

# Labyrinth Seal Pumps



## AVAILABLE LABYRINTH SEAL CONFIGURATIONS:

Single gas (w/ mixture out)

Dual Gas

**Reverse Bias** 

## Features & Benefits

- CD's Labyrinth seal design is reliable and provides trouble free centrifugal pump operation eliminating the need for a traditional mechanical seal.
- Incorporates a gas type seal that effectively seals around the shaft to protect against static and dynamic liquid leakage.
- The insulating closure plate along with the staggered stainless steel distance piece provides an interrupted cold-transference path to prevent "ice bridging."
- Optimized tolerance and design result in high efficiency and very low sealing gas consumption.
- Designed as an exchangeable cartridge for added flexibility.
- The non-contacting seal design makes the sealing life virtually unlimited.
- Speeds up to 8000 RPM.
- Discharge pressures to 800 PSI (55 bar).

#### **Applications**

- Process applications where continuous operation is required.
- Pumping applications where contamination must be kept to a minimum or when safety does not allow process gas to be vented to the atmosphere.
- High suction pressure applications that exceed mechanical seal capability
- ACD offers the reverse bias seal configuration for high purity (Argon) applications.

## **Liquids Pumped**

- = LIN
- = LOX
- = LAR
- Methane (LNG)
- Consult with ACD for other liquids

### Typical Scope of Supply

- Labyrinth seal cartridge with replaceable sleeves
- High performance seal gas regulators
- "Double" staggered web stainless steel intermediate
- Insulating closure-plate
- Labyrinth seal interconnecting piping
- Babbitt labyrinth seal liner for Oxygen, Nitrogen, Argon and Methane service.

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