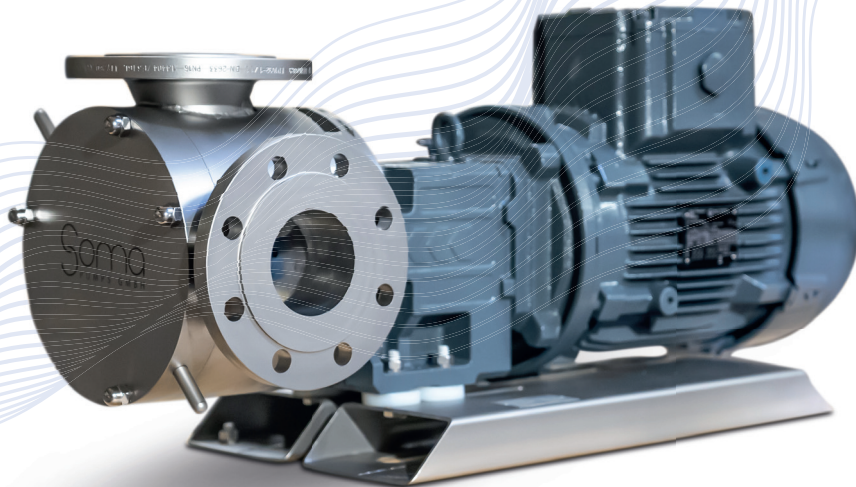




Criteria	SOMA SINUS SODIAL® Sinus Pump	Rotary Lobe Pump
Rotors & Seals	1 Sinus-rotor, 1 seal → simple design	2 rotors, 2 mechanical seals → complex design due to adjustment dimensions of the rotor and mechanical seal
Pumping principle	Sinus-shaped chambers, smooth continuous flow	Counter-rotating lobes, interrupted flow
Pulsation	Almost pulsation-free	Noticeable pulsation possible
Product handling	Very gentle, no shear forces	Higher shear forces, possible product damage
Self-priming / Suction	Yes, excellent with low- and high-viscosity products, also with interruptions (air bubbles)	No, only with constant product supply; air bubbles stop immediately suction
Foaming	None, gentle continuous flow without shear	Higher, due to strong turbulence
Energy efficiency	Lower energy demand, up to 50% savings	Higher energy demand with increasing viscosity
Viscosity range	Very wide, from thin (1 cps) to extremely viscous (9,000,000 cps)	ok, pump have to be oversized
Cleanability	Very good, CIP/SIP as well as manual cleaning possible	Cleaning possible but more complex; often requires additional CIP pump
Maintenance	Very simple, clear structure, no special tools-knowhow necessary	More complex, complicated due to 2 mechanical seals and 2 rotors
Service life	Very robust, lifetime warranty on housing & cover, no wear possible	Robust, but wear on the pump housing and pump cover
Temperature range	Very wide: -30 °C to approx. 240 °C, pump housing heatable/coolable	Model-dependent, often limited
Maintenance time	Very low, only a few minutes, clear and simple design	More complex, more time due to 2 mechanical seals and rotors
Handling of solids	Excellent, up to 80 mm without damage	Poor to moderate, product damage likely
Overall length	Very compact (SCN-D Monobloc series, approx. 1 m total length)	Medium to long, no compact version available
Stainless steel execution	Standard: fully stainless steel incl. bearing housing, no painted parts	Housing in stainless steel, bearing housing usually painted