How a Pressure Regulator Works

Pressure regulators limit* the inlet water pressure to a constant outlet pressure necessary to ensure that your emitter is performing properly. Water enters the inlet and passes around a fixed seat into an area known as the throttling stem, a cylinder which is attached to a larger diaphragm near the outlet. A spring surrounds the throttling stem, holding the flow area open while water pressure on the diaphragm acts to close it. The two forces balance in the end, with the outlet (regulated) pressure being determined by the spring’s compressive strength. Pressure regulators of this kind will only function when the water is flowing.

*Pressure regulators will NOT increase the pressure in your drip irrigation system!