



Tech. Note No. 201

SANITARY STATIC BLENDING WITH THE ADMIXER™

USING A STATIC BLENDER FOR THE FOOD, DAIRY, PHARMACEUTICAL, OR COSTMETIC INDUSTRY

Since the early 1970's, the static mixers have revolutionized the mixing industry. They have replaced conventional motor driven impellers and have increased mixing effectiveness while reducing the costs. A static mixer is an in-line mixing device that required no external energy, little maintenance, and no operator attention. The Admix Sanitary Static Blender advances static mixing technology to a new level through a combination of superior

mechanical features and sanitary mechanical features and sanitary design considerations providing exceptional benefits to dairy, beverage, brewery and food processors. These same sanitary features can equally benefit the pharmaceutical and cosmetic superior clean ability and repeatability is mandatory.

Sanitary Static blenders have many advantages over conventional mixers.

SANITARY PROCESS BENEFIT

1. Improved safety and sanitation in closed pipes.
2. Easily inspected, cleaned and maintained with quick disconnected sanitary clamps.
3. Eliminates the product contamination possible with open tank mixing.
4. Nonfouling design prevents plugging

PRODUCTION BENEFITS

1. Sized to achieve a desired mixing level with extremely consistent results.
2. Low shear mixing for shear sensitive media, i.e. fruit addition to dairy products.
3. Very cost effective and more efficient than mechanical mixers.
4. Requires less space.
5. Decrease production time.
6. Low capital cost and maintenance

USING SANITARY STATIC BLENDING TECHNOLOGY

The concept behind a static blender is simple. Fluid flowing through a pipe is channeled through a geometric arrangement of fixed mixing elements. The diameter of the static blender is usually consistent with the existing pipe; sizes range from 1 to 8 inches and can range in length from 4" to over 4 feet.

The element geometry within the housing cause the flow to divide, mix, divides again and mixes again until complete. The flow then continues in the pipe as if it had gone through conventional batch mixing in tanks, with the distinct difference that the degree of homogeneity can be precisely controlled within the sanitary static blender while agitation is more random. A detailed explanation of how the Admixer™ operates is available by requesting our Tech. Note 101.

Installation and removal of sanitary static blender is easily accomplished with the sanitary clamps, threads or fittings. Sanitary blenders are available in a variety of materials for various purposes. Most food applications require sanitary grade 304SS tubing; however blenders are available in 316SS, Teflon and other materials.