

SNP Series

STAINLESS STEEL SLIDING VANE PUMPS | PRODUCT BROCHURE



Blackmer

Where Innovation Flows



Chemical processing, can be a nasty business, and dealing with caustic and corrosive liquids that are incompatible with a wide range of materials requires special consideration and stainless steel. Blackmer SNP Series Stainless Steel Sliding Vane Pumps are up for any application where the chemical resistance of stainless steel is required.

STAINLESS-STEEL PUMPS FOR CAUSTIC OR CORROSIVE LIQUIDS

Blackmer® SNP Series | Stainless Steel Sliding Vane Pumps

Constructed from 316 stainless steel, the SNP Sliding Vane Pump are built to handle a wide variety of corrosive or caustic liquids, and are used for many different materials and applications. Available in five sizes with port sizes ranging from 1 ¼ to 3 in, the SNP Stainless Steel Sliding Vane Pumps provide flow rates from 4 gpm to 275 gpm, temperatures to 350°F and relief valve pressures to 150 psi. While Blackmer uses 316 stainless steel on all significant wetted parts, sliding vanes and reversible carbon discs are nonmetallic. This reduces friction and eliminates galling, which can happen in other sliding vane pump designs that feature all stainless steel components.

Standard SNP Sliding Vane Pumps are constructed with self-lubricating sleeve bearings and PTFE impregnated shaft packing. Jacketing options are available for all models except SNP3. This includes jacketed heads for

circulation of steam or hot oil when handling viscous fluids and removable 2-way relief valve which permits either back-to-tank or internal bypassing. All SNP Pumps will handle fluid viscosities in excess of 20,000 ssu (4,250 cSt) and are equipped with removable drain plugs for complete self-drainage. ANSI flange connections come standard on all sizes with additional weld flange available on SNP3.

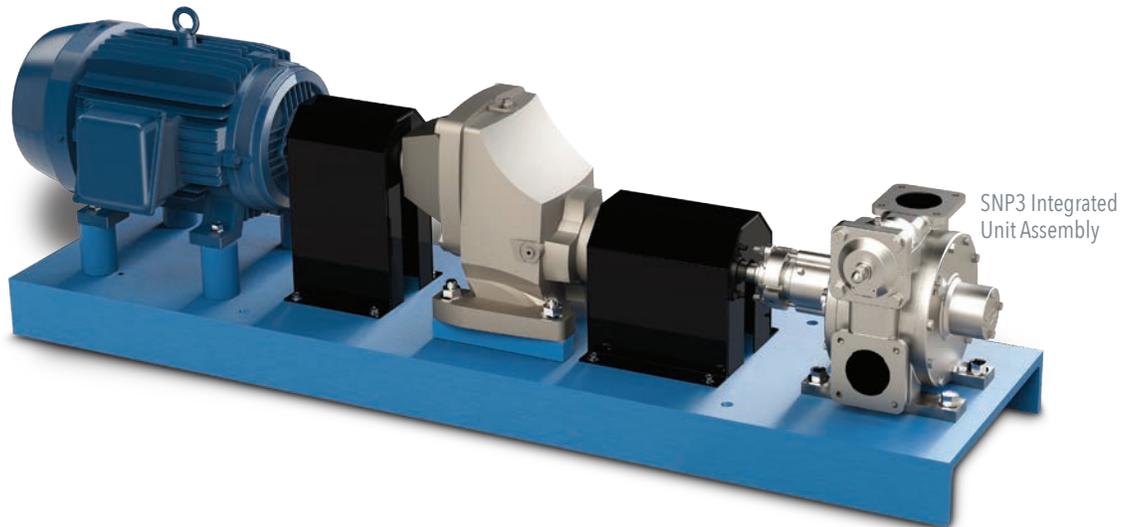
The SNP Sliding Vane Pumps also allow for use of any customer specified seals to be used for specific sealing requirements.

