



## MELTING AND HOLDING FURNACE QUESTIONNAIRE

D-003A

*Questionnaires are available for:*

Tilting Rotary Furnaces

Melting and Holding Furnaces

Aluminium Siphoning Systems

Cremators & Incinerators

Heating Furnace/Oven/Kiln

To determine scope and preliminary specification for a MAJOR MELTING AND HOLDING FURNACE and ancillary equipment. It should be completed as fully as possible or left with client for completion.

COMPANY NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

POSTCODE: \_\_\_\_\_

Contact (1): \_\_\_\_\_

Position/Title: \_\_\_\_\_

Contact (2): \_\_\_\_\_

Position/Title: \_\_\_\_\_

TELEPHONE NO: \_\_\_\_\_

FAX NO: \_\_\_\_\_

EMAIL: \_\_\_\_\_

ADDRESS OF PROPOSED FURNACE LOCATION: \_\_\_\_\_

### NATURE OF ENQUIRY\*

FEASIBILITY STUDY?

YES

NO

HAVE FUNDS BEEN APPROVED?

YES

NO

WILL "ORDER OF MAGNITUDE" PRICING SUFFICE?

YES

NO

OR BUDGET PRICE?

YES

NO

FORMAL QUOTATION?

YES

NO

EQUIPMENT ESTIMATED PRICE RANGE BY CLIENT (Tick Closest) (✓)\*

\$50,000

( )

\$250,000 to \$500,000

( )

\$50,000 to \$100,000

( )

\$500,000 to \$1,000,000

( )

\$100,000 to \$250,000

( )

> \$1,000,000

( )

WHAT IS "DRIVING" THE ENQUIRY (i.e. CAPACITY, QUALITY, SAFETY, EMISSIONS, ETC)\*?

COMMENTS ON PROJECT PROGRAMME & COMMISSIONING DATE\* \_\_\_\_\_

### PRODUCT

Product/Metal(s) to be melted? \_\_\_\_\_

Composition \_\_\_\_\_



COMPOSITION:	<u>Part Weight (Kg)</u>	<u>Dimensions (mm)</u>
Minimum	_____	_____
Average or Reference	_____	_____
Maximum	_____	_____
PROCESS DESCRIPTION: (eg, Melting, Holding, Scrap Reclamation, etc)		
DESCRIBE PROCESS: _____		
Separate Melting and Holding Chambers required: _____		
<u>THROUGHPUT:</u>	Kg per hr _____	or Kg per Batch _____
	Hrs per Day _____	Batches per day _____
	Shifts per week _____	_____
CYCLE DESCRIPTION		
Eg.	Loading Time _____	minutes
	Heat from _____ °C	to _____ °C in _____ minutes
	Heat from _____ °C	to _____ °C in _____ minutes
	Unload all or part of charge _____	in _____ minutes
Time/Temperature Profile if appropriate should be attached.		
TEMPERATURE UNIFORMITY TOLERANCE: +/- _____ °C		
PREFERRED FURNACE TYPE: _____		
Reference Installations if appropriate, i.e. similar to _____		
<u>FORM OF HEATING</u>	:	Natural Gas / LPG / Oil / Other: _____
AVERAGE FUEL PRICE*	:	_____
SPECIFICATION, i.e. Heating Value (Oil/Gas) _____		
Supply Pressure (Oil/Gas)	:	_____
Voltage	:	_____
Hz	:	_____
Amps	:	_____
KVA	:	_____
HEAT RECOVERY EQUIPMENT COSTING REQUESTED _____		
	YES	<input type="checkbox"/>
	NO	<input type="checkbox"/>
What is simple pay back period to justify heat recovery equipment? _____ Years		
What is actual energy cost per year on existing equipment (if applicable)? \$ _____		



**CONTROLLED ATMOSPHERE REQUIREMENTS (If Applicable):**

Type of Atmosphere	:	_____		
Already Existing	:	_____		
To be quoted by Major	:	_____	YE <input type="checkbox"/>	NO <input type="checkbox"/>
			S <input type="checkbox"/>	
To be supplied by Others	:	_____	YE <input type="checkbox"/>	NO <input type="checkbox"/>
			S <input type="checkbox"/>	
Flow Rates:	Peak	:	_____	Nm <sup>3</sup> /Hr
	Average	:	_____	Nm <sup>3</sup> /Hr
	Minimum	:	_____	Nm <sup>3</sup> /Hr

**OTHER DETAILS:** \_\_\_\_\_

**FURNACE CONTROL SYSTEM & INSTRUMENTATION DESIRED:**

<u>Examples</u>	<u>Preferred Make</u>	<u>Model</u>
Indicating Temperature Controller	_____	_____
PLC	_____	_____
Touchscreen	_____	_____
Chart Recorder & No. of Points	_____	_____
Other	_____	_____

**LOCATION:** (Do Special Conditions apply to Site, e.g. Flame Proof?) \_\_\_\_\_

**REFRACTORIES:** (Particular Requirements or Site Specifications?) \_\_\_\_\_

**FURNACE HARDWARE** (If Applicable): (e.g. Loading System, Baskets, Jigs, Stands, etc. Please specify if to be included in scope & describe.)

**MECHANICAL HANDLING - ENTRY & EXIT:** (e.g. Conveyors, Feeders, Chutes, Elevators, Robotics, etc).

**SPACE / SIZE LIMITATIONS:** (If Applicable include Sketch, Dimensions, Drawings)

**AIR EMISSION LIMITATIONS** (If Applicable):



OTHER PROJECT REQUIREMENTS:

MAJOR OFFER A CONSULTANCY SERVICE FOR FURNACES AND RELATED PLANT FOR:

- |                                       |   |                          |
|---------------------------------------|---|--------------------------|
| Conceptual or Detailed Design         | - | New Plant                |
|                                       | - | Plant Refurbishment      |
|                                       | - | Plant Retrofitting       |
| Feasibility Studies / Recommendations | - | Process Options          |
|                                       | - | Energy Conservation      |
|                                       | - | Productivity Improvement |
|                                       | - | Fuel Conversion          |
| Project Management                    |   |                          |
| Turnkey Operations, etc.              |   |                          |

SPECIFY INTEREST: \_\_\_\_\_


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