



Expert  
Solutions  
for Critical  
Applications

BRAND  
Portfolio



Where Innovation Flows

SLIDING VANE PUMPS  
CENTRIFUGAL PUMPS  
RECIPROCATING GAS COMPRESSORS



[blackmer.com](http://blackmer.com)

PSG®, a Dover Company, is a global leader in positive displacement pump and supporting technologies, delivers value-added pumps and systems that serve customers requiring the safe and efficient transfer of critical and valuable materials. PSG features world-class pump brands and has multiple facilities on three continents (North America, Europe and Asia) that are ISO certified. We are passionately committed to innovative technologies that will positively impact the world. Our priority is providing the market expertise you need by delivering tomorrow's innovative fluid and material transfer solutions today.

## Where Innovation Flows

### POSITIVE DISPLACEMENT PUMPS

RECIPROCATING	ROTARY
Almatec® AODD	Abaque™ PERISTALTIC
Neptune™ METERING	Blackmer® SLIDING VANE
Wilden® AODD	Maag Industrial INTERNAL GEAR
Quattroflow™ QUATERNARY DIAPHRAGM PUMP TECHNOLOGY	Mouvex® ECCENTRIC DISC
	Maag Industrial SCREW
	Redscrew™ SCREW
	Ebsray® VANE, GEAR

## PSG® Technologies:

### PUMPS & SYSTEMS TECHNOLOGIES

CENTRIFUGAL	REGEN TURBINE	MIXERS	COMPRESSORS	SYSTEMS
System One®	Ebsray®	Neptune™	Blackmer®	Fluid Dynamics™
Griswold™			Mouvex®	Neptune™



## Who We Are

SLIDING VANE PUMPS

CENTRIFUGAL PUMPS

RECIPROCATING GAS  
COMPRESSORS

*Blackmer® is the leading global provider of innovative, high-quality sliding vane pump, centrifugal pump and reciprocating gas compressor technologies for the safe transfer of liquids and gases. Since 1903, Blackmer pumps and compressors have been helping customers optimize productivity and profitability and improve safety and environmental protection in the global process, energy, and military and marine markets. Blackmer is a brand within PSG, a Dover Company – located in Oakbrook Terrace, IL, USA. PSG® features a broad array of leading pump technologies as well as world-class facilities in the U.S., Germany, China, India and France. PSG's leading infrastructure, knowledge base and intellectual capital truly make it the power behind fluid transfer.*



**Grand Rapids, Michigan (USA)** – Blackmer's world headquarters have been located in Grand Rapids, MI, USA, since 1925. Blackmer also has expert technical and customer support resources around the world to assist with any immediate needs, regardless of location.

In 1899, Robert Blackmer invented a rotary vane pump and Blackmer has continued that tradition of innovation ever since. Customer-centric focus is the engine that powers everything we do at Blackmer. This includes our design and engineering teams, which combine years of experience with advanced materials; and our customer life cycle support system that includes applications engineers, market and product specialists, regional sales management, as well as action-oriented customer care specialists. Developing exceptional product quality and supporting these products through the total life cycle process requires a world-class manufacturing commitment, capability and capacity. Blackmer applies continuous quality improvement processes that ensure every product consistently adheres to the highest standards. Blackmer utilizes virgin metal, its own casting foundry and a state-of-the-art metallurgical testing laboratory, which is why Blackmer has the highest quality standards in the industry. Blackmer is also focused on sustainability, providing customers with products and services that enable them to reduce energy consumption and preserve natural resources.



# MARKETS SERVED

## ENERGY

Blackmer is recognized as the global leader in petroleum flow as our pumps and compressors are widely used to load, transfer and unload petroleum and gases.

### Typical Applications Handled:

- Petroleum
- Kerosene
- Anhydrous Ammonia
- Ethanol
- Crude Oil
- Jet Fuels
- Heating Oil
- LPG/Propane/Butane
- Natural Gas/Methane
- Diesel & Biodiesel
- Gasoline
- Lube Oils
- Fuel Oil
- Diesel Exhaust Fluid (DEF)

## PROCESS

Chemical and industrial companies around the world rely on Blackmer throughout the fluid-movement process — from the transfer of raw products from storage containers to the loading of the end-product onto the transport vehicle.

### Typical Applications Handled:

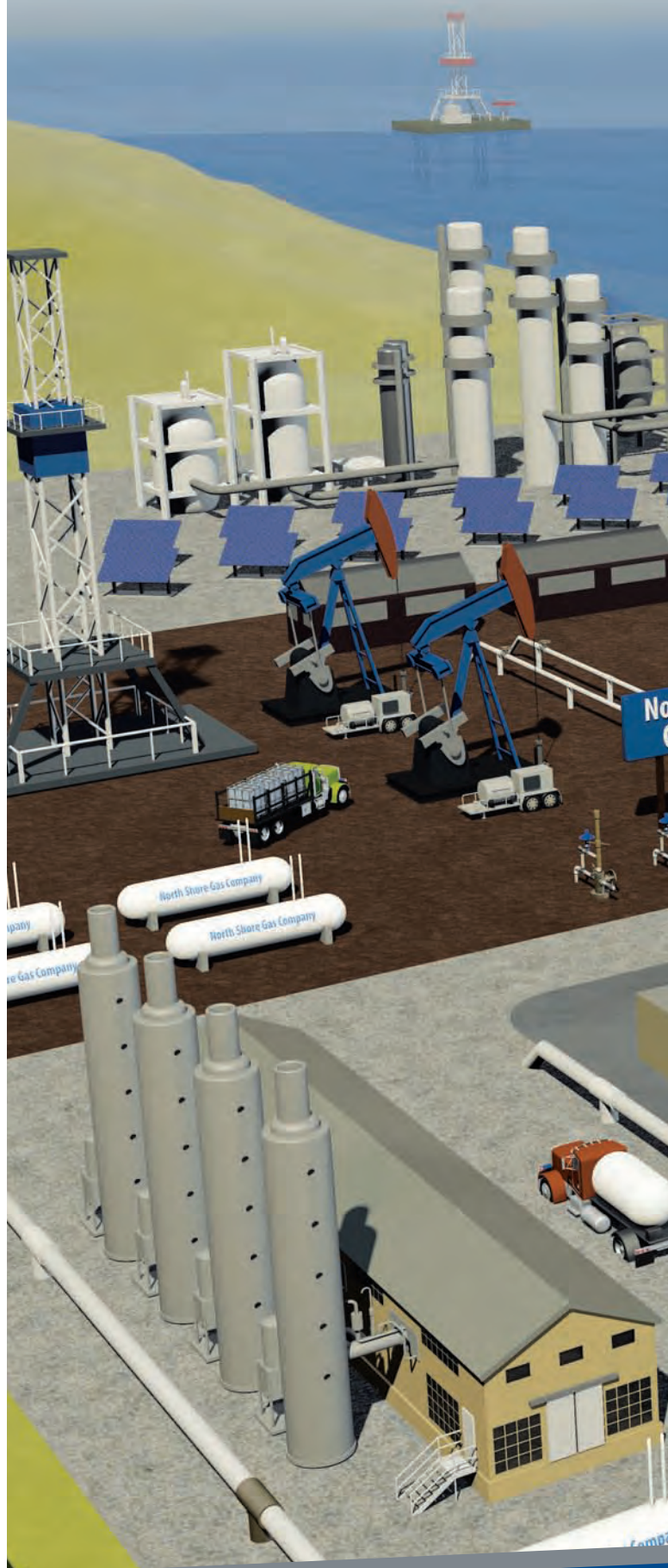
- Acids
- Solvents
- General Chemicals
- Refrigerants
- Carbon Dioxide
- Soap & Detergents
- Paint, Inks & Coatings
- Liquid Foods

