

# TX Series

TRUCK-MOUNTED SLIDING VANE PUMPS | PRODUCT BROCHURE



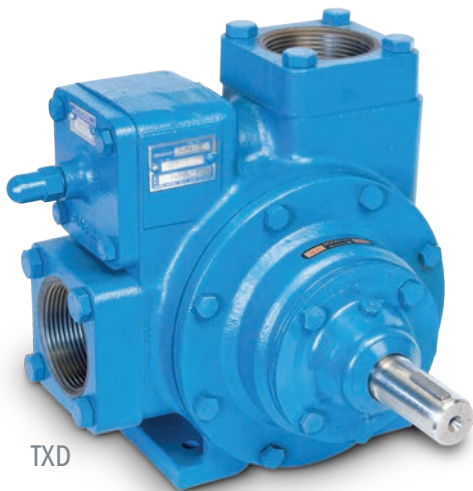
*Blackmer*<sup>®</sup>

Where Innovation Flows

RELIABLE DURABLE  
PUMPS FOR FAST AND  
QUIET OPERATION



## Blackmer® TX Series | Truck-Mounted Sliding Vane Pumps



TXD

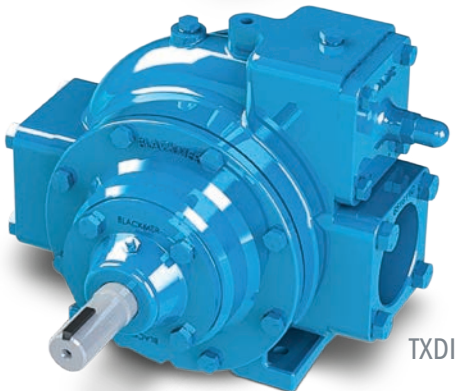
Blackmer TX Series Truck-Mounted Sliding Vane Pumps are the optimal solution for the fast and quiet fluid transfer applications on trucks and tankers.

TX Series Sliding Vane Pumps are available in several models with 1.5" to 4" port sizes and flow rates of 5 to 505 gpm (19 - 1,911 L/m) – depending on the product – to handle gasoline, diesels, lube oils, solvents, glycol, ethanol, jet fuel, aviation fuels, aromatics and more.

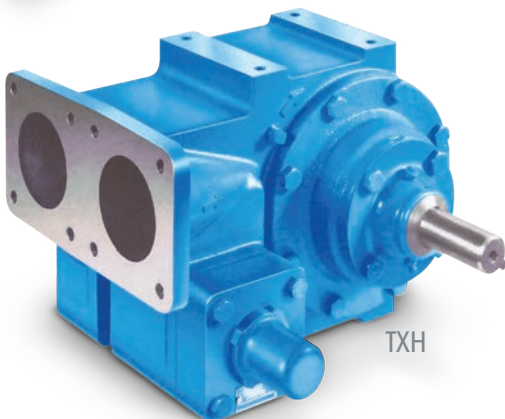
With the sliding vane design, Blackmer TX Series Pumps are self-priming and capable of extended dry run, better product recovery and line-stripping. These multifaceted capabilities allow the TX Series Sliding Vane Pumps to stand apart from other truck-mounted pump technologies with an ideal combination of high performance, safety, reliability and low maintenance.

All TX Series models are purpose-built for efficient, trouble-free performance in applications such as:

- Petro Chemicals
- Gasoline
- Diesels
- Lube Oils
- Biofuels
- Jet Fuel
- Aviation Fuels
- Solvents
- Glycol
- Aromatics and More



TXDI



TXH

## Double-Ended Drive Shaft

Allows the pumps to be mounted in multiple ways to enhance mounting flexibility, and allow for clockwise or counter-clockwise rotation. Included on all models (except for TX1.5 and TX4).

## Adjustable Relief Valve

This spring actuated adjustable relief valve is designed to protect the pump from excessive pressure. Air operated relief valve options available.

## Closed Rotor

Special closed rotor design has minimal clearance to improve inlet performance allowing for line stripping, priming evacuated piping systems and vertical lift of fluid to the pump inlet.

