

# Leveraging Lube-Oil Market Growth

AS DEMAND FOR LUBRICANTS IN CHINESE INDUSTRIES CONTINUES TO GROW,  
BLACKMER® HELPS OPTIMIZE OPERATIONS WITH ITS NP AND XL SERIES SLIDING VANE PUMPS

*By Reddy Lau*



The growth of the Chinese oil-and-gas industry has seen the country's population officially become an "automobile society." With this designation comes an increased need for lubricants, which have become one of the top four products within the Chinese petroleum industry.

There's little question that China has boasted one of the world's most robustly growing economies over the past 10 to 15 years. The most easily identified manifestation of this growth is found in the fact that the Chinese population – according to a report commissioned by the Chinese Academy of Social Sciences' Institute of Sociology – completed its evolution in the first quarter of 2012 into what is termed an "automobile society." By definition, an automobile society is one where ownership exceeds, on average, 20 automobiles for every 100 families in a country or region.

The growth of Chinese automobile use is also a trend that will not change anytime soon, according to the report *Opportunities in Lubricants 2011: China Market Analysis*, which was prepared by the international consulting and research firm Kline & Company. The report notes the expectation that China's automobile population will grow between 18% and 22% annually through the year 2015.

This growth in automobile use – in addition to advances in the aviation and industrial equipment sectors, as well as government investment in transportation infrastructure –

opens the door for increased business opportunities for a number of industries. One of these is lubricants, which is now one of the top four products being produced by the Chinese petroleum industry. With the increased need for the production, blending, handling and transport of lubricants comes a corresponding increase in the need for pump technologies that are capable of satisfying the specific requirements of lube-oil operations.

## Filling A Niche

Founded in 2001, Shanghai Pump-Kin Machinery Co., Ltd., is an importer and distributor of pump technologies for use in the Chinese petrochemical, chemical, food, paint and asphalt industries, among others. Based in Shanghai, the company also has satellite sales and distribution facilities in the Chinese cities of Guangxi and Shandong.

"The core business of our company is to represent imported brands in the fluid-transfer area, mostly pumps," said Mike Zhang, General Manager of Shanghai Pump-Kin. "We strive to provide a total solution, rather than just selling individual products."

Based on that operating principle, in 2004, Shanghai Pump-Kin became a distributor in China for Blackmer®, Grand Rapids, MI, USA, a leading global provider of innovative and high-quality sliding vane pump technology for use in the transfer of liquids and gases. When Blackmer became a founding member of the Dover Corporation's Pump Solution Group (PSG®) in 2008, Shanghai Pump-Kin also became a distributor for various other PSG brands.

This was a fortuitous development as it coincided with the growth of the lubricants market in China.

"Our customers include Greatwall Drilling Company, ExxonMobil and Shell," said Zhang. "As the economy in China has grown in the past decade there has been a huge demand for high-end, high-quality lubrication products. In the past couple of years and into the future we see ExxonMobil and Greatwall continuously expanding their production capacity, and we are and will continue to support these expansion efforts."

### To The Rescue

Traditionally, gear pumps have been used to transfer lube oils in China. However, the meshing-gear principle of operation of these pumps leaves them susceptible to constant wear, which adversely affects volumetric

consistency and flow rates. Additionally, gear pumps cannot run dry and those that are allowed to do so create a large amount of noise and vibration, which can damage the pump.

The design and operation of Blackmer's positive displacement sliding vane pumps, on the other hand, do not have any of the operational deficiencies that can plague gear pumps.

"We've found that Blackmer positive-displacement technology can replace many other types of pump products or brands in some lube-handling applications," said Zhang. "The Blackmer pump has a very good feature – it can run dry for a short period of time while priming."

Specifically, Blackmer sliding vane pumps have two major uses in Chinese lube-oil production, blending and handling. The first is the unloading and transferring of the lube oil from transport trucks to storage plants. There are two specific requirements in this application: the first is the complete unloading of the truck and the second is that the pump has to be highly efficient in order to conserve energy.

The other major application is the transfer of the lubricating oil from the storage tank to the production line.



Mike Zhang is General Manager of Shanghai Pump-Kin Machinery Co., Ltd. Shanghai Pump-Kin is an importer and distributor of pump technologies for use in the Chinese petrochemical, chemical, food, paint and asphalt industries, among others.

In this application, the pump needs to be versatile enough to meet the requirements of lube-oil pumping operations with varying piping lengths and discharge pressures. Being able to provide a stable flow rate at various discharge pressures is paramount in this operation and the sliding vane design of Blackmer pumps is perfect for these operational characteristics.

