

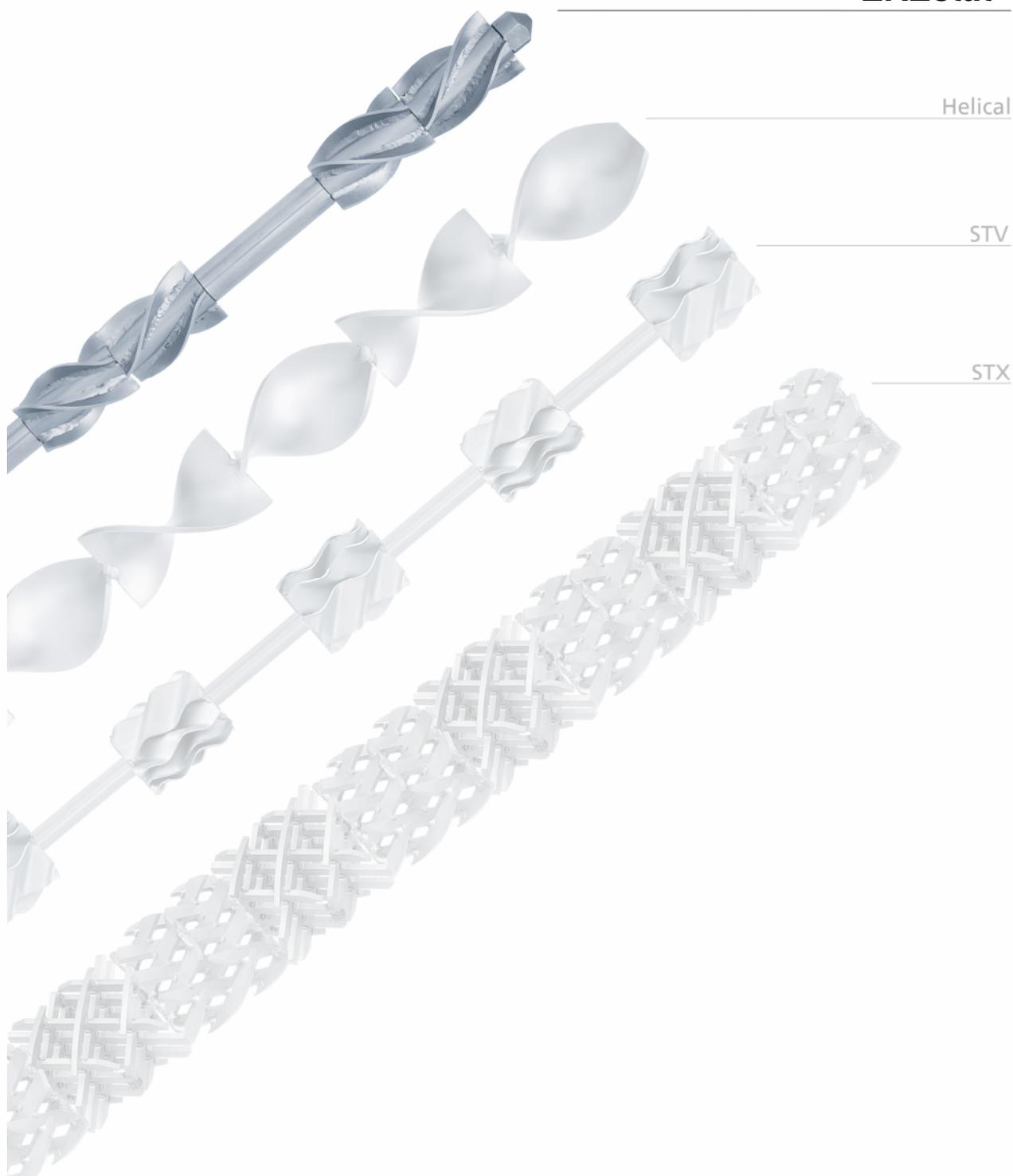
# Static Mixer *EREstat*<sup>®</sup>

The Food Mixer



VERFAHRENSTECHNIK

## *EREstat*<sup>®</sup>



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The statically operating pipe mixer type *EREstat*<sup>®</sup> generates its mixing effect through the inevitable and constant division of the product volume flows to be mixed. The generated partial flows are further divided repeatedly from one mixing stage to the next and merged again offset geometrically. In addition, the direction of the partial flows changes in each stage. The desired mixing quality is predetermined, amongst others, by the deployment of the appropriate number of mixing stage elements.

In addition to the mixing quality caused by this laminar formation, a rotation of the medium to be mixed around the hydraulic centre of each flow channel occurs, both with laminar and turbulent flow. This rotation effect achieves an additional radial mixing effect.

The guide elements are arranged on the core of the mixing body through special geometric relationships so that the four developing flow channels each exhibit significantly different cross-section in the direction of flow. The laminar formation and rotation effects are supplemented by the shearing flow, which has, e.g. with dispersion process, a favourable effect.

The glass bead blasted and/or electropolished mixing body of the *EREstat*<sup>®</sup> is composed of a specific number of mixing elements. The inflow and outflow cones, respectively, are attached to the beginning and end on the mixer core. Stainless steel is the material most frequently used. Of course, the *EREstat*<sup>®</sup> can be delivered in any conceivable versions, e.g. made from the plastics PVC, PE-HD, PP, PVDF or also from regular steel. Furthermore, the housings can also consist of glass pipes or pipes lined with PTFE.

All conventional designs according to DIN, ANSI or other customary standards can be provided as connecting types for the pipe mixers. The special construction and manufacturing principle of the mixing stage elements also permits their design as heat exchangers, that is, heat exchangers that can be heated both from the inside and outside.

Mixing and heat exchange with the pipe mixer *EREstat*<sup>®</sup> solve many tasks extremely economically. Examples for the use of mixing elements of the *EREstat*<sup>®</sup> type, include, amongst others, the careful mixing and heating of photographic emulsions, the handling of polymer solutions, the thermal homogenizing of chocolate substances in the confectionary industry as well as the mixing and slow cooling of candy substances.

