

# TEST REPORT

|                |                                          |
|----------------|------------------------------------------|
| Model          | AQFT-810                                 |
| Manufacture by | AQUA                                     |
| Test Category  | Hydraulic performance & quality analysis |

## DIRECTIONS

**Product:** Regenerative Media Filter

**Place of Testing:** Aqua Quality Control Center

## PRODUCT DETAILS

| Inspection Item        | Details              |
|------------------------|----------------------|
| Vessel Material        | 316L Stainless Steel |
| Gasket                 | Silicon / Rubber     |
| Working Pressure       | 0.35 MPa             |
| Working temperature    | 0-40°C               |
| Filtration Accuracy    | 1 Micron             |
| Communication protocol | Modbus RTU/TCP       |

## MATERIAL VERIFICATION

| Inspection Item                                            | Acceptance                          | Result |
|------------------------------------------------------------|-------------------------------------|--------|
| Material Certificate                                       | Stainless steel 316L                | PASS   |
| Surface Finish                                             | No scratch/corrosion                | PASS   |
| Flanges                                                    | Correct size                        | PASS   |
| Connections                                                | As drawing                          | PASS   |
| Name Plate                                                 | Legible                             | PASS   |
| No damage or missing parts on the surface of the equipment | Clear surface                       | PASS   |
| All electrical components securely installed               | Confirmed by a certified technician | PASS   |
| All the bolts and nuts tightened                           | Confirmed by a certified technician | PASS   |
| HMI securely installed                                     | Confirmed by a certified technician | PASS   |
| Dimensional Inspection                                     | As mentioned in the datasheet       | PASS   |

## **INTERNAL INSPECTION**

| Inspection Item                               | Result   |
|-----------------------------------------------|----------|
| Check if all cables are effectively connected | VERIFIED |
| Check if all cables are secure                | VERIFIED |
| Check if all metals are effectively grounded  | VERIFIED |
| Check if the wiring terminals are secure      | VERIFIED |
| Check if the waterproof plug is loose         | VERIFIED |

## **POWER ON TEST**

| Inspection Item                                                 | Result   |
|-----------------------------------------------------------------|----------|
| Check electric leakage situation                                | VERIFIED |
| Check voltage, current                                          | VERIFIED |
| Check isolation switch                                          | VERIFIED |
| Check the output voltage of each terminal                       | VERIFIED |
| Test analog signal                                              | VERIFIED |
| Check HMI power on and off                                      | VERIFIED |
| Check various functions of HMI                                  | VERIFIED |
| Check various functions of regenerative media filter controller | VERIFIED |
| Check RFID card reader function                                 | VERIFIED |
| Check tower light                                               | VERIFIED |
| Check E-STOP button                                             | VERIFIED |
| Check fans                                                      | VERIFIED |
| Check the heat dissipation air conditioning                     | VERIFIED |
| Check temperature sensor                                        | VERIFIED |

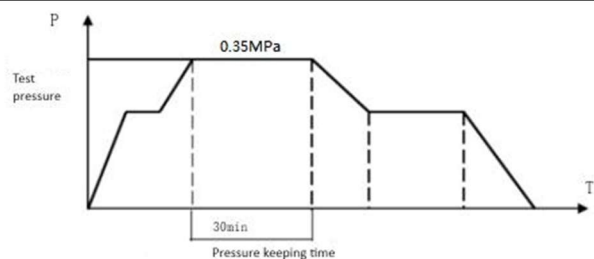
## WELDING INSPECTION

| Inspection Item      | Acceptance | Result |
|----------------------|------------|--------|
| Circumferential Weld | Uniform    | PASS   |
| Longitudinal Weld    | No crack   | PASS   |
| Porosity             | None       | PASS   |
| Undercut             | None       | PASS   |
| Passivation          | Completed  | PASS   |

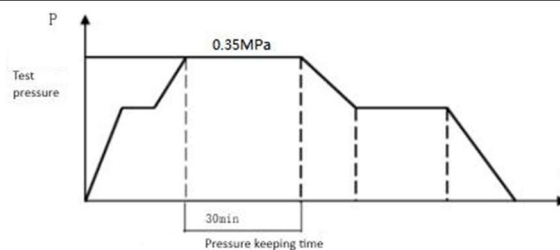
## PRESSURE TEST RECORD

| Test Item    | Requirement | Actual   | Result |
|--------------|-------------|----------|--------|
| Pressure     | 0.35 MPa    | 0.35 MPa | PASS   |
| Holding Time | 30 min      | 30 min   | PASS   |
| Leakage      | No leakage  | None     | PASS   |
| Deformation  | None        | None     | PASS   |
| Noise        | Normal      | Normal   | PASS   |

**Design requirement pressure test curve**



**Actual pressure test curve**



## **CONTROLLER FUNCTIONAL TEST**

| Inspection Item     | Result |
|---------------------|--------|
| HMI                 | PASS   |
| RFID Reader         | PASS   |
| Tower Light         | PASS   |
| Emergency Stop      | PASS   |
| Temperature Sensor  | PASS   |
| RS485 Communication | PASS   |
| Fans                | PASS   |
| Analog Signals      | PASS   |

## **PUMP CONTROLLER TEST**

| Inspection Item    | Result |
|--------------------|--------|
| Voltage            | PASS   |
| Current            | PASS   |
| Isolation Switch   | PASS   |
| Leakage Protection | PASS   |
| Grounding          | PASS   |
| Pump Start         | PASS   |
| Pump Running       | PASS   |

## **FINAL FACTORY ACCEPTANCE**

| Category                   | Result    |
|----------------------------|-----------|
| Material Verification      | PASS      |
| Internal Inspection        | PASS      |
| Power on Test              | PASS      |
| Welding Inspection         | PASS      |
| Pressure Test Record       | PASS      |
| Controller Functional Test | PASS      |
| Pump Controller Test       | PASS      |
| Overall Status             | QUALIFIED |

**Conclusion:** The proposed Regenerative Media Filter System has successfully completed all required visual, dimensional, material, pressure, electrical (where applicable), and functional inspections in accordance with the manufacturer's quality control procedures.

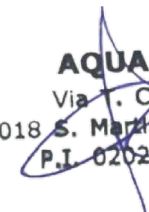
The unit was hydrostatically tested at a pressure of 0.35 MPa. During the test, no leakage, no visible deformation, no abnormal vibration, and no abnormal noise were observed. The equipment operated satisfactorily throughout the test period.

Based on the inspection and test results, the proposed Regenerative Media Filter System complies with the applicable manufacturing and quality requirements and is considered acceptable for release and dispatch.

Result: **PASS.**

**Authorized Signature and Company Stamp**

**AQUA SpA**  
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A handwritten signature in blue ink is written over the company stamp.