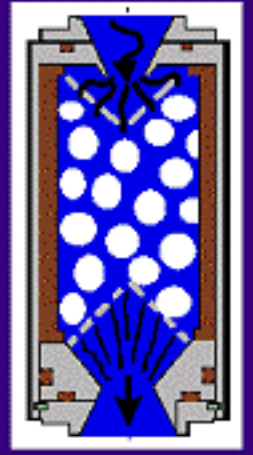


The **WAVEGUARD** range of 3 types by **PulseGuard** Ltd & Inc

Guard against pressure waves

Guard against pulsation

3 variants of Pressure Pulsation Dampener with no moving parts, no foam to clog or degrade. Designed to address Pressure Pulsation, (not flow fluctuations) with high frequency pumping systems. 1. WAG-Cer. w/Ceramics 2. WAG-HO Orifice tech. 3. WAG-MT. Liquid Compressibility



Wag-P2.bmp

1 Always use 5 D1 bends between pump & damper

The differential area from valve seat diameter to the pump chamber, to the outer seat diameter to the system, causes the check valve not to open until up to a 60% pressure differential. The release of these 60% over pressure spikes into the system produces high frequency pressure pulsation.

Type 1 in clean systems "WAG-Cer"
 Type 2 in systems that can tolerate some pressure drop "WAG-HO".
 Type 3 - they are much larger - for liquids that are not clean "WAG-Mt"

A gradual transition from system connection to orifice diameter at a 7 Degree * taper ensures that it does not bounce the pressure pulsation back into the system.

"WAG-HO" **WAVEGUARD** Multi Chamber Schematic

2 tries to compress some almost totally trapped liquid, to a very high pressure. The decompression escapes back through the gear tolerance gap, makes a pressure spike.

The answer to, high pressure medium high frequency, low volumetric pulsation, for systems without suspended solids.

The source of the disturbance

The very last point, at the end of the port slot, as the vane sweeps over it, a high pressure "blip" occurs.

The answer, to high frequency low volumetric pulsation, for clean liquids.

WAVEGUARD Ball path Dispenser

1 By causing the pressure waves to travel down many paths of different length, the time base of a transient peak is spread, and so its height is removed.

ALL LIQUIDS ARE COMPRESSIBLE

The compressibility of the liquid and the amount of entrained gas, can be made to work to your advantage.

When installed in a gravity draining orientation, these WAG-Mt. dampers may be used on particulate contaminated systems. The diameter of the sphere to the diameter of the inlet and outlet connections is a vital ratio for the pulse reduction coefficient.

The parts of a litre volume change per bar pressure change, is an essential "compressibility" figure used in "WAG-Mt" selection.

WAVEGUARD WAG-Mt Volume Sphere

3

The volume of slightly compressible liquid kill the pulsation

