An Anatomy of Pulsation

p. 28 Specifying - by system characteristics

p. 29 System Mass Acceleration Head Pulsation.

p. 30 Adding the piping Flow Friction Pulsation.

p. 31 Adding for system Compressibility, loss of "overlap", pulsation.

p. 31 bottom Adding for "Velocity Jump" transients.

p. 32 Checking total pulsation against allowable level for the system piping.

For further information, please review www. pulseguard.com

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Methods for addressing pulsation

True Pulsation Damping.

p. 33 Data required for selection by building a model to address system response pressure pulsation.

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p. 34 top Finding the volume of one pulse and the 1st exciting frequency.

Superficial Pulse Damping.

p. 34 bottom Applying pump type "F" factor and pulse volume found, to flow stabiliser size selection.

p. 35 Checking system smoothness requirement, according to system instrument, and other, needs.

Corrective action, intercepting pressure pulsation, with dampers selected for flow smoothing.

p. 36 Minimising residual pulsation by proper installation of your damper choice.

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NOTE

p1 thru p27 Omitted because if you wish to make the selection, you do not need them, they show the dozen pump types on page p28 opposite, with dampers from a. Elastomer, b. Flexflon, & c. No moving parts, in many sizes and several pressures for each, preselected on the basis of pages 28 through 36.

The assumptions for preselection were: 1. There are typical system uses that are ideal for each pump type, these systems have norms for smooth flow and pressure .
2. The relationship between the viscosities that a given pump type is designed to handle is reflected in the connection size, chosen by flow rate, provided on a specific design.
3. Specific pump types have typical drive speeds and pressure capability.

Hence from flow rate, drive speed, pressure, and connection size, preselected dampers are tabulated by connection size on p1 - p27.