

Paddle Mixer / Low Shear Mixer

The Paddle Mixer is a vacuum mixing tank with paddle impellers which creates laminar flow of mixing without further shearing to the product. This low shear mixer is suitable for agitating materials for long period of time without overheating due to helical bevel gear motor coupled with double mechanical seal design.

Model	Paddle Mixer
Mixing capacity	22,000 Litres
Power supply	Three phase, 380V/415V, 50/60Hz
Helical Gear Motor	22kW (30HP) , ATEX rated II 2 G Ex d IIC T4 Gb, Zone 1
Mixing Speed	0-40rpm
Impeller type	3 x stages paddle diameter : 1100mm/1100mm/700mm
Mixing Viscosity	Medium high, up to 500,000cps
Wetted Parts Material	Food and medical grade stainless steel 316L
Non-Wetted Parts Material	SS304
Vessel type	Double wall (jacketed) for cooling
Insulation material	50mm PU foam
Surface finishing	internal: Ra < 0.25um ; external: Ra < 0.4um
Support	Lifting lugs / Platform brackets

Add-Ons (optional)

- Weighing system with Mettler Toledo load cells
- CIP/SIP cleaning system e.g. ATEX rated spray balls
- Double mechanical seal design for pressurized mixing
- Special seals, valves, pipings and fittings e.g. EPDM
- Accessories e.g. level sensors, temperature sensors
- ATEX Remote Control Station
- Cooling coils
- Customized flanges/ferrule clamps for nozzles/manhole design
- PLC/touch screen panel control
- Vacuum design (if used with vacuum pump)
- Electropolishing / Passivation for finishing
- Teflon coating for corrosive application
- Inline High Shear Mixer with multi-stages "slotted" stator design (either side / bottom entry)



Figure 1 : DSM5000 (for illustration purpose)

Main Advantages

- High torque mixing at slow speed with helical bevel gear design
- Mixing during heating / cooling process with jacketed vessel
- Low shear mixing without motor overheating even for long mixing duration
- Low noise level for pleasant production environment
- GMP and hygienic (CIP) compliant design
- Elimination of air bubbles in the product with vacuum mixing (if applicable)
- High flexibility and configurability
- Available with hydraulic/pneumatic lid lifting system version (if applicable)