## 90° Porting

- NPT threaded connection comes standard
- Optional connections:
  - Welded
  - Victaulic (not on TXH)
- TXH features same-side horizontal parallel porting for easier piping connections
- TXDI and TXI feature 180-degree porting (Inline Pump)

## Internal Blackmer Mechanical Seals

Specially developed for non-lubricating liquids, Blackmer's exclusive component type design is field proven to provide long life and reliable service on a wide range of fluids.

## O-Ring

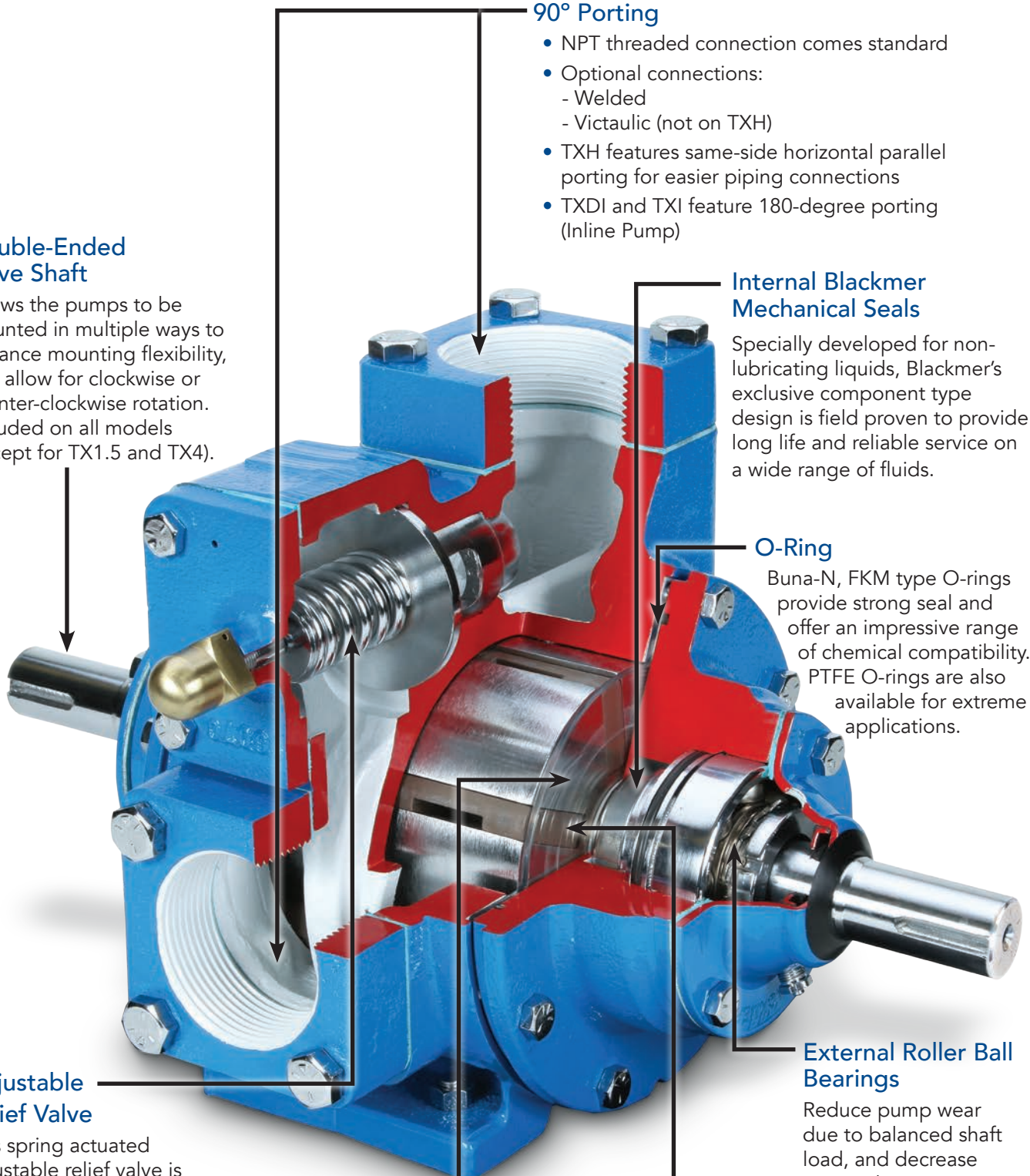
Buna-N, FKM type O-rings provide strong seal and offer an impressive range of chemical compatibility. PTFE O-rings are also available for extreme applications.

