Recycling Services International, LLC.

Qualified Reclaiming Furnace Specialists www.recyclingfurnaces.com

Aluminum, Copper, Precious Metal, & Transformer Furnaces

Pollution Control Upgrades and Consultation

December 15, 2009

To whom it may concern:

Recycling Service International, LLC is the leader in the manufacturer of metals reclaiming furnaces. We represent the US Furnace and the United Furnace lines of superior EPA compliant equipment. We have 35 years of experience with processes of this type.

Our equipment has been in service to various aspects of the recycling industry including the precious metals reclaiming industry, recycling centers, Briggs and Stratton, military installations, electrical transformer industry, utility companies, auto salvage companies, automotive core parts companies, re-melt specialty ingot aluminum industry, and many other custom process industries.

We have been advisors to the EPA on the federal level and individual state air quality control agencies for implementation of new regulations. Our inspection and follow up service program was the model used for requirements in the Clean Air Act. Our furnaces have been used as "test furnaces" prior to new regulations being implemented. The federal requirements that are now in place were based off of the operating parameters, afterburner capabilities, and record keeping on one of our furnaces. Needless to say, we have the safest, clean, and efficient operation available in the industry with furnaces of this type.

Our equipment has been installed in industrial areas, next to residential areas, and downtown areas without any adverse consequences. We have equipment operating in California, Canada, and Singapore, all being "Clean and Green" leaders in industry regulation. The operation is quiet, therefore, noise pollution is not an issue. Our equipment utilizes only the latest in technology control devises that provides a very efficient operation.

The potential customer who is presenting this letter has a unique opportunity to provide employment, tax revenue, and a "Green" service to your community. The MAX-4000 Aluminum Sweat Furnace is designed to provide RSI aluminum (remelt sow ingot) back into the new aluminum product stream at the same time providing the steel industry with HMS 1 recycled "clean" steel into the new steel product stream. There is no waste product. Everything that comes out of the furnace is a finished product sent to a mill for final processing. The energy use impact is significantly less using recycled metals when compared to making new metal from mining the ore. About $1/10^{th}$ the energy usage. And the material processed in our furnaces is all obtained locally providing even more energy efficiency as well as more upstream employment opportunities.

Recycling has been around a long time. It has not always been done the right way. Doing it the right way is our business. All those unsightly piles of unprocessed scrap aluminum in existing yards are converted into clean, neatly stacked, ingots. The "clean" steel is stored in roll off containers for future shipment. The dross byproduct is loaded into large cardboard boxes for future shipment. We provide our customers with permit assistance, site planning, process flow charts, product selection training, safety training, semi-annual inspections, control calibration, proper record keeping techniques, and a worldwide network of companies that can use their finished product.

This proposed operation will benefit not only a few, but will have an impact on the local economy, our national manufacturing base, and our export market to other countries. Please feel free to contact us if you have any questions.

Sincerely,

Dave Conway, RSI, LLC.
Member

20 Roosevelt Blvd., Cohoes, New York 12047 e-mail: **rsidave@aol.com**

Phone Service: 800-737-4127 Fax: 518-233-0006 Mobile: 518-424-1168

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January 9, 2011

To Whom It May Concern:

This letter is to certify that the US Furnaces model MAX-4000 is fully compliant with the following:

USEPA 40 CFR 63. 1505. (f) (1)

This sweat furnace integrated afterburner has a minimum retention time of 1.1 seconds and is capable of reaching 2000 deg. F.

Signed,

Dave Conway, RSI, LLC & USF, LLC.
Member

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US Furnaces MAX-4000 Aluminum Sweat Furnace Specifications

Chamber capacity and door openings:

Primary chamber: 4 ft. high, 7 ft. deep, 7 ft. wide with a 4 ft. by 7 ft. door opening.
Holding chamber: 4000 lb. molten aluminum capacity with a full opening door the size of the chamber.

