

Porta-Wash series

The Porta-Wash is a modular roll-to-roll washing system consisting of four selectable washing modules to be combined into a washing line for various cloth- and fibre types.

In the Porta-Wash series the separate washing modules use recycled and fresh soft water. Spraying nozzles, which are pressurised by circulation pumps, supply the mechanical energy to increase the washing effect.

To obtain a high energy efficiency each Porta-Wash module is equipped with a counter-flow heat exchanger between cold fresh and hot waste water, air recirculation at the vacuum system and thermally isolated walls.

The newly developed vacuum system in each module is ideal for the removal of polluted water containing the excess of dyestuff and coatings from the cloth and it largely prevents polluted water being dragged by the cloth into the next bath. To further enhance the washing effect the cloth is sprayed with clean soft water prior to the vacuum slit.

The vacuum system can achieve moisture contents as low as 30% for synthetics and 60% for natural fibres.

The maintenance-free chains drive all rollers thus a tensionless fabric transport is guaranteed. In addition to that a fabric bar can be attached to the chain which greatly simplifies the feed-in handling of cloth into the Porta-Wash.

The Porta-Wash line consists of a base module PW-B, a large module with twice the cloth content PW-L, a large module with a separation wall PW-LD and a J-Box module PW-J with a maximum content of 40 meter. With a cloth content of 1.5 to 2.5 m per unit and washing temperatures up to 80 °C, the Porta-Wash is suited for high speeds and demanding washing processes.

A PLC enables the control of the washing speed, water temperature and the vacuum per cloth type in each module. Each washing module can be equipped with an automatic dispensing system for chemical dosage. The Porta-Wash comes with an user friendly full-colour touch-screen interface.

The Porta-Wash is available in a 1.85, 2.50 and 3.40 meter width and is made of 304 and 316 stainless steel.

The Porta-Wash can be combined with the Portafix Universal or the Drum-Dryer into a complete washing-drying line. In combination with the Portafix Universal the line can also be used for dyestuff fixation thereby reducing the investment costs.

The Porta-Wash is **CE** marked.



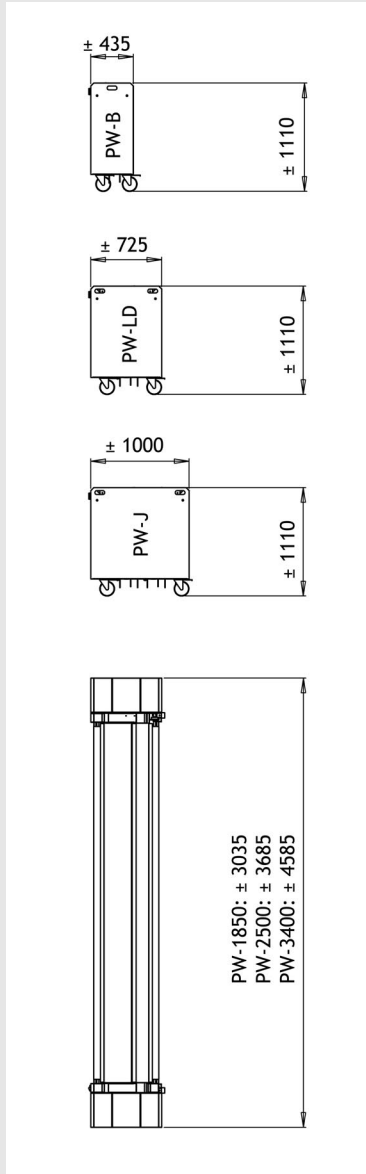
- modular roll-to roll washing line
- 4 different washing modules
- free configuration, afterwards upgradable
- high temperature washing
- long dwelltime with minimal water content
- high efficient vacuumextraction of (polluted) water
- minimal energy and water consumption
- recycled and fresh soft water spraying nozzles
- counter-flow heat exchanger for hot waste water
- air recirculation to regain energy
- thermally isolated walls
- no leaders for feed-in / feed-out
- user friendly PLC-control
- easy to maintain
- available in a 1.85, 2.50 and 3.40 m width
- stainless steel 304/316

Options:

- chemical dispensing system
- scroll roller for e.g. knitwear
- tension control bars
- two types of drying systems
- several winding and unwinding systems
- water softener
- custom power / frequency



Porta-Wash series technical specifications



| Type, capacity | | PW-B | PW-L/LD | PW-J | |
|--|------------------------|----------------------|---------|-------------------|-------|
| Fabric content | | 1.5 | 2.5 | ≤40 | [m] |
| Dwell times | at 150 m/h | 0.6 | 1 | ≤16 | [min] |
| | at 90 m/h | 1 | 1.7 | ≤26 | [min] |
| | at 75 m/h | 1.2 | 2 | ≤32 | [min] |
| | at 45 m/h | 2 | 3.3 | ≤53 | [min] |
| Bath temperature / with 60 °C hotfill supply | | | | 20 - 50 / 20 - 80 | [°C] |
| Type, width | | 1850 | 2500 | 3400 | |
| Volume | PW-B | 60-165 | 75-200 | 100-275 | [L] |
| | PW-L/LD | 135-350 | 175-450 | 225-600 | [L] |
| | PW-J | 120 | 150 | 200 | [L] |
| Water usage (< 1° dH) | per module | 45-150 | 60-210 | 84-288 | [L/h] |
| Fabric | maximum width | 1.85 | 2.50 | 3.40 | [m] |
| Fabric roll | maximum weight | 60 | | | [kg] |
| | maximum diameter | 0.55 | | | [m] |
| Heat exchanger | | up to 80% efficiency | | | |
| Electrical heater | per module | 1 x 11 / 2 x 11 | | | [kW] |
| Exhauster fan | power | 5.5 | | | [kW] |
| | vacuum | 10000 | | | [Pa] |
| Weights | PW-B | ± 460 | ± 475 | ± 500 | [kg] |
| | PW-L/LD | ± 520 | ± 540 | ± 570 | [kg] |
| | PW-J | ± 650 | ± 680 | ± 720 | [kg] |
| | operator console | ± 100 | | | [kg] |
| Required connections | power voltage | N + 3 x 230/400 | | | [VAC] |
| | power current | 25 - 63 (+ 16) | | | [A] |
| | water (< 1° dH)/module | ≤300 | | | [L/h] |
| | waste water/module | ≤300 | | | [L/h] |
| | water pressure | 1 - 6 | | | [bar] |

