

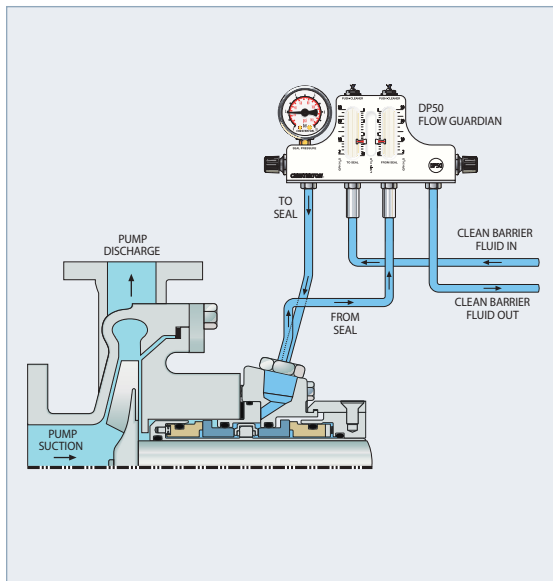
PLAN 54

Circulation with Pressurized External Barrier Fluid Source and Flow Guardian™ DP50

What Dual seal arrangement used with a dual flow meter measuring flow in and out of the seal. A pressurized, external fluid source provides clean fluid to the seal via an external pressure header.

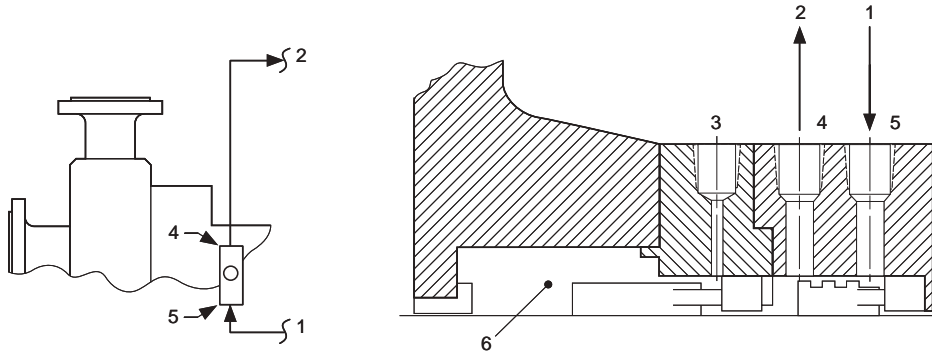
Why To provide a barrier of clean fluid to lubricate the inboard and outboard seal faces; to prevent solids from penetrating and damaging the inboard seal faces.

When Used with products with high solids content; used when cooling is a primary requirement; can be used to heat the seal; used when a secure source of external fluid is available.



KEY

- 1 — From External Source
- 2 — To External Source
- 3 — Flush (F)
- 4 — Liquid Barrier Outlet (LBO)
- 5 — Liquid Barrier Inlet (LBI)
- 6 — Seal Chamber



Drawing reproduced from ANSI/API Standard 682, Third Edition, September 2004, courtesy of the American Petroleum Institute.