Doors:
Two Hydraulic guillotine doors w/ power unit
Lined with 6" thick refractory, 1" insulation, and 304 stainless anchors
Adjustable door seals

Primary and Holding Chamber (main furnace)
8' 6" wide, 13'6" long, 8' high main structure, 13' high w/ door headers
2- 1 million BTU (1.25 BTU max. output) primary chamber burners
1- 1 million BTU (1.5 BTU max. output) holding chamber burner

Afterburner & Stack
5' high, 60" diameter lower section
3' high, 60" diameter upper section
Special cone shaped top for smother flows (18" high)
1- "T" draft control stack section 4' high
4- 30" diameter by 4' high stack sections
Afterburner mounting stand (4'6" high) with furnace to afterburner transition section
Lower draft control door
Removable access hatch door
1- 1.5 million BTU burner

Primary Furnace Lining Materials (all materials are 2500 deg. or better materials)
10 inch thick brick walls w/ insulation
10 inch thick poured refractory sub-walls (holding chamber sub-walls and floor poured with special non wetting material)
10 inch thick poured refractory floors
6 inch thick removable roof sections (2) w/ insulation and 304 stainless anchors.

Afterburner & Stack Lining Materials:
Insulation and arch bricked lower afterburner section 6 inches thick
3000 degree poured refractory afterburner floor, turning vane, restriction ring, and upper afterburner section
Three inch thick refractory lined stack sections

Burners and Controls
2- Eclipse Ratio Air Medium Velocity Primary Burners 1 million BTU ea. (1.25 BTU max. output ea.)
1- Eclipse Therm Air 1 million BTU Holding Chamber Burner (1.5 million BTU max. output ea.)
1- Eclipse Therm Air 1 million BTU Afterburner (Note: All burners are natural gas or propane)
All burners controlled by 4 to 20 mA output temperature controls with digital readout and solid state drive actuators
Afterburner temperature recorded by data logger with software provided
Automated stack draft controller
Customized control panel with motor starters, relays, timers, flame safety units, fuses, and terminal connections.
Valve trains meeting the latest FM and CSA requirements as in: Dual solenoid valve protection, 1 second shutdown actuator main gas valves with proof of closure, high/low gas pressure switches, and airflow switches.

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Operating Parameters
Afterburner temperature range: 0 to 2200 degrees F. Normal set point at 1650 deg.
Primary temperature range: 0 to 2200 degrees F. Normal set point at 1600 deg.
Holding Chamber temperature range: 0 to 2200 degrees F. Normal set point at 1450 deg.
Average load charging: 1500 lb of scrap (aluminum with 75% steel) every 25 minutes
1500 lb. of scrap (aluminum with 50% steel) every 20 minutes
Note: Material is loaded on a table and pushed into the chamber by use of a ram on a forklift.

Average Output and Costs
Recovery rates are based on a 10 hour run time with the furnace shut down at the end of the shift. Better production rates and reduced fuel costs can be accomplished by running 2- 10 hour shifts which can increase production rates by 25% and reduce fuel costs by 50%.
25% Recovery material (whole transmissions): 1000 lb. (molten aluminum) per hour at a fuel cost of $0.03 (3 cents) per lb.
50% Recovery material: 1350 lb. (molten aluminum) per hour at a fuel cost of $0.025 (2.5 cents) per lb.
Average total cost to run the furnace with operator, forklift and electricity: $0.05 to $0.07 per lb.
Note: Production rates and fuel costs provided by customers using this furnace. Quotes directly from them are available upon request.

Advantages
The US Furnaces MAX-4000 can provide you with the best recovery rates from the material that is charged into the unit. All molten metal drains into a separate holding chamber with a controlled temperature. Furnaces without a holding chamber have 10% to 15% higher melt losses due to the molten metal reaching temperatures of 1700 + degrees F.

The afterburner residence time calculations for US Furnaces use the volume of the afterburner chamber only at 1.1 seconds (min. requirement is 0.8 sec.). The temperature of said chamber is controlled and maintained independently. When the charge door is opened there is no temperature drop in the afterburner what so ever. Note that in some cases we are allowed to use the holding chamber volume as part of the calculation making the retention time over 2 seconds.

