

Nano Bubble Operations and Maintenance

POM-NB-001 | Operations | Intended for: Operator

Operating record

- Record operating pressure, flow, runtime, pump current or power where available, gas source, water level and visible discharge condition.
- Establish baseline water-quality results before treatment and compare readings at consistent locations, depths and times.
- Do not use appearance alone to confirm water safety or treatment completion.

Start and stop

- Before starting, confirm open water valves, a flooded or primed pump, an unobstructed intake and an available gas or filtered-air path.
- For a controlled gas supply: gas on, then pump on. Confirm flow and pressure.
- For shutdown: pump off, then gas off. Relieve pressure before service.
- Never operate the pump dry or against a closed discharge.

Inspection schedule

Each operating day or visit	Leaks, abnormal noise, pressure, flow, gas tubing, filter condition, discharge pattern and water level
Weekly during initial operation	Pump intake/cage, debris, sediment, biofouling, loose supports, electrical condition and recorded water data
Monthly after stable operation	Clean nozzle and intake as required; inspect unions, valves, tubing, filter, gauges and branch balance
Seasonally or after major change	Reconfirm water volume, operating objective, pump duty, water chemistry and circulation pattern

Cleaning

- Isolate electrical power, water pressure and gas supply before opening the system.
- Use cleaning methods compatible with the nozzle material and deposits. Do not insert hard tools that can damage internal surfaces.
- Begin with weekly inspection and cleaning where fouling risk is unknown; extend to monthly only after operating history supports it.
- Flush the system after cleaning and record the work performed.

Troubleshooting

Low pressure	Pump curve and rotation, intake blockage, leaks, open bypass, worn pump, excessive pipe size changes
Low flow with high pressure	Closed/restricted valve, blocked nozzle, undersized pipe, dirty filter, excessive manifold resistance
Weak or uneven gas draw	Blocked/wet air filter, kinked tubing, unconnected port, restrictive check valve, excessive tubing length
Unstable operation	Air lock, inadequate submergence, suction vortex, changing water level, electrical supply or pump cavitation

Service notice: Use the current model manual and approved chemical-safety procedure. Contact Puroxi before changing the gas source, chemical feed, pump or manifold.