

HOW SMOOTH DO YOU NEED YOUR SYSTEM TO BE ?

Generally accepted levels of residual fluctuation percentage allowed, to protect against the average level of the problems listed .

PlsGd-p4.bmp

COARSE DAMPENING

STOP PUMP PARTS DAMAGE
 GEAR TOOTH WEAR, CHATTER, AND FRACTURE.
 DRIVE BELT SLIP, BURN-OUT, AND BREAK-UP
 CROSS-HEAD, ROD, AND YOKE DEFLECTION
KEEP PRESSURE VARIATION LESS THAN 12% [go here](#)
 PmpPtsDm.bmp

STOP WEEPAGE
 RELIEF VALVE WEEPING
 SURGES CAUSING PREMATURE LIFT
 FATIGUE CRACKING OF BURST DISKS
KEEP PRESSURE VARIATION LESS THAN 9% [go here](#)
 RVBDweep.bmp

STOP GAUGE DAMAGE
 BEFORE GUAGES DON'T READ PULSATION AFTER
 Springy Bourdon Tube , Rack & Pinnion
 wag at their own natural frequency,
 WITHOUT VIBRATIONS YOU READ
 AVERAGE STEADY STATE PRESSURE
KEEP PRESSURE VARIATION LESS THAN 6% [go here](#)
 GageDang.bmp

INCOMPLETE ATOMIZATION
 BEFORE Stop Globlets, Drops & Squirts AFTER
 - when you want a fine spray -
 Depending on viscosity and nozzle design
KEEP PRESSURE VARIATION LESS THAN 5% [go here](#)
 Atomize.bmp

MEDIUM DAMPENING

IMPROVE STATIC MIXING
 BEFORE Pulsed in Un-mixed out AFTER
 Pulseless in Mixed out
KEEP PRESSURE VARIATION LESS THAN 4% [go here](#)
 StatMix.bmp

MAKE SET FREQUENCY MAG. METERS USEABLE
 Kg./Sec. 4.0 3.0 2.0 1.0
 0.5 Sec. 0.5 Sec. 0.5 Sec.
 Sample at Any Frequency
 1.72Kg./S. 1.74Kg./S.
 2 Hz. [go here](#)
 BEFORE AFTER
KEEP FLOW FLUCTUATION LESS THAN 3%
 MagMetr.bmp

STOP PADDLE WHEEL METER SURGING
 BEFORE Erratic Jerks AFTER Constant Rotation
KEEP PRESSURE VARIATION LESS THAN 2% [go here](#)
 PadlWheI.bmp

TURBINE SCREW METER "RATCHETING"
 KICK FROM PULSE STARTS THE SPIN
 WEIGHT OF SCREW BLADES & SHAFT
 KEEPS IT SPINNING, NEXT KICK GIVES
 OVERSPEED OR STOPS IT,
SOON YOU HAVE NO ACCURACY
STAY LESS THAN 1.5% [go here](#)
 DEPENDING ON VISCOSITY
 TurbMetr.bmp

FINE DAMPENING

CORIOLIS Loop tube 90 Hz or Straight tube 900 Hz
 Hit a multiple or divisor of, or that frequency
 AND THE TUBES SWING WINDLY
 They can register 100 Kilos /sec.
 When you have only 5
Stabilize to LESS THAN 1.0% [go here](#)
 The more the swing the more mass flow is indicated
 Coriolis.bmp

NO NON-SENSE VORTEX SHEDDING
 BEFORE 294.71 VORTEXES, ARE MINUTE LOW PRESSURE ZONES
 AND ARE CREATED AT A RATE
 RELATIVE TO FLOW VELOCITY
 AFTER 75.5
 WITHOUT PRESSURE PULSATION
 "VOTREX SHEDDING" METERS WORK
GO LESS THAN 0.75 % [go here](#)
 VortShed.bmp

DELTA P. METER A SHARP EDGED ORIFICE & A DIFFERENTIAL PRESSURE GAUGE
 BEFORE AFTER
 0,05 Bar 0,75 PSI
KEEP PULSES LESS THAN 1 PSI 0,07 Bar
 DPmeter.bmp

Pipe Shake, Fatigue, Weld Cracking, & Over Stress Unions, Flanges, & Fittings

The level of allowable pressure pulsation, depends on three factors : 1. Diameter of pipe. 2. Operating Pressure. 3. Pulse Frequency. [go here](#)

A Nomogram - or " 3 axis Graph " - to help you specify allowable residual pressure fluctuation has been included in "Size Calculations"

For further assistance please call toll free : **PULSEGUARD** Europe UK phone 08080-LO-PRICE, Fax 0800-174-088
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