

Pulse Dampeners

Reduce Pulsation and Maintain Constant Pressure

Reduce Baseline Noise Produce Better Chromatography

Constant-displacement reciprocating pumps have intervals in their pumping cycle when fluid flow and system pressure momentarily decrease. This "off time" is the interval when the piston has finished its solvent-delivery stroke and is starting to refill. To maintain constant flow, such pumps require a pulse compensator, or dampener, that stores energy during the pump's delivery stroke and returns an appropriate amount of work to the fluid during the pump's off time.

Pulse dampeners smooth flow pulsations and help maintain a constant system pressure. The dampener reduces pulsations by compressing a fluid held within a chamber contained in the unit. This fluid is isolated from the mobile phase by a durable, but flexible, inert diaphragm. As system pressure increases during the pump delivery stroke, fluid in the chamber is compressed. When the pump begins its refill stroke, the compressed fluid expands, keeping the mobile phase flowing at a near-constant rate and maintaining system pressure.

Mini-Pulse Pulse Dampener

The Mini-Pulse Pulse Dampener offers high efficiency pulse dampening in a compact (2.0" diameter x 1.4" high) package. Low dead volume (160 uL at atmospheric pressure) helps reduce overall system volume. The Mini-Pulse Pulse Dampener is available with either stainless steel or PEEK fluid path for compatibility with any application.



Mini-Pulse Pulse Dampener Performance Specifications

Operating Pressure.....0 – 5,000 psi (PEEK), 0 – 6,000 psi (Stainless Steel)
Pulsation Damping.....3:1 reduction in pulsation
(dependent on pump characteristics and system volume and pressure)
Fluid Path Volume.....160 uL (atmospheric pressure)
+ 62 uL (per 1,000 psi system pressure)
Wetted Materials.....316 SS or PEEK; PTFE
Physical.....2.0" diameter x 1.4" high, 0.9 lb

Ordering Information

Description	Part No.
Stainless Steel	25238
PEEK	25239

