

Please complete the information below with thorough responses. Once all punch list items have been received we will run the analysis and provide recommendations/solutions for your system.

PPC CUSTOMER INFORMATION

Company: _____
 Contact Name: _____ Phone: _____
 Email: _____
 PO #: _____ Project #: _____

EQUIPMENT USER DATA

User: _____
 Location/Installation: _____
 Project: _____

1. PUMP GENERAL INFORMATION

Unit Tag Number: _____
 Manufacturer: _____
 Pump Type: _____

ex: positive displ, centrifugal, diaphragm

- Check:
- Direct Acting
 - Double Acting
 - Plunger
 - Power Pump
 - Single Acting
 - Piston

Phasing of Plungers: _____

Number of Plungers/Pistons _____

Plunger/Piston Diameter: _____ in. mm

Stroke Length: _____ in. mm

Connecting Rod Length _____ in. mm

Frame (Rod) Load Rating: _____ lbs. N

Displacement per RPM - 100% V. E. : _____ gal. M³

MAWP for Plunger/Piston Size: _____ PSIG kg/cm³G BarG

Max RV (internal) Press. For Plunger/Piston Size: _____ PSIG kg/cm³G BarG

C/D Ratio: _____ (Swept volume = (((2*2)*3,14)*6)+305,309 = 380,708 cm3)

Crank/Rod Ratio: _____

One Cylinder's Unswept Volume: _____ in.³ cm³

Suction Valve Cracking Pressure: _____ PSI kg/cm² Bar

Suction Valve Lift: _____ in. mm

Suction Valve Seat Net Flow Area: _____ in.² cm²

Discharge Valve Cracking Pressure: _____ PSI kg/cm³G Bar

Discharge Valve Lift: _____ in. mm

Discharge Valve Seat Net Flow Area: _____ in.² cm²

2. PUMP PERFORMANCE INFORMATION

Driver Speed/Power Rating: _____ RPM HP kW
 Speed Ratio: _____ :1
 Pump Speed: _____ Variable Fixed
 Speed Range _____ RPM
 Volumetric Efficiency: _____ %
 Mechanical Efficiency: _____ %
 Pump Power Rating for Application: _____ kW
 NPSHr _____ PSIA kg/cm³A Bar A
 Min. Disch. Press./Min. Capacity: _____ BHP
 Norm. Disch. Press./Normal Capacity: _____ BHP
 Max. Disch. Press/Max Capacity: _____ BHP
 Relief Valve Press/Max Capacity: _____ BHP

3. OPERATING CONDITIONS INFORMATION

Service: _____
 Liquid Pumped: _____
 Capacity: Min. _____ GPM M³/Hr
 Norm. _____ GPM M³/Hr
 Max _____ GPM M³/Hr
 Suction Pressure: Min. _____ PSI kg/cm³G BarG
 Norm. _____ PSI kg/cm³G BarG
 Max. _____ PSI kg/cm³G BarG
 Discharge Pressure: Min. _____ PSI kg/cm³G BarG
 Norm. _____ PSI kg/cm³G BarG
 Max _____ PSI kg/cm³G BarG
 Relief Valve Set Pressure: Min. _____ PSI kg/cm³G BarG
 Pumping Temperature: Min. _____ °F °C
 Norm. _____ °F °C
 Max. _____ °F °C
 Speed of Sound of Liquid: _____ fpm m/s
 Viscosity: _____ Cp
 Specific Gravity: _____
 Density: _____
 Bulk Modulus: _____
 Vapor Pressure: _____ PSIA kg/cm³A BarA
 NPSH_A _____

4. DRAWINGS/OTHER INFORMATION NEEDED

Please prepare and submit the following list of drawings using Autocad 2000, stp, or PDF format, as applicable to PPC via email at sales@performancepulsation.com or Fax: 972-699-8602. **NOTE:** All drawings will be required prior to PPC beginning the Design Analysis.

- General Arrangement
- Fluid End Crossectional Drawing(s)
- Suction Manifold Drawing
- Discharge Manifold Drawing
- Piping and Instrumentation Drawings
- Process Flow Diagrams
- Piping Isometric Drawings

Pulsation Equipment Drawings/Specs

Existing gas charged device

volume/pressure (*if applicable*) _____ In³ _____ PSIA

- Dimensions and internal details for existing vessel and pulsation suppression devices.

Multiple Pumps

If two or more pumps are connected to the same piping system, describe how they will operate, i.e. - what is the primary and secondary operational condition, 1 pump on with back up, all pumps running, or intermittent and variable pumps operating at different times? **NOTE:** Multiple pump operating scenarios may require additional scope and cost.

Fluid Routings (Normally opened or closed)

If different fluid routing present, describe the relative position of valves for each route.

Non-Standard Components

Please prepare and submit drawings using Autocad 2000, stp, or PDF format, as applicable to PPC via email at sales@performancepulsation.com or Fax: 972-699-8602. **NOTE:** All drawings will be required prior to PPC being able to begin the Design Analysis.

- Items other than standard gate, globe or plug valves
- Strainers- provide product data sheet
- Heat exchangers - show internals for accurate modeling
- Other - provide drawing and details

Support Types

Please prepare and submit drawings using Autocad 2000, stp, or PDF format, as applicable to PPC via email at sales@performancepulsation.com or Fax: 972-699-8602. **NOTE:** All drawings will be required prior to PPC being able to begin the Design Analysis.

- If DA-3 mechanical study is included, the distance between the supports and the type of clamp or support at each location must be shown on the piping drawing. A drawing of each type support is required.

5. FLUID COMPOSITION DATA

| Element Contained | % by Volume |
|-------------------|-------------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

ACOUSTIC ANALYSIS DATA CHECKLIST

Please complete the following punch list prior to submitting content for review. Incomplete information will result in delay of analysis work and may also result in additional charges. Unless agreed to in writing, a model will not be started until receipt of all punch list items.

- Customer Information
- Equipment User Data
- Pump General Information
- Pump Performance Information
- Operating Conditions Information
- Drawings/Other Information
- Fluid Composition Data

Email your completed form to
ppcengineering@performancepulsation.com
or Fax to 972-699-8602