

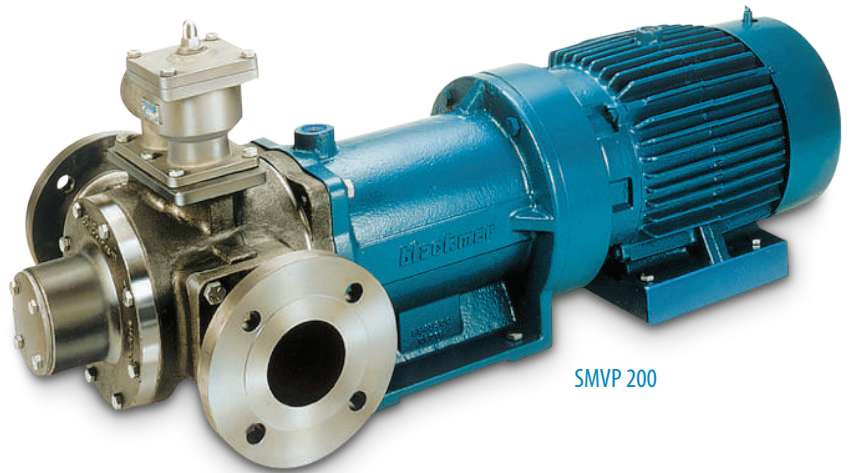


SMVP Series Magnetically Coupled and Sealless Vane Pumps



Typical Applications

- Acetaldehyde, 100%
- Acetophenone
- Acrylic Acid
- Arsenic Acid
- Benzyl Chloride, 100%
- Cumene
- Cyclohexane
- Dichlorobenzene, Ortho
- Diisocyanate
- Ethanol
- Formaldehyde
- Hexane, dry
- Hydrogen Peroxide
- Hydrogen Sulfide
- Methyl Ethyl Ketone
- Phenol
- Toluene
- Xylene/Xylol



SMVP 200

Sliding Vane Efficiency, Sealless Reliability

The sliding vane design combined with a seal-less magnetic coupling is ideal for meeting the growing need of zero shaft leakage when handling expensive, hazardous or hard-to-seal fluids.

Operating Advantages

- Samarium-cobalt magnets
- Extended bearing life
- Dry-run capability
- Cooling Passages
- Sustained high level performance
- Containment can
- Drain Plugs

Flow Rates and Temperature Capabilities

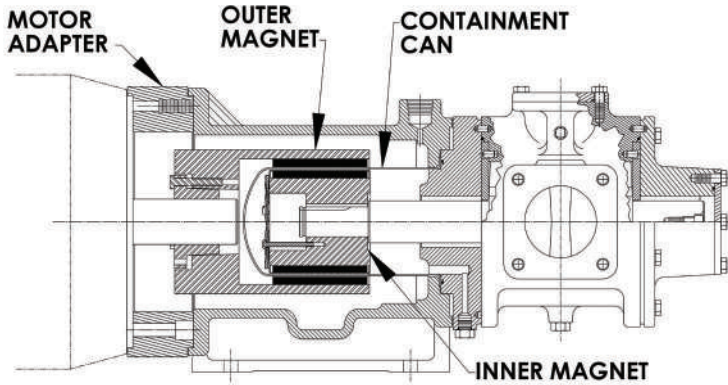
The SMVP pumps have flow rates of 4 to 215 U.S. gpm (15 to 813 L/min.) and operating temperatures of -40°F to 200°F (-40°C to 93°C).

Construction

These magnetically-coupled pumps are constructed of stainless steel. SMVP pumps offer the best combined characteristics of sustained high level performance, energy efficiency, trouble-free operation and low maintenance cost.



SMVP Series Magnetically Coupled and Sealless Vane Pumps



Samarium-Cobalt Magnet

Reliable Technology

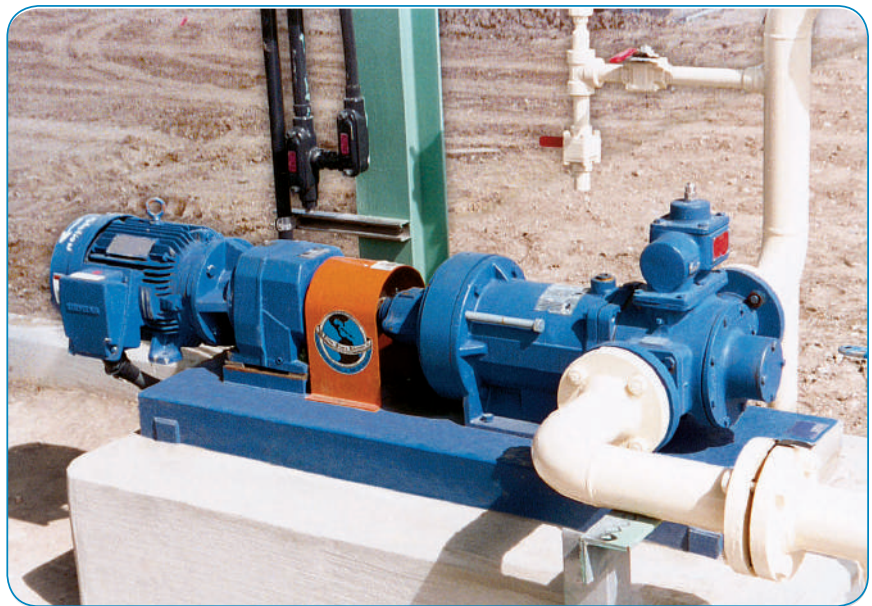
Blackmer rotary vane pumps have long been the preferred technology for handling Volatile Organic Compounds (VOCs), and a wide range of other thin to viscous fluids. Blackmer has combined this proven sliding vane design with a sealless magnetic coupling to meet the growing need for zero shaft leakage when handling expensive, hazardous or hard-to-seal fluids.

