



**RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:**

**Bid Receiving Box/Boîte de Réception des
Soumissions**

1st Floor/1^{ère} étage, Suite 1212

100-1045 Main Street

Moncton

New Brunswick

E1C 1H1

Bid Fax: (506) 851-6759

**SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address

**Raison sociale et adresse du
fournisseur/de l'entrepreneur**

Issuing Office - Bureau de distribution

Acquisitions NB/PEI (Moncton Office) – Bureau

d'acquisitions N.-B./Î.-P.-É. (Moncton)

1045 Main Street / 1045, rue Main

Moncton

New Bruns

E1C 1H1

Title - Sujet Heating Plant Upgrade - Renous, NB	
Solicitation No. - N° de l'invitation EC016-202691/A	Amendment No. - N° modif. 004
Client Reference No. - N° de référence du client EC016-202691	Date 2020-11-03
GETS Reference No. - N° de référence de SEAG PW-\$PWJ-005-5772	
File No. - N° de dossier PWJ-9-42059 (005)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM Atlantic Daylight Saving Time ADT on - le 2020-11-10 Heure Avancée de l'Atlantique HAA	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Lomax (PWJ), Sandra	Buyer Id - Id de l'acheteur pwj005
Telephone No. - N° de téléphone (506) 639-8503 ()	FAX No. - N° de FAX (506) 851-6759
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

Cette modification de l'invitation numéro 2 est soumise et comprend la modification numéro 4 suivante.

La modification qui suit apportée aux documents de soumission entre en vigueur dès maintenant. L'addenda fera partie des documents de contrat.

Toutes autres conditions ne changent pas.

Modification numéro 4

PROLONGATION

Veuillez prendre avis que la date limite de réception des soumissions dû le 5 novembre 2020 est reportée à **14h00 le 10 novembre 2020**

Question et Response

Q1. Requesting approval of an alternate boiler manufacturer for this job. Attached Vapor Power Int. Hi-R-Temp brochure and model spec sheet for reference.

R1. Confirmed

Q2. Regarding Ref 23 07 15 Section 3.5.7 Insulation thicknesses are not listed nor are they available from TIAC code

R2. following section is added to the specification:

Spec 23 07 15 Thermal Insulation of Piping

3.7 PIPING INSULATION SCHEDULES

- .1 Includes valves, valve bonnets, strainers, flanges and fittings unless otherwise specified.
- .2 TIAC Code: A-1.
 - .1 Seals: lap seal adhesive, lagging adhesive.
 - .2 Installation: TIAC Code 1501-H.
- .3 TIAC Code: A-3.
 - .1 Seals: VR lap seal adhesive, VR lagging adhesive.
 - .2 Installation: TIAC Code: 1501-C.
- .4 TIAC Code: A-6.
 - .1 Seals: lap seal adhesive, lagging adhesive.
- .5 TIAC Code: C-2 with vapor retarder jacket.
 - .1 Seals: lap seal adhesive, lagging adhesive.
 - .2 Installation: TIAC Code: 1501-C.
- .6 TIAC Code: A-2.
 - .1 Seals: lap seal adhesive, lagging adhesive.
 - .2 Installation: TIAC Code: 1501-H.
- .7 Thickness of insulation as listed in following table.
 - .1 Run-outs to individual units and equipment not exceeding 4000 mm long.
 - .2 Do not insulate exposed run outs to plumbing fixtures, chrome plated piping.

Application Temp °C	TIAC Code	Pipe Size (mm) NPS & Insulation Thickness				
		To 1	1 ¼ to 2	2 ½ to 4	5 to 6	8 & over
Heating 4-13	A-3	25	25	25	25	25
Heating below 4	A-3	25	38	38	38	38

.8 Finishes:

- .1 Exposed indoors: PVC jacket.
- .2 Exposed in mechanical rooms: PVC jacket.
- .3 Concealed, indoors: canvas on valves, fittings. No further finish.
- .4 Use vapor retarder jacket on TIAC code A-3 insulation compatible with insulation.
- .5 Outdoors: water-proof SS jacket.
- .6 Finish attachments: SS bands, at 150 mm on center. Seals: closed.
- .7 Installation: to appropriate TIAC code CRF/1 through CPF/5.

