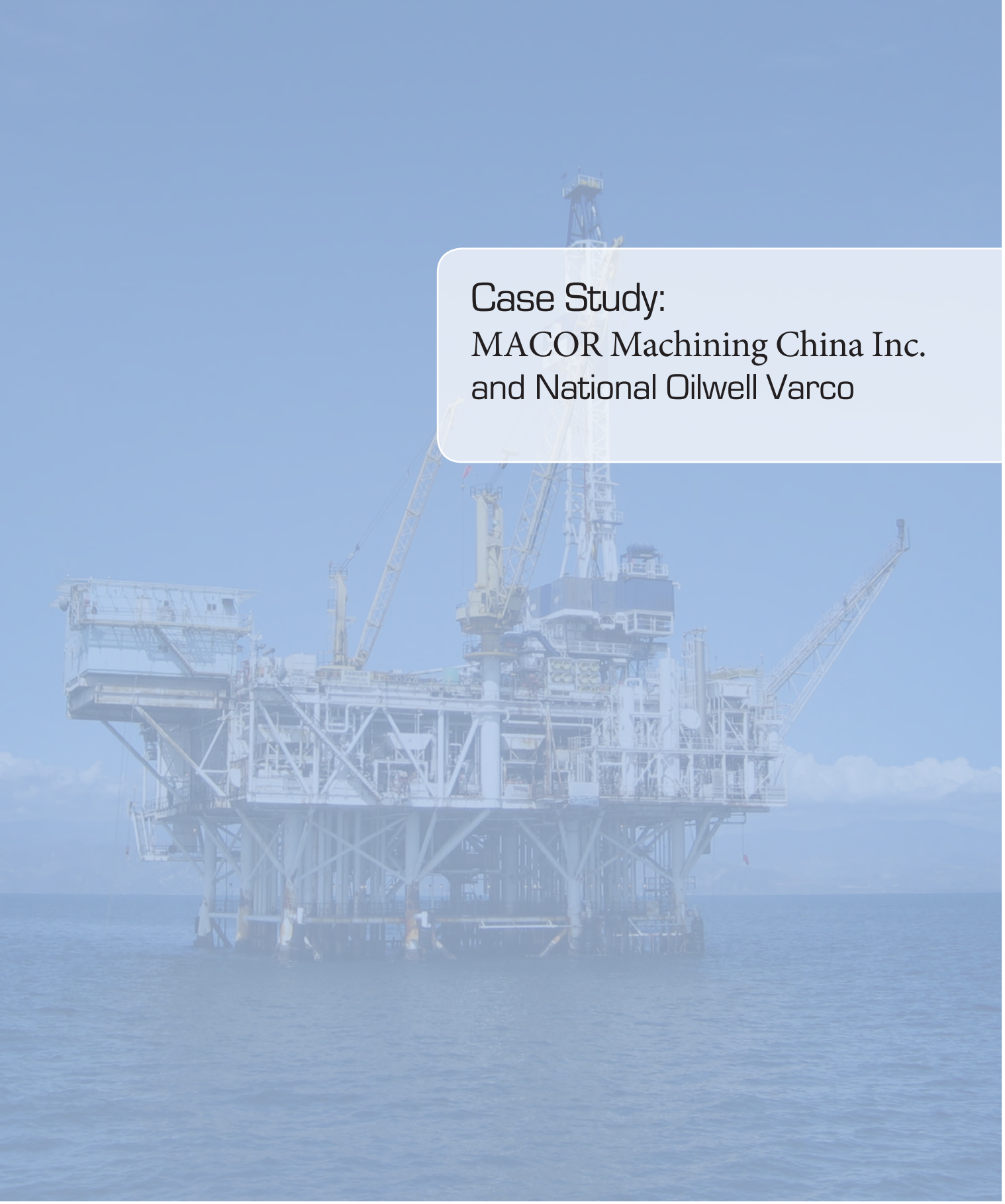


Case Study:
MACOR Machining China Inc. and National Oilwell Varco

The continuing partnership between MACOR Machining China Inc. and National Oilwell Varco (NOV) is thriving, with both companies marking over six years of successful collaboration to date. Morgan has been supplying wear resistant hydrocyclone liners, which exploit the benefits of our market leading proprietary alumina grade Deranox™ 975, during the partnership to ensure that NOV can provide their customers with high performance components used in critical petrochemical applications.

The challenge

NOV needed to ensure that they were able to supply durable, long lasting de-sanding systems to their key contractors in the petrochemical sector. With increased demand to recover oil in the most cost effective manner, petrochemical contractors are constantly seeking new opportunities to maximise the quantity of oil which can be recovered. To ensure this recovery, it is important to effectively remove sand and other abrasive waste materials from the well, utilising a hydrocyclone de-sanding system. The de-sanding system must incorporate a suitable material which provides the increased lifetime needed in the application, whilst remaining profitable.

As downtime in the petrochemical industry is extremely costly, with any gaps in production having a potentially detrimental effect, NOV required a high quality solution which enabled their contractor's systems to run for significant periods of time without the need for replacement. This is where Morgan were able to provide a suitable solution.

Why NOV Partnered with Morgan

Morgan was able to provide National Oilwell Varco with a superior hydrocyclone lining, specially manufactured in Morgan's wear resistant alumina grade Deranox™ 975 to withstand the harsh environments seen in oil processing.

