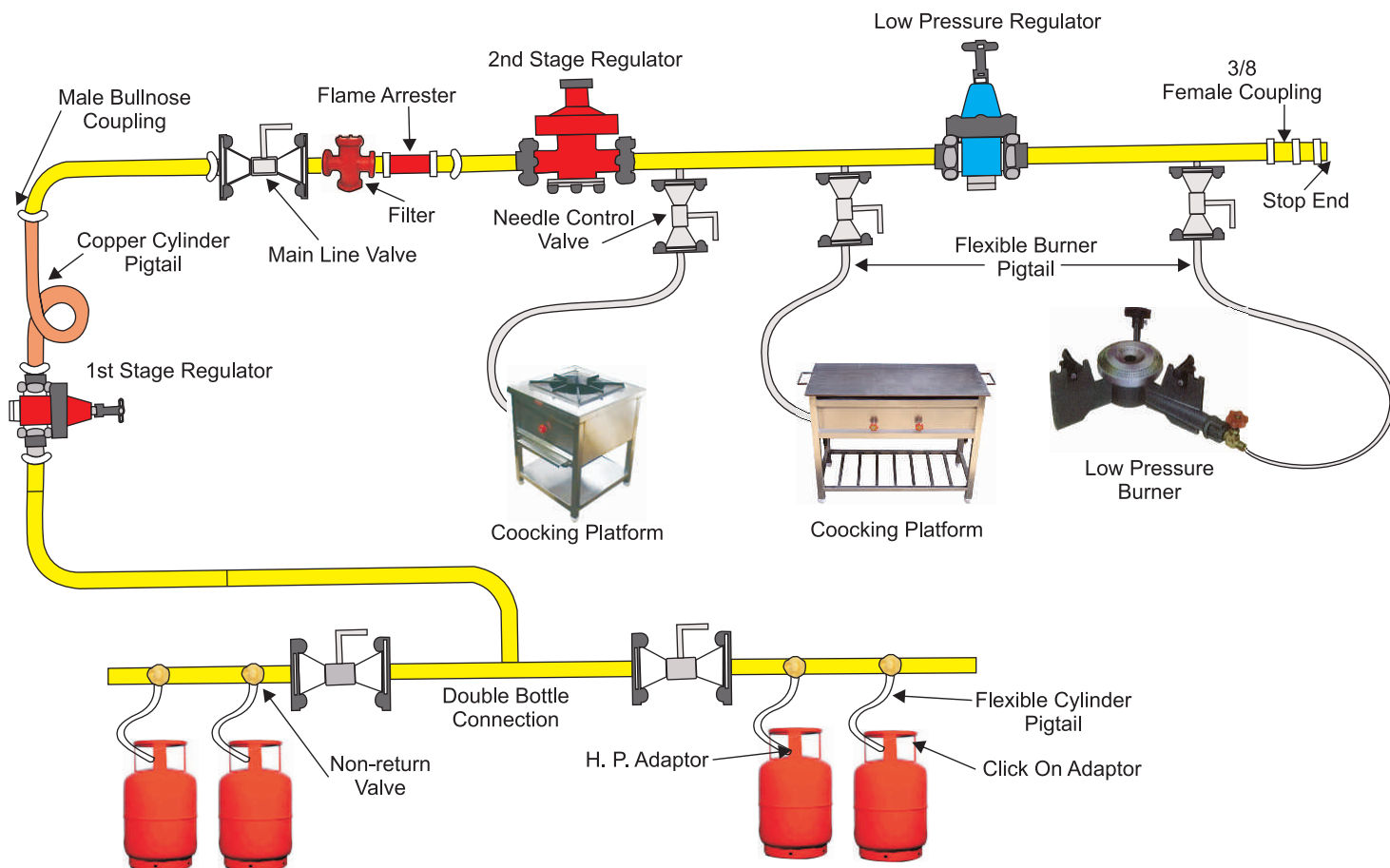


**Schematic Diagram To Show an Ideal Installation (commercial)**



Shown above is a schematic drawing of an ideal installation as per Indian Standard IS 6044. At the very start S.C.Valve Adapters with inbuilt non-return Valves are used to fit onto the cylinder [note the 2 side screw flow adjustment device is illegal as it is not an adaptor & ruins cylinder Valves]. The adaptor is linked to the manifold by means of a reinforced flexible cylinder pigtail. Manifolds come in either staggered or standard formation to suit the space available where the cylinders are stored. At all points in time cylinders whether empty or full must be connected to the system. This is why manifolds are sold in sets of 2 arms, 1 online & 1 in reserve. After the 2 manifolds are connected a primary stage regulator must be used to reduce the pressure in the line ahead to a maximum of 2kgs/cm<sup>2</sup> [or 30psi]. Choosing a regulator is important as the flow requirement of the entire system must not exceed what regulator can deliver. Outside the cylinder storage site and in each room in which gas is used an emergency valve has to be provided. It is good practice to use second stage regulator in each room so the pressure stability can be maintained to the burners downstream of the second stage regulators. Finally, even though an appliance might have it's own controls, each tapping point, from where gas is being drawn, must be terminated in a needle control valve on the line prior to it's connection with the burner or appliance. By following these few rules together with others laid down in the Indian Standard IS 6044 a safe installation can be assured.

While carrying out commercial and industrial installations it is very necessary to install excellent quality of safety products – Regulators, Governors, Flashback Arrestors, Filters, Slam Shut off Valves and Excess Flow Check Valves. An ideal installation will be complete in all respects provided most points mentioned in IS 6044 Part-I -2000 , IS 6044 Part-II – 2001 and other British Standards Pertaining to,

- A] Safety in installation and use of gas systems and appliances**
- B] Industrial and commercial gas installation practice**