BI QUENCH MANAGEMENT PROPOSAL QUESTIONAIRE

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			

☐ Firm Detailed Proposal — Date Proposal Required _____

☐ Budgetary Planning Proposal — Anticipated Purchase Date _____

☐ Technical Recommendation — Anticipated Delivery Requirement _____

Copies Required: 1 ☐2 ☐ 3 ☐ 4 ☐

2. THE APPLICATION

A. General Type of Process: ☐ Batch ☐ Continuous

B. Heat Process:

☐ Drawing
☐ Tempering
☐ Stress Relieving
☐ Solution Treating
☐ Aging
☐ Annealing
☐ Normalizing
☐ Hardening
☐ Carburizing
☐ Carbon Restoration
☐ Carbonitriding
☐ Brazing
☐ Forging
☐ Sintering
☐ Other _
☐
☐
☐

C. Fluid

☐ PAG
☐ Salt Contaminants
☐ Aquous degreasing
☐ Fixed conc.
☐ Variable 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 goeing 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 _____

_____