## MILITARY & MARINE

Blackmer is proud to support the military with our leading-edge technology, supplying skid-mounted and trailer-mounted refueling units for jet and ground equipment refueling. You can find Blackmer pumps onboard military and commercial marine vessels around the world.

### Typical Applications Handled:

- Fuel Oil
- Bilge Water
- Lube Oil
- AFFF Concentrate
- JP-5
- Potable Water









## Engineering and Product Development

Blackmer® is the leading global provider of innovative, high-quality sliding vane pump and reciprocating gas compressor technologies for the transfer of liquids and gases.



*"We would lose a lot of productivity if we had to stop sales for even one day of maintenance. The quality and reliability of Blackmer pumps and compressors is incredible!"*

PAOLO CARNIEL  
MANAGER, L'AUTOGAS OROBICA  
GORLAGO, BERGAMO ITALY

Since 1903, the Blackmer brand has stood for unparalleled product performance, superior service and performance, well-timed innovation and a commitment to total customer satisfaction. Our pumps and compressors are used in a multitude of applications in the process, energy, and military and marine markets. Every pump and every compressor is supported by a worldwide network of distributors and original equipment manufacturers.

Finding the right solutions for our customers is a key aspect of our customer-centric focus, and is the sole objective of our design and engineering teams. Experienced and talented, our engineers combine years of expertise with leading-edge design tools, advanced materials, and processes to bring new product ideas to life, as well as enhance existing products, to deliver unprecedented levels of performance and reliability.

We make substantial investments in continually training our engineers and product-development specialists in the very latest engineering principles and equipping them with the most advanced technology available, including:

- Concurrent Engineering
- Computer-Aided Design (CAD)
- Rapid Prototyping
- Computerized Data Acquisition
- Finite Element Analysis (FEA)
- On-Site Testing Facilities

Today, Blackmer regularly sets new flow-technology standards by leveraging the combined knowledge, expertise and unique skills of our engineering groups in our Grand Rapids, MI, headquarters. The synergy created by these design and engineering teams results in the sharing of ideas and solutions, as well as the transfer of technical breakthroughs across numerous market segments.





## Manufacturing

Delivering exceptional product quality and supporting these products through the total life cycle process requires a world-class manufacturing commitment, capability and capacity. Blackmer's manufacturing operations apply continuous quality improvement processes that ensure every product consistently adheres to the same rigid quality standards.

Throughout the manufacturing process, Blackmer utilizes virgin metal, its own casting foundry, and a state-of-the-art metallurgical testing laboratory, which is why it has the highest quality standards in the industry. Utilizing lean manufacturing and a cell-based structure, master craftsmen take personal pride in their work and carefully hand-assemble and test each and every Blackmer product.

Some of the systems put in place to ensure product-manufacturing quality include:

- Captive Casting Foundry—Cast and Ductile Iron
- Computer-Aided Manufacturing (CAM)
- Automated Machining Centers
- Cell-Based Manufacturing
- JIT and Kanban Inventory Control
- Continuous Quality Improvement Practices
- ISO 9001-Registered Quality System
- Supply Chain Management



*"That's the nice thing about Blackmer. They keep up with the products that we haul and they're compatible with them. We don't have to switch to another vendor; when we need Blackmer, they're there for us."*

PETE KANE  
VICE PRESIDENT, TWIN CITIES OPERATION  
KANE TRANSPORT  
SAUK CENTRE, MN USA





## Core Technologies/Innovations

In 1899, four years before the incorporation of The Blackmer Pump Company, Robert Blackmer invented a rotary vane pump. Their unique ability to self-adjust helped these pumps maintain optimal flow rates, something the popular gear pumps of the time could not do. And thus, the spirit and tradition of Blackmer innovation was born.

