Model RSM-9125110

5 Tiers Single-sided stand-alone Zebrafish Housing System Extend(5TSSER-ZHS)

ZEBRAFISH HOUSING SYSTEM EXTEND AND REVISED

(1.0) USE AND FUNCTION OF EQUIPMENT

To expand and modify the existing zebrafish breeding system, its design and construction aim to maintain the health of zebrafish and facilitate breeding under suitable water conditions. It should consist of basic components such as a stainless rack, zebrafish tanks, and a water sump with biological filtration

(2.0) ESSENTIAL FEATURES OF EQUIPMENT

(2.1) AQUACULTURE RACK (1 UNIT)

(2.1.1) The standalone rack should be manufactured from 304 or 316 stainless steel.

(2.1.2) The piping system of standalone rack:

A. UPVC(PVC-U) pipe system, white color
B. Independent water inlet valve for each layer and each tank. Each layer pipe is detachable. Each tank water inlet valve is removable.
C. One tank has one flow control ball valve.
D. Each side has five tiers of 12 ball valves for for 3 liter and 10 liter tank
E. Each tier has control valve can adjust water flow.
F. Ball valves can easily clean, NPT fitting.
G. Food-grade blue silicone water inlet pipe will not harden after long-term use

(2.1.3) Standalone rack must have bio-technical sump in the lower part of the rack.

A. PP material board 8mm thickness
B. Pre-filter plate above the water
C. Biofilter packs for easy changing .
D. No hassle and operational pause.

(2.1.4) Aquaculture rack has low water level protection:

A. When the water level in the sump tank reaches the high level, the water pump, UV disinfector, and heater will turn on automatically.
B. If the water level drops to the low level, all systems will be automatically turned off for safety.

(2.1.5) Aquaculture rack must have a biological filter able to keep nitrogen compounds at safe levels:

A. Bio-filter media (165 x 365mm) 48 PCS x 3 packages
B. Bio-filter media (320 x 385mm) 12 PCS x 3 packages
C. Ca/Mg ion active bio-filter media 3 liter package x 3 PCS
D. Far infrared active bio-filter media 3 liter package x 3 PCS
E. Anion active filter bio-3 liter media package x 3 PCS
F. Glass ceramic ring bio-3 liter media package x 3 PCS

(2.1.6) The aquaculture rack uses an adjustable flow rate water pump, providing flexible usage. For example, when the number of tanks is high, the pump can operate at full capacity. When fewer tanks are in use, the flow rate can be adjusted to prevent the pump from overloading and overheating.

(2.1.7) The aquaculture rack must include UV disinfection and be equipped with a usage timer. It should notify the user to replace the UV bulb after 9,000 hours of usage to ensure optimal efficiency.

(2.1.8) The aquaculture rack must be equipped with a mechanical switch for quickly turning the system on or off:

A. Main flow pump control switch and feed mode: Adjustable to turn off the water pump for a while, and then turn it on automatically.
B. UV control switch and a usage time display(hours)
C. Heater control switch: Max 500 watt

D. Air pump control switch:

(2.1.9) The aquaculture rack must constantly monitor main water quality parameters (temperature, condition and pH) and keeping them as constant as possible at the pre-set value. The user needs to be able to set optimal points easily and through a touch screen control panel.

(2.1.10) The standalone rack must be provided with a touch screen control panel to perform system settings and track the water quality parameters.

A. Sensors: pH, conductivity, dissolved oxygen with temperature or others can be installed.
B. Intelligent Sensor Detection: If the controller system detects that pH, conductivity, temperature, dissolved oxygen sensors, or other sensors are installed, it can automatically link and control each sensor parameter.
C. Intelligent read sensor function: In order to extend the sensors use life, the reading time of the sensor during non-peak periods can be set to 1min/5min/10min/30min
D. Maintenance date records.
E. Water quality data can be exported from the control box to a USB memory stick
F. Services contacts information.

(2.1.11) The aquaculture rack must have air pump with an silicone membrane diffuser tube：250mm*28mm

(2.1.12) The aquaculture rack equipped with letters and number for easy tank identification.

(2.2) ZEBRAFISH HOUSING TANK (32 UNITS) :

(2.2.1) Zebrafish housing tank must be manufactured from polycarbonate (PC) material.

(2.2.2) Zebrafish housing tank must come together with lids and dedicated baffles.

(2.2.3) Supplier should provide at least minimum of 32 units of 3L zebrafish housing tanks.

(2.3) BREEDING TANK (5 UNITS) :

(2.3.1) Breeding tank should be transparent and made of polycarbonate(PC).

(2.3.2) Breeding tanks should have top lids and separate baffles to facilitate zebrafish spawning

(2.4) ZEBRAFISH LARVAE PLATE (10 UNITS) :

(2.4.1) 96 well transparent microplate is for easy alignment of zebrafish larvae and observation. The standard liquid volume is 100~200ul, and the minimum liquid volume for each hole after drainage is 20~30ul.

(3.0) OTHER REQUIREMENTS:

(3.1) Modify one layer of the existing system to reduce the total number of water outlets from 20 to 12.