Environmental concerns, workplace safety, EPA requirements and local government agencies are now demanding the Best Available Control Technology (BACT) to prevent fugitive emissions. And that's precisely the control technology that the Blackmer SMVP pumps deliver.

World-Class Quality From Start To Finish

The SMVP pumps are manufactured and tested in conformance with ISO 9001 certification. Blackmer's world-wide reputation for superior product quality begins with extensive research and development, computer aided design, integrated manufacturing capabilities and excellent application assistance.

In some applications, selecting the right sealless pump may require more detailed information than is presented here. Your Blackmer representative can help you find the correct equipment to help ensure the best performance possible for your specific application.



Models Available

- SMVP15
- SMVP30
- SMVP50
- SMVP100
- SMVP200

Options and Specifications

Casing: corrosion resistant stainless steel

Drain Plugs: allow for easy draining, standard on all models

End Discs: SMVP15 and 30 models — carbon; SMVP50, 100 and 200 models — Chem Disc

Rotor & Shaft: 316 stainless steel

Vanes: Duravane or optional extra-clearance laminate.

Elastomer: PTFE

Bearings: metal impregnated graphite

Magnets: samarium-cobalt

Coupling Housing: ductile iron with NPT tapped temperature probe hole

Containment Can: SMVP15 and 30 models — 316 stainless steel. SMVP50, 100 and 200 models — Alloy C

Flanges: ANSI 150 lb.

Motor Coupling Adaptor Option: allows baseplate mounting of a NEMA foot mounted motor or gearbox to the pump assembly

Design Parameters

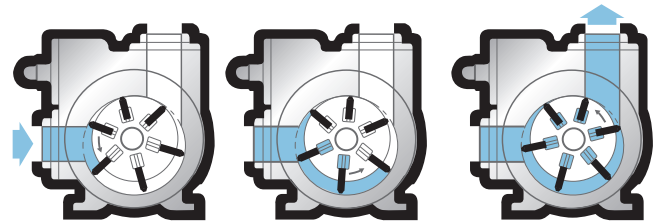
Flow Rates: 4 to 215 U.S. gpm (15 to 813 L/min.)

Operating Temperatures: -40°F to 200°F (-40°C to 93°C) For operating temperatures above 200°F (93°C), consult factory.

Viscosity Range: SMVP15 and 30 models — to 5,000 ssu (1,050 cSt). SMVP50 and 100 models — to 10,000 ssu (2,200 cSt). SMVP200 model — to 25,000 ssu (5,250 cSt)

Maximum Differential Pressure: SMVP15, 30, 50 and 100 models — 125 psi (8.62 bar). SMVP200 model 100 psi (6.89 bar)

Maximum Working Pressure: SMVP15, 30, 50 and 100 models — 175 psi (12.07 bar). SMVP200 model — 150 psi (10.34 bar)



How Blackmer's sliding vane action works

Pump Performance Data

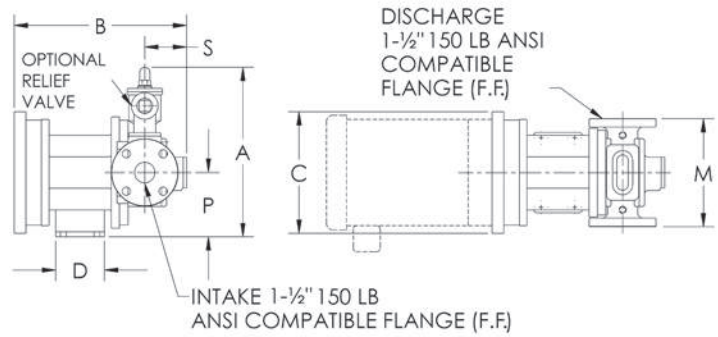
| Model | RPM | At 22 cSt (100 ssu) and 50 psi (3.45 bar) | | Maximum Differential Pressure psi (bar) | Maximum Viscosity* ssu (cSt)** | Maximum Temperature* °F (°C) | Maximum Working Pressure* psi (bar) | | | | |
|---------|-------|---|-----------|--|-----------------------------------|---------------------------------|--|-----------|----------------|------------|------------|
| | | Flow Rate | Power | | | | | | | | |
| | | gpm (L/min) | hp (kW) | | | | | | | | |
| SMVP15 | 1,750 | 17 (64) | 1.2 (.9) | 125 (8.6) | 5,000 (1,050) | 200 (93.3) | 175 (12.1) | | | | |
| | 1,450 | 14 (52) | 0.8 (0.6) | | | | | | | | |
| SMVP30 | 1,750 | 37 (142) | 2.2 (0.9) | | | | | | | | |
| | 1,450 | 31 (117) | 1.5 (1.1) | | | | | | | | |
| SMVP50 | 1,750 | 66 (251) | 4.2 (3.1) | | | | | 125 (8.6) | 10,000 (2,200) | 200 (93.3) | 175 (12.1) |
| | 1,450 | 55 (207) | 3.2 (2.4) | | | | | | | | |
| SMVP100 | 1,750 | 110 (416) | 6.2 (4.6) | | | | | | | | |
| | 1,450 | 91 (344) | 4.6 (3.4) | | | | | | | | |
| SMVP200 | 1,150 | 215 (813) | 9.2 (6.9) | 100 (6.9) | 25,000 (5,250) | 200 (93.3) | 150 (10.3) | | | | |
| | 780 | 144 (544) | 5.6 (4.2) | | | | | | | | |