For more than a century, Blackmer has been at the forefront of flow-technology problem-solving with such innovations as its patented cavitation/noise suppression system. By leveraging its design, engineering and applications resources, along with its extensive research and testing capabilities, Blackmer is today's new product development powerhouse. Among its landmark innovations, ones that to this day continue to set the standard in fluid-handling operations, are:

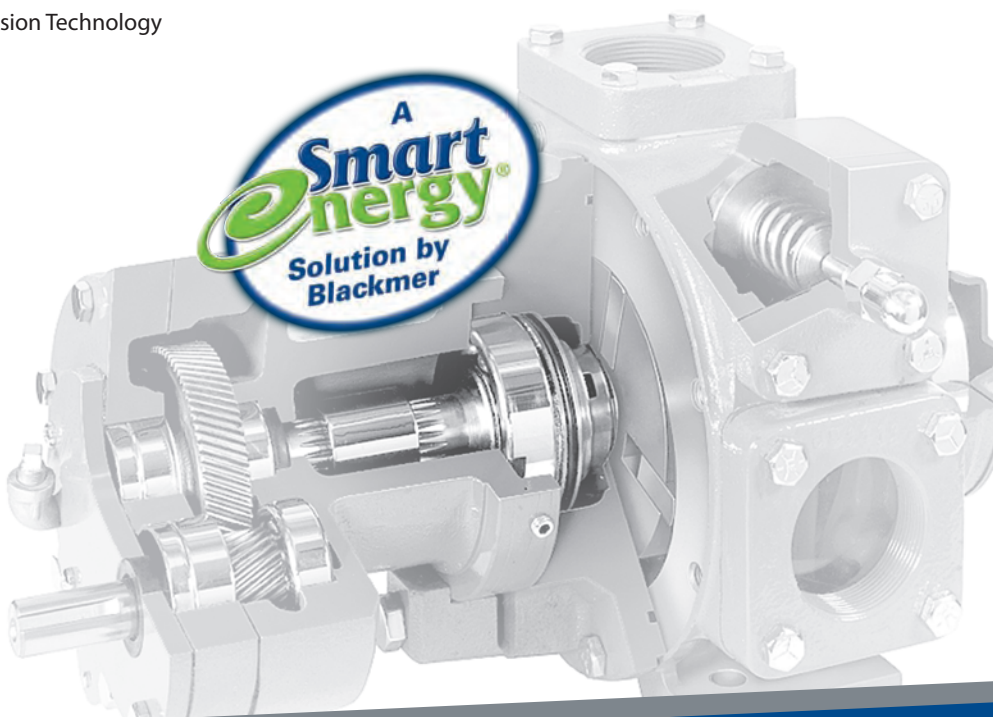
- Pump with Integral Mechanical Seal
- First Positive Displacement LPG/Liquefied Gas Pump
- SMVP, SNP, SX and STX Stainless Steel, Non-Galling Pumps
- System One Low  $L^3/D^4$  Design Pumps
- Patented Cavitation/Noise Suppression Technology

By virtue of their inherent energy and mechanically efficient design, Blackmer's positive displacement sliding vane pumps are uniquely suited to offer manufacturers solutions in fulfilling their energy-saving initiatives. We call this a Blackmer Smart Energy™ Solution.



*"We're doing twice as much work in volume, but our electric rate has stayed the same, even with the increase in electric rates. That's a tribute to the Blackmer pumps and their efficiency."*

GLENN GIBISCH  
VICE PRESIDENT AND COO  
SEELER INDUSTRIES 3 RIVERS TERMINAL  
JOLIET, IL USA







## Customer Care/Technical Support Applications Engineering

When it comes to flow solutions, uptime, output, reliability and profitability are critical to every operation's mission. To this end, Blackmer knows that reliable, proven flow-technologies are critically important, but we also know that this represents only one part of the overall equation.

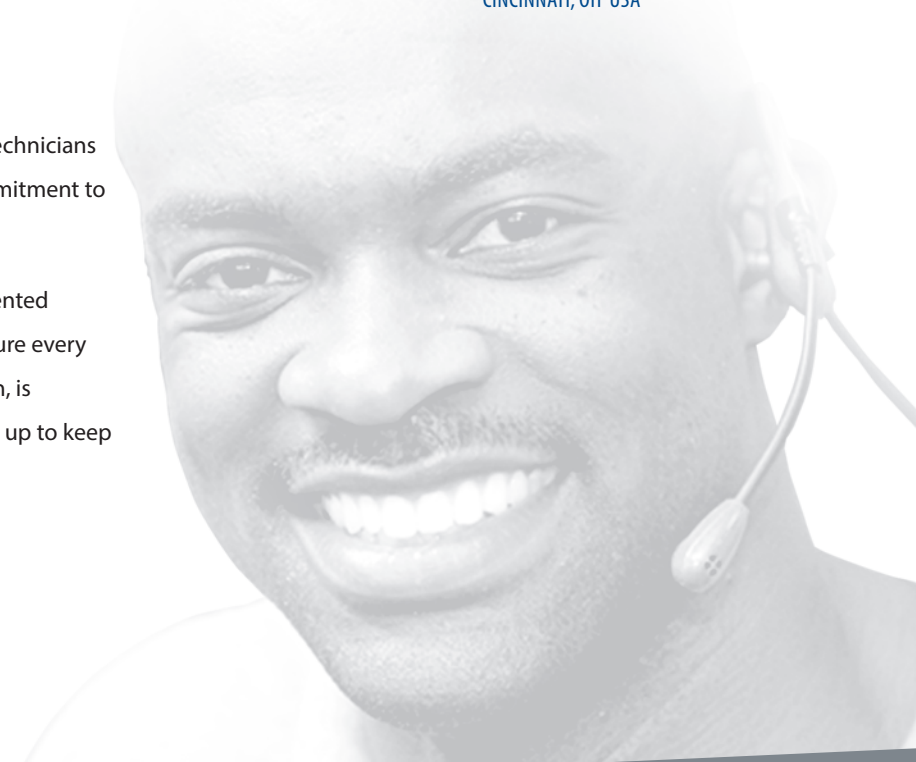
The other equally important part involves having a trained, knowledgeable and customer-focused staff, which is why we make substantial investments in our people. It is through their collaborative effort with customers that the greatest achievements are realized. Among the areas where Blackmer professionals set the pace in customer-centric service are:

- **APPLICATIONS ENGINEERS:** Experts in peace-of-mind assurance, making sure your equipment is always right for the job.
- **MARKET & PRODUCT SPECIALISTS:** Unparalleled technical knowledge, on-site product training, troubleshooting, installation and product-selection consultation, and total life-cycle attention.
- **REGIONAL SALES MANAGEMENT:** Proven technicians with an "above and beyond" commitment to every customer's mission.
- **CUSTOMER CARE SPECIALISTS:** Action-oriented specialists committed to making sure every order receives immediate attention, is accurately processed and followed up to keep your process flowing smoothly.



