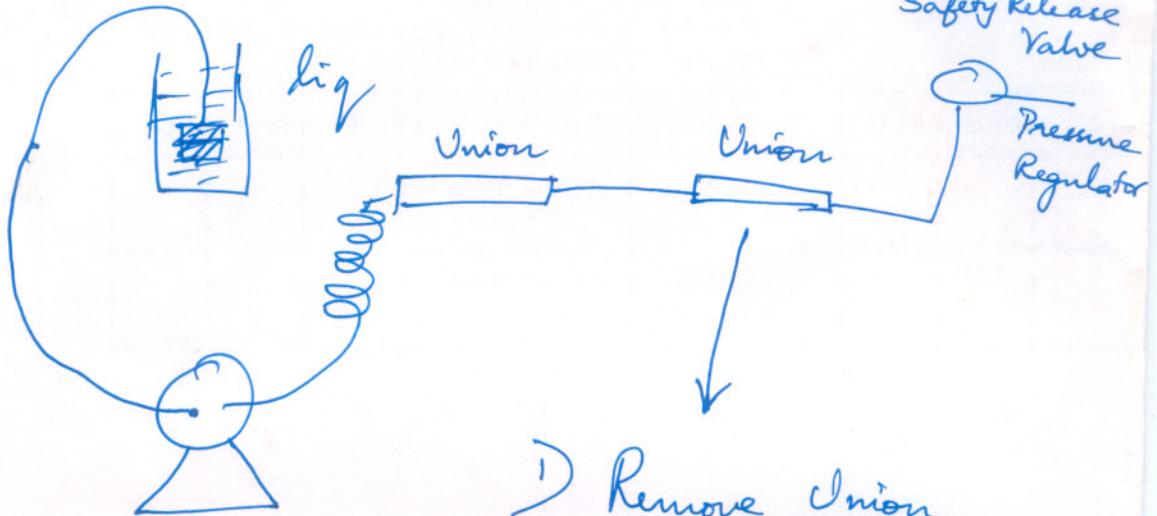


Pump priming
 To ~~avoid~~ ^{remove} bubbles in line



1) Remove Union with Spanner & counter spanner

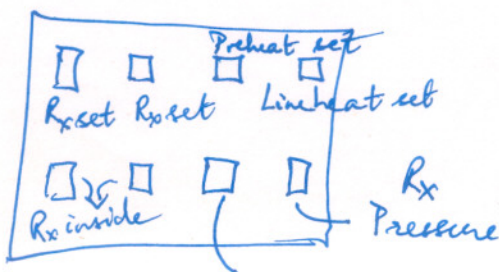
2) Put a syringe/tube across open union & withdraw syringe

3) Set 1 ml/min, close 3 way valve & observe pressure rise

Priming function on pump

Pump pushes max. flow (9.99 ml/min) through the pump. Avoid this to avoid pressure build up.

P&ID of the set-up. (Rx front)



1) Max °C/hr 3 °C/min → set & process value matches
(ie) 180°C/hr

↓
Furnace(s)
Pre & Line
Heaters

Other settings there is a lag between setting & process value

2) 0.01 to 9.99 ml/min Pump

Good under high pressure.

30 to 60% rating works well.

3) MFC 15 to 20 minutes warmup, Initial reading Zero
↳ mass flow controller

4) Do not pressurize & heat @ same time
Rx ↗

send gas through MFC before setting flow rate

5) Lock in ferrules for T/c on furnace should be on.

Thermocouple

Wait till displayed value gets close to zero.
May take 30 minutes

Mains

LH line heater
RH pre heater
Left Hand Right Hand