

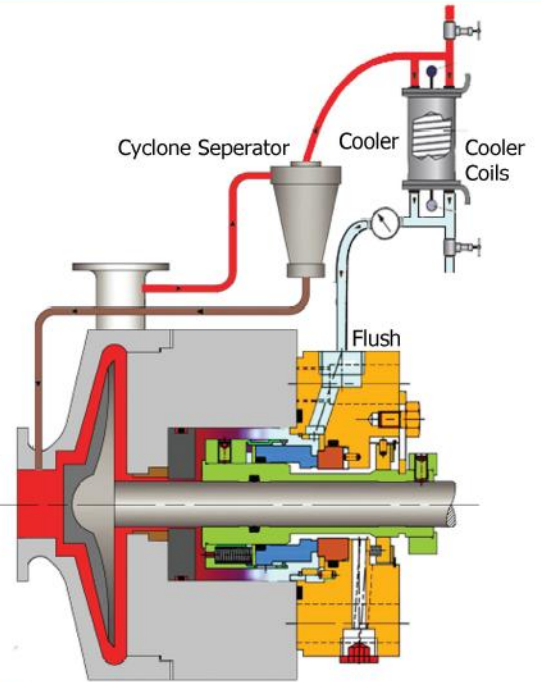


MECHANICAL SEAL PIPING PLANS

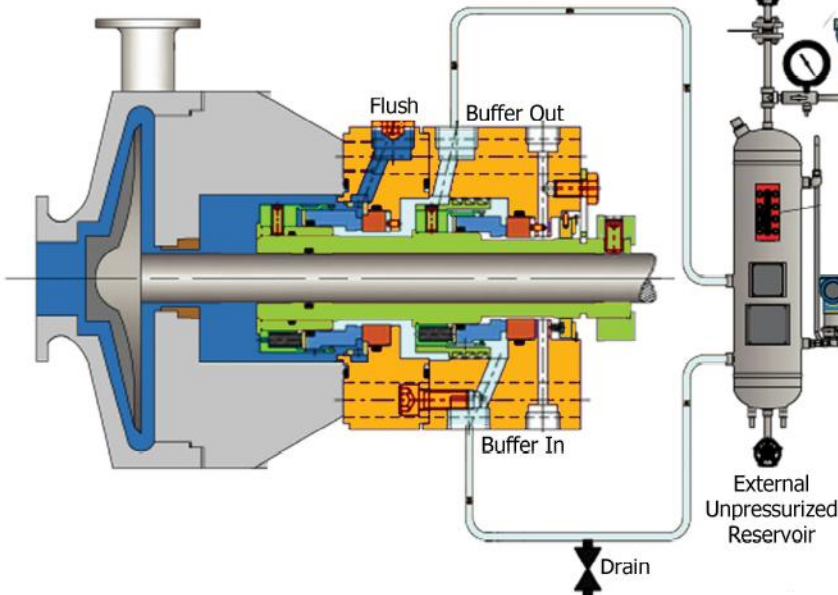
SINGLE SEAL PIPING PLANS

PLAN 41

Recirculation from a high-pressure region of the pump (typically the pump discharge piping) through a cyclone separator delivering the clean fluid to a cooler and then to the seal chamber. The solids are delivered to the pump suction line. combination of Piping Plan 21 and Piping Plan 31 and is specified only for hot services containing solids.



DUAL SEALS PIPING PLANS



PLAN 52

External reservoir providing buffer liquid for the outer seal of an Arrangement 2 seal. The buffer liquid shall be maintained at a pressure less than seal chamber pressure and less than 0.28 MPa (2.8 bar) (40 psi). Buffer liquid is circulated to and from the reservoir by means of an internal circulating device.

PLAN 53A

Pressurized external barrier fluid reservoir supplying clean fluid to the seal chamber. The reservoir pressure should always exceed the maximum seal chamber pressure by a minimum of 0.14 MPa (1.4 bar) (20 psi). Barrier liquid is circulated to and from the reservoir by means of an internal circulating device. Used with an Arrangement 3 seal and services where no leakage to atmosphere can be tolerated.