	STANDARD MATERIALS LIMITS	OPTIONAL MATERIALS LIMITS
Maximum Temperature	240°F (115°C)	350°F (177°C)
Maximum Viscosity	20,000 SSU (4,250 cP)	30,000 SSU (6,300 cP)
Maximum Differential Pressure	150 psi (10.3 bar)	200 psig (13.8)
Maximum Working Pressure	175 psig (12.1 bar)	200 psig (13.8 bar)



Integrated Unit Assembly

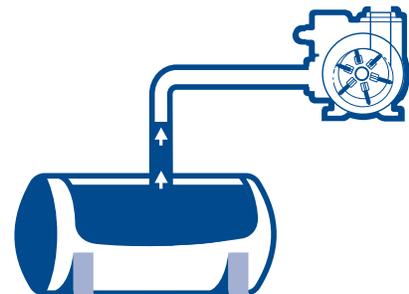
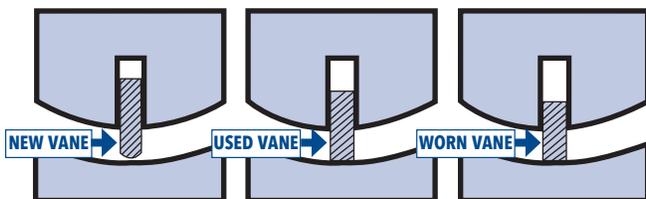
Blackmer® fully Integrated Unit Assemblies are the pre-engineered and pre-designed drop-in pumping solution. These unit assemblies, include motor, gearbox, baseplate, SNP 2, 2.5, 3-inch Pump and coupling safety covers. No alignment required with these pre-configured fully Integrated Unit Assemblies as they are ready for immediate drop-in installation.



Self-Priming, Dry Run & Other Benefits of Blackmer Vane Pumps

Blackmer positive displacement pumps have revolutionized the pumping industry with their unique sliding vane pump design. This revolutionary rotary vane design allows the pumps to self-adjust for wear to help maintain flow rates. This sliding vane pump design creates excellent self-priming and dry-run capabilities, while also providing sustained performance and trouble-free operation.

- Maintain consistent flow rates throughout the life of the pump due to unique sliding vane pump design that self-adjusts for wear
- Sliding vane design provides sustained performance and trouble-free operation
- Easy maintenance: vanes can be easily replaced without removing the pump from the piping system
- Low maintenance and low life-cycle costs, pumps are renewable and repairable
- Highly efficient, sliding vane pumps require less horsepower than other pumps, meaning spending less on motors initially and less on electricity to power the pump
- Excellent at self-priming, eliminates expensive priming systems
- Extended dry-run capability, eliminates nuisance current monitoring systems
- High suction lift abilities that exceed 25 feet (7.6 meters)



BLACKMER® SNP SERIES SLIDING VANE PUMPS

Sealing Options for All SNP Models

- Packing
- Customer Specified Seal
- Single Mechanical Seal
- Double Mechanical Seal
- Triple-Lip Cartridge Seal

Casing, Rotor, Shaft

316 stainless steel to protect against corrosive and caustic fluids.

Drain Plugs

Allows for easy draining, this feature is standard on SNP Pumps.

O-Ring

PTFE O-rings come standard to provide a strong seal for extreme applications.

Vanes

Non-metallic Duravanes, reduce friction and eliminate galling of stainless steel components while providing exceptional sealing and performance. Optional laminate vanes are available to assist with specific applications.

Porting Orientation

SNP3 Models have 90° porting.

Jacketing - Optional

Pumps available with optional electric heater ports or heating jackets for use with steam or hot oil. Both options heat the pump for highly viscous fluids and controlling bearing temperature. Electric heater ports are ready to accept standard heating elements. Steam and hot oil jackets use standard NPT connections. Jacketing is not available on SNP3.

Porting Orientation

SNP 1.25-, 1.5-, 2-, & 2.5-inch Models feature horizontal inline 180° porting.

