

# Water Hammer Alleviator. Pump Startup Surge Preventor. Pipe Shock Attenuator RFQ

Form for submitting your application requirement to reduce pipe shock, water hammer, and pump startup surge, to receive a quotation for hardware from:

[www.shockguard.co.uk](http://www.shockguard.co.uk) & [shock-guard.com](http://shock-guard.com)



**The Large Pipeline Shock Prevention People for 40 years.**

For fastest response, please print this form, fill out hardcopy, and fax to USA 910-270-0320 or international --44(0)161-480-9627

## A. Contact Information

REQUIRED FIELDS ARE DENOTED BY AN ASTERISK \*

Company *	<input type="text"/>	Telephone Number *	<input type="text"/>
Contact Name *	<input type="text"/>	Fax Number *	<input type="text"/>
Position	<input type="text"/>	Email Address	<input type="text"/>

## B. Physical Address

Street / Box Number *	<input type="text"/>	State / Province, Etc. *	<input type="text"/>
Additional Info.	<input type="text"/>	Postal / Zip Code *	<input type="text"/>
Town / City Name *	<input type="text"/>	Country *	<input type="text"/>

## B. Liquid

Viscosity cP (@ Pumping Temp)	<input type="text"/>	Specific Gravity SG (Grams / cm3) *	<input type="text"/>
Flow Rate	<input type="text"/>	Frequency (Hz) Cycles per Second	<input type="text"/>
Operating Pressure	<input type="text"/>	Acoustic Velocity (M/s)	<input type="text"/>
Operating Temperature	<input type="text"/>	Minimum Design Metal Temp. MDMT *	<input type="text"/> F
		Design Temperature *	<input type="text"/> F

## C) System Information

If In Doubt Please Call USA 1-910-270-2737 UK --44(0)161-480-9625

Mass that is in Motion Internal Diameter of Pipe (Or average)

Pipe wall thickness

Length of Pipe Run (From Pump or Main) See X below

Mass Velocity, EX/EG kg/sec

Time (Seconds) for Mass Acceleration or Deceleration (See Y below)

Theoretical Steady State Pressure in motion

\*  Inch

\*  Feet

\*

\*

\*  PSI

## Compatible Materials of Construction

Liquid Wetted Metal Parts

Liquid Wetted Plastic Parts

Liquid Wetted Elastomer

Parts ( Synthetic Rubber )

## Externals

Preferred Outer Housing

Paint or Coating Spec.

## Connectivity

Connection Size

Connection Type

Connection Rating

## Items that reduce the peak pressure generated

And accordingly the size and cost of your alleviator / attenuator /  
/ hammer reducer / Stabilizer / Absorber / Protector :-

Elasticity of the pipe wall - Pipe Modulus (Pascals -Pa)

With Pipe Wall Thickness

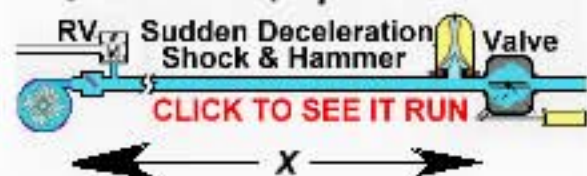
Pressure loss (drop) form cP & SG ( listed above)

Compressibility of the fluid (EX Water 50e10<sup>-6</sup>)

APPLICATION TYPE Please State 1, 2, or 3 (or 4 = Other) \*

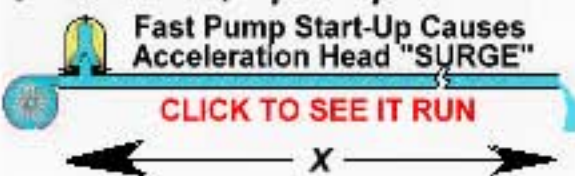
### 1) Fast Valve Closure Shock

Y Seconds, open to closed.

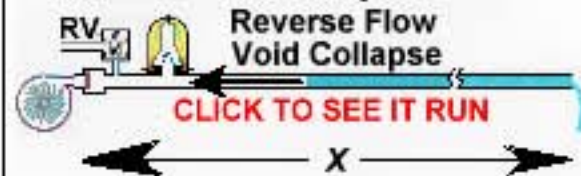


### 2) Pump Start-Up Surge

Y Seconds, Spin Up to Full RPM



### 3) Pump Stop, Back-Flow Implosion



## D) Absorber Preference

For:- Type of Pump Start-up Surge Reducers, Water Hammer stabilizers, Valve Closure Shock Alleviators

 Liquid in Bladder Designation : <b>SUG</b>	 Liquid outside Bladder <b>JOF</b>	 Float in Pipe <b>FLOT</b>	 Liquid in SS Bellows <b>BELO</b>
For Corrosive Liquids <b>CLICK TO RUN</b>	For Non-Corrosive Liquids <b>CLICK TO RUN</b>	For Above 2000 Liter Bladder Types <b>CLICK TO RUN</b>	For High and Low Temperature Systems <b>CLICK TO RUN</b>

Please enter the type designation for your choice of system protector.

Sign

Date

E) OBJECTIVE Reduce the maximum pressure generated to : \*