The stack volume is not allowed in many states for the calculations. Other brands of furnaces that use the entire stack volume for the calculations must place the data logger probe at the top of the stack. In most cases, the primary chamber temperatures exceed 1800 deg. to maintain the 1600 deg. required at the probe. Warm up time with the other furnaces are as long as 3 hours. At these temperatures you can expect higher melt loss rates and higher fuel costs per pounds of output. Also there are can be violations due to stack temperature drops when the charge door is opened.

Test runs on the US Furnaces MAX-4000 have shown a maximum visible opacity of 5% for no more than 2 minutes throughout a process hour. The scrap charged into the furnace was of the heavy combustible type of material. Lighter combustible material visible emissions were at 0% opacity throughout the process hour. There were no temperature drops in the afterburner throughout the process day. The entire furnace warm up time is about 1 hour.

UTILITIES: Following is the electrical and fuel services required for hooking up the MAX-4000 furnace, depending on the fuel and power available. Note that the fuel requirements are for full demand and will be much lower during the normal production day:

Natural Gas	=	6000 CFH @ 5 PSIG
Propane Gas	=	2600 CFH @ 15 PSIG
#2 Fuel Oil	=	46 GPH @ 5 PSIG

Electrical:
230 / 3 / 60 - 20 Amp circuits
460 / 3 / 60 - 15 Amp circuits
Note: A 30 Amp 120 volt circuit from a step-down control transformer is required for control voltage.

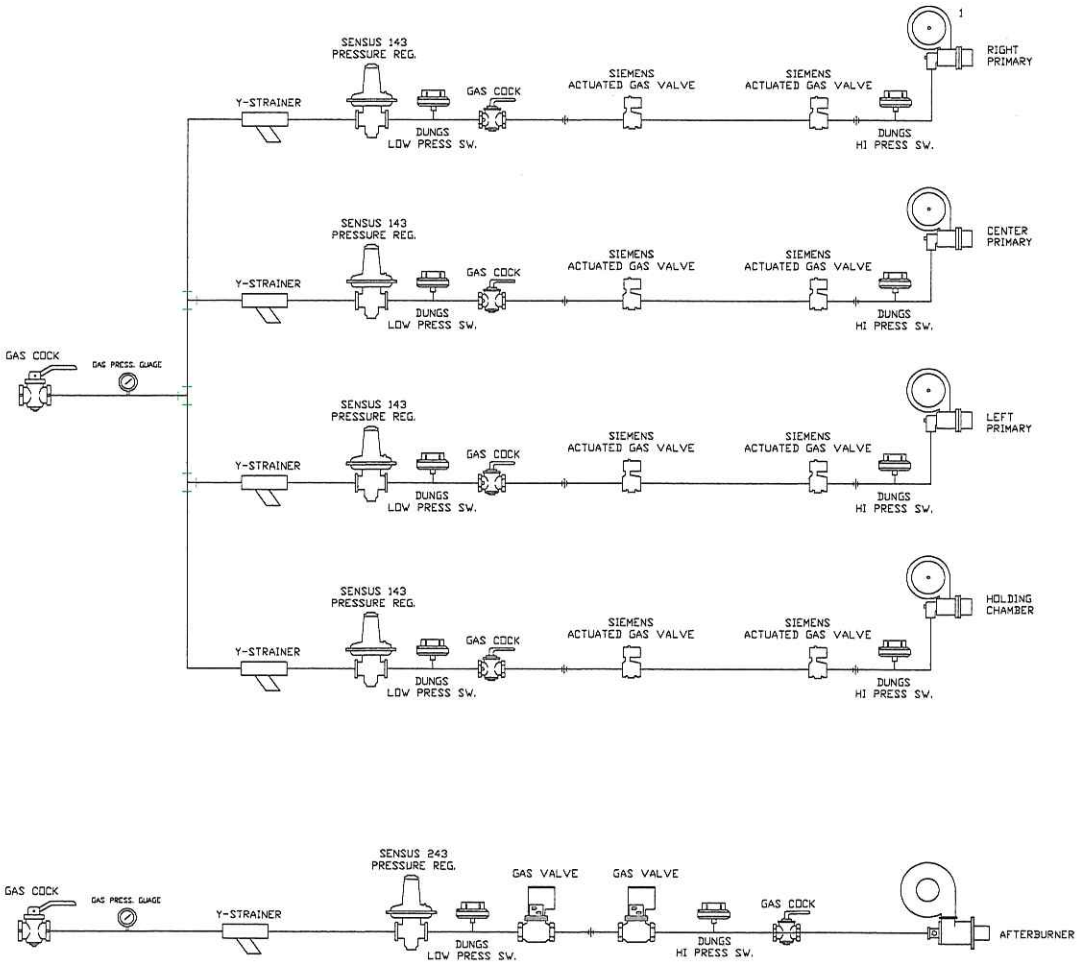
US Furnaces Max4000 Installation Guidelines

