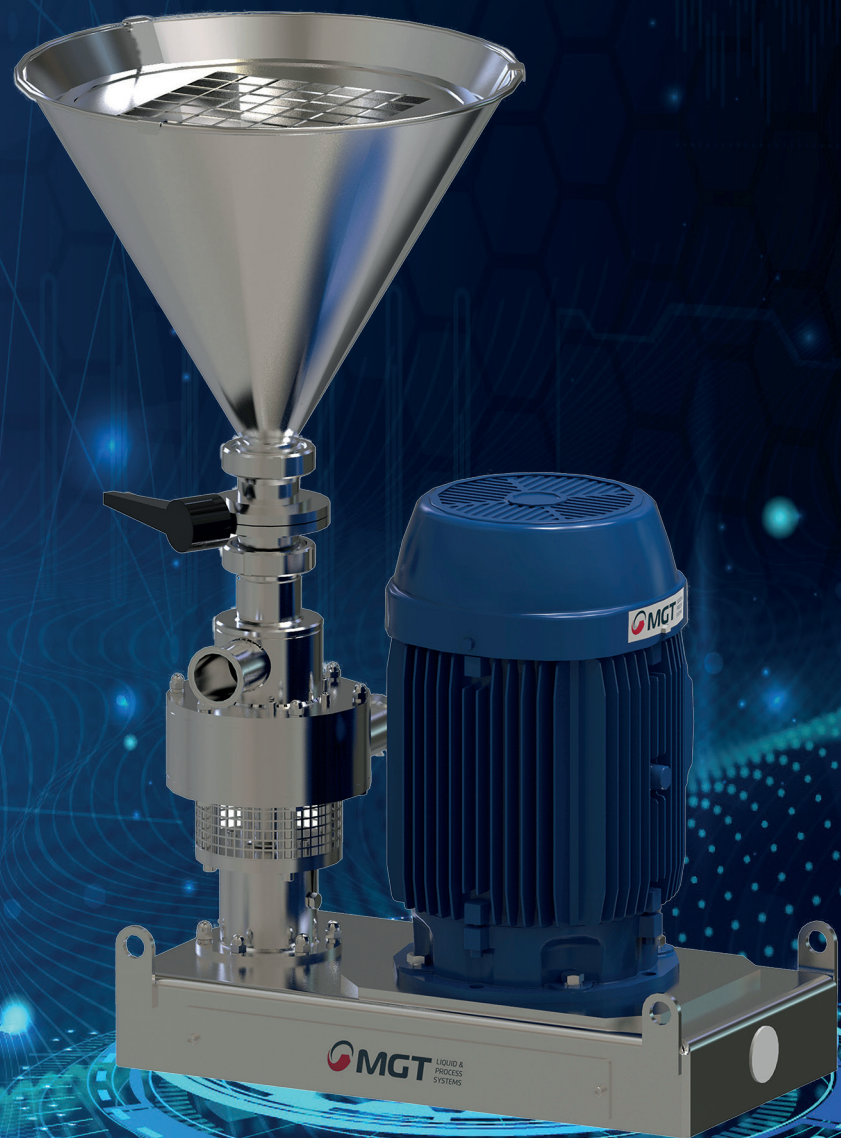


LS SERIES WETTING AND DISPERSING MIXER



The MGT LS Inline Mixer is a mixer designed for the purpose of incorporating solid ingredients such as powders into liquids reliably, consistently, and efficiently. Its custom design allows for the mixing of even high-viscosity products, whilst also achieving a mix that is homogenous and free of unintentional aggregate accumulation.



When mixing powders into liquids common problems may arise; the formation of lumps of solids within a mix, as well as a build-up of undissolved powders on the surface of the tank walls or agitator. Consequently, these issues may cause non-homogenous batches of poor quality, increased batch times, and reduced reliability of the mixing system as a whole. In addition to this comes the increased risk of mechanical failure, resulting in often prolonged periods of machinery downtime during maintenance. Taking this into consideration, MGT has developed the MGT LS Inline Mixer, designed to overcome these challenges by incorporating powders into liquids in-line in such a way that prevents the accumulation of solids and guarantees a much more consistent and homogenous end product.

Due to its state-of-the-art design combination of both pumping and disperser mechanisms, The MGT LS Inline Mixer is often the first choice for

customers within a range of industries including pharmaceutical, chemical, food, paints, and cosmetics manufacturing.

Benefits of the MGT Inline Mixer include:

- Improved efficiency
- Improved manufacturing times
- Self-regulating input of solids and liquids
- Prevention of emissions of hazardous dust and solvents as all mixing is enclosed
- High customization for integration within the process of varying batch sizes from 100L to 50,000L.
- Hopper feed directly into the high shear zone as opposed to into pipework leading to the high shear chamber
- Dual action mechanical seal
- Solids can be emptied at ground level rather than vessel manway
- CIP compliant
- Can be supplied ATEX-rated if required
- Completely closed internal mixing process for safety and reduction in solvent/dust emissions.

This system comes in 4 sizes, depending on formulation quantities. This allows for upscaling from pilot-scale to larger-scale production. The LS Inline Mixer achieves the same quality of dispersion regardless of batch size.

Offered as a complete system.

Many manufacturing processes require multiple batch recirculation in order to achieve the desired product consistency. The MGT LS Inline Mixer utilizes the strong vacuum that occurs through the recirculation process to pull in solid material from the hopper, directly into the shear zone. Solids are forced through the high-shear rotor-stator disperser


via the vacuum generated, resulting in 100% of the solid material being incorporated as it passes the mixing chamber, preventing any accumulation of solid lumps. Often used in conjunction with an in-tank agitator – although not always necessary – the LS Inline Mixer guarantees high levels of consistency often demanded by industries such as pharmaceutical or cosmetic applications.

The MGT LS Inline Mixer can be supplied on its own or as a skid-mounted solution complete with a stainless-steel rip-bag table mounted directly above the unit with an incorporated hopper for improved manual handling. Alternatively, the MGT LS Inline Mixer is compatible with larger big-bag stations, suction lances or funnels.



	Typical batch sizes (L)	Circulation rate (L/H) (water)	Incorporation of solids max. (kg/h)	Motor power (kW)
LS4	100 – 500	3,000	700	4
LS7.5	500 – 1,000	5,000	1,300	7.5
LS15	1,000 – 3,000	15,000	4,700	15
LS30	3,000 – 7,000	35,000	8,900	30
LS55	7,000 – 50,000	80,000	16,200	55

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 **MGT**
MIXING SYSTEMS