

Columbus™ and 96 PW™

The ultimate solution in microplate washers

What should you be looking for in a full microplate- or strip washer?

Accurate, reliable performance and high application flexibility built on a decade of experience in

Columbus – reliable strip washing

The Columbus is a fully automated, advanced solution for strip-wise processing of microplates. Based on a set of sophisticated features as described below, it provides best performance and ease-of-operation.

Crosswise aspiration using multiple aspiration points per well actively minimizes residual volume to less than 2 µl per well.

Overflow washing creates a circular flow of liquid in each well providing high wash efficiency without compromising throughput. It replaces tedious sequences of repeated aspiration- and dispense-steps.

Unique process control and seamless integration

For on-line process control of wash steps the Columbus can be equipped with the unique Fill verification option. This high-end feature allows selective detection of clogged needles based on conductivity measurements.

Additionally, the optional liquid-sensor-system allows on-line monitoring of filling volume of waste, wash buffer and rinse bottles.

Standardized interfaces allow seamless integration of the Columbus washer into Tecan's range of automated ELISA-platforms including the Freedom EVOLyzer® system.

Regulatory compliance included

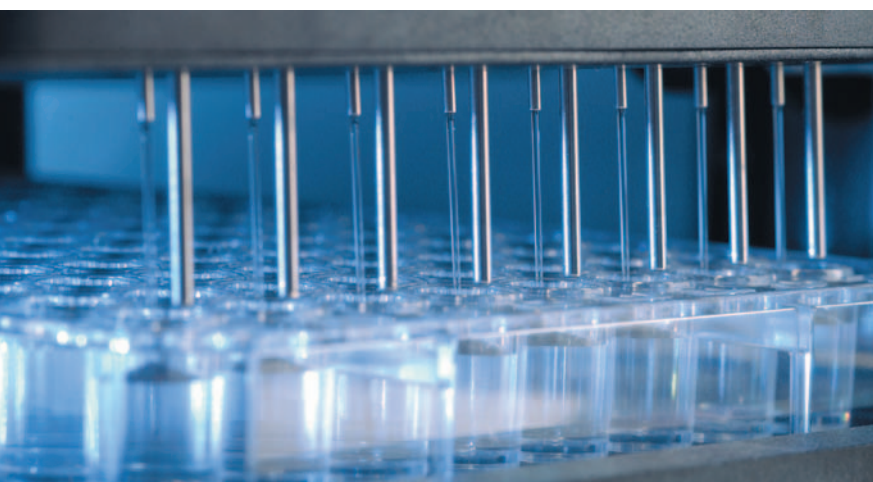
The Columbus microplate washer for Enzyme Immuno Assays (EIA) in 96-well format was designed to meet the EU- Directive 98 / 79 / EC for in-vitro-diagnostics.

As another industry-first, the new WinWash Clinical software, included with every Columbus washer, was designed to meet the requirements for electronic records and electronic signatures.

Additional options for research- use provided

Cell-wash manifold. For gentle washing of adherent cells in 96-well plates for research-use, the Columbus can be ordered with an advanced Cell-wash manifold with longer dispense needles and a unique drop-wise dispense speed.

384-well manifold. For the washing of 384-well plates for research-use a sophisticated 384-well manifold is available, which allows processing of 16-wells (one strip) at a time.



Manifolds of 8, 12 or 16 channels.



Flexible strip washing.

microplate washing

96 PW – advanced, full microplate washing

The Tecan 96 PW gives you the best of both worlds – high throughput and outstanding washing efficiency.

Its sophisticated design, incorporating 96-aspiration needles and 96 dispense needles into a single wash-head, allows the processing of all the wells of a 96-well plate simultaneously.

Based on this high-end approach, the 96 PW provides best wash performance and allows the reduction of wash times of 96-well plates to a couple of seconds.

High application flexibility and intelligent features

The powerful 96 PW provides full control over critical wash parameters and allows the fine-tuning of speed settings for dispensing and aspiration steps as well as wash-head positions for research applications.