1. Use the attached "Furnace Layout" as a guide for planning your installation. This is an example only and various building layouts may require reduced dimensions.
2. Our stack sections are lined with high temperature insulating refractory. Maximum outside temperature of the stack will be no more than 300 deg. F. Install a roof jack that allows at least 6 inches of air space all the way around the stack. Do not totally enclose roof jack. Allow for one inch space between the roof jack and the rain shield to allow ambient air to flow up the sides of the stack and exit through the roof at the shield. Utilizing this type of stack exit will prevent the melting of any roofing tar or mastic and provide a water proof seal.
3. Do not install sprinkler systems directly over the furnace and molten metal discharge area. We recommend mounting dry chemical hand held extinguishers within 20 feet of both sides of the furnace.
4. The exhaust of the furnace is through the stack where flue gasses exit from our afterburner. No additional equipment is required for venting of the stack gasses. Our stack will maintain a negative pressure of 0.15 to 0.20 wc" without any additional equipment.
5. Make up air for your building may be necessary to provide proper combustion. This furnace will require a minimum of 1,464 CFM for the burners to operate properly.
6. Gas regulators are vented type. Enclosed buildings require that all vented regulators be piped to an outside location. Check your local plumbing/gas codes for proper venting of regulators.
7. An exhaust fan is recommended to reduce ambient heat near by the furnace for the comfort of the operators.
8. We provide a manifold to our gas valve trains for your licensed plumber to install the service to the furnace from the meter. We also provide the control panel for your licensed electrician to install the electrical service to our equipment. All components for flame safety and control are provided by us and are certified NFPA, FM, UL, and CSA approved. See the attached plumbing and electrical schematics, as well as the specifications sheet.

   Note: US furnaces recommends our personnel perform the installation of the furnace. It is included in the purchase price. This assures us everything is properly installed. Should your furnace arrive prior to our personnel's arrival, the main furnace and afterburner can be set in place, in the general area you plan to operate. Install of the burners, valve trains, upper afterburner section and stack will be completed by our personnel. We will also supervise the install of the stack, roof jack and rain shield, electrical runs, and gas service.

   To request more information please contact:

