Some examples of the types of equipment currently used in water treatment plants to fluoridate community water systems in the United States.
QUICK FACTS ABOUT FLUORIDATION

- Types of fluoridation feed systems:
  - **Saturators:**
    - Upflow Saturator
    - Downflow Saturator
    - Venturi Saturator
  - **Dry Fluoride Feeders**
    - Gravimetric Feeders (Belt-Type)
    - Volumetric Feeders
      - Roll-Type
      - Screw-Type
  - **Liquid Fluoride Feeders**
QUICK FACTS ABOUT FLUORIDATION

- **Saturators:**
  
  **Upflow Saturator** –
  
  Generally used in smaller community water systems (those that serve 10,000 people or fewer).

  Generally uses sodium fluoride as the additive of choice.
Fig. 10. Saturator system for water fluoridation

Source: World Health Organization
QUICK FACTS ABOUT FLUORIDATION

Saturators:

Downflow Saturator* –

Generally used in smaller community water systems (those that serve 10,000 people or fewer).

Generally uses sodium fluoride as the additive of choice.

While downflow saturators continue to be used, they are no longer manufactured in the United States. Upflow saturators are now the saturator of choice. *No diagram of a downflow saturator is provided.
Saturators:

Venturi Saturator –

Generally used in extremely small community water systems (such as villages, trailer courts, or individual school buildings), although not used widely.

Generally uses sodium fluoride as the additive of choice.

Considered to be an experimental technology to some extent.
QUICK FACTS ABOUT FLUORIDATION

- **Dry Fluoride Feeders:**
  - Gravimetric Feeders (Belt-type) –
    - Generally used in mid-size community water systems (those that serve approximately 10,000 – 25,000 people).
    - Generally uses sodium silicofluoride as the additive of choice.
Fig. 11. Belt type of gravimetric feeder for water fluoridation

Source: World Health Organization
QUICK FACTS ABOUT FLUORIDATION

- **Dry Fluoride Feeders:**
  
  **Volumetric Feeders (Roll-Type or Screw-Type*)** –

  Generally used in mid-size community water systems (those that serve approximately 10,000 – 25,000 people.

  Generally uses sodium silicofluoride as the additive of choice.

*No diagram of a roll-type volumetric feeder is provided; only a diagram of a screw-type volumetric feeder follows.*
Fig. 12. Screw type of volumetric feeder for water fluoridation

Source: World Health Organization
QUICK FACTS ABOUT FLUORIDATION

- **Liquid Fluoride Feeders:**

  Diaphragm Solution Feeder –

  Generally used in larger community water systems (those that serve approximately 25,000 or more people).

  Generally uses hydrofluosilicic acid as the additive of choice.
Fig. 13. Typical diaphragm solution feeder for water fluoridation

Source: World Health Organization
QUICK FACTS ABOUT FLUORIDATION

FLUORIDATION: NATURE THOUGHT OF IT FIRST!

Quick Quotes About Fluoridation - Copyright 1999: M. W. Easley, DDS, MPH; National Center for Fluoridation Policy & Research; All rights reserved.