*"Having the right equipment for the job is critical to our mission. So, anytime I need to install pumps or troubleshoot flow issues, I take no chances. I call the experts—Blackmer."*

**MIKE DOLL**  
PLANT MANAGER  
PETER CREMER, NORTH AMERICA, LP  
CINCINNATI, OH USA



## Engineered Package Solutions

Blackmer is a leader in providing reliable flow solutions to the world's most critical industries. We have earned our leadership position of the past 100 years by applying a relentless customer-focused commitment to delivering the best possible solutions to meet customers' mission critical applications. From our suite of high-quality, pre-engineered pump and compressor technologies to unique, custom designed and engineered packages, at Blackmer, providing the right solutions is a mission without boundaries.

Blackmer guarantees to provide you with the best solution and equipment for your special requirements. As a systems integrator and specialist in engineered pump and compressor packages, we provide fully customized, engineered and tested mechanical packages for the most demanding applications.

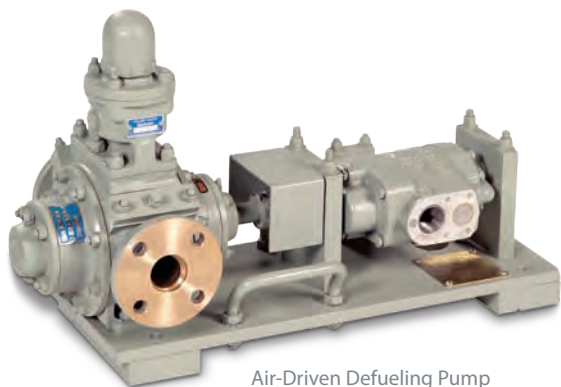
Our Applications Engineers will recommend the most suitable pump or compressor for the application requirement and will work with our design engineers to create complete package process flow diagrams (PFD), unit piping diagrams (P&ID) and skid drawings in 3D. This results in a complete package including piping, instrumentation, flow accessories and electronics.

From custom engineered liquid transloading systems, mobile defueling system packages and LP gas evacuation compressor packages, to portable batch processing pump platforms, our engineered solutions are limited only by our imagination or need. We develop and construct customized and tailored packages according to individual demand. Blackmer custom packages can be engineered to adapt any of our pump or compressor technologies to meet your unique requirements.

Our custom packages are used in a wide variety of markets including defense; petroleum distribution, transportation and refining; chemical industry; food industry and mining. Blackmer is an ISO 9001:2000 certified company offering technical capabilities around the world. We will provide assistance with installation, startup and training, and service by authorized Blackmer-trained technicians.



HD942  
Liquefied Gas Transfer  
Compressor Package



Air-Driven Defueling Pump





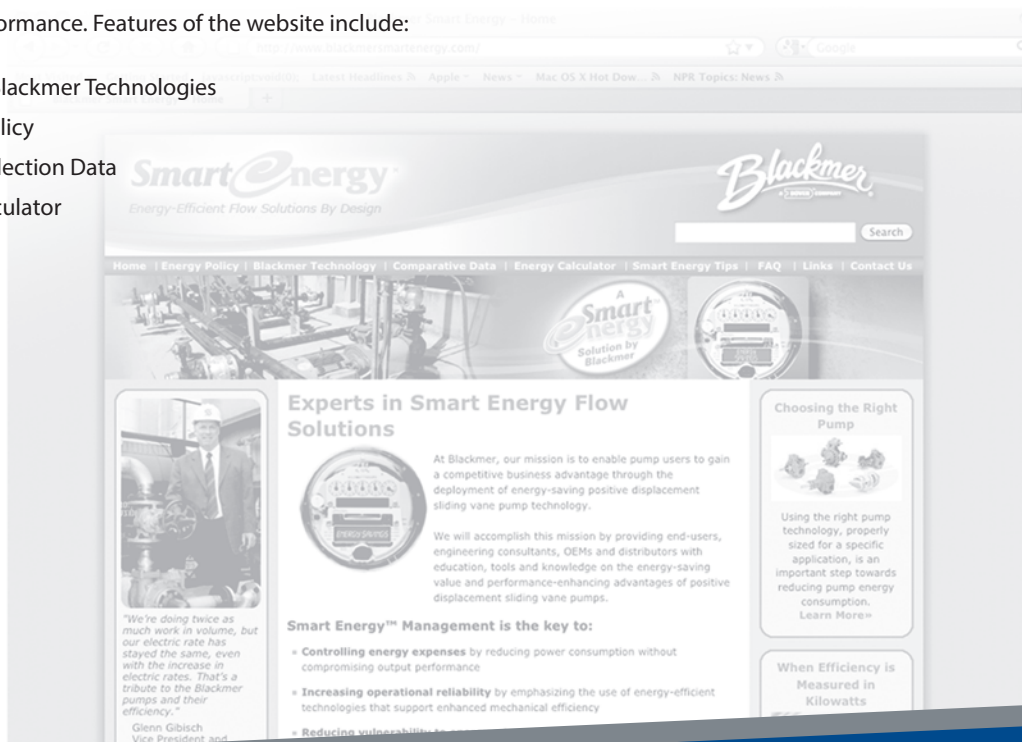
## Smart Energy® Solutions

At Blackmer, sustainability goes to the core of what we do. It's a part of our culture, and it starts right here in our Grand Rapids, MI (USA) manufacturing plant which features many progressive, energy-efficient upgrades to minimize environmental impact. We strive to design and produce products that enable customers to reduce energy consumption and preserve natural resources. We call these products Blackmer Smart Energy® Solutions.

At Blackmer, our mission is to enable pump users to gain a competitive business advantage through the deployment of energy-saving positive displacement sliding vane pump technology. We will accomplish this mission by providing end-users, engineering consultants, OEMs and distributors with education, tools and knowledge on the energy-saving value and performance-enhancing advantages of positive displacement sliding vane pumps.

