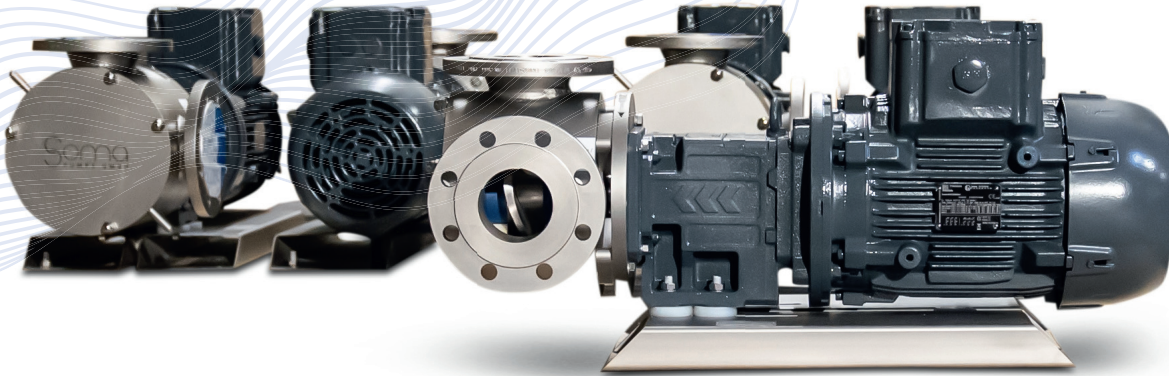




Criteria	SOMA SINUS SODIAL® Sinus Pump	Twin Screw Pump
Design	1 sinus rotor and 1 seal → fewer wear parts, lower spare part costs	2 spindles and 2 mechanical seals → complex, very expensive in purchase, maintenance and spare parts
Maintenance effort	Very low, maintenance within minutes, clear and simple design, no special expertise required	Extremely time-consuming, removal of spindles and seals required, long downtimes, skilled personnel mandatory
Maintenance execution	Easy maintenance possible by in-house operating personnel	Requires trained specialists or must be sent back to manufacturer → long downtimes
Product handling	Almost shear-free, no crushing → ideal for sensitive products	Higher shear forces, risk of product damage
Handling of solids	Excellent, up to 80 mm without damage	Only limited suitability, product damage very likely
Pulsation	Almost pulsation-free, very smooth product flow	Light pulsations possible
Foaming	None, gentle flow without shear forces	High turbulence from spindles → tendency to foam
Energy efficiency	Up to 50% lower energy demand, especially with highly viscous media	Increasing energy demand with viscosity → higher operating costs
Viscosity range	Very wide, from 1 cps to 9,000,000 cps	Typically 100,000–200,000 cps, special designs up to ~1,000,000 cps
Self-priming	Reliable, even with air inclusions	Loses continuous sealing with air bubbles → suction performance breaks down
Construction / Length	Compact SCN-D Monobloc series, approx. 1 m total length	Longer construction due to two spindles and bearing housing
Service life	Very robust, lifetime warranty on housing & cover	More wear parts (spindles, bearings, seals), wear on pump housing and cover
Maintenance costs	Low, due to robust design and less wear parts	Extremely high, replacement of spindles, bearings and seals is very expensive