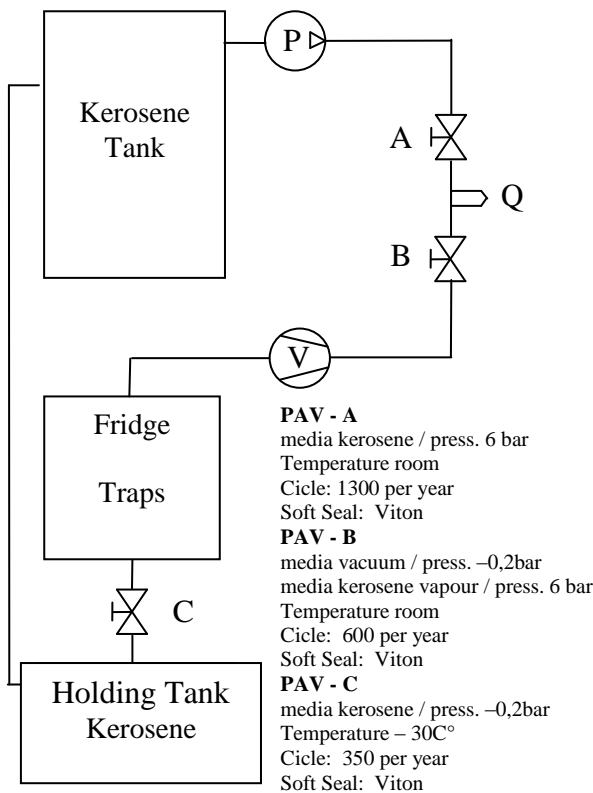


## KEROSENE FILLING RIG



The equipment is used to fill **thermic probes** with kerosene. The system is made up of an injection unit, a cooling system, a vacuum pump, a pressure pump and a kerosene tank.

### PLANT DESIGN



### APPLICATION

#### 1<sup>st</sup> stage – Vacuum

The probe is connected to the fast connection nozzle (**Q**). When the vacuum pump starts (**V**) valve (**A**) opens and creates a -0,2 bar depression inside the probe to prevent air bubbles from forming during filling operations.

#### 2<sup>nd</sup> stage - Filling

Kerosene at room temperature contained in a tank is controlled by pump (**P**) and sent to the filling unit. Valve (**A**) closes and valve (**B**) opens to let kerosene into the probe. When it is full, the tightness of the probe is tested up to 6 bar pressure.

#### 3<sup>rd</sup> stage – Exhaust of the injection unit

When filling is over, the probe is disconnected from the injection unit, valve (**B**) closes, valve (**A**) reopens and the vacuum pump (**V**) starts, creating a depression inside the circuit. Kerosene left inside the unit is sucked up and sent into a heat exchanger to be cooled up to -30° and brought back to a liquid state. Valve (**C**) installed at the bottom of the heat exchanger opens at the end of the day and kerosene exhausts into a collecting tank. Kerosene is then carried back into the main tank.

## SOLUTION



#### TYPE BSG205CXW00 – SXS cod. 75883730490

S/S normally closed bi-directional PAV  
Body Actuator Ø45 – Connection ½” BSP  
Flow direction over / under seat  
Pilot pressure min 6,2 / 5 bar - max 10 bar  
Working pressure 0-16 bar  
Seal material VITON