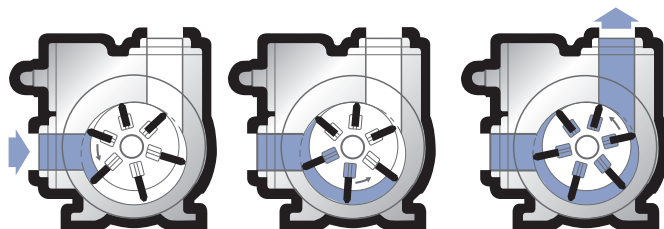
[www.BlackmerSmartEnergy.com](http://www.BlackmerSmartEnergy.com): Blackmer's energy-efficient flow solutions are evidence of its commitment to environmental sustainability. This website was designed to be a functional and informative resource when evaluating positive displacement pumps; specifically, how the sliding vane pump can reduce energy costs and improve system performance. Features of the website include:

- Details and Videos of Blackmer Technologies
- Overview of Energy Policy
- Comparative Pump Selection Data
- Interactive Energy Calculator



## Vane Technology: How It Works

Sliding vane pumps have a number of vanes that are free to slide into or out of slots in the pump rotor. When the pump driver turns the rotor, centrifugal force, rods, and/or pressurized fluid causes the vanes to move outward in their slots and bear against the inner bore of the pump casing forming pumping chambers. As the rotor revolves, fluid flows into the area between the vanes (pumping chambers) when they pass the suction port.



This fluid is transported around the pump casing until the discharge port is reached. At this point the fluid is squeezed out into the discharge piping. Each revolution of a sliding vane pump displaces a constant volume of fluid. Variance in pressure has minimal effect. Energy-wasting turbulence and slippage are minimized and high volumetric efficiency is maintained.

### Key Design Benefits

Sliding vane pumps are designed with unique “self-adjusting” vanes that allow them to maintain near-original volumetric performance during the life of the pump — meaning these pumps are not subject to efficiency-robbing slip that occurs from wear in gear and lobe pumps. In addition, vane pumps are designed around the bearings and seals, so they offer longer life and greater product loss prevention than other technologies.

Therefore, by virtue of their design, vane pumps are ideal for handling expensive, fine chemicals and fragrances where other pumps may experience seal difficulty. Vane pump features generally include:

**SLIDING VANES:** Nonmetallic composite vanes that automatically adjust clearances to allow the pump to sustain consistent volumetric performance while also offering exceptional suction and dry priming capabilities.

**CAVITATION/NOISE SUPPRESSION LINER:** This unique feature, patented by Blackmer, a global leader in vane pump technology, minimizes the effects of cavitation on the pump and piping system while at the same time reducing noise levels up to 15 dbA.

In recent years, advances in traditional vane technology have resulted in even greater performance capabilities, longer service life and a wider range of process applications.





#### TECHNOLOGY: SLIDING VANE

## Truck & Transport Sliding Vane Pumps

The recognized leader in the global truck and transport industry, Blackmer sliding vane pumps are widely used to load, transport and unload a wide range of clean liquids and petroleum products. Their sliding vane design provides sustained performance and trouble-free operation. Adjustable relief valves protect pumps from excessive pressure. Cast iron, ductile iron and stainless steel models are available with special elastomers for fuels and biofuels compatibility.

### Applications

- Fuel oil delivery truck:
  - Fleet refueling
  - Lube oil
  - Aviation refuelers
- Transport of:
  - Petro Chemicals
  - Gasoline
  - Biofuels
  - Solvents

### Features & Benefits

- Global industry leader in truck and transport pumps
- Sliding vane design provides sustained performance and trouble-free operation
- Adjustable relief valves protect pumps from excessive pressure
- Line stripping and dry-run capabilities
- Boost productivity
- Improve production yields
- Increased service life
- Improved uptime
- Reduced maintenance costs
- Higher pumping capacities at lower speeds
- Improved operations

### Technical Data

- Cast iron, ductile iron and stainless steel models available with special elastomers for fuels and biofuels compatibility
- Sizes: 38mm (1-1/2 in.) to 102mm (4 in.)
- Max. working pressure: 12.1 bar (175 psi)
- Max. rpm: 1,200 with PTO and hydraulic drive capabilities
- Max. temperature: 190° C (375° F)
- Max. viscosity: 10,500 cSt (50,000 SSU)

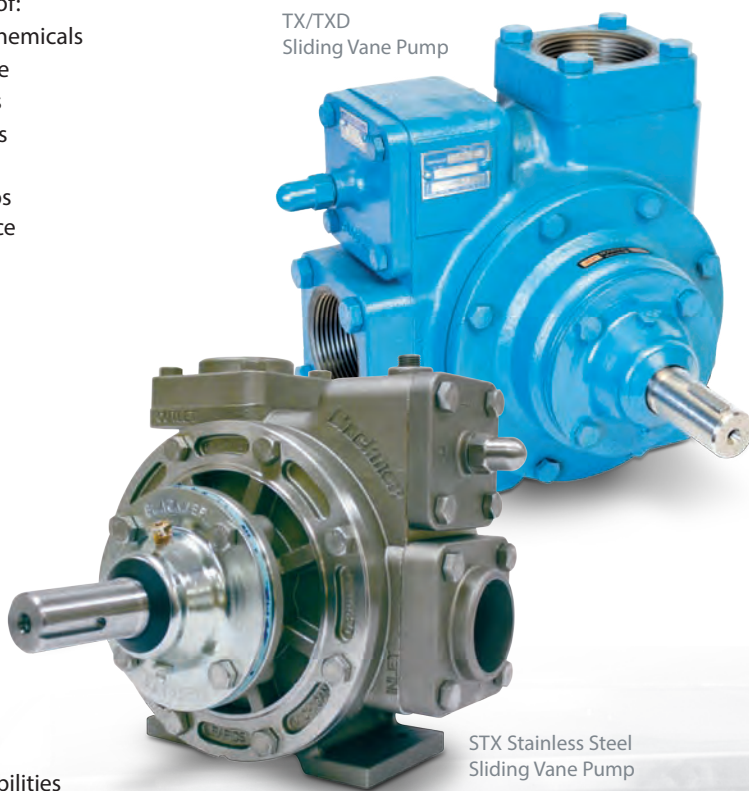
### Performance Data

- Max. flow: 1,911 L/min (505 gpm)
- Max. differential pressure: 8.6 bar (125 psi)

