

Cannon[®] Mixer enhanced sludge mixing technology

biosolids treatment

- ➔ **COST EFFECTIVE**
 - reduction in O&M and solids handling costs
- ➔ **ENVIRONMENTALLY FRIENDLY**
 - low energy consumption and increased biogas production

complete sludge mixing
through biogas re-circulation

ready for the resource revolution



gas bubble mixing for any size anaerobic digestion systems

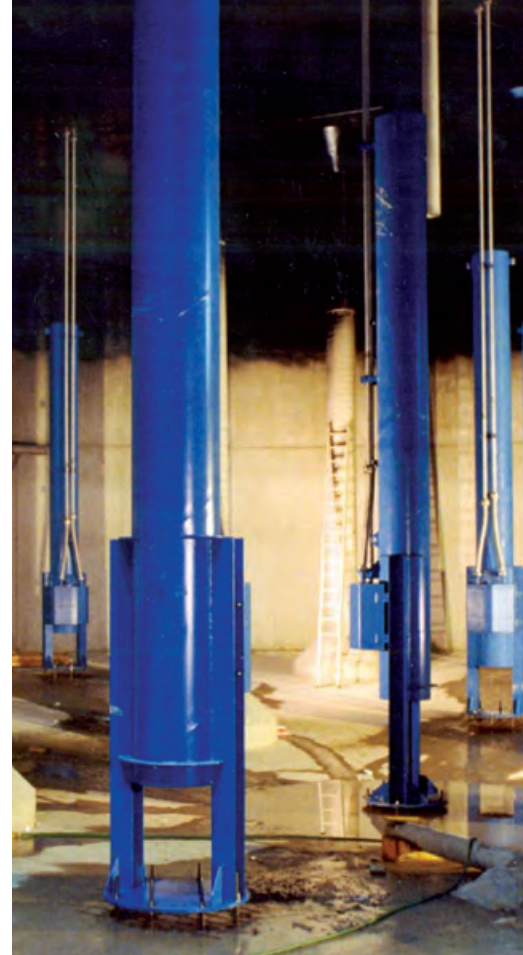
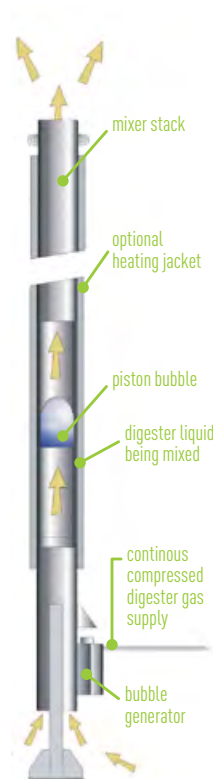
Cannon Mixer® technology

Peak digester performance and reduced operating costs are directly associated with the use of **Cannon® Mixer**. Ideal for deep-tank mixing, the system is not only superior in performance but is also easy to install, operate, and maintain.

- Based on computerized modeling, multiple units are strategically arranged to achieve more than 90 percent total active volume.
- Recirculated gas is continuously fed to the bubble generator and intermittently discharged into the stack pipe as a large piston bubble.
- The piston bubble fills the entire cross section of the pipe, driving out liquid as it rises and creating a siphon. As one bubble leaves the stack pipe at the top, another enters from the generator for both continuous mixing and prevention of solids settling.
- Large bubbles burst as they leave the liquid surface, creating substantial turbulence that prevents scum buildup.

Optional Heating Jacket

Serving as a highly efficient tube-in-tube heat exchanger using hot water recirculation, the **Cannon® Mixer's** heating jacket provides the least expensive method to heat sludge, eliminating external heat exchangers and sludge recirculation equipment. The jacket's heating actions is uniform and optimally controlled, maintaining temperatures within 1°F in even the largest digesters for homo-geneous solids reduction.



advantages

- **COMPLETE MIXING (90% ACTIVE VOLUME):**
 - + less scum formation, less solids settling, superior volatile destruction, and more biogas production
- **COST-EFFECTIVE:**
 - + low overall energy requirement reduces operating costs by up to 50%
 - + optional heating jackets eliminate the need for expensive external heat exchangers and pump systems
- **RELIABILITY:**
 - + no submerged moving parts means easy installation and low maintenance

KEY FIGURE:

Capable of achieving minimum

90% active sludge
mixing volume

contact

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