



## SPACER CANS

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A spacer can is a non-contact component used in sealless magnetic drive pumps. It houses the internal rotor assembly and isolates it from the external magnet assembly. Traditional spacer cans made from stainless steel or Hastelloy are prone to eddy current generation, which reduces pump efficiency and causes heat buildup.

Ceramic spacer cans, in contrast, offer a non-metallic solution, effectively eliminating eddy currents and increasing system efficiency.

## MATERIAL DIVERSITY

[Zirconia Toughened Alumina \(ZTA\)](#) | [Alumina \( \$\text{Al}\_2\text{O}\_3\$ \)](#) | [Partially Stabilized Zirconia \(YTZP / MG-PSZ\)](#)

Each material is selected based on application-specific factors including fluid chemistry, pressure rating, and operating temperature.

## APPLICATION

- Magnetic drive centrifugal pumps
- Sealless chemical transfer systems
- Containment of high-purity or aggressive fluids
- High-efficiency pump systems in explosion-prone environments
- Corrosion-sensitive fluid transfer in clean and sterile zones

## INDUSTRIES SERVED

- Chemical Processing
- Pharmaceutical & Biotech
- Petrochemicals & Refineries
- Semiconductor Manufacturing

## KEY ADVANTAGES

- **Zero Eddy Current Losses:** Being non-metallic, ceramic spacer cans eliminate energy losses due to eddy currents—enhancing pump efficiency.
- **High Corrosion Resistance:** Suitable for aggressive acids, solvents, and corrosive gases commonly found in chemical and pharma processing.
- **Thermal Insulation:** Excellent thermal barrier properties ensure reduced heat transfer between rotating and stationary components.
- **Mechanical Strength:** Withstand high internal pressures and mechanical stress without deformation or failure.
- **Non-Magnetic and Dielectric:** Prevent magnetic interference and are safe in electrically sensitive environments.
- **Lightweight and Durable:** Lower component mass contributes to improved dynamic performance and reduced system wear.

## CONCLUSION

Ceramic Spacer Cans are a key innovation in the evolution of magnetic drive pump systems, addressing the inefficiencies and vulnerabilities of metallic counterparts. CeramForge's advanced ceramic engineering ensures that your pumping systems perform with greater efficiency, lower maintenance, and enhanced reliability, even under the most challenging industrial conditions.