* For applications that require fluid viscosities, operating temperatures or working pressures greater than those listed, please consult the factory.

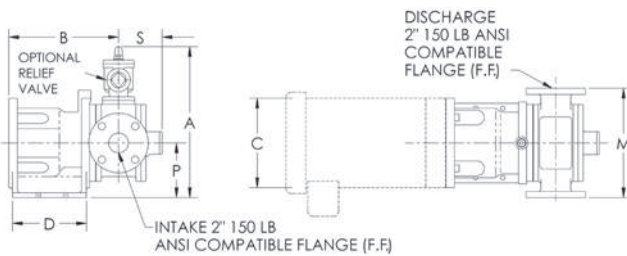
** Centipoise (cP) = centistokes (cSt) at fluid specific gravity of 1.0

Magnetic Coupling Data

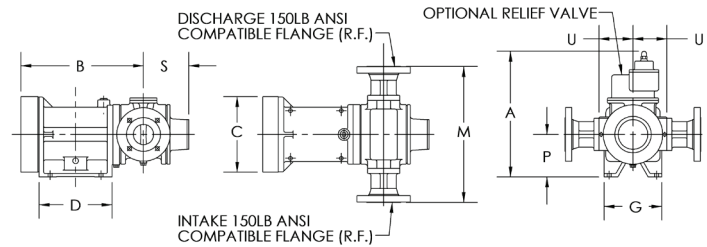
| Pump Model | Coupling Size | Torque (ft/lb) | Nema Motor Frame Size |
|-------------------|---------------|----------------|---|
| SMVP15 SMVP30 | MC10 | 10 | 143TC-145TC 182TC-184TC |
| | MC20 | 20 | 182TC-184TC 213TC-215TC |
| SMVP50 SMVP100 | MC60 | 60 | 182TC-184TC 213TC-215TC 254TC-256TC |
| SMVP200 | MC130 | 130 | 254TC-256TC 284TC-286TC |



SMVP15/SMVP30 Model



SMVP50/SMVP100 Model



SMVP200 Model

Pump Dimensions

| Pump Model | Units | A | B ¹ | C ¹ | D | G | M | P | S | Approx. Wt. Less Motor |
|-------------------|-------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|-----|-------------------------------|---------------------------------|------------------------|
| SMVP15 SMVP30 | in. | 12 ⁵ / ₈ | 12 ⁷ / ₈ | 9 | 3 ³ / ₈ | — | 8 | 4 ¹ / ₄ | 3 ³ / ₈ | 79 lbs. |
| | mm | 321 | 327 | 229 | 92 | — | 203 | 121 | 79 | 36 kg |
| SMVP50 SMVP100 | in. | 15 ³ / ₁₆ | 11 ¹ / ₂ | 9 | 7 ¹ / ₂ | — | 11 | 5 ¹ / ₂ | 4 ³ / ₈ | 125 lbs. |
| | mm | 386 | 292 | 229 | 191 | — | 279 | 140 | 111 | 57 kg |
| SMVP200 | in. | 18 ¹ / ₂ | 17 ³ / ₈ | 11 ¹ / ₈ | 10 ³ / ₄ | 8 ¹ / ₂ | 20 | 6 ¹ / ₄ | 6 ¹¹ / ₁₆ | 340 lbs. |
| | mm | 470 | 448 | 283 | 273 | 216 | 508 | 159 | 170 | 140 kg |

¹ Dimension shown is for 213TC-215TC motor frame for the SMVP15 through SMVP100 models, and 254TC-256TC motor frame size for the SMVP200 model

Sales Information and Equipment Application Assistance

Blackmer has a worldwide distribution network to assist you in specifying any of our family of pumps, compressors and other equipment for your application.

For more information or to find the distributor nearest to you, please contact us at the telephone, fax or internet address listed below.



Distributed By:



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World Headquarters

1809 Century Avenue SW, Grand Rapids, MI 49503-1530 USA
T +1 616.241.1611 F 616.241.3752 www.blackmer.com