GH Induction Atmospheres LLC

Currency: **$**

Carry Over: **0.00**

Description	Quantity	UoM	Price	Total
VF-25 Induction Crucible Heating System Item Code: 308-xxxx	**1**		**0.00**	

VF-25 Induction Crucible Heating System
Crucible: Graphite, Moly, Platinum, Zirconia, Moly-tungsten, Ta or Ta-W

Includes but is not limited to:

- High vacuum diffusion or turbo pumped system - Customer to choose pumping system desired
- Hot Zone Size of 3.5" ID x 6" Tall
- Double walled Stainless Steel Chamber
- Max temperature: 1700 C
- Vacuum: 10 to the minus 5 Torr
- Closed Crucible Capacity
- Electrically isolated, glass stirrer capacity
- Ability to lower and raise stirrer
- Ability to add sand at a controlled rate, manually
- Bottom load furnace
- Rack for holding customer crucible
- Thermocouple temperature controlled includes control temperature / Pyrometer configured in recipe
- PLC System control with 8" touch screen user interface
- Programmable temperature control built into PLC
- Digital vacuum sensors - thermocouple, ion gauge, capacitance
- Isolated 20kW Induction Power Supply
- Vacuum feedthru for placing sand in Hot Zone
- Mass flow controller for 0.5 - 5.0 LPM
- Vacuum throttle control valve
- Pumping system for cooling water
- View port
- Foot Print: TBD
- Single utility hook up
- Utility Requirements:
  - Electrical: 480 VAC, 3 phase, 50/60 Hz, 60 Amp
  - Water: Clean (i.e. from Chiller) 40 psi differential, 20 gpm flow, 65-85 F, 5 ton heat load
  - Water: From Tower - 40 psi differential, 30 gpm flow, 12 ton heat load, 50-77 F (temp range process dependant)
  - Compressed Air: 80 psi
  - Inert Gas: Argon, 30 psi, 300 CFM (total usage 5 cubic feet/ cycle) dew point < -30 F

Carry Over: **0.00**

GH GROUP INDUCTION ATMOSPHERES

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GH Induction Atmospheres LLC

Currency: **$**

Carry Over: **0.00**

Description	Quantity	UoM	Price	Total
Installation at customer's facility Item Code: INSTALL	1		0.00	

Installation at customer's facility for up to 3 days. Includes training on system operation and maintenance and travel and living . Customer responsible for utility hook-ups and equipment location. Additional days will be billed at $1250 per day

TOTAL PRICE Item Code: TotalSystem	1		212,840.00	212,840.00

TOTAL SYSTEM PRICE

Crating of customer's system Item Code: Crating_	1		600.00	600.00

Crating of customer's system

Shipping to customer's dock Item Code: SHIP _ OUT	1		2,200.00	2,200.00

Shipping to customer's dock

OWENS ILLINOIS REQUESTED OPTIONS

Carry Over: **215,640.00**

35 Industrial Park Circle, Rochester NY

Phone: 585-368-2120
Fax: 585-368-2123
E-Mail: info@inductionatmospheres.com
Website: www.inductionatmospheres.com

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Currency: **$**

Carry Over: **215,640.00**

Description	Quantity	UoM	Price	Total
Electronic Data Recorder Item Code: 021-1136-A	1		4,965.00	4,965.00

Electronic Data RecorderDIN format, 5.5 TFT colour screen, 8 Universal analog inputs, 2 Configurable Digital inputs, 90 - 240 VAC

Additional Mass Flow Regulator Item Code: Misc Parts_	1		4,250.00	4,250.00
Rapid Cool Blower Item Code: Misc Parts_	1		18,120.00	18,120.00

Rapid Cool, closed loop gas cooling with blower.

Servo Motor Item Code: Misc Parts_	1		3,950.00	3,950.00

Servo motor with current feedback for strain measurement; Shear Monitoring

Camera-Monitor Item Code: Misc Parts_	1		14,250.00	14,250.00

Camera system with mointor.

Carry Over: **261,175.00**

GH Induction Atmospheres LLC

Currency: $

Carry Over: **261,175.00**

Description	Quantity	UoM	Price	Total
Manual Valve	1		625.00	625.00
Item Code: Misc Parts_				

Manual valve and port for gas sample on foreline, CUSTOMER TO SUPPLY HOLDING TANK.

Increase HOT ZONE	1		24,550.00	24,550.00
Item Code: Misc Parts_				

Increase HOT ZONE will accomodate and pour glass from crucible sizes 2.75" dia. x 5.91" high, 3" dia. x 5" high, 6" dia. x 4.2" high; REQUIRES 60 kW POWER SUPPLY

SIC Coating	1		8,800.00	8,800.00
Item Code: Misc Parts_				

SIC coating of graphite HOT ZONE based on CO plus CO2 at 1500-1700 C.

Glass pouring mechanism	1		20,000.00	20,000.00
Item Code: Misc Parts_				

Carry Over: **315,150.00**

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GH Induction Atmospheres LLC

Currency: **$**

Carry Over: **315,150.00**

Description	Quantity	UoM	Price	Total
Chiller, 37 kW, (10 ton)	**1**		**16,298.00**	**16,298.00**
Item Code: 052-2520-A				

Chiller, 37 kW, (10 ton) Heat Removal:
132,000 BTU/hr @ 50-95 degrees F ambient, 65 degrees F Leaving Fluid Temp.
Flow Rate:
40 gpm @ 45 psi (60 Hz)
Air cooled,horizontal; and vertical air discharge
Input:
460 VAC, 60 Hz, 3 Phase
59" L,36" W, 66" H
48 gallon reservoir
approx. shipping weight 800 lbs.

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NOTES	**1**		**0.00**
Item Code: Notes-			

NOTES:
#1-Port quantity based on chamber top layout.

All Proposals are in accordance with GH Induction Atmospheres' Terms and Conditions. They may be found at: http://www.inductionatmospheres.com/terms/equipment_terms.html. Unless otherwise specified, all items are EXW Rochester, NY USA. Crating, freight charges, any taxes, duties, fees or other similar taxes are the responsibility of the customer and will be added to the order total. Proposal is valid for 60 days. Leadtimes and prices are subject to adjustment and vendor availablity. Final payment is due at final run off or 45 days after receipt on dock, which ever occurs first.

Quotation Subtotal:	**$ 331,448.00**
Payment Term **Net 30**	**Total Amount:** **$ 331,448.00**

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