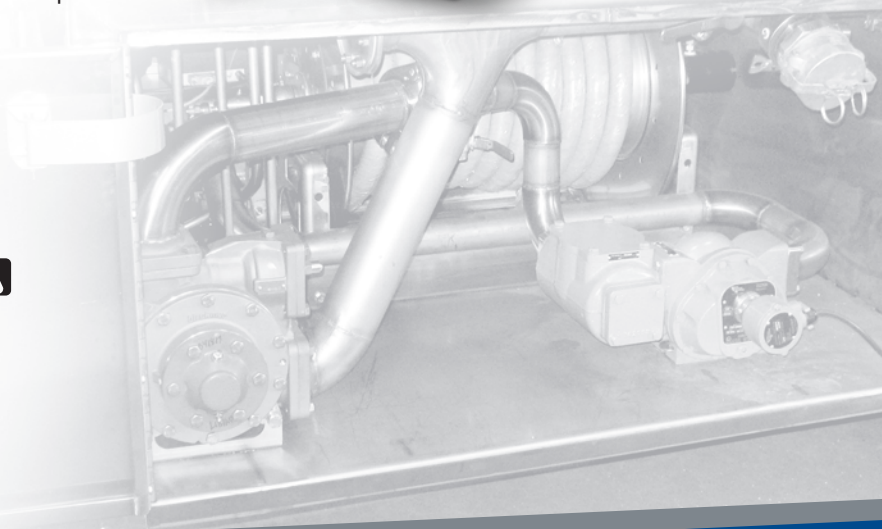
### Certifications & Associations:



TX/TXD  
Sliding Vane Pump



STX Stainless Steel  
Sliding Vane Pump



STX Stainless Steel  
Sliding Vane Pump

XL  
Sliding Vane Pump

ML  
Sliding Vane Pump

SNP Stainless Steel  
Sliding Vane Pump

SMVP  
Sliding Vane Pump

## TECHNOLOGY: SLIDING VANE

### Industrial & Process Sliding Vane Pumps

Many of the chemicals used in industrial process applications are difficult to handle, often toxic or corrosive in nature, difficult to seal and expensive to purchase. Blackmer's sliding vane pumps are available in compatible materials with shaft sealing and seal-less options that make them the products of choice for many process applications.

#### Applications

- Acids
- General chemicals
- CO<sub>2</sub>
- Paints, inks and coatings
- Solvents
- Refrigerants
- Soaps and detergents
- Diesel Exhaust Fluid (DEF)

#### Features & Benefits

- Designed for specific process and transfer applications
- Highly efficient sliding vane technology
- Self-adjusting vanes sustain performance
- Self-priming, line stripping and dry-run capabilities
- Ideal for thin or non-lubricating, viscous, abrasive and shear-sensitive fluids
- Seal-less and mechanically sealed designs available
- Reduced energy consumption
- Reduced costs
- Sustained performance
- Consistent flow
- Handles thin or non-lubricating, viscous, abrasive and shear-sensitive fluids
- High volumetric efficiency

#### Technical Data

- Cast iron, ductile iron and stainless steel models available
- Sizes: 19mm (3/4 in.) to 254mm (10 in.)
- Max. working pressures: 17.2 bar (250 psi)
- Max. temperatures: 266° C (500° F)
- Viscosities to >21,000 cSt (100,000 SSU)
- Motor speed and gear reducer drives

#### Performance Data

- Max. flow: 8,404 L/min (2,220 gpm)
- Max. differential pressure: 13.8 bar (200 psi)

#### Certifications & Associations:





#### TECHNOLOGY: SLIDING VANE

### LPG/Liquefied Gas Sliding Vane Pumps

Blackmer liquefied gas pumps are designed for maximum performance and reliability under the most severe service conditions. Engineered especially for hard-to-handle products such as LPG/propane, butane,  $\text{NH}_3$ ,  $\text{CO}_2$  and refrigerants.

#### Applications

- LPG/Propane
- Mobile and stationary installations
- Butane
- Cylinder filling
- $\text{NH}_3$
- $\text{CO}_2$
- Auto fueling

#### Features & Benefits

- Global leader in mobile and stationary pumps for liquefied gases
- Sliding vane design provides sustained performance and trouble-free operation
- Patented Cavitation Suppression Liners for enhanced service life and reduced noise
- Differential Bypass Valves especially designed to protect against excessive pressure damage
- UL listings for LPG (propane), butane, propane/butane mixes and  $\text{NH}_3$  services

#### Technical Data

- Ductile iron construction for thermal shock resistance
- Sizes: 25mm (1 in.) to 102mm (4 in.)
- Max. working pressure: 29.3 bar (425 psi)
- Motor speed (direct coupled), gear reducer, belt, PTO, hydraulic drive capabilities

#### Performance Data

- Max. flows: 1,325 L/min (350 gpm)
- Max. differential pressure: 13.8 bar (200 psi)
- Differential Bypass Valves provide full-flow pressure control to 946 L/min @ 8.3 bar (250 gpm @ 120 psi)

