



## HEATING FURNACE/OVEN/KILN QUESTIONNAIRE

D-003C

*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 HEATING 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\* \_\_\_\_\_



<b>PRODUCT</b> Product(s) to be heated? _____	
<b>COMPOSITION:</b>	<u>Part Weight (Kg)</u> _____
	<u>Dimensions (mm)</u> _____
Minimum	_____
Average or Reference	_____
Maximum	_____
<b>PROCESS DESCRIPTION:</b> (eg, Hardening, Tempering, Annealing, Normalizing, Carburising, Preheating, Brazing, Calcining, Drying, Enameling, Curing, Homogenizing, etc). _____	
<b>DESCRIBE PROCESS:</b> _____	
Surface Condition before Heating: _____	
(If applicable) required After Heating: _____	
<b>THROUGHPUT:</b>	Kg per hr _____ or Kg per Batch _____
	Hrs per Day _____ Batches per day _____
	Shifts per week _____
<b>CYCLE DESCRIPTION</b>	
Eg,	Heat from _____ °C to _____ °C in _____ minutes
	Soak from _____ °C for _____ minutes
	Cool 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.	
<b>TEMPERATURE UNIFORMITY TOLERANCE:</b> +/- _____ °C	
<b>COOLING REQUIREMENT</b> (If Applicable):	In Furnace YES <input type="checkbox"/> NO <input type="checkbox"/>
	Under Controlled Atmosphere YES <input type="checkbox"/> NO <input type="checkbox"/>
	In Ambient Air YES <input type="checkbox"/> NO <input type="checkbox"/>
	With Forced Draft YES <input type="checkbox"/> NO <input type="checkbox"/>
	Is Quote to cover Forced Draft YES <input type="checkbox"/> NO <input type="checkbox"/>
<b>QUENCH REQUIREMENT (If Applicable):</b> Type of Quench _____	
	Is Quote to include Quench Tank YES <input type="checkbox"/> NO <input type="checkbox"/>
	Dimensions of Quench Tank _____ mm
	Temperature of Quench _____ °C
	Recirculation Rate _____
<b>PREFERRED FURNACE TYPE:</b> _____	
Reference Installations if appropriate, i.e. similar to _____	
_____	
_____	



<b>FORM OF HEATING</b>	:	Natural Gas / LPG / Oil / Other:	_____
<b>AVERAGE FUEL PRICE*</b>	:		_____
<b>SPECIFICATION, i.e. Heating Value (Oil/Gas)</b>			_____
Supply Pressure (Oil/Gas)			_____
Voltage			_____
Hz			_____
Amps			_____
KVA			_____
<b>HEAT RECOVERY EQUIPMENT COSTING REQUESTED</b>		YE <input type="checkbox"/>	NO <input type="checkbox"/>
		S <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)?			_____ \$
<b>CONTROLLED ATMOSPHERE REQUIREMENTS (If Applicable):</b>			
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
<b>OTHER DETAILS: (Include: Surface Hardness, Case Depth (if applicable):</b> _____			
<b>FURNACE CONTROL SYSTEM &amp; INSTRUMENTATION DESIRED:</b>			
<u>Examples</u>		<u>Preferred Make</u>	<u>Model</u>
Indicating Temperature Controller		_____	_____
PLC		_____	_____
Touchscreen		_____	_____
Chart Recorder & No. of Points		_____	_____
Other		_____	_____
<b>LOCATION: (Do Special Conditions apply to Site, e.g. Flame Proof?</b> _____			
<b>REFRACTORIES: (Particular Requirements or Site Specifications?)</b> _____			
<b>FURNACE HARDWARE (If Applicable): (e.g. Baskets, Jigs, Stands, etc. Please specify if to be included in scope &amp; describe)</b>			
_____			
_____			

