



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* _____



<u>PRODUCT</u>		
Product(s) to be heated? _____		
COMPOSITION:		
	<u>Part Weight (Kg)</u>	<u>Dimensions (mm)</u>
Minimum	_____	_____
Average or Reference	_____	_____
Maximum	_____	_____
PROCESS DESCRIPTION: (eg, Hardening, Tempering, Annealing, Normalizing, Carburising, Preheating, Brazing, Calcining, Drying, Enameling, Curing, Homogenizing, etc).		
DESCRIBE PROCESS: _____		
Surface Condition before Heating: _____		
(If applicable) required After Heating: _____		
<u>THROUGHPUT:</u>	Kg per hr _____	or Kg per Batch _____
	Hrs per Day _____	Batches per day _____
	Shifts per week _____	_____
CYCLE DESCRIPTION		
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.		
TEMPERATURE UNIFORMITY TOLERANCE: +/- _____ °C		
COOLING REQUIREMENT (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"/>
QUENCH REQUIREMENT (If Applicable): 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	_____
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 _____		YE <input type="checkbox"/> S <input type="checkbox"/>
What is simple pay back period to justify heat recovery equipment? _____		NO <input type="checkbox"/> 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		_____
To be supplied by Others		_____
		YE <input type="checkbox"/> S <input type="checkbox"/>
		NO <input type="checkbox"/> NO <input type="checkbox"/>
Flow Rates:	Peak	: _____ Nm ³ /Hr
	Average	: _____ Nm ³ /Hr
	Minimum	: _____ Nm ³ /Hr
OTHER DETAILS: (Include: Surface Hardness, Case Depth (if applicable): _____)		
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. 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: _____

Please Return To:

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