Casing, Rotor, Shaft

316 stainless steel to protect against corrosive and caustic fluids.

Relief Valve

Designed to protect the pump from excessive pressure, the stainless steel adjustable relief valve comes standard on SNP3, optional on all the others sizes.

O-Ring

PTFE O-rings come standard to provide a strong seal for extreme applications.

Drain Plugs

Allows for easy draining, this feature is standard on SNP Pumps.

Blackmer® SNP Series | Stainless Steel Sliding Vane Pumps

Applications

- Acids
- Beer
- Brines
- Beet Juice
- Liquid Foods
- Cider
- Sugars
- Flavor Extracts
- Syrups

Fluid Connections

PUMP SIZES	STANDARD	OPTIONAL
1.25", 1.5"	1.5" ANSI CL 150 RF	–
2"	2" ANSI CL 150 RF	–
2.5"	2.5" ANSI CL 150 RF	–
3"	3" Weld Flanges	3" ANSI CL 150 RF

Maintenance Kits

MODEL(S)	DESCRIPTION	PART NUMBER
SNP1.25	Kit - Maintenance	898944
SNP1.25	Kit - Maintenance (jacketed)	898985
SNP1.25	Kit - Rebuild	899044
SNP1.25	Kit - Rebuild (jacketed)	899085
SNP1.5	Kit - Maintenance	898945
SNP1.5	Kit - Maintenance (jacketed)	898986
SNP1.5	Kit - Rebuild	899045
SNP1.5	Kit - Rebuild (jacketed)	899086
SNP2	Kit - Maintenance	898946
SNP2	Kit - Maintenance (jacketed)	898987
SNP2	Kit - Rebuild	899046
SNP2	Kit - Rebuild (jacketed)	899087
SNP2.5	Kit - Maintenance	898947
SNP2.5	Kit - Maintenance (jacketed)	898988
SNP2.5	Kit - Rebuild	899047
SNP2.5	Kit - Rebuild (jacketed)	899088
SNP3	Kit - Maintenance	898948
SNP3A	Kit - Rebuild	899048