Hi-R-Temp[®] *Packaged Hot Water Boilers*

SPECIFICATIONS

5,000,000 BTU/HR

DESIGN DETAILS

General Information

Type of Boiler	Coiled Tube
Model Series	5937
Rated Capacity	5,000,000 Btu/hr
Water Capacity	47 gal
Construction Codes	ASME, Hartford, National Board
Boiler Shell Insulation	Mineral Wool Insulation
Approx. Shipping Weight	7,800 lbs

Pressure & Temperature

<u>Pressure</u>	<u>Temperature</u>
Up to 4000 psi	Up to 750° F

Controls

Low Combustion Air Switch, Flame Safeguard Control, Low Water Flow Switch, Coil Temperature Limit Switch, Automatic Time Delay Cooling Cycle, etc.

Burner

Manufacturer	Vapor Power
Fuel	Natural Gas, No. 2 Fuel Oil, or Combination
Type (gas)	Multiple Orifice Nozzle
Type (oil)	Air Atomized

Fuel Specifications:

Oil (No. 2)	141,000 Btu/U.S. gal
Gas	1000 Btu/cu ft
Main Burner	2 psig
Pilot Burner	6" W.C.

Atomizing Air Requirements:

Oil (No. 2)	9 scfm @ 20 psig
Gas	None required

Ignition Type:

Oil & Gas	Electric spark - interrupted gas pilot
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Power Requirements

Main Power	230/460/575 VAC, 3 Ph, 60 Hz
Control Power	120 VAC, 1 Ph, 60Hz
HP required by blower	5 HP

Overall Dimensions

L x W x H	91" x 78" x 84"
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Performance Data

Fuel Consumption @ Rated Output

Gas	6,250 scfh
Oil (No. 2)	43.9 gal/hr

Turndown Ratios:

Oil & Gas	8 to 1
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Combustion and Ventilating Air Required:

Oil & Gas	1,346 scfm
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Customer Connections

Stack Outlet	16"	O.D.
Water Inlet	3"	Flange
Water Outlet	4"	Flange
Main Gas Supply	2 1/2"	NPT
Pilot Gas Supply	1/2"	NPT
Oil Supply	3/4"	NPT
Oil Return	1/2"	NPT
Atomizing Air	3/8"	NPT
Safety Valve Outlet	1 1/4"	NPT

-Note: varies on application details

VAPOR POWER INTERNATIONAL



THERMAL FLUID
HEATERS



PACKAGED THERMAL FLUID HEATERS

THE HI-R-TEMP® LINE

VAPOR POWER INTERNATIONAL

THERMAL FLUID HEATERS

Forced Circulation Coil Tube Design:

Capacities from: 400,000 to
20,000,000 BTU/HR
Temperatures: Up to 750° F

HI-R-Temp® is a forced circulation type liquid phase heater in which fluid circulates through a set of coils. The pump is sized to optimize motor horsepower and maintain the fluid properties. Combustion fuel and air are controlled in response to fluid outlet temperature. This assures the outlet temperature of the heater is held steady.

The small volume and high fluid velocity allow the HI-R-Temp to respond quickly to changing system output requirements. The compact design makes installation simpler and less costly for new construction and retrofit. Simple, non-proprietary controls and advanced heat exchanger design lead to the most efficient, user friendly heaters available.

For over a century, our company has been serving the needs of a wide range of industries that require process heating. We have earned a reputation as the premier designer and manufacturer of boilers, steam generators and liquid phase heaters used worldwide.

ADVANTAGES

- **RAPID START UP**
From cold start
- **LOW INSTALLATION COSTS**
Only half of the floor space of typical units is required
- **OPTIMAL EFFICIENCY AT ANY LOAD**
Full modulation of air and fuel with cycle time of less than 30 seconds
- **LONG LIFE & MINIMUM MAINTENANCE**
Coils designed for pressure of 1000 psi result in thicker coils for longer life
- **MAXIMUM SAFETY**
All safety features included
- **MINIMUM CYCLING**
Turndown ratios of up to 10 to 1 for handling wide range of loads
- **MINIMUM PREPURGE ENERGY LOSS**
Compact size allows proper prepurge in seconds
- **LOW FUEL REQUIREMENTS**
Air preheating and combustion zone for complete combustion
- **SIMPLIFIED FUEL SWITCHING**
Only a turn of a switch is required, no burner changes needed
- **EASY INSTALLATION**
Skid mounted design includes control panel
- **EASY ACCESS TO BURNERS**
End mounted burner is simple to maintain
- **MINIMAL SOOT POTENTIAL**
Separate combustion chamber prevents coating coils with partially burned fuels
- **COMPLETE LINE**
Fourteen sizes to permit proper selection for any application

