

# CAP1-74™

## Face-to-Face Dry Gas Seal

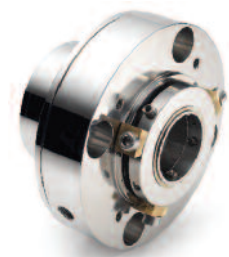


Non Contacting Gas Lubricated Mechanical Seal

A single solution to sealing a wide range of operating conditions



EXPERIENCE THE EXCEPTIONAL

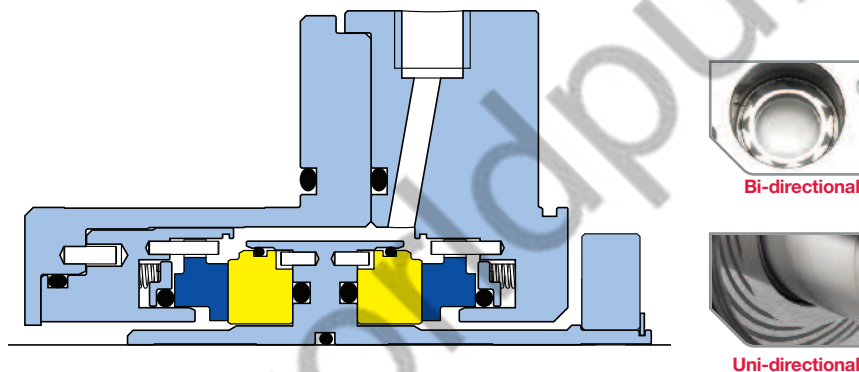


# CAPI-74™

## Face-to-Face Dual Dry Gas Seal

Non-contacting dual seal primarily designed for pumps (ANSI/API Standard 682) which can provide **zero process emissions** in service.

The CAPI-74™ is a stationary design, balanced, inside-mounted, cartridge design pusher seal with multiple springs. This design has two seal sets per cartridge assembly utilizing an externally supplied barrier fluid (gas) at a pressure greater than the process pressure. The barrier gas should be readily available and inert e.g. dry Nitrogen. The standard secondary sealing elements are elastomeric 'O' rings. For each face pair, one of the faces is plain and the other etched with grooves to intentionally create aerodynamic separating forces during operation to sustain a specific fluid film gap. The non-contacting nature of the design ensures long life, low power consumption and reduced capital cost for support systems. One other major benefit is the lack of contamination for high value products.



### TYPICAL DUTIES

- Light Hydrocarbon applications
- Low VOC emission containment
- Noxious chemicals
- Operating temperature -40°C to +260°C (-40°F to 500°F)
- Pressures up to 42 barg (609psig)
- Peripheral speeds up to 25m/s (5000 ft/min)

### General Specification

#### Size range

20mm - 110mm (0.750" - 4.375")

#### Face options

Soft / Hard / Hard / Soft  
Hard / Hard / Hard / Hard  
Soft = Antimony impregnated Carbon Hard  
= Tungsten Carbide / Silicon Carbide

#### Elastomer options

Viton® (Standard), EPR, Nitrile, Aflas®, Kalrez®

#### Gasket options

'O' ring (Standard),  
Graphite (Spiral Wound)

#### Metallurgy options

Exotic product wetted metallurgy  
Alloy 1.4462 (Duplex),  
Alloy 1.4501 (Super Duplex)

### KEY FEATURES / BENEFITS

- Can operate within a wide range of operating conditions
- Gas lift aerodynamic seal faces, Low power requirement
- Bi-directional option available
- Minimum axial length
- Face design optimised using Coupled Field Analysis tools (Finite Element Analysis and Computational Fluid Dynamics)
- Face loading optimised, factory set, statically and dynamically tested prior to despatch
- Simple support systems
- Barrier gas supply panels available, to ensure maximum seal reliability.



**WARNING**

Use double mechanical seals with hazardous products. Always take safety precautions:

- Guard your equipment
- Wear protective clothing

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