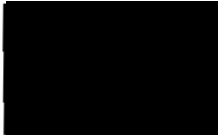
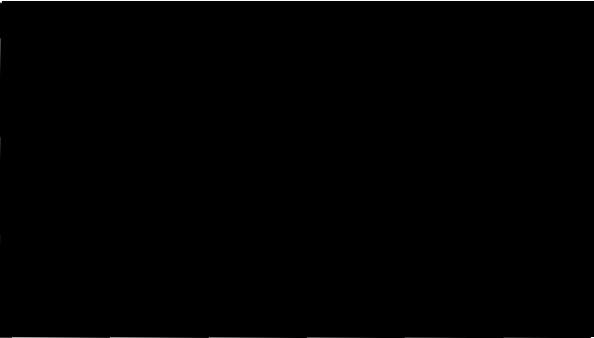




WA # NWINDMI062BE • OR CCB #0096672 • CA #726315 • ID # RCE-17032 • NV # 00062228

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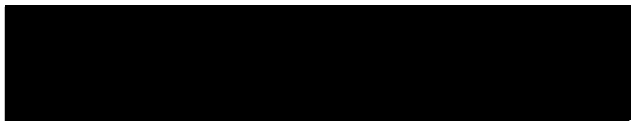


I apologize for the delay with this proposal. Due to some recent information regarding the combination of the 4-pass Johnston boiler and the ST Johnson ultra-low NOx burner. The design of the ultra-low NOx burner operates around 40% to 60% excess air meaning there is a lot of extra volume of exhaust gases that must pass through the economizer, the 4-pass boiler also has a high pressure drop across the vessel. With adding the economizer to the boiler this would increase the pressure drop even more and the concern would be a hindrance to burner performance and capacity. This concern came about on another project that we were proposing. In an effort to not create any undo issues I had Jim Moritz make a trip to your site and close down on the exhaust damper to verify the burner could handle the additional back pressure of the economizer that we currently have in stock. Unfortunately at the time the burner did not react well to the additional back pressure. In the interim we have been working with both ST Johnson and Cain Industries on a solution. The initial thought was to build an economizer with minimum pressure drop so that it does not affect the burner and then to compare it to a new economizer with our typical pressure drop standard. We then sent the three options, the used unit being the third to ST Johnson for an engineering review for a recommendation and several ideas were proposed. The finding was the ST Johnson burner is designed to handle up to 1" w.c. of additional pressure drop over and above the pressure vessel pressure drop. In theory any of the three (3) Cain Industries economizers proposed below should work in your application and the burner would simply need to be re-tuned to overcome the issues caused from the additional pressure drop that would be added to the boiler. Below I have provided three (3) economizer options; used Cain Industries Economizer (In Stock), standard pressure drop economizer and the low pressure drop economizer.

**1.0 (USED) Cain Industries Economizer (PD 0.54" w.c.)**

**1.1 Description:**

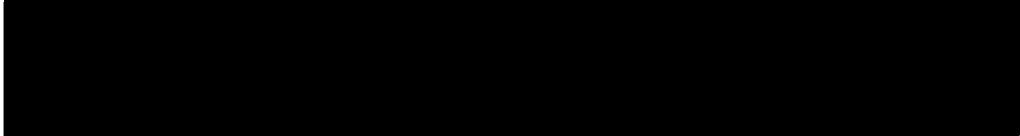
NW Industrial Mechanics, Inc. will supply a (used) Cain Industries model # RTR boiler exhaust economizer and components to recover exhaust heat from the existing 600 HP Johnston Boiler that is firing on natural gas. The heat recovered will be transferred to the boiler's feedwater, thereby increasing the overall efficiency and lowering the fuel demand.



The economizer we originally installed at Multicare Health System (Tacoma General), though the economizer(s) had been installed on the boilers they were ran in by-pass because of concerns the hospital had. The economizer was eventually removed for service and NWIM was able to acquire it. This economizer has several options that Fruitsmart will most likely never use such as the soot blower system. Below I had Cain Industries, run the saving calculations for the economizer based upon your application:



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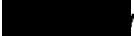
*Please note: Payback is based on Cain Industries economizer's worksheet and the best available information. The more accurate the information the more accurate the payback calculations will be. Please verify all information listed above.*

Note: Unit can be viewed at our shop in Vancouver.