The built-in keypad provides an easy-to-use interface for programming and controlling the 96 PW and an additional on-board memory allows the storage of up to 20 wash protocols.

Based on its exceptional performance, scientists will benefit from the high application flexibility of the 96 PW, which supports fast washing of Enzyme Immuno Assays (EIA) and gentle washing of cell-based assays.

For hassle-free cleaning, the 96 PW is equipped with easy-to-use, predefined rinse modes ensuring reliable operation daily.

Safety, reliability and performance

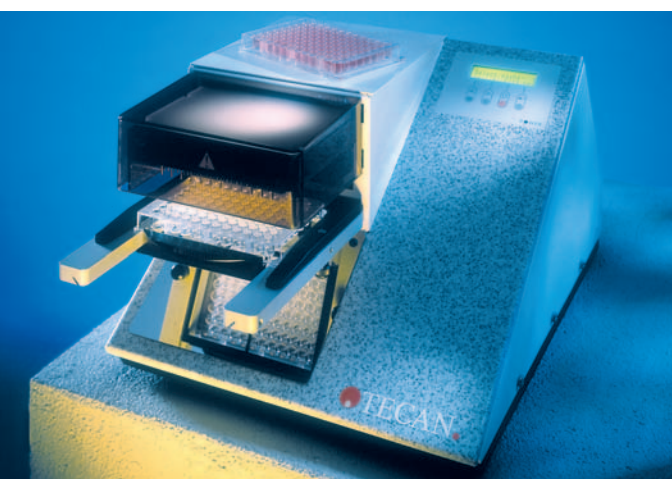
For on-line process control, the 96 PW is equipped with a bubble sensor-system for automated air-bubble-detection in the feeding line.

Additionally, the 96 PW provides an aerosol-shield around the wash-head to minimize aerosols during the wash process.

Special benefits

The 96 PW combines one of the best price-performance ratios in its class with excellent reliability.

Additionally, a dispensing precision of better than 2% CV over the whole plate and a minimum residual volume of less than 2 µl make the 96 PW an ideal solution for a range of research applications.



96 PW – full microplate washing



96 PW equipped with Aerosol shield.

Specifications*

Columbus Strip Washer

| | |
|---------------------------------|--|
| Manifolds | 8, 12, 16 channels |
| Number of wash-liquid channels | Up to 4 |
| Aspiration speed | software adjustable |
| Volume of wash-liquid dispensed | 50 – 3000 µl in 50 µl increments for washing 50 – 400 µl in 50 µl increments for dispensing |
| Dispensing accuracy | CV _m 4% over the plate |
| Residual volume per well | m 2 µl |
| Dispensing speed | Software adjustable |
| Bottle set | 3 x 2.5 l |
| Power | Autosensing, 100 – 120 V / 200 – 240 V, 50 – 60 Hz |
| Consumption | < 65 VA |
| Dimensions | Width 28.5 cm (11.2 in) Depth 39.5 cm (15.6 in) Height 22.0 cm (8.7 in) Weight 8.2 kg (18.1 lb) |

96 PW Full Plate Washer

| | |
|--------------------------|--|
| Vacuum | Typically 55 l/min 0,6 bar |
| Residual volume per well | < 2 µl |
| Liquid distribution pump | Liquid can be drawn from any bottle, suction height max 1,5 m |
| Dispensing accuracy | CV < 2% over the plate |
| Bottle set | 1 wash-liquid bottle 4 l 1 rinse-liquid bottle 2 l 1 waste bottle 4 l |
| Power | Autosensing, 100 – 120 V / 200 – 240 V, 50 – 60 Hz |
| Consumption | max 575 VA |
| Dimensions | Width 30.3 cm (11.9 in) Depth 45.5 cm (17.9 in) Height 2.5 cm (8.8 in) Weight 12.6 kg (27.7 lb) |

*Specifications documented during quality check in production

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