not reached in the tank the alarm will show at the display and the machine cannot run until the required temperature has been reached.  |
| Slide alarm:   | To ensure the best possible washing result a nozzle arm inside the machine is moving from side to side while spraying liquid onto the parts from different angles. If the nozzle arm moves into a press part the slide alarm stops the machine and a message is send to the screen telling the operator that the parts need to be rearranged.  |

### TANKS

The wash tank with cleaning liquid and the rinse tank with rinse liquid are made of stainless steel and both located under the washing area. The tanks are easy to manually re-fill with liquid in the bottom front section of the machine.

By choosing a semi-automatic liquid filling option for both tanks, the operator can start the filling process with a press on a button and a sensor will then stop the pump filling the liquid once the tank is full. Both tanks have a valve in the bottom making it easy to empty the tanks.

### EXHAUST

The unit is prepared for exhaust with dampers. When the unit is connected to your ventilation system, the exhaust can be connected to the microprocessor/PLC and thus open and close automatically. For an improved drying process we recommend connection to ventilation.

# **MACHINE DETAILS**

### NOZZLES

The nozzles are spraying from different angles ensuring a fast operation and efficient washing. All nozzles are made of brass and positioned so they are easy to change.

For **PK 350 WR FrontLoad** and **when choosing 2-story grid**, more nozzles are required and to ensure sufficient pump pressure all the nozzles will not be spraying simultaneously during the entire washing process. The liquid will spray first one half of the wash area and hereafter the other side in intervals of oscillating 1-2minutes.

#### **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**

Flexo Wash supplies all types of environmentally friendly cleaning liquids and the specific type depends on the type of ink.

Flexo Wash recommends the following eco-friendly cleaning liquids:

#### Water based inks:

- Wash tank: Water with 10-20% FW Aqua Cleaner
- Rinse tank: Water with 5% FW Aqua Cleaner

#### UV/Solvent Based inks:

- Wash tank: FW UV/Solvent cleaner
- Rinse tank: FW UV/Solvent cleaner

# **CUSTOMER FEEDBACK**

Australian catalogue printer Franklin Web has invested in a PK 350 FrontLoad Part Washer from Flexo Wash in order to keep up with the demand of their market.

### FROM MANUAL TO AUTOMATED CLEANING

The washing unit from Flexo Wash allows Franklin between 8-10 washes before having to change the exhausted wash fluid. It cleans finger guards and all the other parts that Franklin was previously cleaning by hand, in the preventive maintenance programme.

The Flexo Wash technology now automates the cleaning process and delivers substantial savings.

"Before we installed the Flexo Wash we were manually cleaning the guards and trays fitted on every machine during a routine shutdown. After investigation, we found the operators then had no real time to spend setting the rollers in the roller train, which is what really was required of them," Business Service Manager Bill Van Den Dungen explains.

**77** We are confident that our machine will deliver on its promise.



**7** The unit has made a terrific difference to the cleaning regime and has achieved great results.

### **TERRIFIC DIFFERENCE WITH GREAT RESULTS**

Concluding for Franklin Web, Owner Phillip Taylor commented:

"The unit has made a terrific difference to the cleaning regime and has achieved great results. We work in an exciting and dynamic market, and even after 37 years I still get a buzz out of seeing catalogues streaming off the presses and being despatched all over Australia."