

PATENT PENDING



- A turn-key system to get rid of algae and biofilm
- Effective microbiological disinfection to reduce bacteria growth
- Proven wash and rinse performances
- Up to #44 aquatic tanks per cycle
- Flexibility to process a variety of aquatic accessory items



*"Finally a system to get rid of manual scrubbing and effectively remove algae and biofilm!"*



**AQUATIC SOLUTIONS**

**iwt**  
a **TECNIPLAST** company



## 650A Aquatic System

### Introduction

#### 1/ Introduction

IWT is pleased to announce a breakthrough in aquatic washing equipment. The new aquatic tank washer is a machine totally developed to respond to the strict requirements of people dealing with aquatic systems. By listening carefully to those involved with Zebrafish and by working side by side with them we came to understand that the aim is to have tanks totally free from algae and biofilm coating, without any sort of chemical residue left on them. The target was to avoid any frequent tank changeovers while also cutting out the current compulsory but expensive manual processing with hand-wash. Before, nothing else apart from tough scrubbing, hard-work, plain-water and labor (elbow grease!) was available. Now, we are ready not just with an alternative. There is a true solution and answer - the 650A aquatic system.

#### 2/ Versatile & Powerful Spray Pattern

Twelve oscillating arms and 132 jets deliver over a ton of water per minute at 2-bar pressure in an innovative 100° spray pattern for full and constant load coverage. This impressive wash coverage, in conjunction with specific engineered accessories, provides an intense and full exposure of aquatic tanks and miscellaneous items. Hence the proven wash performances in terms of both mechanical soil removal and subsequent residue removal when specific chemical aids are added to the process. The total coverage provided by the spray pattern and the presentation trays cuts out any blind spots where algae and biofilm may endure even when subjected to manual scrubbing.

#### 3/ Proven Algae and Biofilm removal without any manual pre-scrubbing

More than 20 years experience at the forefront in the field of life science have been channeled into this project. Achieving total success in soil removal involves a combination of several drivers. So, we took into consideration a system merging aids from any side: water pressure, water coverage, water temperature, chemicals, process monitoring and control, process validation. Two start-up high performance cycles have been developed and patented: ATW OxyPlus™ and ATW OxyThermo™. They cope with the most typical situations we have encountered in the Zebrafish aquatic wash field, across several countries. Even skeptical people who have, for years, been washing and scrubbing by hand with just water, have been astonished at the kind of results that can be achieved with the 650A aquatic system. Even the toughest and most challenging biofilm can be totally removed with the right combination of mechanical and chemical action.

#### 4/ Detergent use fully monitored and controlled by gauges

The 650A makes it possible to use chemicals as allies to obtain the most outstanding cleaning results in safe conditions. A patented combination with different chemical products, together with the right concentrations and temperatures, leads to total biofilm removal. Then, a monitored and controlled rinse phase (with gauges, meters and software), effectively removes any residues to arrive at safe tank usage. Starting from visual and tactile inspection, but also using more sophisticated detecting methods (conductivity, pH gauges, pH strips, chemical reagents, live-test), the result is proven and superior to any traditional manual processing. The full process management is smoothly assisted by an innovative 7" wide color touchscreen, played with a "smart phone" style operator interface. An outstandingly tablet application allows the supervisor to "stay connected" from everywhere.

#### 5/ High throughput capacity

A multi-level access password touch screen makes for fully-customized cycle programming to match several possible soiling scenarios, depending on whether normal-temperature cycles or high-temperature cycles are needed. The generous wash chamber dimensions allows that some 250 Zebrafish tanks and even more can be processed during one hour running.

#### 6/ Purpose designed presentation trays and miscellaneous baskets

Traditionally, Zebrafish systems do have tanks with 'technological' shape to maximize the tank self-cleaning feature. Those performances require shapes and piping circuits that are not easily washable. To obtain optimal coverage, a high density presentation tray positions the tanks in the most efficient manner. In the same way, a flexible and modular housing basket holds baffles, siphons, nets and other miscellaneous items.

#### 7/ Sanitization

What is the difference between an apparently clean tank (typical of manual-hand wash) and a really clean tank? There are many, of course, but one above all - the time lapse between two washings. The 650A aquatic system, by effective removal of the tank soil layer, prevents the surfaces from encouraging growth, where the biofilm can grip to be re-born or to re-stack. The sanitization performances of the 650A expand the transparency of the surfaces, thus slowing biofilm growth. The longer the transparency, the longer the tank use with the double advantage of reducing the washing needs and ensuring superior welfare for Zebrafish and Xenopus.



