PRE-TREATMENT SYSTEMS · BOREHOLE WATER

NanoJet™ Borehole Pressure-Boost Kits

Stabilises incoming borehole pressure and pre-treats raw water — driving oxidation, mixing and floc formation before it ever reaches the contact tank.

25×	1	3	AUTO
Flow velocity boost at the nozzle aperture	First-stage pre-treatment for the whole system	Nozzle options for different reaction profiles	Activates on the float-switch fill cycle

01 Overview

- Engineered to stabilise and maintain consistent incoming pressure in raw borehole water lines.
- Compensates for the common pressure fluctuations found in borehole delivery systems.
- Serves as an essential first-stage pre-treatment for oxidation, mixing and flocculation, ahead of everything downstream.

02 Key Benefits

- Enables optimal oxygen entrainment through the integrated Venturi system
- Enhances floc formation for improved solids removal
- Aids CO_2 scrubbing and off-gassing of H_2S
- Promotes vigorous turbulent mixing within the contact tank
- Facilitates iron oxidation and removal
- Increases overall treatment efficiency as a standalone pre-treatment step

03 Operational Features

Raw water is boosted and driven through the reactor at high velocity, entraining oxygen and generating cavitation before it enters the tank.

- Boosts and maintains adequate pressure into the contact tank
- Forces oxygenated water through high-pressure NanoJet™ reactor nozzle
- Dramatically increases flow velocity — up to 25× at the nozzle aperture
- Entrains atmospheric oxygen directly into the delivery pipe
- Generates nano- and micro-bubbles for enhanced chemical and physical reactions
- Creates maximum cavitation and pressure for superior constituent interaction

04 Nozzle Options (Select One)

Select one reactor nozzle to match the dominant reaction the installation needs.

MODEL	APPLICATION FOCUS
● VORTEX™	General-purpose cavitation and mixing
● FUSION™	Enhanced oxidation and bubble generation
● CYCLONE™	High-shear turbulent flocculation

05 Installation

1. Typically connected directly to the borehole pump float switch.
2. Activates automatically when the tank fill cycle is triggered.
3. Designed for straightforward integration into existing borehole systems.

06 Typical Applications & Ideal For

TYPICAL APPLICATIONS

- Pre-treatment for iron and manganese oxidation
- Hydrogen sulfide gas stripping
- Carbon dioxide scrubbing
- Flocculation assistance prior to filtration or sedimentation
- General aeration and mixing in raw water storage tanks

IDEAL FOR

- **Residential and commercial borehole water systems**
- **Small-scale municipal or community water supplies**
- **Agricultural and irrigation pre-treatment setups**
- **Stable pressure and enhanced oxidation prior to further treatment**