## External Roller Ball Bearings

Reduce pump wear due to balanced shaft load, and decrease required maintenance due to greased bearing housing external from working fluid.

## Vanes

Vanes provide exceptional sealing which maintains performance over the operating life of the pump. Blackmer duravanes are self-adjusting and easily replaceable.



# SUSTAINED PERFORMANCE AND TROUBLE FREE OPERATION

## TX Series Models | Size and Construction

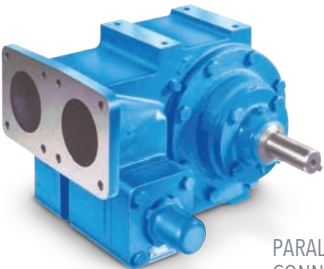
Blackmer® TX Series Sliding Vane Pumps consist of numerous models and configurations for every application.



90° PORT  
CONNECTIONS



180° PORT  
CONNECTIONS



PARALLEL  
CONNECTIONS

BLACKMER TX SERIES VANE PUMPS	MODEL CODE	PUMP SIZE				
		1.5"	2"	2.5"	3"	4"
Single End Shaft		■	■	■	■	■
Double End Shaft	D		■	■	■	
90° Port Connection		■	■	■	■	■
180° Port Connection	I		■	■	■	■
Parallel Connections	H				■	
High Speed	1220 1225 1230		■	■	■	
Air Operated Relief Valve	AVA AVC		■	■	■	

# Blackmer® TX Series | Mounting, Installation and Accessories

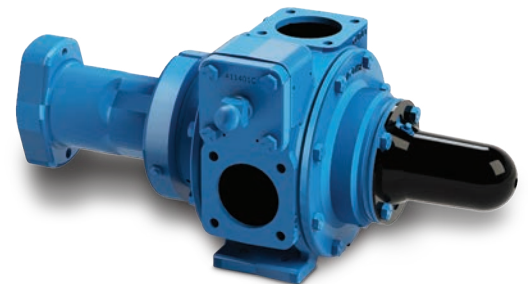
## Truck Mounting

TX Series Sliding Vane Pumps can be bolted to the truck on a saddle hung below the frame with adequate support. Mounting the pump with the cylinder feet down, or with the intake port up is recommended for thorough draining.



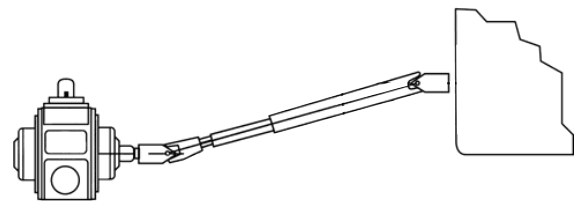
## Hydraulic Drive

With use of a Blackmer hydraulic motor adapter, all TX Series Pumps can be driven hydraulically. The close-coupled hydraulic motor adapter provides for alignment of an SAE, 2 bolt flanged hydraulic motor with a straight keyed shaft. The coupling connection requires grease lubrication every three months at minimum. Blackmer does not provide hydraulic motors.



## PTO Drive

A power take-off (PTO) through universal joints powers the pump. A properly lubricated splined slip joint must be used on the jackshaft to prevent end thrust on the pump shaft.



## Related Parts and Accessories

Several related Blackmer parts are available to enhance performance, and are engineered to work with various TX Series Sliding Vane Pumps.

**T-Type Strainer** - Designed for direct mounting on the inlet side of Blackmer truck-mounted pumps. Available in 2", 2.5" and 3" sizes.

**Air Valve** - Blackmer offers diaphragm air valves (AVA) and piston air valves (AVC). These air valves bring increased ease to fluid deliveries. These two-stage valves are actuated by a flow sensing pilot valve (air or electric), which actuates when the hose nozzle is open and fluid is flowing. This permits full capacity operation of the pump. When the hose nozzle is closed and flow is stopped, the flow sensing pilot valve relieves the actuating pressure, automatically changing the pump into low pressure bypass. Low pressure bypass is helpful during deliveries, because it makes the delivery hose more agile and easier for the truck driver to manipulate.



