



<b>1. PARAMETERS OF YOUR SYSTEM LIQUID.</b>		
(a) density of the liquid:		grams/cc
(b) compressibility of the liquid and any absorbed gas:		litres/bar
(c) effective vapour pressure at pump inlet temperature:		°C
<b>2. PARAMETERS OF THE PIPE SYSTEM</b>		
<b>(I) Supply to the suction of the pump.</b>		
(a) expected theoretical steady state suction pressure:		BarA
(b) length of pipe from supply to suction acceleration head loss preventer inlet:		meters
(c) inside diameter of pipe from supply to preventer inlet:		mm
(d) length of pipe from preventer to pump suction inlet:		meters
(e) inside diameter of pipe from preventer to pump suction inlet:		mm
<b>(II) The pipe from the discharge of the pump, to the end of the system</b>		
(a) discharge pressure against which the pump must deliver:		BarA
(b) length of pipe from pump discharge check valve to discharge acceleration head preventer inlet:		meters
(c) inside diameter of pipe from pump discharge to preventer inlet:		mm
(d) length of pipe from preventer discharge to final resistance:		meters
(e) inside diameter of pipe from preventer discharge to final resistance:		mm
<b>Pump Parameters</b>		
<b>(i) Pumping Mechanism</b>		
(a) connecting rod length:		meters
(b) crankshaft radius - i.e. half the piston stroke:		meters
(c) piston diameter:		meters
(d) effective dead volume of pump chamber:		litres
(e) number of strokes of one displacer per minute:		
<b>(ii) Suction Check Valves</b>		
(a) valve seat diameter:		mm
(b) valve stroke:		mm
(c) valve mass, plus half the weight of one valve spring:		Kg
(d) starting resistance to compression of spring:		Kg
(e) spring rate:		Kg/mm
<b>(iii) Discharge Check Valves</b>		
(a) valve seat diameter:		mm
(b) valve stroke:		mm
(c) valve mass, plus half the weight of one valve spring:		Kg
(d) starting resistance to compression of spring:		Kg
(e) spring rate:		Kg/mm
<b>ADDITIONAL INFORMATION: REQUIREMENTS FOR THE MATERIALS OF CONSTRUCTION:</b>		
A. Metal:	B. Membrane/Seal Material	CUSTOMER:
C. Liquid(s) Description:		CUSTOMER REF.:
D. Operating/Design Temperature: F.		ENGINEER NAME:
E. Specified Design Pressure: M.D.M.T.:		POSITION:
G. Connection Type, Size & Rating: Suction:		QUANTITY:
Discharge:		Q No.:
H. Any other Information that you believe may be relevant:		ISSUED BY:
		CHECKED BY:
		ISSUE DATE: (DAY/MONTH/YEAR)

**LIQUID DYNAMICS International Ltd & INC.**  
 Pay for run time  
**TECHNICAL SERVICES.**  
 Call 001-(1)910-270-2737 & --44(0)161-442-6222  
 Your contacts M D Charles or M. Packer  
 CE Marks by 0040 N.B. - SS0210435  
 ISO 9001 Certification 95-LON-AQ-458

TITLE: **PULSEVIEW SOFTWARE**  
 Use frequency response for mechanical vibration analysis  
 APPLICATION: To comply with ASME VIII UG22  
**DETERMINE THE LEVEL OF SYSTEM RESPONSE PRESSURE PULSATION FROM THE FORCING EXCITATION OF A RECIPROCATING PUMP PLUS DAMPER.**

FILE REF: PV-WR D01.VLM/15-MAR-00  
 SCALE: NA ALL DIMENSIONS ARE MM EXCEPT AS STATED.  
 REF. NO.  
 SHEET: 1 OF 1 REV. 0