

## DOSING AND MIXING TECHNOLOGIES

# DYNAMIC LOOP-MIXER

### ENGINEERED PRODUCTS

The dynamic Loop-Mixer designed and built by Bilfinger Engineering & Maintenance, is a process engineering system to mix a certain number of product components to one homogeneous product. The system is used in continuously working processes.

#### Essentially, the mixer consists of

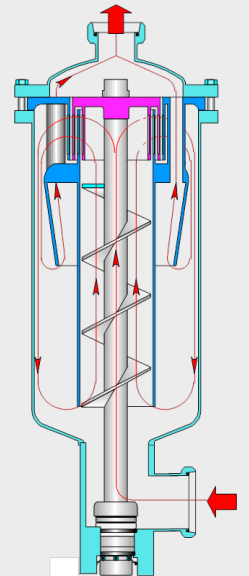
- Mixer housing with installations
- Helical displacer with dispersing tool

#### Mixing procedure / function

- The components that are to be mixed enter the dynamic loop-mixer through the inlet.
- Inside the mixer, the product is thoroughly mixed by mechanically guided, continuous recirculation (loop formation). The mixing and circulation energy required is provided by a variable-speed helical displacer to maintain the loop stream.
- The chosen dispersing tool ensures the efficient mixing of the product. At the same time, new material will be added continuously to the circuit through the mixer inlet.
- The product mixture leaves the mixer through the discharge tubes of the centrally symmetrical collector.
- Dynamic loop-mixers are especially suitable for the mixing of products with low to high viscosity.

#### Characteristics / advantages of dynamic loop-mixers

- Maximum possible mixing performance through positively driven continuous circulation
- Constant retention time spectrum
- Short mixing time, maximum production with minimum retention time



- Optimal utilization of energy-application for the mixing process, flowconvenient optimized deflection zones, no sharp edges
- Clearance volume free design
- Mixing of the complete filled mixer content no undesired foam generation, hermetically closed system
- Directed, calculable flow-field (allows for secure scale-up!)
- Excellent equalizing-behavior on pulsating feed of mixer
- Compact IN-LINE mixer for continuous operation low space required for loop-mixer
- Excellent product homogeneity with optimum energy utilization especially



Competence



Partnership



Cost reduction



Satisfaction



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