

PLOUGHSHARE® MIXER FOR BATCH OPERATION TYPE FKM



- Hygienic Design
- Highest quality mixes in short mixing times
- Digital recording and traceability of batches
- Gentle treatment of the product
- Low maintenance design
- Combined processes in one single machine
- Easy accessibility to all inside parts of the mixer
- Automated wet cleaning (WIP)



ALWAYS THE RIGHT MIX



WIP pipework in the inlet

Lödige Ploughshare® Mixer type FKM for pharma applications

Mode of Operation

The Ploughshare® Mixer for batch operation works on the principle of a mechanically generated fluid bed introduced by Lödige to the mixing technology.

The mixing elements ensure constant and total involvement of all product particles - preventing the formation of dead or low-movement zones. In that way, components of extremely different bulk density and structure can be mixed; even mixing of aerosols for example is achieved homogeneously and without demixing. The resultant individualisation of the particles in the mix (fluid bed) allows the addition of liquids and coating of the particles with ease. If necessary, high-speed choppers provide additional support of the mixing process. Ploughshare® Shovels can be modified for intensive and gentle mixing of fragile components even at low speeds. Reducing the peripheral speed to <math><1\text{m/sec}</math> is possible, depending on the product properties. Pastes and pumpable mixtures can be processed with suitably adjusted mixing elements.

Sizes

Mixer type	Total volume in litres	Working volume in litres
FKM 130	130	35 - 95
FKM 300	300	75 - 225
FKM 600	600	150 - 450
FKM 1200	1200	300 - 900
FKM 1600	1600	400 - 1200
FKM 2000	2000	500 - 1500
FKM 3000	3000	750 - 2250
FKM 4200	4200	1050 - 3100
FKM 6000	6000	1500 - 4500
FKM 8000	8000	2000 - 6000

Basically the Lödige Ploughshare® Mixer of type FKM for batch production has a filling degree of approx. 25 - approx. 75 % of the total volume. The optimal filling degree depends on the application and can therefore vary according to the product mixed.



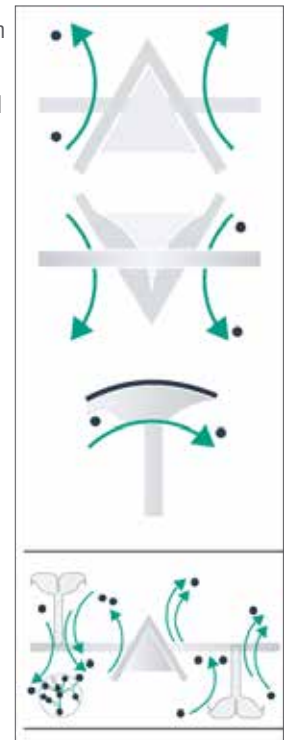
Ploughshare® Mixer for batch operation type FKM Hygienic Design

Range of Application

Lödige Ploughshare® Mixers are used in almost every branch of industry for all types of applications. We have supplied more than 35,000 machines worldwide over the last 80 years.

Here is a short extract from applications in the pharmaceutical industry:

- Mixing and granulation of basic pharmaceutical materials, excipients and active agents
- Tempering of active agents and moist products
- Coating of powders, granules/crystals



Scheme: Mixing and fluidisation process

Equipment

We develop tailor-made solutions optimally adapted to each of your application and products for a long-term production.

The individual implementation of your requirements - also in terms of design - and their technical realisation are our competence and strength.