

NETZSCH NEMO® SF and SP Pumps for Highly Viscous Applications

The NEMO® Progressing Cavity Pump division of NETZSCH Incorporated manufactures SF and SP positive displacement pumps to easily handle highly viscous, dry and non-flowing materials. Part of the proven NEMO® NM Series product line, NEMO® SF pumps are designed to incorporate NETZSCH's exclusive oversized open throat feeding system, expanding the possibility of pumping difficult materials. The open throat model with patented feed screw design allows for products to positively feed directly into the rotor/stator element of the pump.

NEMO® SP pumps are an extended version of the SF Series, also incorporating an oversized auger feeding system. Unlike the SF model, SP pumps include counter-rotating bridge breaking paddles, eliminating the possibility of product bridging over the pump's auger. These paddles allow for better handling of high solid content materials and non-shear sensitive products such as cake sludge released from a belt press, centrifuges or plate and frame filter presses.

NEMO® open throat pumps are often used to replace high maintenance, expensive conveying systems. The SF and SP models are cleaner and more efficient than conveyors at moving dewatered sludges, manufactured and processed wastes and a wide range of high viscosity materials over long distances and high lifts. This is because the materials being transported cannot fall on the floor or on other machinery and odors are contained within the pipe. Should the system shut down and material start to dewater, the liquid is contained within the pipe.

Both NEMO® SF and SP pumps offer capacities up to 880 GPM and pressures to 340 PSI. Applications containing 12% to 32% solids are easily pumpable with NEMO® SF and SP models.

For easier operation under various conditions, NEMO® SF and SP pumps are available with various optional accessories including adjustable stators, stator protection devices and shaft seals options. When wear occurs on the contact surfaces between the rotor and stator, the design of the NETZSCH adjustable stator makes it possible to carry out a correction suited to the stator geometry. NEMO® stator protection devices protect the stator from dry running by continuously measuring pressure temperature. A full range of mechanical shaft sealing options, including single or double seals, special sealing systems and packed stuffing box seals are available to meet all specifications. For even greater control of difficult pumping applications requiring an SF or SP model, NETZSCH also offers various drive types, standard or portable baseplates, and customized systems.

With NEMO® SF and SP pumps, you are guaranteed:

- Low shear rate on fluid being pumped
- Non-pulsating, accurate, reliable metered flow
- Volume practically unaffected by varying viscosity/solids
- Flow proportional to pump speed
- High viscosity/solids content pumping capabilities
- Low, medium, high pressure pumping capabilities
- Non-vapor and air locking operation
- Low noise levels
- Flexibility in operation and mounting options
- No valves or close clearances to clog

Like all NEMO® NM Series Progressing Cavity Pumps, the SF and SP models feature an enlarged stuffing box area and tapered suction housing, resulting in trouble-free operation. These pumps also consist of a solid shaft design that eliminates clogging because there are no areas for solids to collect and settle. Equipped with extra long connecting rods for extremely low angularity (approximately 1 degree), these models guarantee longer universal joint life. The thru bolt construction design affords easier maintenance.

NEMO® SF and SP pumps' metered flows, high head differentials and ability to handle abnormally high abrasives make them ideal for use as primary, secondary and tertiary sludge transfer pumps in both industrial and municipal waste water and waste treatment plants.

- Kelly Rismiller, NETZSCH Marketing Manager