MAXIMUM OPERATING LIMITS

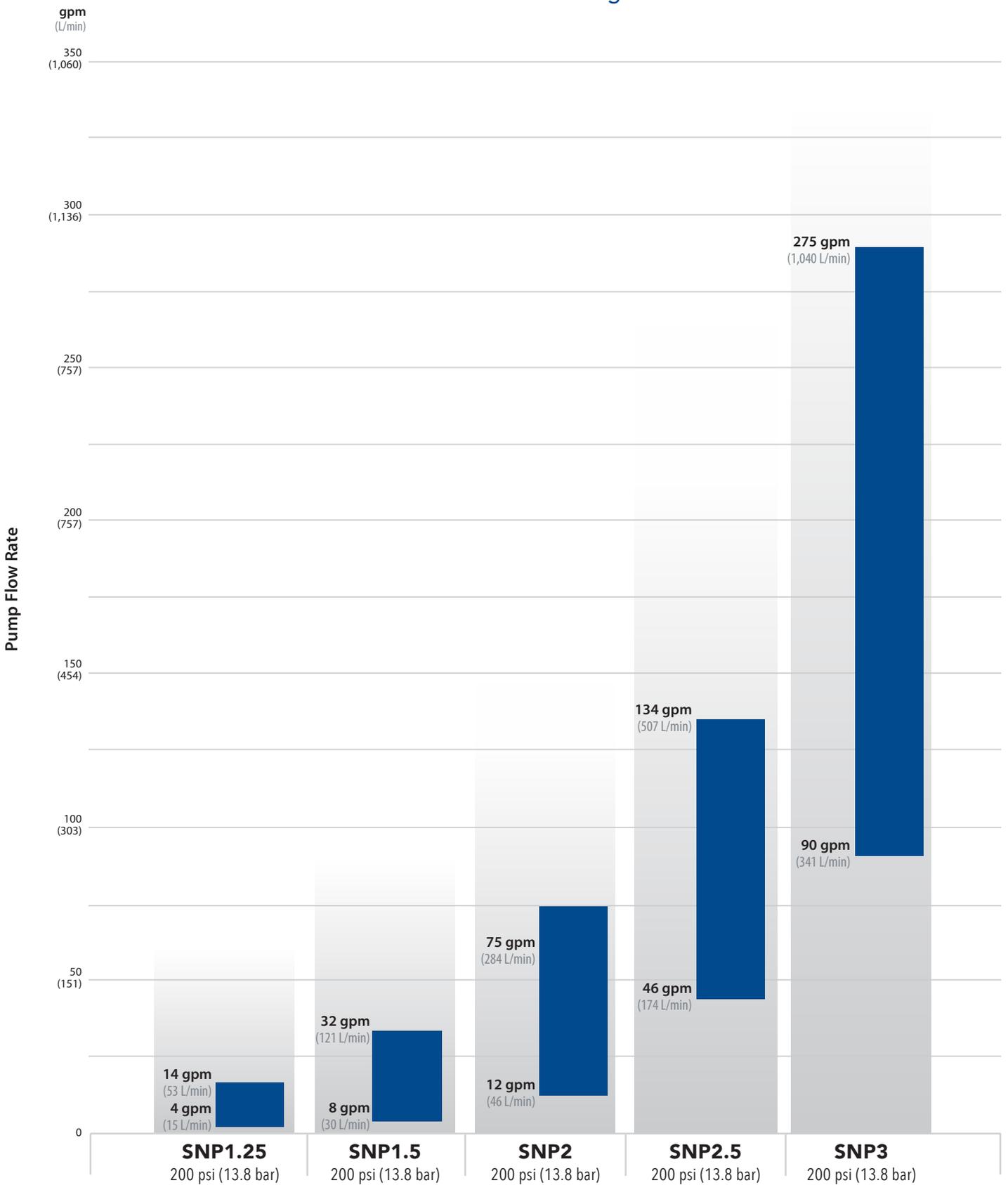
Pump Model	Nominal Flow Rate Range	Viscosity	Minimum Operating Temperature	Maximum Operating Temperature	Min./Max. Speed	Maximum Differential Pressure	Maximum Working Pressure
	gpm (L/min)	SSU (cSt)	°F (°C)	°F (°C)	RPM	psi (bar)	psi (bar)
SNP1.25	4 - 14 (15 - 53)	40,000 (8,500)	-25 (-32)	350 (177)	420 - 1,800	150 (10.3)	200 (13.8)
SNP1.5	8 - 32 (30 - 121)	40,000 (8,500)	-25 (-32)	350 (177)	420 - 1,800	150 (10.3)	200 (13.8)
SNP2	12 - 75 (46 - 284)	40,000 (8,500)	-25 (-32)	350 (177)	125 - 640	150 (10.3)	200 (13.8)
SNP2.5	46 - 134 (174 - 507)	40,000 (8,500)	-25 (-32)	350 (177)	125 - 640	150 (10.3)	200 (13.8)
SNP3	90 - 275 (341 - 1,040)	40,000 (8,500)	-25 (-32)	350 (177)	125 - 640	150 (10.3)	200 (13.8)

*Approximate capacities and horsepower (hp) are based on a 100 ssu (22cSt) fluid at 50 psi (3.45 bar) differential pressure. Refer to Characteristic Curves for capacities and horsepower at other pressures and viscosities.

Note: Optional materials of construction may be required to meet specific application requirements – refer to Blackmer Material Specification Sheets.

Blackmer® SNP Series Sliding Vane Pumps | Performance

Nominal Flow Rate Range



Maximum Differential Pressure 150 psi (10.3 bar)

(Internal relief valve setting)



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