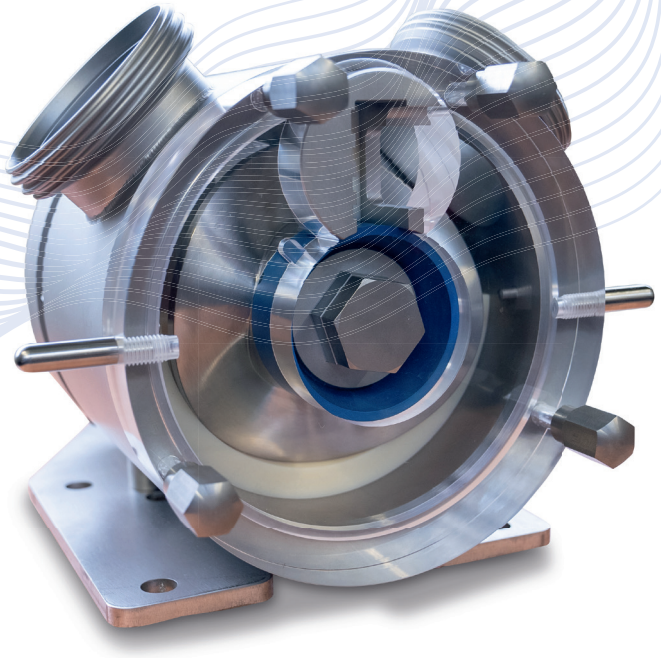

Soma PUMPS GMBH

DMSZ zertifiziert nach DIN EN ISO 9001 22071

Criteria	SOMA SINUS SODIAL® Sinus Pump	Gear Pump
Stainless Steel Design	Fully stainless steel, including bearing housing, no painted parts → hygienic and corrosion-free	Often only partially stainless steel, bearing housing usually painted → risk of paint flaking and corrosion
Pumping Principle	Gentle sinus-shaped pumping chambers with smooth, continuous flow	Two intermeshing gears – high shear forces
Product Handling	Very gentle, almost shear-free, no compression → ideal for sensitive products	High shear forces cause product degradation or temperature increase
Pulsation	Nearly pulsation-free, uniform product flow	Noticeable pulsation due to gear engagement
Self-Priming Capability	Excellent, even with air inclusions	Limited, loses prime when air bubbles occur
Foaming	No foaming thanks to smooth, gentle flow	Strong turbulence, high risk of foaming
Energy Efficiency	Up to 50% lower energy consumption, especially with highly viscous media	Higher energy consumption with increasing viscosity
Maintenance	Very simple – only one rotor and one seal; can be serviced in minutes	Complex – many precision gears and tight tolerances, difficult to maintain
Service Life	Very robust, no metal-to-metal contact, minimal wear	High wear due to gear contact, limited lifetime
Hygiene & Cleaning	Fully CIP/SIP-capable, excellent cleanability	Difficult to clean, dead zones between gears
Handling of Solids	Suitable for solids up to 80 mm without damage	Not suitable for solids – risk of blockage or gear damage