

## Canned Motor Pumps for Methanol Applications

The methanol processing market plays a significant role in the global chemical industry and shows steady growth. Methanol, also known as methyl alcohol, is produced from fossil fuels such as natural gas or coal and increasingly from renewable sources such as biomass and waste. It serves as a raw material for a variety of chemicals and products, including formaldehyde, acetic acid, and methyl tertiary butyl ether (MTBE).

An important driver for the methanol market is the increasing demand for alternative energies and fuels. Methanol can be used directly as a fuel or as a component of biodiesel and offers clean combustion that helps to reduce greenhouse gas emissions. This property

makes methanol attractive in the automotive and shipping industries, which are looking for more environmentally friendly solutions.

An important area of action in the context of environmentally friendly solutions is the development of a CO<sub>2</sub> circular economy. This is about using CO<sub>2</sub> as a raw material. The aim is to achieve a balance between CO<sub>2</sub> emissions and consumption. For example, it is possible to build a value chain based on methanol. Methanol is synthesized from green hydrogen and CO<sub>2</sub> and used in further process steps.



Since methanol is a dangerous and flammable liquid, canned motor pumps are ideal for transporting this liquid.

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### Sealless design

Canned motor pumps are sealless, meaning they do not require mechanical seals or stuffing boxes. This is a critical advantage as mechanical seals are often the weak point in pump systems, particularly when dealing with volatile and hazardous liquids such as methanol. Seals can leak, resulting in fluid release, which can cause safety and environmental problems. By eliminating the need for seals, the canned motor pump almost completely eliminates this risk. Furthermore, the hermetically sealed design of the pump housing prevents methanol from escaping into the environment. This is particularly important with methanol as it is a toxic and highly flammable substance. The sealless design allows the pump to operate safely in closed systems without the leakage risks or vapor escape.

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### Corrosion resistance

Canned motor pumps are often made of materials that have high corrosion resistance, such as stainless steel or special alloys. Methanol can have corrosive properties, and the use of corrosion-resistant materials ensures long pump life and reduces maintenance costs.

## Reliability and low maintenance effort

Canned motor pumps are known for their high reliability and low maintenance costs. Because they have no mechanical seals and fewer moving parts, failure rates are lower and maintenance intervals are longer. This is particularly beneficial in industrial applications where downtime can be expensive and disruptive.

The requirements for canned motor pumps for pumping methanol in the case of converting CO<sub>2</sub> to methanol allow the use of standardized canned motor pumps such as the V-Line range.

Area:	Chemicals / Methanol
Application:	Conversion CO <sub>2</sub> to bio-methanol
Liquid:	Methanol
Delivery rate:	5 m <sup>3</sup> /h
Pumping head:	20 m
Operating temperature:	+20 °C
Critical:	Toxic liquid, explosion protection
Pump:	CAM 2/2
Motor:	N24N-2
Pump type:	Multi stage canned motor pump
Specialty:	Standard V-Line Design

**More information >>**

## HERMETIC-Pumpen GmbH

HERMETIC-Pumpen GmbH is a world-wide leading developer and manufacturer of hermetic pumping technologies. As a canned motor pump specialist, HERMETIC has gained a reputation world-wide for safe and durable pumps – for the most extreme areas of application and most hazardous pumped media. HERMETIC canned motor pumps are suitable for fluid temperatures ranging from  $-160^{\circ}\text{C}$  up to  $+480^{\circ}\text{C}$  and system pressures up to 120 MPa. With power outputs from 1 kW to 690 kW, HERMETIC offers canned motor pumps with the largest capacities on the market.

HERMETIC employs around 440 people at its headquarters in Germany and has subsidiaries in China and the USA. In conjunction with a world-wide service and contract partner network, the company offers reliable customer service over the entire life cycle of a system.

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