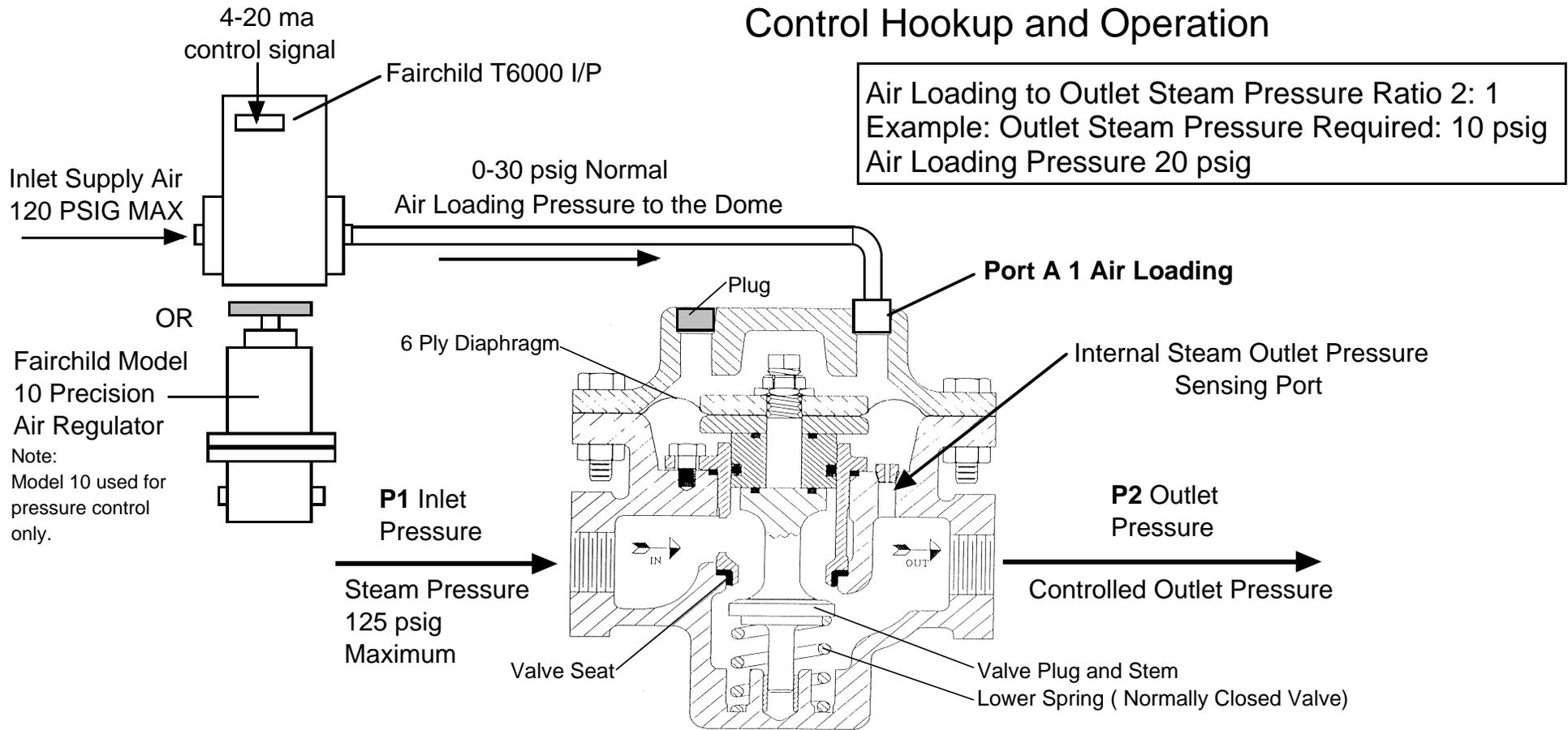


PT Series Air Loaded Pilot Regulating Valve Pressure Control / DA Pressure /Temperature Control Hookup and Operation



The Thermaflo PT Series Regulating Control Valve is a single seated balanced trim steam control valve that utilizes an air loading external pilot to precisely control outlet steam pressure to a process. The unique balanced trim and the single seated design enables the Thermaflo PT valve to control the outlet set pressure over wide varying steam loads. As steam at a high pressure (125 psig Max) enters the inlet port at P1 the valve is normally closed. With no air loading pressure on Port A1 there is no steam flow to the outlet. As the air loading pressure is then applied from the Fairchild I/P Loading pilot or the Model 10 to the top diaphragm, the PT valve plug moves from its seat against the lower valve spring. Steam then flows through the valve into the outlet piping.

The air loading to steam outlet controlled pressure ratio is approx 2 psig air loading pressure to 1 psig outlet steam pressure. As the steam pressure begins to increase in the outlet piping, this pressure flows up the internal sensing port under the diaphragm. This action moves the valve plug proportionally upward closing the valve and regulating the outlet pressure against the air loading pressure. As steam is consumed in the process the outlet steam pressure will start to decrease. As this happens the pressure under the valve diaphragm decreases and the valve opens proportionally holding the outlet steam set pressure. Simply; if you require more pressure or temperature increase the air loading pressure slightly until the desired point is reached, and vice versa. This hookup can be used to control low differential applications down to 3 psig.