### Versatile & Powerful Spray Pattern



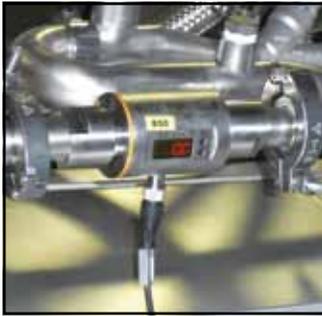
Proven Algae and Biofilm removal without any manual pre-scrubbing

3



Detergent use fully monitored and controlled by gauges

4



High throughput capacity

5



**TECHNICAL SHEET**

**Specifications and Dimensions**

| 650A* Aquatic system |          |  |  |
|----------------------|----------|--|--|
| Code                 | Heating  | Overall Dimensions (L x W x H) - mm/inch | Useful Dimensions (L x W x H) - mm/inch      |
| 9LAVR651A            | Electric | 1970 x 1095 x 2310<br>76" x 43" x 91"    | 1350 x 900 x 740<br>53"1/4 x 35"1/2 x 29"1/4 |
| 9LAW651A             | Steam    | 1970 x 1095 x 2310<br>76" x 43" x 91"    | 1350 x 900 x 740<br>53"1/4 x 35"1/2 x 29"1/4 |
| 9LAVR652A            | Electric | 1970 x 1095 x 2310<br>76" x 43" x 91"    | 1350 x 900 x 740<br>53"1/4 x 35"1/2 x 29"1/4 |
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\* Available also in a dismantable version (largest part measures 1640 x 1095 x 900 mm / 65" x 43" x 35" inch)

- Electrical supply: 400V 50Hz Three-phase + N + E
- Steam supply: 3/4" gas
- Water: 3/4" gas
- Compressed air: 1/2" gas

Note:

- 1) Custom models are also available. Please consult your representative for further details from the factory.
- 2) Mechanical information, detailed service requirements and installation drawings are available on request.

Figures rounded off to the nearest whole number (outer dimensions) and nearest eighth (usable).

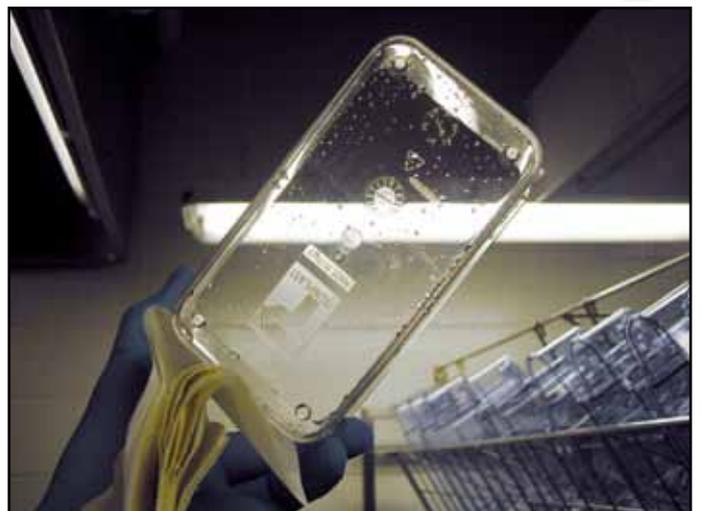
Purpose designed presentation trays and miscellaneous baskets

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Sanitization

7



## Standard Features

- 7" wide colour touchscreen with brand new "smart phone" style navigation.
- Space saving Roll-out Electrical box.
- Three detergent dosing pumps inclusive of flow control.
- Water pressure and flow control.
- Full chamber and piping insulation for heat loss reduction.
- Front-access drawers style tight screen.
- On-board three detergent drum storage drawer.
- Unique tablet application for "stay connected" from everywhere.
- USB port for data collection.
- Vapour exhaust blower.
- One universal loading basket and adjustable tool-free intermediate shelf.

## Accessories

- S/s wire kit presentation tray for ZebTEC tanks 1,1l- 3,5l - 8l, inclined presentation (44 - 32 - 12 unites respectively) + miscellaneous basket housing (AC65ATPT).
- Miscellaneous washing basket for ZebTEC tanks 1,1l- 3,5l - 8l accessories, inclusive of #5 adjustable holding separators to maximize flexibility and density (AC65ATMWB).

## Options

- #2 additional adjustable runners to keep in place a full load of ZebTEC breeding tanks (9LAV65ARBT).
- On board compact air compressor (9LAV65AC).
- Dismountable version (9LAV65SM).
- Board mounted printer for data registration (9LAST801).
- Real View 2™ - dedicated hardware / software set-up for monitoring and controlling functions from the customers's PC, including relevant cycle data and diagnostic data gathering. Based on ethernet protocol (9VIEW265).
- Teleservice - Remote software disgnostic package to perform troubleshooting via Ethernet connection and web services (9TELSER65).
- Additional Volt Free Contact (VFC) (9LAVWFC).
- Pressurizing kit for rinse water.  
Overall dimensions: 994 x 450 x 1107 h mm (39,1 x 17,7 x 43,6 h ") (9LAV0KP).
- Validation Protocol Document (IQ, SAT, OQ) (9LAV65VAL).
- Factory acceptance test procedure (9LAV65FAT).
- Factory microbiological challenge test (9LAV65MBT).



ISO-9001:2000 - Cert. n° 3406/1

## Related Products

To maximise operational efficiency and learn more about these products contact your local representative.



Tecniplast aquatic solutions: **ZEBTEC Zebrafish housing system** also available.



Tecniplast aquatic solutions: **Xenopus spp. Housing System** also available

