A Pulsation Dampener is a device used to reduce or eliminate pressure and flow modulations in a piping system which are produced by reciprocating pumps or compressors. Pressure waves or pulses result during the compression of process gas where suction and discharge valves are only open for part of the compression cycle. The frequency and intensity of these pulses vary with compressor configuration based on the number and size of compression cylinders, compressor speed and gas properties.

Pulsation attenuating devices may identified by several different names:
- Pulsation Dampener
- Surge Tank
- Surge Bottle
- Surge Drum
- Volume Bottle
- Snubber

Regardless of the name, through the use of proprietary engineering software, TM Filtration can provide Pulsation Dampeners based on API 618 design guidelines for pulsation control. Pulsation dampeners can be supplied in a variety of designs from simple volume bottles which do not have internal baffling to complex multi chamber vessels with communicating choke tubes. In addition to proper pulsation suppression sizing, internal components must be designed to keep pressure drop through the dampener to a minimum.

**Pulsation Bottle Design Information**
- API Standard 618
- Designed and manufactured in accordance with ASME Section VIII, Division I
- Designed for low pressure drop
- Vertical or horizontal orientation
- Variable internal configurations
Typical Pulsation Dampener with single choke tube design

Multi Chamber Pulsation Dampener with dual choke tube configuration