# Blackmer® TX Series | Benefits of Sliding Vane Pumps

Reliable. Durable. Safe. Efficient.

The advent of sliding vane pumps has been a gamechanger in fluid-transfer applications. These positive displacement pumps are self-priming with extended dry-run capability and feature the best combined characteristics of energy efficiency, trouble-free operation and low maintenance.

## Advantages Of Sliding Vane Technology:

- Unique design self-adjusts for wear to maintain flow rates
- Self-priming, eliminates expensive priming systems
- Extended dry-run capability
- Design provides sustained performance and trouble-free operation
- Easy maintenance. Vanes can be replaced without removing the pump
- High suction lift abilities that exceed 25 feet (7.6 meters)
- Line-stripping capabilities to completely empty tanks and piping of fluid
- Pumps are renewable and repairable
- Solids handling
- Thin to thick fluid viscosity flexibility, eliminates expensive heating systems
- Efficient, requiring less horsepower and electricity to power the pump

## TX Series Specs | Maximum Operating Limits

### MAXIMUM OPERATING LIMITS

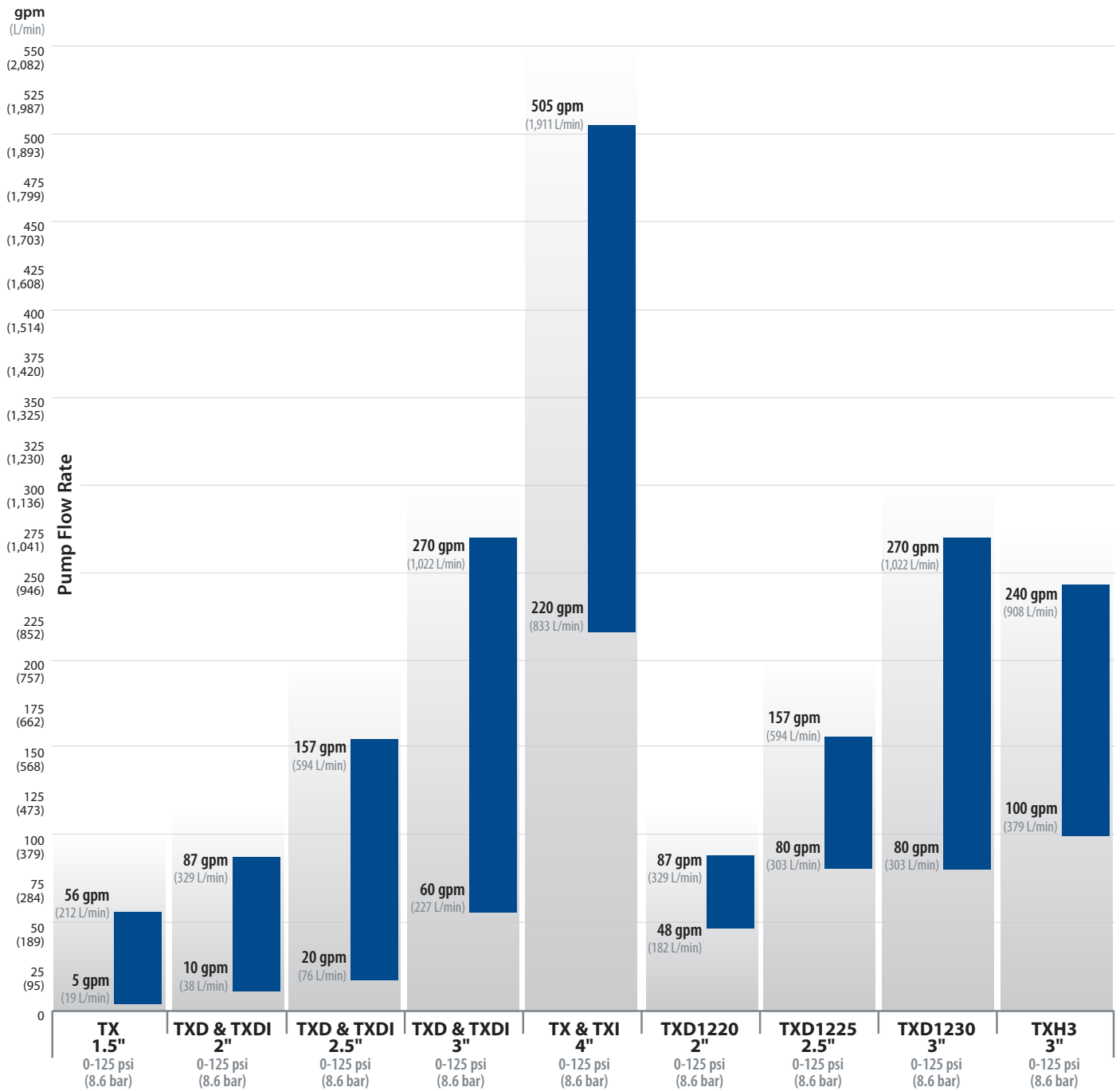
Pump Model	Nominal Flow Rate Range	Maximum Viscosity	Minimum Operating Temperature	Maximum Operating Temperature	Min./Max. Speed	Maximum Differential Pressure (MAWP)	Maximum Working Pressure
	gpm (L/min)	cP	°F (°C)	°F (°C)	rpm	psi (bar)	psi (bar)
TX1.5	5 - 56 (19 - 212)	1.0 - 4,250	-25 (-32)	240 (115)	200 - 800	125 (8.6)	175 (15.5)
TXD(1) 2	10 - 87 (38-329)	1.0 - 4,250	-25 (-32)	240 (115)	70 - 780	125 (8.6)	175 (15.5)
TXD(I) 2.5	20 - 157 (76 - 594)	1.0 - 4,250	-25 (-32)	240 (115)	70 - 780	125 (8.6)	175 (15.5)
TXD(II) 3	60 - 270 (227-1,022)	1.0 - 4,250	-25 (-32)	240 (115)	70 - 640	125 (8.6)	175 (15.5)
TX(II) 4	220 - 505 (833 - 1,911)	1.0 - 4,250	-25 (-32)	240 (115)	70 - 520	125 (8.6)	175 (15.5)
TXD1220	48 - 87 (181 - 329)	0.2 - 20	-25 (-32)	240 (115)	700 - 1,200	125 (8.6)	225 (15.5)
TXD1225	80 - 157 (302 - 594)	0.2 - 20	-25 (-32)	240 (115)	700 - 1,200	125 (8.6)	225 (15.5)
TXD1230	80 - 270 (302 - 1,022)	0.2 - 20	-25 (-32)	240 (115)	270 - 900	125 (8.6)	225 (15.5)
TXH3	100 - 240 (378 - 908)	0.2 - 4,250	-25 (-32)	240 (115)	600 - 1,200	125 (8.6)	175 (12.1)