**2.0 SCOPE OF PROJECT**

**2.1 ECONOMIZER INSTALLATION**

NW Industrial Mechanics, Inc. (NWIM) will deliver economizer and will install the used Cain Industries feedwater economizer onto the existing 600 HP Johnston Boiler at your facility in 

Per our conversation,  will provide a structural support for the economizer which will be installed above the roof.

NWIM will remove the stack above the roof line to allow the installation of the economizer. The existing stack and cap will be reused.

NW Industrial Mechanics, Inc. will provide the crane service for the installation of the new economizer. NWIM will set and install the economizer onto the provided structural support. The transition pieces from the round stack to the square economizer inlet and outlet will be installed, a flex joint will also be provide and installed on the inlet side.

The existing boiler feedwater piping will be routed from the boiler through the roof and connected to the new economizer. A 3-valve by-pass around the economizer will be installed for serviceability below the roof line. The economizer will be installed above the boiler room roof. Any roofing and building structural modifications, if required, will be excluded from this proposal.

NW Industrial Mechanics, Inc. will provide a freeze protection system for the economizer by monitoring the economizer temperature with an RTD and actuating a valve to drain the system in the event that the unit is jeopardy of freezing. Manual drains will also be installed.

NW Industrial Mechanics, Inc. will insulate the new feedwater piping installed between the existing system and the economizer. The insulation will be 1-inch thick fiberglass and will be covered with an aluminum jacketing. The insulation is limited to the piping installed or disturbed by NWIM.

The economizer and connecting piping will be installed according to the manufacturers' recommendations and general installation instructions. Installation will meet governing agencies requirements, such as state and local codes, and/or insurance requirements.

NW Industrial Mechanics, Inc. will be hydro test the economizer and feedwater piping after installation. NWIM will also provide system start-up and commissioning of the economizer and the system. A flue gas analysis and boiler tune-up after installation of economizer will be completed for optimum performance of the system.

The existing equipment that is to be re-used in the installation of the economizer is assumed to be in working order and will be the responsibility of the customer to verify condition and reliability.

## **2.2 EQUIPMENT PROVIDED BY NW INDUSTRIAL MECHANICS, INC.**

NW Industrial Mechanics, Inc. will provide the following equipment:

- 2.2a Used Cain Industries economizer model # RTR
- 2.2b Heavy lifting equipment for handling install of economizer.

## **2.3 SERVICES PROVIDED BY NW INDUSTRIAL MECHANICS, INC.**

NW Industrial Mechanics, Inc. will provide the following services:

- 2.3a Deliver used economizer.
- 2.3b Insulation service on feedwater piping installed or disturbed by NWIM.

## **2.4 MATERIALS PROVIDED BY NW INDUSTRIAL MECHANICS, INC.:**

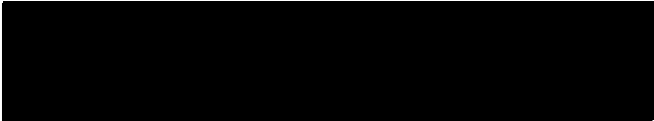
NW Industrial Mechanics, Inc. will provide all necessary pipe, pipe fittings, manual shutoff valves, hangers, and miscellaneous hardware to complete the above scope of project.

- 2.4a Used Cain Industries Feedwater Economizer
- 2.4b Flexcom expansion joint

## **2.5 EQUIPMENT & MATERIALS PROVIDED BY OTHERS:**

The equipment listed below is **not included** within this proposal and will not be the responsibility of NW Industrial Mechanics, Inc. All equipment listed below can be addressed, and NWIM will, if so desired by the customer, provide additional equipment proposals for these items in addition to this proposal.

- 2.5a Not applicable at this time.