Dave Conway, RSI/USF Member
Rsidave1@gmail.com
518-424-1168



REVISION DATE: _____

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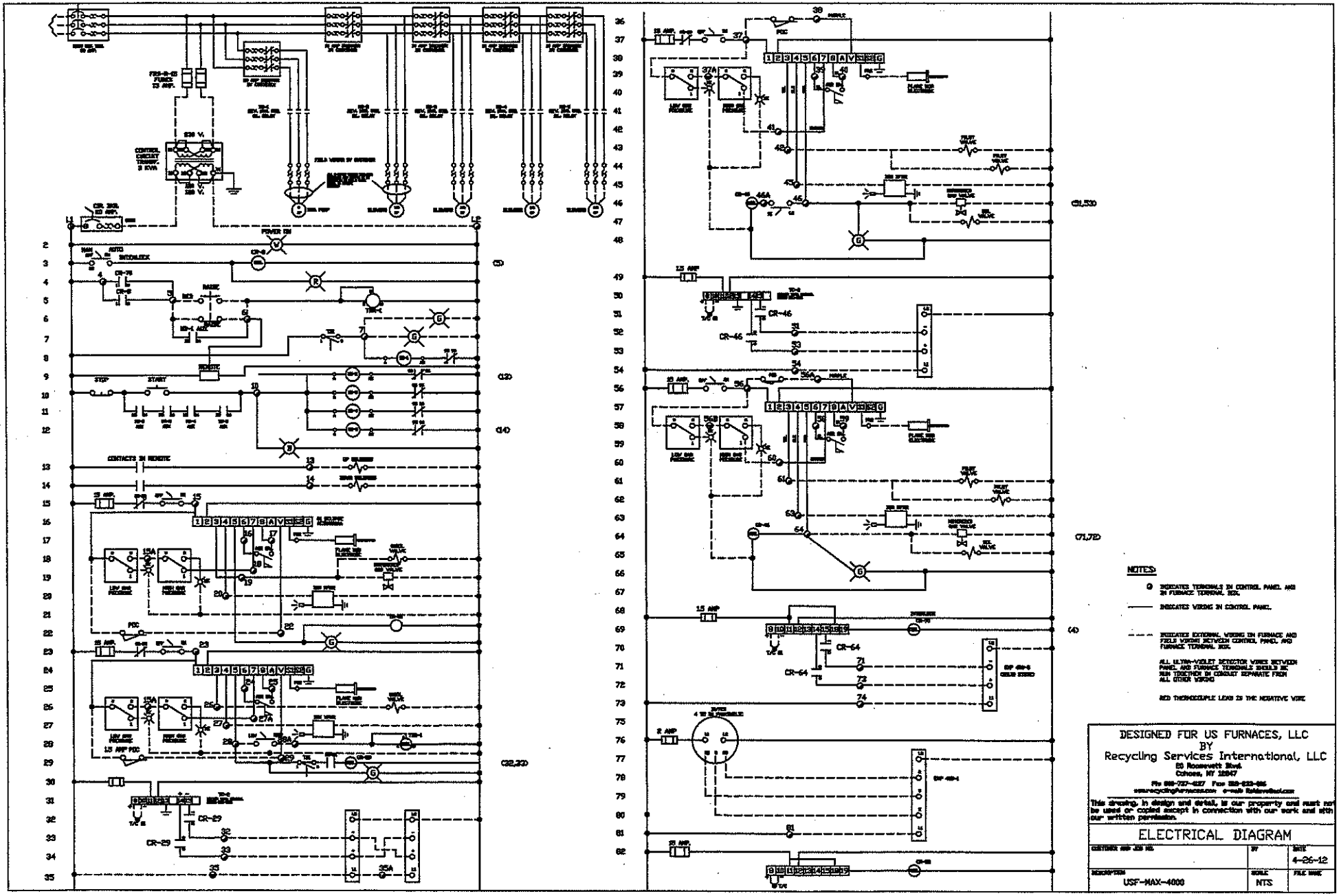
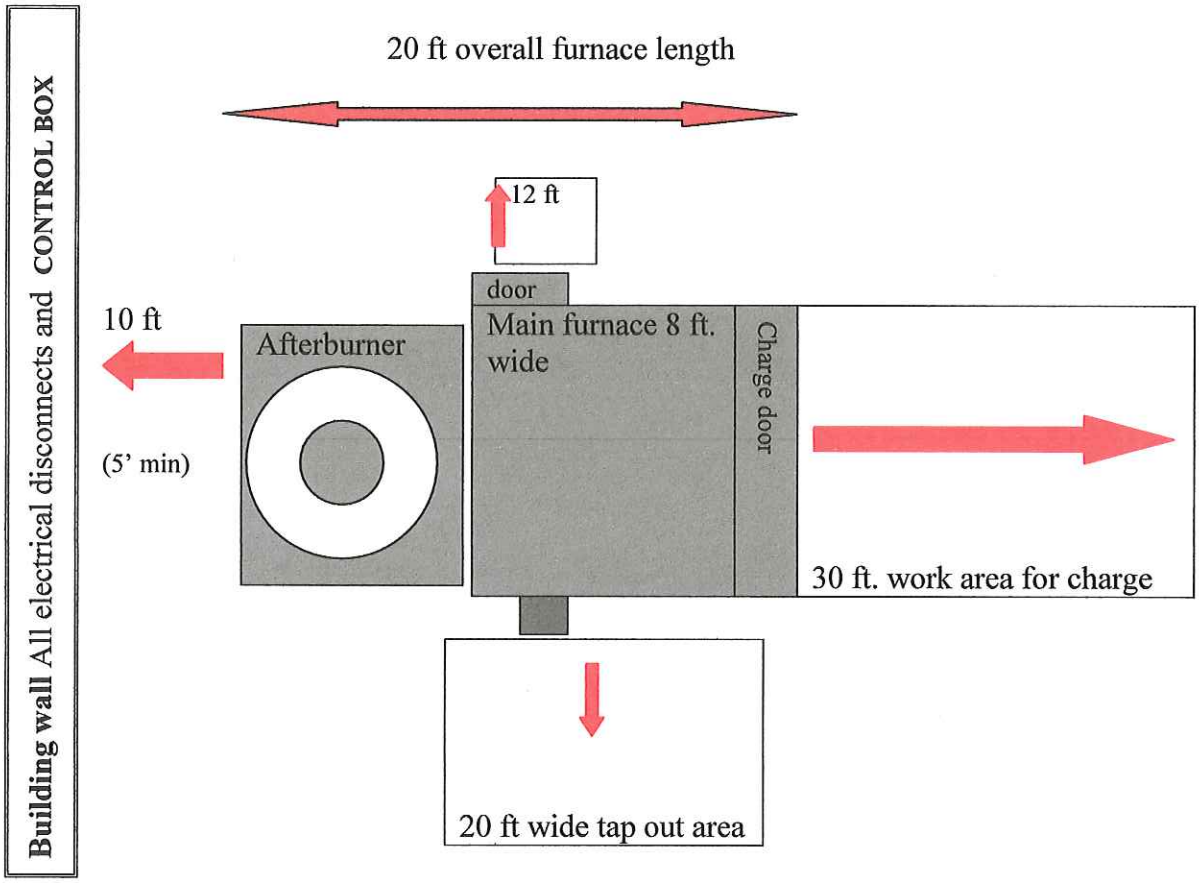
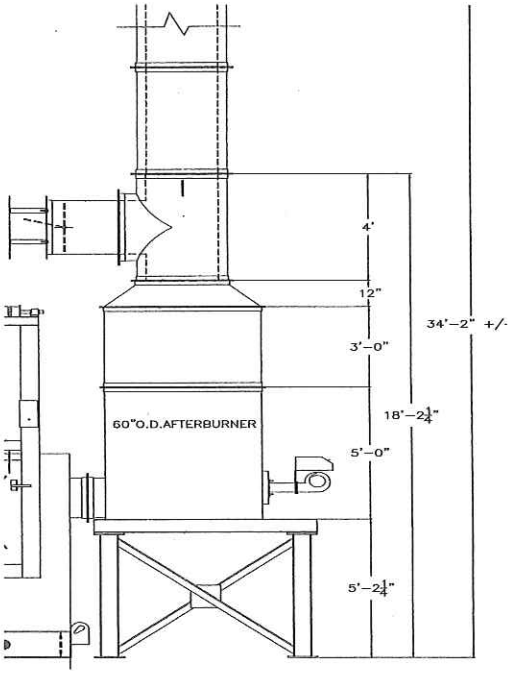
PIPING DIAGRAM

CUSTOMER AND JOB NO.	BY	DATE
	DS	10-21-14
DESCRIPTION: PIPING DIAGRAM FOR GAS FIRED MAX-4000 SP	SCALE: NTS	FILE NAME: FURNACES MAX4000SP
DRAWING NUMBER		


NOTES:
DESIGNED FOR US FURNACES, LLC
BY
Recycling Services International, LLC
ELECTRICAL DIAGRAM
USF-MAX-4000
NTS
4-26-12





Exit out of roof should be above the 'T' section 18'-2 ¼" high. T-section can be above roof line if sufficient clearance is not available. Rain shield is required for damper motor when outside the building.

Total stack height from grade is 34 ft.

Ideal small building size:
60 feet wide x 80 feet long x 20 feet high.

Ideal lean-to off of side of building:
30' wide x 40' long, 18'-2" height at center.

Minimum size of pole shed roof only:
20' wide x 30' long, 18'-2" height at center

Contact : Recycling Services International, LLC. Phone: 518-424-1168