Liquid Chemical Filtration Assembly Questionnaire

1) Contact
   a. Name _____
   b. Company _____
   c. Location _____
   d. Email _____
   e. Phone _____
   f. Are you the contact for approval drawings? Y N
      (If not, please provide approval drawing contact.)

2) General
   a. Name of the project _____
   b. Plant name and location _____
   c. What is the timing of this project?
      i. Approval
      ii. Award/ordering
      iii. Required delivery on site
      iv. Installation
      v. Startup

   d. What does the budgeting approval process entail? Do you have approval already?

3) Process

a. Fluid information

i. Name and chemical name of fluid

ii. Viscosity

iii. Density

b. Application

i. name of the process _____

ii. Brief description of process _____

c. Purpose of filtration

i. What equipment is being protected?

ii. What fluid purity standard is required?

iii. What issues/problems might you have if the fluid were not filtered properly?

d. Will you assess fluid cleanliness? If so, how, and by what standards?

e. Is this a batch or continuous process?

f. If it is batch

i. what is the size of batch

ii. frequency of batch

g. Contaminants and Dirt Load

i. types of contaminants

ii. particle sizes, weights, concentrations etc.

h. Describe your current experience (equipment, problems, improvements desired, likes and dislikes):

i. What are your process flow rates?

Min_____ Max _____ Average _____

j. What future capacity (flow) changes do you anticipate?

k. Pressures

i. Minimum?

ii. Maximum?

iii. Normal Operating?

iv. Design?

l. Max. allowable pressure drop? Clean: _____ Dirty: _____

m. Temperatures

i. Minimum?

ii. Maximum?

iii. Operating?

iv. Design?

n. Please provide a process schematic. What is upstream and downstream of the filter stage? (Attach if necessary.)

4) Filter

a. What Micron rating do you need?

b. Why have you selected this micron rating?

c. What % efficiency do you require?

d. What type of end fitting do you prefer (DOE, SOE with 222 O-ring, etc.)?

e. What are your preferred filter materials?

f. What type of seal materials do you need?

5) Filter Housings

a. What is the line (pipe) size?

b. What type of connections (inlet/outlet)?

c. What materials do you require? What materials are you using on piping and other equipment?

d. What certifications or standards are required (e.g., ASME)?

e. What seal material is required? What seals are you using elsewhere in the process?

f. What is the location of the housing (indoor, outdoor, etc.) ?

g. Are there any space/ergonomic/height limits?

h. Legs?

i. What type of flow pattern is needed? Can you provide a rough sketch?

j. Are approval drawings required?

k. List other housing requirements

i. closure requirements (e.g., swing bolts): _____
ii. Davit
iii. lifting lugs
iv. gage ports
v. vents
vi. drains
vii. other

6) What are other important requirements or considerations? Please add any sketches or explanations that would be helpful.

The above information is accurate to the best of my knowledge and can be relied upon to provide a quotation and filter assembly recommendation.

Signature Date