To enable NOV the flexibility of custom development of the inlet/outlet of the liners, we used our proprietary bonding technology to permanently bond liner components together, extending their lifetime beyond other joining methods used in the industry. Excellent resistance to erosion and the enhanced structural integrity that our bonding provides, allows NOV to sustain its product reputation in the market.

"High quality, wear resistant solutions"

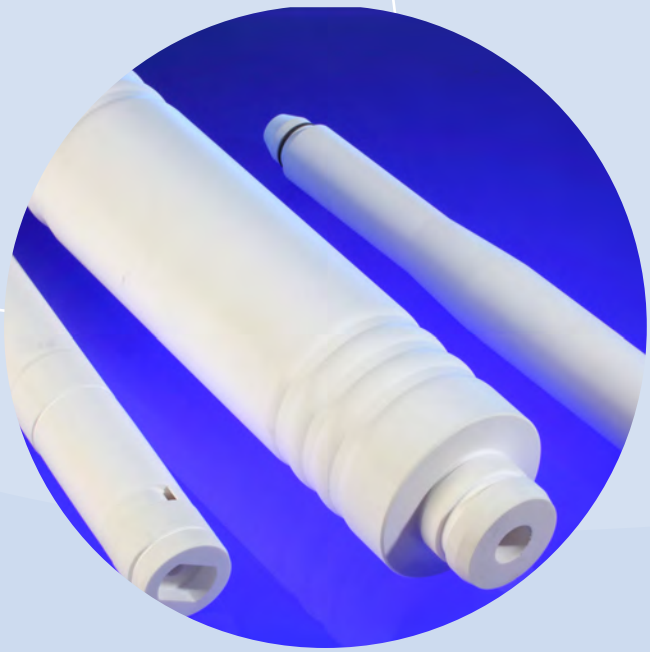
The Result

Morgan's Deranox™ 975 ceramic hydrocyclone liners have enabled NOV to continue to provide their end customers with high quality, wear resistant solutions which perform consistently in the aggressive petrochemical environment. Morgan's liners are integrated into NOV's de-sanding systems and the close collaboration between the companies has resulted in successful on-time delivery of large shipments to the end customer.

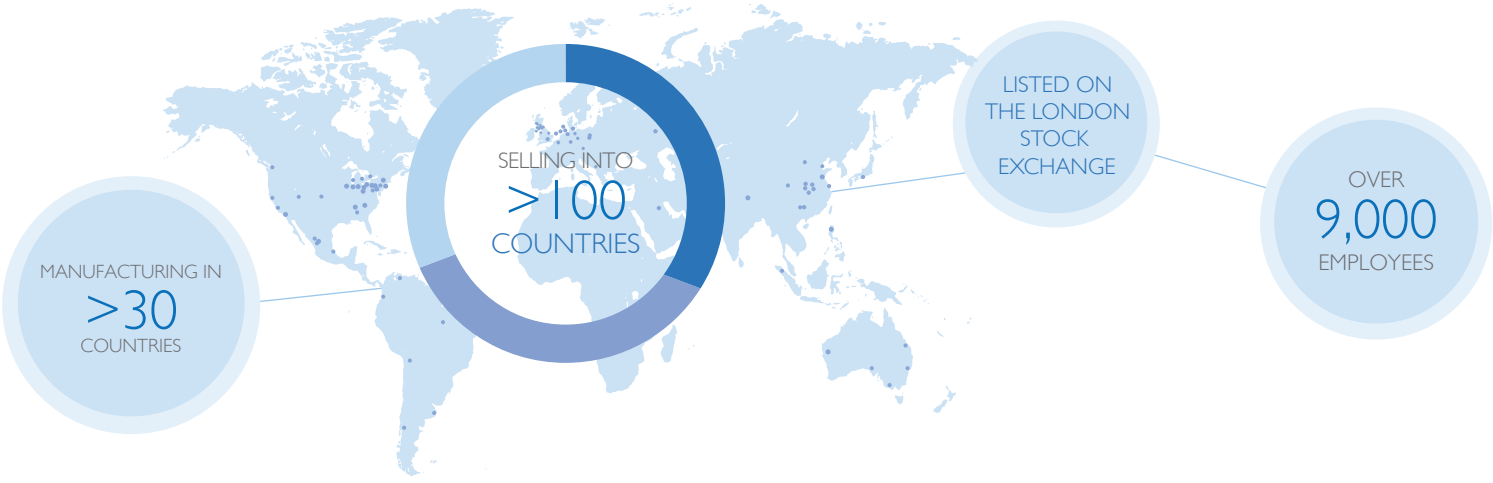
By investing in our own engineering capability, we are able to bring to market robust and reliable components, which can be customised to suit the requirements of our customers. This capability allows us to better meet the engineering challenges which our valued customers, such as NOV, encounter on a daily basis.

"Our proprietary bonding technology is used to permanently bond liner components"

"Morgan's Deranox™ 975 withstands the harsh environment of oil processing"



ABOUT MACOR Machining China Inc.



MACOR Machining China Inc. is a global engineering company offering world-leading competencies in materials science, specialist manufacturing and applications engineering.

We focus our resources on the delivery of products that help our customers to solve technically challenging Problems, enabling them to address global trends such as energy demand, advances in healthcare and environmental sustainability.

What differentiates us?