

### 100% product uniformity and distribution at any viscosity level

The Admixer excels at processing any combination of miscible fluids regardless of flow rates, viscosity or density. Where laminar flow conditions exist for thick fluids, complete homogeneity is achieved through geometrically precise flow division. In turbulent flow, the Admixer utilizes radial momentum and inertia reversal to eliminate stratification of flow, temperature and density of all processed fluids.

The even stirring characteristics of this low shear static mixer are ideal for many jobs. For example: diluting juice concentrates, mixing in flavors and colors, marbleizing cake batters, mixing tomato puree with other agents, blending chocolate chips, nuts or fruit into ice cream or yogurt, blending syrups into milk, evenly distributing jelly within molten peanut butter, and more.

### No moving parts, no electrical requirements and easy installation

- Made in AISI 316L in compliance with the 3-A Sanitary Standard
- Quick disconnect TriClamp® type ferrules for ease of assembly
- Standard design includes a Ra 0.8 µm or better finish for elements and housing, with all welds completely ground, blended and polished
- Element assemblies are quickly removable for inspection and cleaning
- Off-the-shelf stock availability, diameters 25.5 – 101.6 mm
- Low capital and maintenance cost
- 50-90% less power consumption than mechanical mixers



### Ideal for Low Shear Applications

- |                       |                       |
|-----------------------|-----------------------|
| ✓ Juice Thin Down     | ✓ Ice Cream           |
| ✓ Fruit into Yogurt   | ✓ Carbonate Beverages |
| ✓ Flavors & Colorants | ✓ Create Marbleizing  |
| ✓ Tomato Sauces       | ✓ Creams & Lotions    |
| ✓ Chocolate Syrups    | ✓ Fragrance Blending  |
| ✓ Vitamins            | ✓ Jams & Jellies      |

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## How to Select a Sanitary Style Static Mixer

### Models, Specifications & Performance

Sanitary design static mixers from Admix are designed to process flow streams from as low as 3.8 – 56 to as high as 190 – 945 l/min or greater. The Admixer will blend most combinations of flow, viscosity and density even from multiple incoming streams (see side bar for allowable ranges). The limiting factor will be the pressure drop through the mixer, which is very dependent upon the variables.

Most “turbulent flow” static mixing applications can be well blended with 6 mixing elements or vanes at a pressure drop of 0.14-0.2 bar or less, while thicker “laminar flow” applications could require 12 to 18 elements and upwards of 1.72 bar or more pressure drop.

The guidelines provided below are based on 6 element configurations. Please consult your local sales representative indicated below for a detailed sizing analysis.

Model	Nominal Diameter (mm)	Flow Rate (l/m)	I.D. (mm)	Pressure Rating at 150° C (bar)	Length (mm)	Weight (kg)
SAN1-6R-S	25.4	3.8 - 56	22.1	17.2	222.2	0.45
SAN1.5-6R-S	38.1	11 - 115	34.8	17.2	330.2	0.90
SAN2-6R-S	50.8	19 - 190	47.5	17.2	438.2	2.26
SAN2.5-6R-S	63.5	37 - 300	60.2	13.8	552.5	3.62
SAN3-6R-S	76.2	75 - 565	72.9	10.3	660.4	5.44
SAN4-6R-S	101.6	190 - 945	97.3	10.3	876.3	9.1

## PERFORMANCE CHARACTERISTICS

**Mixing Action:** Plug Flow

**Viscosity Range:** 1 to 1,000,000 cps

**Viscosity Ratio:** 10,000:1 max

**Volumetric Ratio:** 10,000:1 max

**Density Ratio:** 100:1 max

**Shear Rate:** Low, but uniform

**Velocity Dependency:**

Laminar flow - none

Turbulent - 0.30 m/s (minimum)

**Dispersion Capability:**

Good to very good

**Pressure Drop:** Low (0.06 - 0.34 bar)

**Maintenance:** Low (no moving parts)

**Injection Requirements:**

Important (especially at high viscosity or volumetric ratios)

**Energy Cost:**

Low (25% of dynamic agitators)

**Capital Cost:** Low

## How the Admixer Static Mixer and Blender Works

### Turbulent Flow - Low Viscosity



### Laminar Flow - High Viscosity



Cross  
Sectional  
View



Additional sizing and application tips can be found in the following bulletins available at [admix.com/admixer-specs](http://admix.com/admixer-specs) or by calling your local representative.

Tech Note #101 Admixer Theory of Operation  
 Tech Note #102 Sizing the Admixer  
 Tech Note #201 Sanitary Static Blending with the Admixer