### TX Series Maintenance Kits

<b>TX1.5</b>	Kit - Maintenance, Buna-N	898949
<b>TX1.5</b>	Kit - Maintenance, FKM	899179
<b>TXD2, TX2, TXD2-AVA</b>	Kit - Maintenance, Buna-N	898950
<b>TXD2</b>	Kit - Maintenance	898956
<b>TXD2.5, TX2.5, TXD2.5-AVA</b>	Kit - Maintenance, Buna-N	898951
<b>TXD2.5</b>	Kit - Maintenance	898957

<b>TXD3, TX3</b>	Kit - Maintenance, Buna-N	898952
<b>TXD3</b>	Kit - Maintenance	898958
<b>TX4</b>	Kit - Maintenance, Buna-N	898953
<b>TX4</b>	Kit - Maintenance	898959
<b>TXD1220</b>	Kit - Maintenance, FKM	899180
<b>TXD1225</b>	Kit - Maintenance, FKM	899181
<b>TXD1230</b>	Kit - Maintenance, FKM	899182

## Nominal Flow Rate Range





PSG Grand Rapids  
1809 Century Avenue SW  
Grand Rapids, MI 49503-1530  
USA  
P: +1 (616) 241-1611  
info@blackmer.com  
psgdover.com/blackmer



Where Innovation Flows

201-001 02/23-A4

Authorized PSG® Partner:

Copyright 2023 PSG®, a Dover company