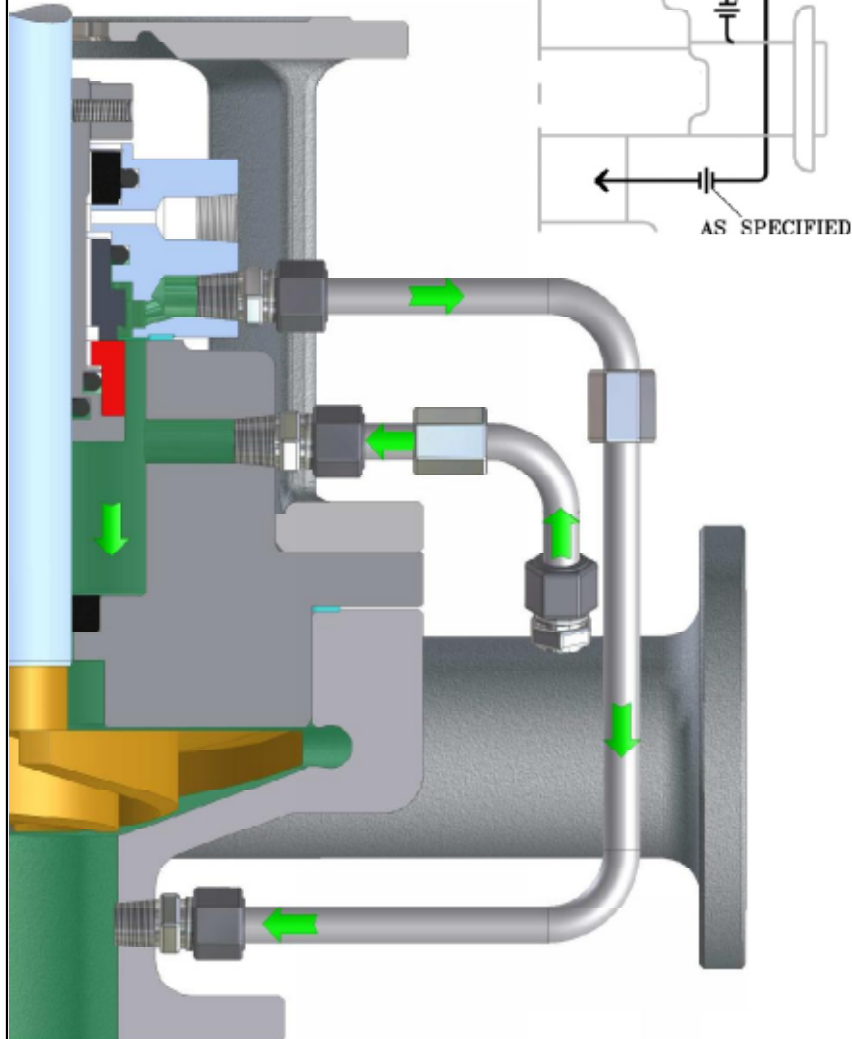


Plan 14



Description: Plan 14 is recirculation from pump discharge through a properly sized flow control orifice, when necessary, to the seal chamber and from the seal chamber through a properly sized flow control orifice, when necessary, to the pump suction. (A combination of Plan 11 and Plan 13)

Objective: Remove seal generated heat and vent vertical pumps while providing adequate seal chamber pressure for process vapor margin and sufficient fluid flow for cooling.

Advantages: Provides pressure and recirculation inside the seal chamber to avoid vaporizing liquids when used along with a close fitting throat bushing and properly sized orifice.