



Mixing and dispersing

State-of-the art technology based on scientific know-how

IBW UniRex® high-performance dispersing machines for process engineering applications. These machines were developed on the basis of the effects of mechanical high frequencies on rotor-stator systems with high circumferential speeds. The excellent dispersing results achieved with the robust, sophisticated design and the low energy requirements of the drive units ensure very economical operation.

The fine distributions obtained with these machines are achieved by the complex interaction of several disintegration mechanism, with the turbulence forces in the shear gap exerting a major influence. In the gap area four-dimensional, local and temporal speed fluctuations occur which are coupled with high-frequency pressure variations. As the forces occurring in the rotor-stator systems increase the intensity of the transfer of substances, the reaction sequence and the dissolution of monomolecular and macromolecular substances are accelerated.



IBW RotoRex® pilot beam mixers

are suitable for installation in open and enclosed containers. They are designed for operation with positive or negative pressures (0-40 bar). The most advantageous installation position is vertical from above or at a slight angle offset from the centre of the container. High speeds and low clearances between the rotor and the turbine tube prevent backflow losses. A square length ratio in the cylindrical section ensures the high liquid shearing force. The inlet and outlet angles on the turbine tube have different diameters, resulting in a favourable filling level and pronounced regulation of the liquid flow. As a result a distinctive circulation of the entire liquid contents occurs within a very short time, and critical regions of the container are also reached.



IBW TurboRex® DIN mixers

cover the full agitator range from low-viscosity media to pastes. These include high-speed and low-speed mixing systems for non-pressurised, positive and negative pressure operation. The units are mounted directly to the motor flange on the site support construction. Sealing lanterns with radial shaft seals, stuffing boxes or floating ring seals are available for sealing the shafts against pressure or vacuum. An additional agitator shaft bearing is available for agitator shafts with lengths exceeding 1,000 mm. We supply the right mixing device for all applications, ranging from propellers to anchor agitators.



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