APPLICATIONS

- Asphalt Terminals & Processing
- Chemical Processing
- Corrugated & Paper Processing
- Food Processing
- Marine - Barges & Ocean Vessels
- Oil & Gas Processing
- Process Steam & Heat
- Textile Industry
- University & Institutional Facilities
- Waste Water Treatment Facilities

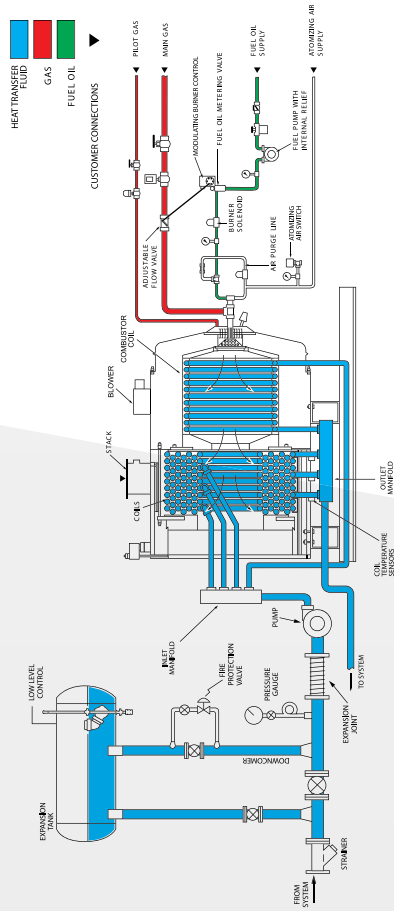
HI-R-TEMP® FLOW DIAGRAM

The HI-R-Temp® is a forced circulation coil type thermal fluid heater in which fluid circulates through a set of coils. More efficient than helical coil type heaters, the HI-R-Temp coils are parallel connected and have a minimum of seven concentric layers.

The pump is sized specific to the flow rate and pressure drop requirements of each application, maintaining the fluid bulk and film temperature properties. Combustion air and fuel are controlled by PID control in response to fluid outlet temperature. The small volume and high fluid velocity allow the HI-R-Temp to respond quickly to changing system output requirements.

Vapor Power heaters can be designed with system accessories that include thermal fluid pump and motor sets, expansion tanks, skid mounted systems, system valves, thermal fluid and more.

The small volume and high fluid velocity allow the HI-R-Temp® to respond quickly to changing system output requirements



Integral Control Panel

A factory wired control panel contains all controls and indicators necessary for the safe operation of the unit. A programmed operating sequence is also incorporated for simplified startup. Available equipment includes linkageless burner controls, touch screen controls interface, variable speed combustion air blower, oxygen trim, remote communication and data acquisition, and more.

Built to Meet Standards

Every unit is built to ASME Standards, Hartford Inspected and National Board registered. CSA, Coast Guard, American Bureau of Shipping, Factory Mutual, Lloyds and other approvals are also available upon request.

Factory Tested

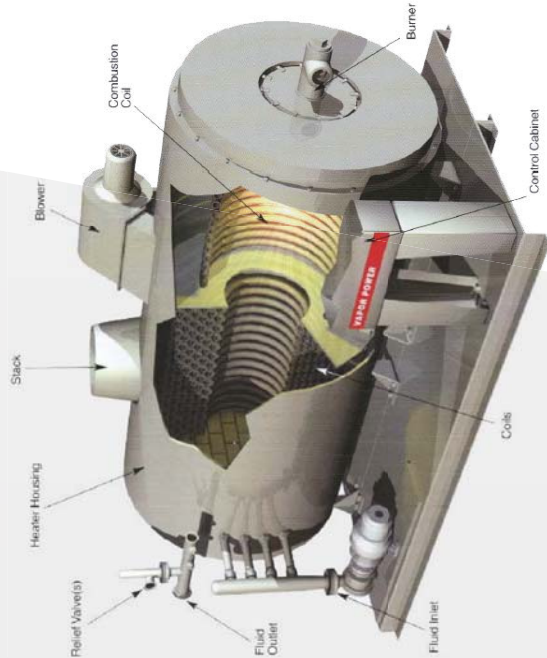
All units are fire tested at the factory, with their individual controls to assure proper operation and to allow for control adjustments which avoid installation delays.