**2.6 SERVICES PROVIDED BY OTHERS:**

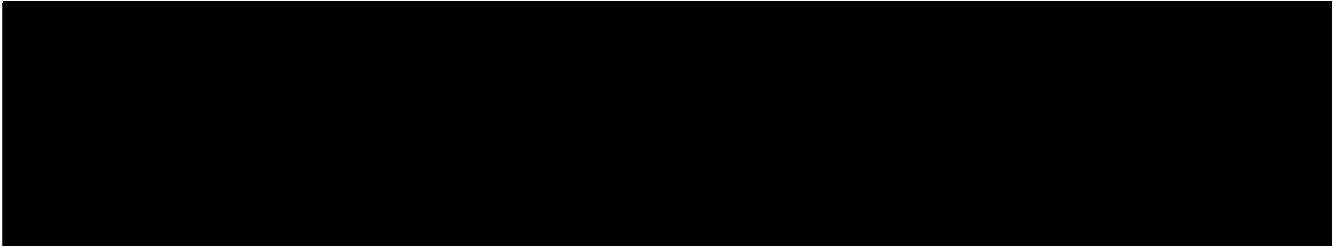
The services listed below are **not included** within this proposal, and will not be the responsibility of NW Industrial Mechanics, Inc. All services listed below can be addressed, and NWIM will, if so desired by the customer, provide labor and/or supervision for these services in addition to this proposal.

- 2.6a Electrical service and connections, if applicable.
- 2.6b Roofing and building structural modifications, if applicable.
- 2.6c Concrete and/or foundation work, if applicable.

**3.0 RESPONSIBILITY:**

NW Industrial Mechanics, Inc. will not be responsible for the following:

- 3.0a Ordering and purchasing of equipment being provided by others.
- 3.0b Delays of project due to late arrival of equipment being provided by others.
- 3.0c Overtime hours incurred due to changes in project completion dates, arrival of late equipment, and additions or changes in original agreement.
- 3.0d Equipment receiving – NWIM will verify quantity and condition of received components. If problems occur, NWIM will inform provider of the situation. The corrections will be the equipment providers responsibility.



**5.0 PROJECT SCHEDULE & DELIVERY**

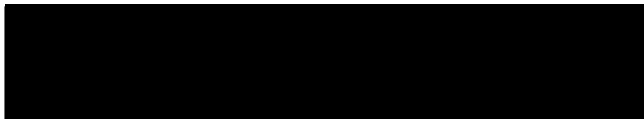
- 5.0a Schedule and delivery will be coordinated upon the receipt of a purchase order from the customer.
- 5.0b Equipment delivery will be given as to the approximate lead-time needed for the manufacturer to produce and ship the product. Lead-time is based upon the manufacturers' estimation and will not be the responsibility of NW Industrial Mechanics, Inc. / Boiler House Sales & Service, NW.
- 5.0c Time slots for projects will not be scheduled until the receipt of a purchase order.

**6.0 PROJECT TERMS OF AGREEMENT:**

NW Industrial Mechanics, Inc. will require a written purchase order or a written acceptance of contract. The following terms will be accepted by the customer through the issuance of a purchase order:

- 6.0a NW Industrial Mechanics, Inc. / Boiler House Sales & Service, NW standard terms and conditions. If a copy was not received with proposal please call office to receive one.
- 6.0b Cain Industries terms of sale. If a copy was not received with proposal please call office to receive one.
- 6.0c 30% down payment prior to the ordering of equipment, materials, and scheduling of project.
- 6.0d Progressive weekly billings for projects that extend beyond (14) working man-days.
- 6.0e Billing terms are net (30) thirty days.
- 6.0f All labor, unless otherwise stated within the proposal is based upon standard weekday rates (Monday – Friday) and times (7:00 am – 4:00 pm).
- 6.0g Overtime / double-time, if requested by customer will be charged in addition to this proposal. Overtime charges will be billed as to the difference between standard rates and the current overtime / double-time rates.

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Note: Please reference the quote number on the purchase order.

Thank you for the opportunity to present this proposal. If any additional information or clarification is needed; please do not hesitate to contact me.

Sincerely,

