

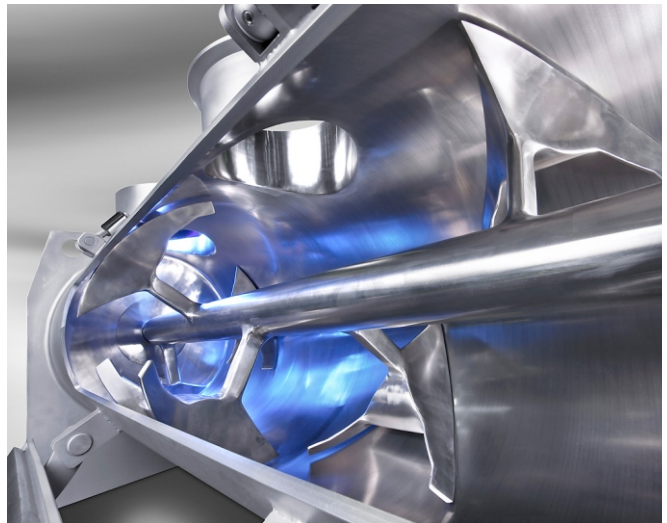
Ploughshare® Food Mixer for continuous operation

- Maximum homogeneity of the end product
- Highest throughputs in short mixing times
- Granulation in short residence times
- Gentle treatment of products
- Reliable reproducibility of the mix quality
- Compensation of dosing fluctuations
- GMP compliance on demand

Ploughshare® Food Mixer for continuous operation



Continuous Ploughshare® - Mixer KM 1200



Continuous Ploughshare® - Mixer KM 150

The continuous Ploughshare® Mixer operates on the hurling and whirling principle introduced to mixing technology by Lödige. The mixing elements can be adapted to individual applications.

These mixers achieve high throughputs which can be adjusted depending on the residence time, filling level and component properties.

Range of Application

- Processes requiring high throughputs
- Processing of bulk materials (powdery, granular, fibrous)
- Liquid addition for humidification and granulation
- Compensation of dosing fluctuations

Sizes

Type	Total volume in l	Throughput* in l/h	Length* in mm	Width* in mm
KM 150	150	4500	1550	490
KM 300	300	9000	1800	590
KM 600	600	18000	2400	700
KM 1200	1200	36000	2950	880
KM 2000	2000	60000	3490	1040
KM 3000	3000	90000	3550	1220

Throughputs based on 1 minute residence time. The optimal residence time is assessed by mixing trials or by experience acc. to similar applications. * approx. dimensions without drive.

Mode of Operation

Ploughshare® Shovels rotate as mixing elements arranged systematically on the mixer shaft in a horizontal, cylindrical drum. The positioning, peripheral speed and geometric shape of the mixing elements are coordinated in such a way that they produce a three-dimensional movement of the product. The mechanically generated fluid bed, with total involvement of all product particles, ensures gentle and intensive mixing.

The resultant individualisation of the particles in the mix (fluid bed) allows the addition of liquids and coating of the particles with ease.

The continuous process is operable at filling levels between 20 and 50 % without influencing the mix quality. The mixing elements are adjusted in order to achieve a constant back-mixing during the whole residence time prior to discharge of the mixed product via the outlet for further processing.

The adjustment of the outlet size by means of a slide or an adjustable weir has a direct influence on the residence time.

Optional Equipment

- Heating/cooling jacket for drum and endplates
- Heated/cooled main shaft
- Dust-free feeding systems
- GMP compliance
- Various mixing elements and choppers
- Specific sealing systems for shaft bearings
- Devices for liquid addition

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