Currently, Shanghai Pump-Kin is recommending two types of Blackmer sliding vane pumps to its lube-oil customers:

- **NP Series Sliding Vane Pumps.** Blackmer NP pumps are designed to offer maximum versatility in the handling of a wide variety of clean, non-corrosive liquids. They are also ideal for applications that feature fluids of varying viscosities and temperatures. NP pumps feature ductile-iron construction; a shaft stuffing box that accommodates many mechanical seal configurations; excellent self-priming and dry-run capabilities; a symmetrical bearing-support system that ensures even loading and wear; an adjustable relief valve; and easy maintenance. Options include a jacketed pump head for high-temperature operation and mechanical seals with stainless-steel, carbon-steel and PTFE construction.
- **XL Series Sliding Vane Pumps.** Blackmer XL pumps have been designed for processing, filling and transfer applications in lube plants, refineries and general industrial applications. These pumps feature replaceable casing liners and end discs that allow easy rebuilding of the pumping chamber to like-new condition without having to remove the pump from the piping. Other features of the XL pumps include ductile-iron construction; an internal relief valve; excellent self-priming and dry-run capabilities; a symmetrical bearing-support system that ensures even loading and wear; external ball bearings that are isolated from the pumpage by mechanical seals in order to maximum bearing life and minimize contamination risk; and easy maintenance.

“The NP Series is one of our choices because it can satisfy the different mechanical seal requirements that are set by the customer,” explained Zhang. “It is easy to change or replace the mechanical seal and it is easy to assemble or disassemble the pump as a whole. For applications where the liquid carries particles, the XL Series is preferred because it has very strong anti-abrasion capability and the bearing is not in contact with the product being pumped so it extends the service life of the pump.”

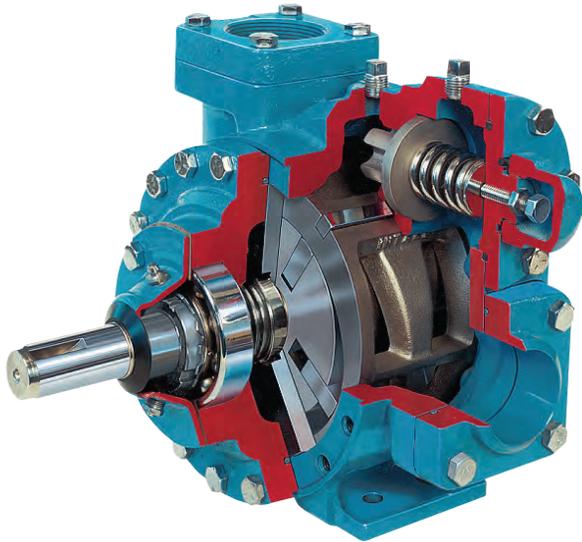
In addition to lube-oil applications, Zhang also sees opportunities for the NP and XL Series pumps in other Chinese markets, specifically the chemical sector.



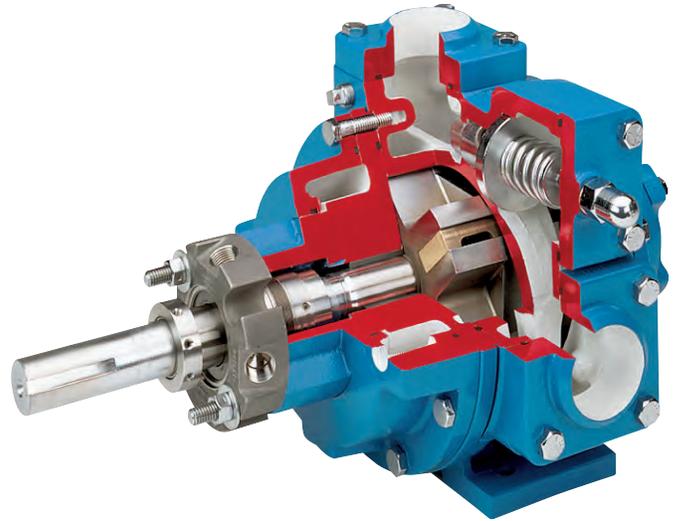
China's automobile population is expected to grow between 18% and 22% annually through the year 2015. The need for lubricating oils will increase along with this growth in automobiles.



Since 2001, Shanghai Pump-Kin has been a dedicated distributor of Blackmer® positive displacement sliding vane pump technology in China. Says General Manager Mike Zhang: “For us, Blackmer stands for reliability, satisfaction and increased business opportunities.”



Blackmer XL Series Pump



Blackmer NP Series Pump

## Conclusion

In the end, though, the ultimate testimonial to a pump's effectiveness comes from the end-user, and in the case of Blackmer's NP and XL Series Sliding Vane Pumps, the reviews have been overwhelmingly positive.

"User who have experience using the Blackmer products are always very happy and if they have any new applications they will come to us and ask for Blackmer products again," said Zhang. "With the help of Blackmer, the products have helped us get more market share and brought more customers to us – and our customers are always very satisfied with Blackmer products. For us, Blackmer stands for reliability, satisfaction and increased business opportunities."

## About the Author:

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