(3.2) The system installation should be carried out by a qualified engineer, and the engineer must provide the training certification from the manufacturer within one year.

(4.0) TRAINING :

(4.1) On-site training shall be provided by experienced trained engineer/application specialist when required.

(4.2) Provide on-site training which include introduction to the system, operations, safety precautions and howto cleaning

(5.0) WARRANTY PERIOD AND SERVICES:

(5.1) Warranty for the entire system shall be at least for three years.

(5.2) Throughout the warranty period, any default located and parts found defective shall be repaired and/or replace free of charge within the shortest time possible.

(5.3) The warranty covers all sensors included in the manufacturer's original configuration of the equipment. If issues persist after calibration, we will replace them free of charge.

(5.4) Supplier must provide sole agents letter for the brand model supplied.

(5.5) The supplier shall provide at least one (1) copy of the operation, troubleshooting and maintenance manuals of the complete system where applicable.

(5.6) The supplier must have a complete set-up with local after sales service support and technical application support.

The above specifications are for reference only.

UPGRADE OPTIONS

Below is a list of parts that can be upgraded for GENDANIO system

No.	SN	Description
1	AQ-6710U	Waterproof LED light with timer control
2	AQ-6720U	HMI-PLC temperature control
3	AQ-6810U	Data logger and automatic export to USB disk function
4	AQ-6820U	Remote data monitoring function via WiFi
5	AQ-6921U	Upgrade to pH sensor controller
6	AQ-6922U	Upgrade to conductivity sensor controller
7	AQ-6924U	Upgrade to dissolved oxygen sensor controller

SPARE

Spare Parts List

No.	SN	Description
1	T-CLPC-015	1.5 Liter Classic PC Tank Set
2	T-AZPC-015	1.5 Liter Classic PC Tank Set, baffle Improved
3	T-CLPC-030	3.0 Liter Classic PC Tank Set
4	T-CLPC-032	3.0 Liter Classic PC Tank Set, Lid improved
5	T-CLPC-100	10.0 Liter Classic Tank Set
6	T-CLPC-102	10.0 Liter Classic Tank Set, Lid improved
7	T-AZPC-040	4.0 Liter AQUAZOO Tank Set
8	T-AZPC-080	8.0 Liter AQUAZOO Tank Set
9	T-030-500	3L Baffle 500um netting for larvae fish (6 weeks~)
10	T-030-500	3L Baffle 750um netting for larvae fish (2 months~)
11	T-030-500S	3L Baffle SS304 netting 500um for larvae fish (4 dpf to 5 weeks)
12	T-030-750S	3L Baffle SS304 netting 750um for larvae fish (2 months~)
13	T-040-500	4L Baffle 500um netting for larvae fish (1 month~)

To ensure the integrity of the equipment and consistency in after-sales service, some additional accessories or spare parts must be ordered together with the main equipment.

Components

Certain components in the equipment, such as the pump motor, heating element and sensors, are consumables with an unpredictable lifespan. They may wear out or fail due to various factors during
use. We recommend regularly checking these parts, and if any malfunction or failure is detected, they should be replaced immediately to ensure the proper functioning of the equipment.
If the original parts are no longer in production, the replacement will be made with a tested,
equivalent part that meets the same specifications.

Components List:

No.	SN	Description
1	Heater-300	Heater-300 watt with temperature control
2	Heater-350	Heater-350 watt with temperature control
3	Heater-450	Heater-450 watt with temperature control
4	Heater-500	Heater-500 watt with temperature control
5	MD-18	Main water pump 72~95/min, 180Watt
6	MD-25	Main water pump 118~120L/min, 250Watt
7	DS-4000	Main water pump 50~65L/min, 30Watt
8	DS-6000	Main water pump 80~100L/min, 50Watt
9	DS-9000	Main water pump 130~150L/min, 73Watt
10	DS-12000	Main water pump 180~200L/min, 88Watt
11	UVC-842T5	UVC 39 watt lamp
12	UVC-645T5	UVC 32 watt lamp
13	UVC-450T5	UVC 24 watt lamp
14	AQ-6920	Industrial pH Sensor with IP65 Waterproof Protection (BNC)
15	AQ-6921	Industrial pH Sensor with IP65 Waterproof Protection
16	AQ-6922	Industrial Conductivity Sensor with IP65 Waterproof Protection
17	AQ-6924	Industrial Dissolved Oxygen Sensor with IP65 Waterproof Protection

BIOFILTER & CONSUMABLES

Biofilter media and consumables list

No.	SN	Description
1	FM-1010	Magnesium Ion Active Biofilter, 3 Liter Pack
2	FM-1020	Far Infrared Rays Active Biofilter, Mesh 3 Liter Pack
3	FM-1030	Anion Filter, Active Biofilter 3L Liter Pack
4	FM-1040	Ceramics Bio-media, Mesh 3 Liter Pack
5	FM-SA355165	Sponge/filter media, length355mm, width165mm 48 PCS
6	FM-SA385320	Sponge/filter media, length385mm, width320mm 12 PCS
7	FM-SA385270	Sponge/filter media, length385mm, width270mm 24 PCS

All specifications reserve the right to revise errors
Contents must be confirmed before shipment