

DOMELOADING

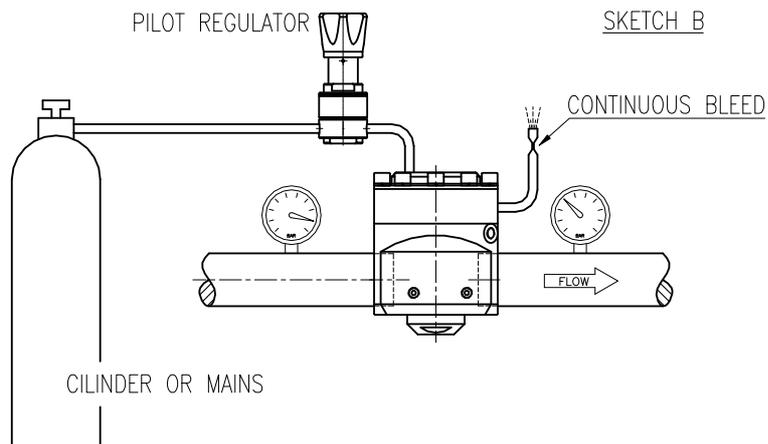
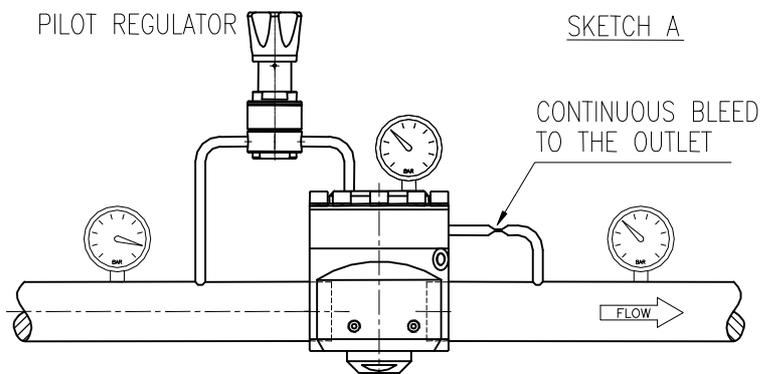
A dome loaded pressure regulator is a gas-controlled device.

The ratio between the pressure in the dome chamber and the outlet pressure is approx. 1:1.

One can control the pressure in the dome chamber in several manners.

MANUAL LOADING

1. Manual loading can be done by taking the gas pressure from the system and feeding this through a pilot regulator into the dome. As shown in sketch A.
2. In liquid systems the gas pressure for manual dome loading can be taken from a cylinder, as shown in sketch B.



The pilot regulator should be a self-relieving-type for optimum performance.

ELECTRONICAL LOADING

This is the more accurate method.

Substituting the spring loaded pilot regulator for a proportional control valve allows you to control pressure electronically.

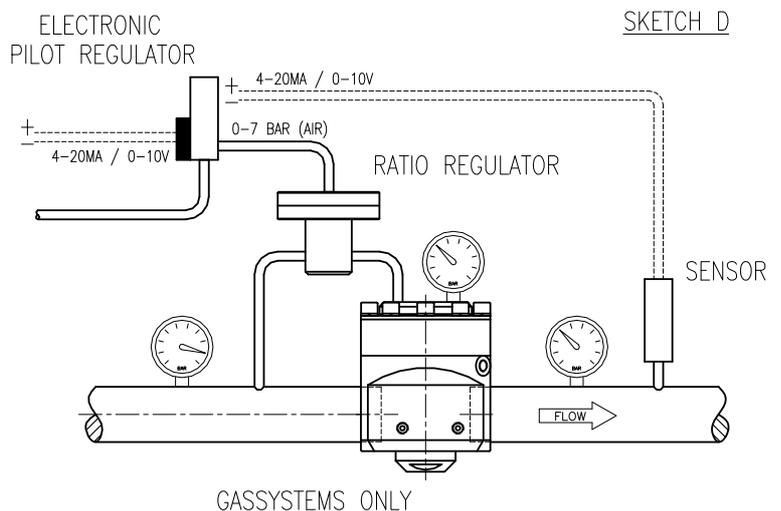
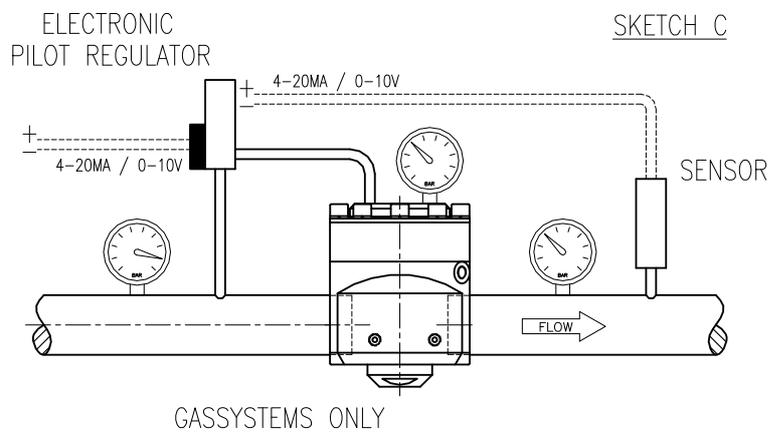
Sketch C shows a medium pressure system (35 bar max.).

Sketch D shows the high pressure systems, which uses a ratio regulator as interface.

The best results will be achieved by allowing a small flow to pass through the pilot regulator.

This flow can either be vented or, in gas systems, fed through an orifice into the downstream piping.

This is referred to as dynamic loading.



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