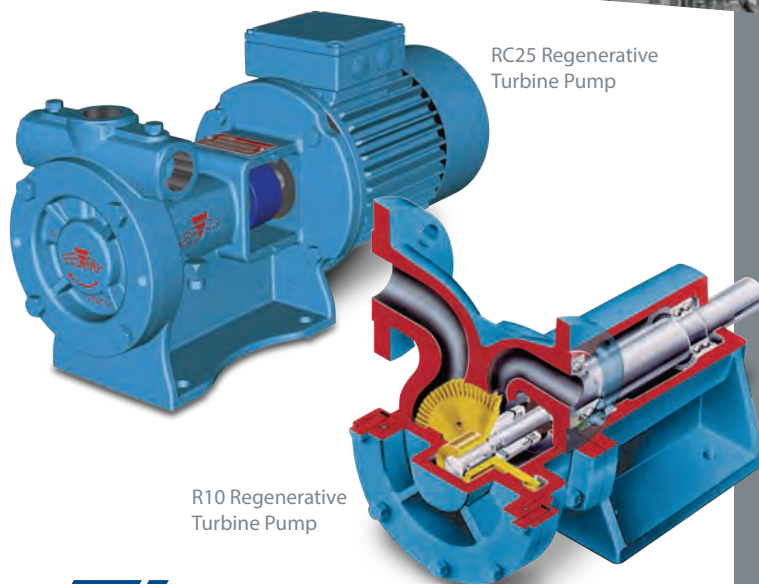
#### Certifications & Associations:



TLGLF LPG/Liquefied Gas Sliding Vane Pump



LGL150 Series High Differential Pressure Sliding Vane Pump



RC25 Regenerative Turbine Pump

R10 Regenerative Turbine Pump

# Ebsray®

#### TECHNOLOGY: REGENERATIVE TURBINE

### LPG/Autogas Regenerative Turbine Pumps

Blackmer's Ebsray regenerative turbine pumps are recognized as the No. 1 choice globally in LPG and Autogas-handling applications. Known for efficiency, reliability and performance, Ebsray regenerative turbine pump technologies are offered in the North and South American Autogas markets.

#### Applications

- LPG/Propane
- Auto fueling
- Butane

#### Features & Benefits

- Single-stage impeller
- Quiet, vibration-free operation
- Low, easy maintenance
- Longest standard warranty
- UL listings for LPG/Autogas

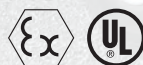
#### Technical Data

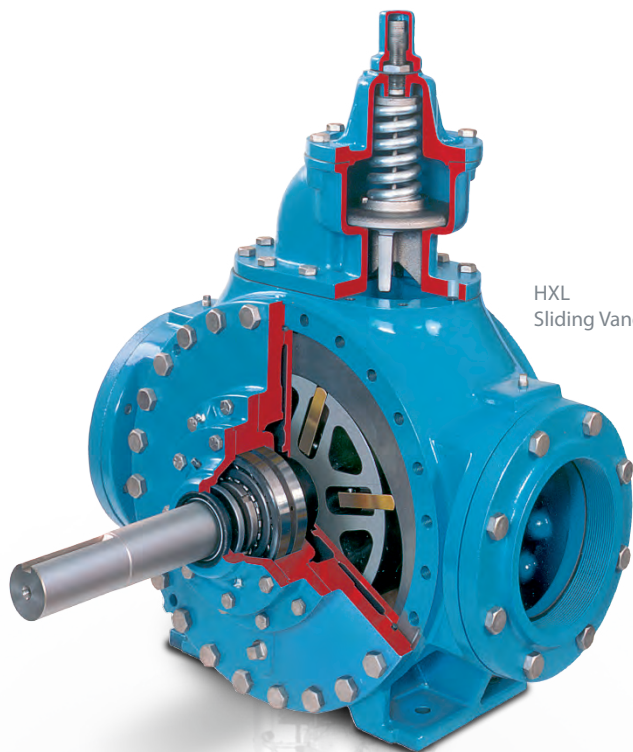
- Ductile iron to
- Bronze, ductile iron impeller
- Motor speed to 3,600 rpm

#### Performance Data

- Max. flows: 200 L/min (52 gpm)
- Max. pressure: 11 bar (160 psi)
- Viscosities to 50 cSt
- Temperatures to  $-40^{\circ}\text{C}$  to  $100^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $212^{\circ}\text{F}$ )

#### Certifications & Associations:





HXL  
Sliding Vane Pump

## TECHNOLOGY: SLIDING VANE

### Refined Fuels Sliding Vane Pumps

Blackmer's sliding vane technology is ideal for the transfer of refined fuels/hydrocarbons and biofuels. Not only are these pumps energy efficient, they feature self-priming, line stripping and dry-run capabilities.

#### Applications

- Kerosene/home heating oil
- Jet fuels
- Lube oils
- Biofuels
- Diesel
- Asphalt/bitumen
- Gasoline

#### Features & Benefits

- Designed for refined fuels/hydrocarbons and biofuels
- Highly efficient sliding vane technology
- Self-adjusting vanes sustain performance
- Self-priming, line stripping and dry-run capabilities

#### Technical Data

- Cast iron and ductile iron models available
- Sizes: 19mm (3/4 in.) to 254mm (10 in.)
- Max. working pressure: 17.2 bar (250 psi)
- Max. temperature: 266° C (500° F)
- Viscosities to >21,000 cSt (100,000 SSU)
- Motor speed and gear reducer drives

#### Performance Data

- Max. flow: 8,404 L/min (2,220 gpm)
- Max. differential pressure: 13.8 bar (200 psi)

#### Certifications & Associations:







#### TECHNOLOGY: CENTRIFUGAL

### System One® Series Centrifugal Process Pumps

System One heavy-duty centrifugal pumps are designed for high volume, severe duty applications. The pumps offer the widest window of operation off the BEP (Best Efficiency Point) of any conventional centrifugal pump, and are designed specifically for operation in severe process industry applications.

