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## Interesting Facts

- The Flaming Fountain on South Dakota's Capital Lake is fed by an artesian well with natural gas content so high that it can be lit. The flame burns continuously as a memorial to all veterans. 
- Dakota Gasification in ND produces more than 54 billion cubic feet of synthetic natural gas annually.
- It is believed that the word "mascara" comes from the Arabic word "maskharah" which means jester or clown.

## August Dates to Remember

- August 1 - Park Supply Customer Appreciation Day
- August 2 - Rochester ASHRAE Golf
- August 21 - ASHRAE Saints Outing



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## FEATURED Products

### L.E.S. HCW Hot Water Boilers

Need to fit a 120 HP boiler through a 36" door?

**LES has one.**

Need it to be 80 PSI?

**LES has that too!**

- 3-Pass Firetube
- 83% Efficient
- 91-124 BHP
- Fits through a 36" door
- 30, 40 & 80 PSI



LES manufactures other models of water & steam boilers which range from 12-110 BHP and have the same features.

### Fulton Low Emissions Hydronic Boilers



Fulton has introduced a Low NOx (<30 PPM) 2000 MBH Pulse boiler. It has all the same great features as the standard Pulse boiler.

- *High Efficiency*
- *No Power Burner*
- *No Minimum Return Water Temperature*
- *No Minimum or Maximum Flow Rates*

The Low Emissions option is available on sizes 750 - 2000 MBH.

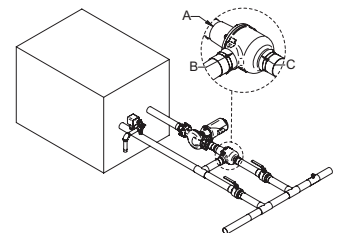
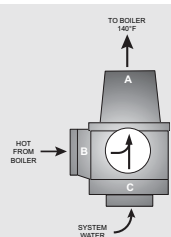
## Design Consideration

Non-condensing boilers must have a return water temperature of 140°F or higher to prevent premature failure of the heat exchanger due to condensation. However there are many applications that will have a return water temperature < 140°F (water source heat pumps, in-floor radiant, greenhouse heating, etc.). These low temp applications can be protected by using an automatic thermostatic 3-way valve to ensure water entering the boiler will be at or above 140°F. ([More Info](#))

### How it Works

The LTV Valve "modulates" to maintain 140°F as a minimum return temperature to the boiler.

- Hot water from the boiler enters "B" port.
- Cooler water from the system enters "C" port.
- "B" and "C" water mix to meet the desired 140°F.
- Water exits "A" port back to the boiler return.



Alternatively, a high efficiency boiler could be used as it is designed to condense and would provide greater efficiencies than a non-condensing boiler.

## Featured Job - AmeriPride

AmeriPride’s Minneapolis facility contacted Albers Mechanical to help them determine the best way to increase the efficiency of their laundry heating system. Brian Hauck, Albers Project Manager, worked with Ryan Company, Inc and recommend that they replace the old burner on their 500HP Kewanee boiler with a new Gordon Piatt F18 burner with a Siemens LMV Linkageless Burner Management System. In addition, we recommended they replace their old water heater with a new Ludell Direct Fired Water Heater and that they remove the existing boiler stack and add a new Ludell Stack Economizer with a new Schebler Chimney System .



Mike Rocheford, Ryan Company President, stated “A stack economizer is perfect for this type of continuous heating application and the payback time will be very short.”

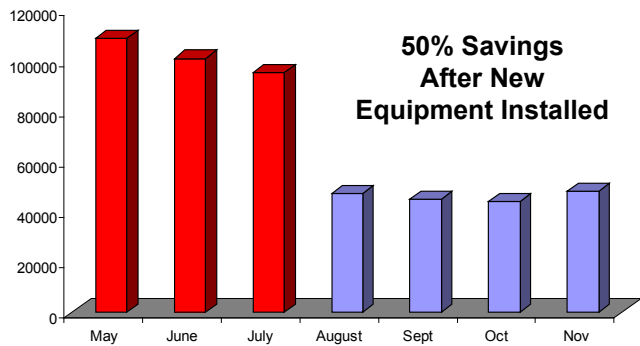
After all the new equipment was installed, the fuel bills were cut in half.

Flue gases from the boiler are diverted to a Ludell Stack Gas Heat Absorber where they come in direct contact with the incoming water via stainless steel heat transfer medium. This direct contact puts virtually all the heat into the water which reduces the exiting flue gas temperature and adds up to large fuel savings.

Similarly, the Ludell Direct Contact Ultra-Efficient Water Heater, provides the final heating stage for the process water using a high efficiency natural gas burner.

Both units were supplied with a Schebler double wall stack system. Due to the low flue gas temperature, the inner liner was constructed of 316 stainless steel for greater corrosion resistance.

**Fuel Usage (Therms)**



To view the complete case study click [here](#).



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