



SNP Series

316 Stainless Steel Pumps

Design

The stainless steel pumps are available in 1¼, 1½, 2, 2½ and 3-inch port sizes with capacities from 2 to 265 gpm (8-1,003 L/min). Standard SNP pumps are constructed with self-lubricating sleeve bearings and PTFE impregnated shaft packing. Options for models through 2½-inch port size include 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 compatible flanges on sizes 2½-inches and weld flanges on 3-inch size.

Application

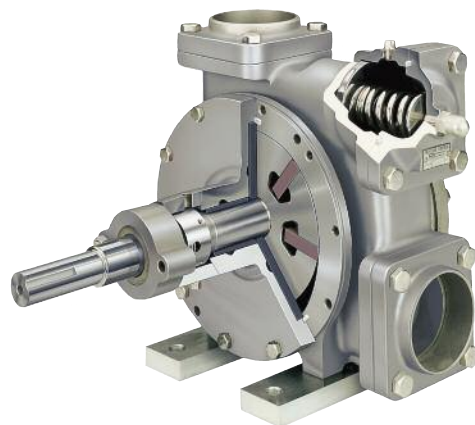
Blackmer SNP pumps are typically used in handling a variety of corrosive or caustic fluids such as acids, brines and liquid foods such as sugars, syrups, beer, beet juice, cider and flavor extracts. Many pumps used in corrosive service use stainless steel for all parts in contact with the fluid. However, the resulting metal-to-metal contact often causes galling and seizing that can become a major maintenance problem. While Blackmer uses 316 stainless steel on all significant wetted parts, sliding vanes and reversible carbon discs are non-metallic. This reduces friction and eliminates galling.

Benefit

Utilizing Blackmer's unique sliding-vane design, the positive displacement rotary pumps offer the best combined characteristics of sustained high level performance, energy efficiency, trouble-free operation and low maintenance cost. The non-metallic parts increase pump life and durability and allow the pump to withstand occasional dry running.

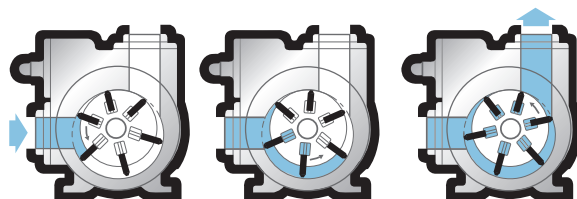


SNP1.5 Cutaway



SNP3 Cutaway

How a Rotary Vane Pump Works





SNP Series 316 Stainless Steel Pumps

Pump Performance Data*

Pump Model	SNP1.25				SNP1.5				SNP2				SNP2.5				SNP3			
Rated Pump Speed (rpm)	1,800	1,200	640	520	1,800	1,200	640	520	640	520	420	350	640	520	420	350	640	520	420	350
U.S. gpm	14	9	5	4	32	21	10	8	71	57	46	37	128	102	83	68	264	214	172	142
L/min	53	34	19	15	121	79	38	30	269	216	174	140	485	386	314	257	999	810	651	538
hp	1.0	0.9	0.5	0.4	1.9	1.5	0.8	0.6	3.0	2.5	2.0	1.7	6.0	5.0	4.0	3.5	9.5	8.0	6.0	5.2

*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.

Maximum Operating Limits

Pump Model	Differential Pressure		Viscosity**		Nominal Flowrate		Temperature		Working Pressure		Pump Speed
	psi	bar	ssu	cSt	gpm	L/min	°F	°C	psi	bar	rpm
SNP1.25	150	10.34	40,000	8,500	18	68	350	177	200	13.79	1,800
SNP1.5	150	10.34	40,000	8,500	33	125	350	177	200	13.79	1,800
SNP2	150	10.34	40,000	8,500	75	284	350	177	200	13.79	640
SNP2.5	150	10.34	40,000	8,500	134	507	350	177	200	13.79	640
SNP3	150	10.34	40,000	8,500	275	1,040	350	177	200	13.79	640

Note: Optional materials of construction may be required to meet specific application requirements – refer to Blackmer Material of Construction 104-091.

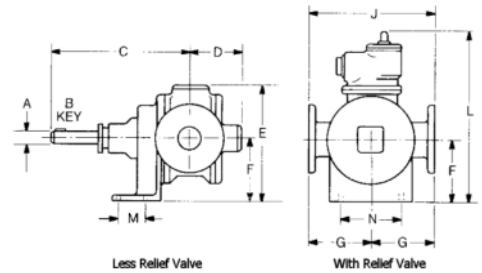
Dimensions – Inches (mm)

Pump Model	A	B	C	D	E	F	G	J	L	M	N	Approximate Wt. SNP
SNP1.25	7/8	3/16	8	3 3/8	7 3/4	4 1/2	4	8	12 1/4	1 1/8	3 1/2	40 lb (18kg)
SNP1.5	(22)	(5)	(203)	(86)	(197)	(114)	(102)	(203)	(311)	(41)	(89)	
SNP2	1	1/4	12	4 1/2	10 1/4	5 5/8	5 1/2	11	14 15/16	2 1/2	6	86 lb (39kg)
	(25)	(6)	(305)	(114)	(260)	(137)	(140)	(279)	(379)	(64)	(152)	

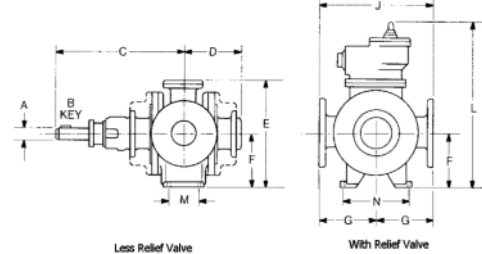
Pump Model	A	B	C	D	E	F	G	J	L	M	N	Approximate Wt. SNP
SNP2.5	1 1/8	1/4	13	6	11 3/16	5 5/8	5 3/4	11 1/2	16 5/8	2 1/2	6	120 lb (54kg)
	(29)	(6)	(330)	(152)	(284)	(137)	(146)	(292)	(422)	(64)	(152)	

Pump Model	A	B	C	D	E	F	G	H	J	K	L	M	N	Approximate Wt. With Std. Flanges
SNP3	1 1/4	5/16	15	6 1/8	12 5/8	3 3/8	5 1/2	2 3/4	13 3/8	5 7/8	5 1/2	8 1/2	5 1/4	140 lb (64 kg)
	(32)	(8)	(381)	(154)	(321)	(79)	(140)	(70)	(333)	(149)	(140)	(216)	(133)	

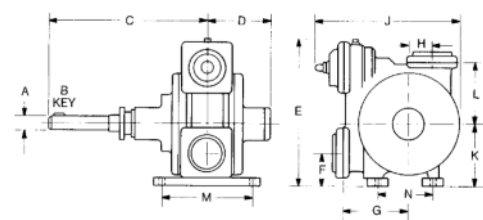
SNP1.25, SNP1.5, SNP2



SNP2.5



SNP3



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