Features

- Marine Design
- Customized Systems
- Fully Modulating Output
- Compact Size & Weight
- High Efficiency



HI-R-TEMP® SPECIFICATIONS



HEATER TYPE: Multiple parallel coil, coil tube type, forced circulation, forced draft fired.

BURNERS: Air atomized burner for #2 fuel oil. Multi-orificed burner for natural gas or LPG. Burners available to meet low NOx and ultra-low NOx regulations.

IGNITION: Electric spark ignited, interrupted gas pilot on most units. Direct electric spark optional on #2 oil units where permitted.

SAFETY CONTROLS: Programmed flame safeguard control with flame detector, stack temperature control, coil temperature control, low flow cut-off control and fluid temperature control.

MARINE DESIGN: A marine version is also available. Please ask for sizing assistance.

ELECTRIC POWER: Main - 230, 460 or 575 VAC, 3 Ph, 60 HZ. Control - 120 VAC, 1 Ph, 60 HZ, factory wired. Special voltages are available on request.

OPTIONAL EQUIPMENT: Annunciator Systems, equipment to meet special codes, and fire extinguishing systems.

DATA AND DIMENSIONS

Model¹	Thermal Capacity Btu/s/hr x1000	Approx. Fuel Consumption		Dimensions Inches			Approx. Shipping Weight lbs	Approx. Fluid Volume²	
		Oil² GPH	Gas³ CFH	L	W	H		U.S. Gal.	IMP Gal.
4234	400	3.6	513	68	30	59	1,800	10	8.3
4238	800	7.2	1,025	89	43	80	2,300	18	15.0
4242	1,500	13.5	1,923	81	50	79	3,000	34	28.3
25	2,500	21.9	3,125	74	78	72	4,900	24	20.0
35	3,300	29.0	4,125	80	78	72	6,500	36	30.0
50	5,000	43.9	6,250	91	78	72	7,800	47	39.2
65	6,600	57.8	8,250	110	88	88 *	12,700	123	102.5
85	8,600	75.3	10,750	110	88	88 *	12,700	123	102.5
100	10,000	87.5	12,500	120	88	88 *	15,600	151	125.8
120	12,000	102.1	15,000	144	103	108	17,900	180	150.0
140	14,000	122.1	17,500	150	103	108	19,000	209	174.2
160	16,000	140.4	20,000	168	103	108	21,000	235	195.8
180	18,000	157.9	22,500	180	103	108	23,000	261	217.5
200	20,000	175.0	25,000	180	119	140	35,000	425	354.2

1. Available with heavy oil combustion systems.
2. Estimated as No.2 fuel oil of 139,000 Btu/s/hr, heat content.
3. Estimated as natural gas of 1000 Btu/cu.ft. heat content.
4. High temperature fluids are petroleum based and require no "water treatment".

* Gas Fired units 108" H

Commissioning & Training
Vapor Power can provide complete commissioning as well as hands-on, or classroom training about the complete operation of your equipment.

Troubleshooting & Diagnostics
Vapor Power offers remote access and monitoring of your equipment.

Parts & Service
Vapor Power stands behind its products with original OEM parts, no matter the age of the equipment. We also offer direct factory training and service on-site.

AFTER MARKET

As one of the industry's leading manufacturers of boilers, packaged steam generators and thermal fluid heaters, Vapor Power International has everything you need to keep your boilers operating in top condition. That includes complete retrofit upgrade kits to outfit your boilers with the latest in controls and components.

- Control Panels
- Flame Safeguard Controls
- Linkageless Controls
- Temperature Controls



VAPOR POWER INTERNATIONAL

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