

Requirement for repair and maintenance of Zebrafish Housing System

1. Description of Work:-

Modification and upgradation of existing **Zebrafish Housing System**, including sump replacement, advanced filtration, and monitoring upgrades. The system should include technical enhancements and consumables for one year.

2. Itemized Requirements

| S. No. | Item Description | Quantity |
|---------------|---|-----------------|
| 1 | Zebrafish Housing System Sump with fittings (Modified with lower shelf replacement) | 1 |
| 2 | Control Board with 7" TFT touch display | 1 |
| 3 | Magnetic Drive Pump – continuous duty rated, quiet, maintenance-free, energy efficient | 1 |
| 4 | Five-Stage Filtration System | 1 set |
| a | Stage 1: 150-micron washable Dacron pad (mechanical filtration) | 1 |
| b | Stage 2: MBBR biological filtration media | 1 |
| c | Stage 3: 50-micron filter cartridge with pressure gauge | 1 |
| d | Stage 4: Activated carbon chemical filter (4mm pallet type) | 1 |
| e | Stage 5: UV sterilizer (SS316 housing, T5 lamp, 9000 hrs life) | 1 |
| 5 | pH Monitoring System – Continuous display | 1 |
| 6 | Conductivity Monitoring System – Continuous display | 1 |
| 7 | Degassing and Aeration System – Air pump-based oxygenation | 1 |
| 8 | Inclusive Consumables for 1 Year | — |
| a | 50-micron reusable filter cartridges | 4 nos. |
| b | Activated carbon (4mm pallet) | 5 kg |
| c | 150-micron washable filter pads | 20 nos. |

3. Technical Features (Post-Modification)

- Auto shutdown of pump and UV sterilizer on low water level.
- Auto restart upon high water level detection.
- Adjustable 10% automatic water refresh system.
- Adjustable water temperature control (heating only).
- Audio-visual alarm system for low water levels.
- Integrated continuous pH and conductivity monitoring.
- Degassing and oxygenation via air pump.
- 6-month warranty from date of reinstallation.

4. Additional Notes

- All modification works must be compatible with the current Zebrafish housing setup.
- Installation and testing should be conducted on-site.
- Support must be provided for operational training post-installation.