#### Applications

- Chemicals
- Mining de-watering
- Water/wastewater
- Liquid terminals

#### Features & Benefits

- Designed specifically to operate in severe process industry applications
- Heavy-duty solid shaft with lowest shaft ratio ( $L^3/D^4$ ) in the industry
- Oversized bearings offer greater load capacity and extend bearing life
- Widest window of operation off the BEP of any conventional centrifugal process pump
- Increased mechanical seal life
- Extended bearing life
- Increased productivity
- Maximum reliability

#### Technical Data

- Ductile iron, 316 stainless steel, CD4MCu, A-20 and Hastelloy® materials available
- Metric and ASME (ANSI) models available
- Max. temperature: 400° C (750° F)
- Micrometer adjustment nuts simplify and ensure precise impeller setting
- D-Flange (IEC) or C-Frame (NEMA) motor adaptors available

#### Performance Data

- Max. flow: >1,022 m<sup>3</sup>/h (4,500 gpm)

#### Certifications & Associations:



MIL-S-901D Gr. A &  
MIL-STD-167 Type 1

**ANSI B73.1M**  
Complies with ANSI B73.1M  
specifications



System One®: LD17  
Centrifugal Pump



System One®: Frame A  
Centrifugal Pump

## TECHNOLOGY: SLIDING VANE AND CENTRIFUGAL

### Military & Marine Sliding Vane and Centrifugal Pumps

Since before World War II, virtually every ship in the United States Navy has set sail with Blackmer pumps aboard. Dependable uptime in demanding pump operations is mandatory for the branches of the U.S. military as it protects lives and the national interest both home and abroad. Whether it's pumping jet fuel, circulating lube oil, fighting fires or emptying bilge tanks, downtime cannot be tolerated. Blackmer's vane and centrifugal pumps handle the transfer, circulation, stripping, loading and unloading of a variety of fluids in military and marine applications.

#### Applications

- Fuel
- Oil
- AFFF concentrate
- Bilge water
- JP-5
- Lube oil
- Wastewater

#### Features & Benefits

- Vital component for aboard-ship firefighting
- Skid-mounted and trailer-mounted refueling units for jet and ground-equipment refueling
- Designed for high volume transfer of non-corrosive liquids ranging in viscosity from thin solvents to heavy oils and molasses
- High suction lift capabilities enable pumps to strip tanks and barges clean
- Excellent self-priming and dry-run capabilities
- Unique sliding vane pump design self-adjusts for wear to maintain flow rates
- Replaceable casing liners and end discs that allow easy rebuilding of the pumping chamber to like-new condition without removing the pump from the piping
- Easy maintenance
- Maximum bearing life
- Minimum contamination risk
- Maximum reliability

#### Technical Data

- Ductile iron construction with bolt-on internal relief valve (HXL Sliding Vane)
- Operating speeds: Up to 350 rpm
- Sizes: From 1.25 in. to 10 in.
- Temperatures to 149° C (300° F)
- Viscosities to 30,000 SSU
- Ductile iron pumps can be powered with a standard electric motor or diesel engine through a commercial gear reducer

#### Certifications & Associations:



MIL-S-901D Gr. A &  
MIL-STD-167 Type 1



BXL/BHXL  
Sliding Vane Pump

System One®  
Centrifugal Pump

TRLOW  
Sliding Vane Pump

XL  
Sliding Vane Pump



#### TECHNOLOGY: GAS COMPRESSOR ENERGY

## Reciprocating Gas Compressors

Blackmer's oil-free reciprocating gas compressors are designed for the transfer and recovery of carbon dioxide, refrigerants, sulphur dioxide, chlorine, vinyl chloride, natural gas, nitrogen, butane, propane, LPG, anhydrous ammonia and other liquefied gases. The compressors feature high-efficiency valves, which move more volume, and a heavy-duty, precision-ground crankshaft for smooth, quiet operation.

### Applications

- Vapor recovery
- Gas blanketing
- Gas gathering
- Pressure boosting
- Gas transfer
- Flare elimination
- Gas evacuation
- Leak-test recovery
- Liquefied gas transfer
- Transloading

### Features & Benefits

- Oil-free design for chemical, petroleum, industrial gas and liquefied gas applications
- Ideal for LPG/propane, butadiene, hydrogen, natural gas, sulfur dioxide, and numerous other gases
- High efficiency valves move more volume
- Heavy-duty, precision-ground crankshaft for smooth, quiet operation
- Standard and custom packaging options

### Technical Data

- Ductile iron construction for greater resistance to thermal and mechanical shock
- Max. temperature: 177° C (350° F)
- Single- and two-stage models available
- Air-cooled and liquid-cooled models available
- Single-, double- and triple-seal models available
- Gear reducer, belt, PTO, hydraulic and engine drives

### Performance Data

- Max. capacity: 212 m<sup>3</sup>/h (125 cfm) gases, 2,575 L/min (680 gpm) liquids
- Max. working pressure: 69 bar (1,000 psi)

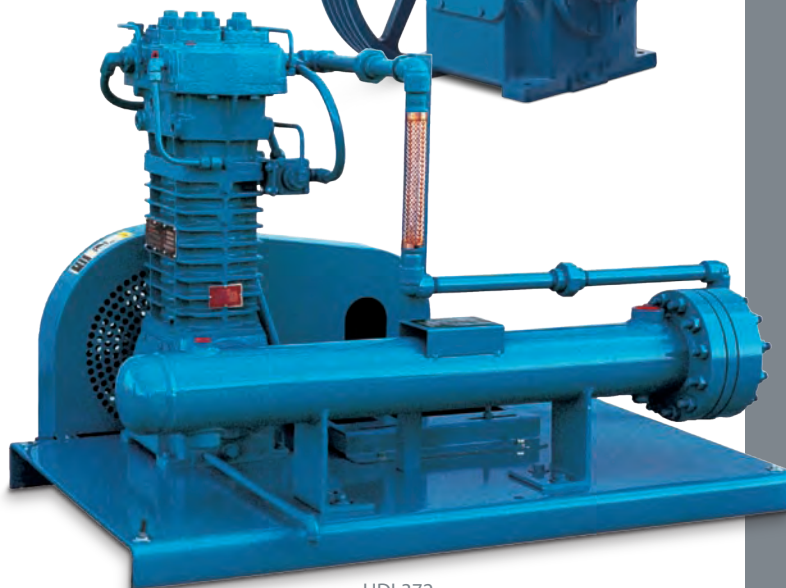
### Certifications & Associations:



LB161  
Reciprocating Gas  
Compressor



LB601  
Reciprocating Gas  
Compressor



HDL372  
Reciprocating Gas  
Compressor



Blackmer World Headquarters  
1809 Century Avenue SW  
Grand Rapids, MI 49503-1530 USA  
T: +1 (616) 241-1611  
F: +1 (616) 241-3752  
[blackmer.com](http://blackmer.com)

## Where Innovation Flows



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