

BI QUENCH MANAGEMENT PROPOSAL QUESTIONNAIRE

9/19/2009

The purpose of this questionnaire is to obtain information which will lead to the best possible design, engineering, and construction of industrial heating equipment.

THE CUSTOMER Company			Date		
Address					
City		State	Zip		Country
Name			Title		
Phone		Fax		e-mail	
Equipment to be located at					

- | | | |
|------------------------------------------------------|----------------------------------|-------|
| <input type="checkbox"/> Firm Detailed Proposal | Date Proposal Required | _____ |
| <input type="checkbox"/> Budgetary Planning Proposal | Anticipated Purchase Date | _____ |
| <input type="checkbox"/> Technical Recommendation | Anticipated Delivery Requirement | _____ |
- Copies Required: 1 2 3 4

2. THE APPLICATION

- A. General Type of Process: Batch Continuous
- B. Heat Process:
- | | | |
|--------------------------------------------|---------------------------------------------|------------------------------------|
| <input type="checkbox"/> Drawing | <input type="checkbox"/> Normalizing | <input type="checkbox"/> Forging |
| <input type="checkbox"/> Tempering | <input type="checkbox"/> Hardening | <input type="checkbox"/> Sintering |
| <input type="checkbox"/> Stress Relieving | <input type="checkbox"/> Carburizing | <input type="checkbox"/> Other _ |
| <input type="checkbox"/> Solution Treating | <input type="checkbox"/> Carbon Restoration | <input type="checkbox"/> |
| <input type="checkbox"/> Aging | <input type="checkbox"/> Carbonitriding | <input type="checkbox"/> |
| <input type="checkbox"/> Annealing | <input type="checkbox"/> Brazing | <input type="checkbox"/> |
- C. Fluid
- | | |
|--------------------------------------------|-----------------------------------------|
| <input type="checkbox"/> PAG | <input type="checkbox"/> Variable conc. |
| <input type="checkbox"/> Salt Contaminants | <input type="checkbox"/> |
| <input type="checkbox"/> Aquous degreasing | <input type="checkbox"/> |
| <input type="checkbox"/> Fixed conc. | |

(Include customer's specifications if available.)

3. Bath size

If there is a variety of parts or pieces to be run in the same furnace, please supply answers to the questions for EACH individual part. The QMS must be designed to process all the parts.

A. Material (SAE steel, brass, aluminum, etc.)

B. Part Description

C. Part Weight

D. Part Size

G. Make sketch of part or furnish a print - THIS IS IMPORTANT!

H. Are parts free from burrs, protrusions, flashing, etc. that might interfere with free and uniform handling of the parts? Yes No

IMPORTANT One (1) part or piece must be used to size and rate the QMS system. Other parts run in the furnace will give more or less production depending upon their size, shape, and weight. Pick this part and give its size, shape, weight, loading per square foot, and heat profile. Include specific time in quench, temperature or other requirements.

SKETCH:

F. Does the customer have a preferred type or size of tanks? If so, sketch and describe fully with dimensions (L, W, H).

Supplied by: BI Customer

Volume and type of tanks _____

G. Is cooling going to be part of the system? Yes No

5. THE SEPARATION CYCLE

A. Select and describe the method of separation the customer desire.

1.

RO Automatic H/S Manual H/S Biocide injection Yes No

2. Condition of parts on quench entry: Clean Scale

7. INSTRUMENTATION AND ELECTRICAL

A. Concentration control only

B. Concentration control and record

C. Variable concentration control

D.

E. Manufacturer preference (specify model[s] for control and record:

F. Electrical: Standard Customer's (if checked, supply specs)

Relay logic PLC logic

8. FACILITIES (Space limitations, if any)

Floor Space _____ x _____ Height _____ Access Door _____ W x _____ H

Check Services Available 460 volts, 3, 60 230 volts, 3, 60

Natural gas at _____ Btu/cu ft at _____ psi _____ Plant air at _____ psi

Cooling water at _____ °F maximum Steam at _____ °F _____ psi

9. NON-STANDARD OPTIONS OR SPECIAL REQUIREMENTS

Are there any special components?

- Refractive index monitor
-
-
-

Other _____
