# HFA Fluoride Dosing System

for Medium to Large Communities

## FILTEC Making Water Safer

## Safe and Cost-Effective Fluoride Dosing for Large Water Treatment Plants

The FILTEC Fluoride Dosing System is a safe and cost-effective method of dosing fluoride into drinking water. The FILTEC Fluoride Dosing System meets New Zealand drinking water and chemical safety standards.

Using Fluorosilicic acid (HFA) the FILTEC Fluoride dosing system has four size options to meet the requirements of a population of up to 150,000 people (45MLD).

All components of the FILTEC Fluoride Dosing System are supplied with safety in mind and are all HFA compatible. The systems instrumentation provides continuous monitoring of the fluoride levels and is linked to a control system that accurately maintains the fluoride in the drinking water.

#### Instrumentation & Control

The HFA Dosing Pump delivers a flow that is paced to the water flow. The HFA flow is then trimmed up or down by a PI loop based on feedback from the Fluoride Analyser.

The HFA Dosing Pump is calibrated using a closed loop calibration cylinder. This 500mL calibration volume will need to be at normal dose rate, which will take about 3 hours.

- Includes a fluoride analyser and pump with the capability of combining water flow and fluoride concentration in the water
- For precise dosing of HFA into the drinking water



### Chemical Storage

It Includes a camlock fitting and manual isolation valve for loadout. A manual drain back into the bund allows safe disconnect. The level is monitored by radar transmitter for re-ordering and fill alarm settings, with back-up level switch for safe fill level and minimum pump level.

Once per day, the HFA Day Tank is filled to its level setpoint by the HFA Transfer Pump to provide no more fluoride than is safe.

- The bulk tank fully HSNO compliant and is fitted with continuous level monitoring, back up level switch and high low alarms. With reordering and alarm fill settings
- System automatically fills the day tank once per day
- This enables the customer to know daily usage and ensures personnel don't have to handle HFA

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### Materials of Construction

- Bulk tank: HDPE
- Day tank: HDPE
- Pumps: PVDF or other HFA resistant material

#### Safety Features

The concrete bund (by Others) contains all storage tanks and pipework and drains to a sump for suction truck Chemwaste disposal.

- Safety shower with thermal bleed
- Wall mounted hose reel
- Chemical unloading cabinet with alarm beacon and siren
- Ensuring safe handling, loading, and unloading of HFA as well as compliance with HSNO

Specifications	Available in four sizes based on population.			
Water Treatment Plant Flows (m³/day)	6,000	15,000	30,000	45,000
Population Served based on 300L/d/p	20,000	50,000	100,000	150,000
Day Tank Volume (L)	20	50	100	150
Storage Tank Volume (L) suggested for 3 months	2,000	5,000	10,000	15,000

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