

The GRIME

April / May 2011
Newsletter

Ware Adds Super High Efficiency Mobile Boiler Systems To Their Fleet

Ware recently announced that new additions to their extensive Mobile Boiler Fleet will now include super high efficiency systems. Ware decided to expand its fleet as their service division is currently installing burner retrofit systems utilizing super high efficiency technology in five states.

"We owe it to our customers to use

this technology to its fullest potential," said Steve Taylor, director of sales. "Even though we are not paying for the fuel, by supplying a super high efficiency mobile boiler system, we give our customers the ability to save enough fuel each month to offset 25% to 50% of the cost of the monthly rent."

Taking proven technology that is being used in the field and applying it to the rental fleet is something Ware does regularly. Autoflame Micro modulation controls have been

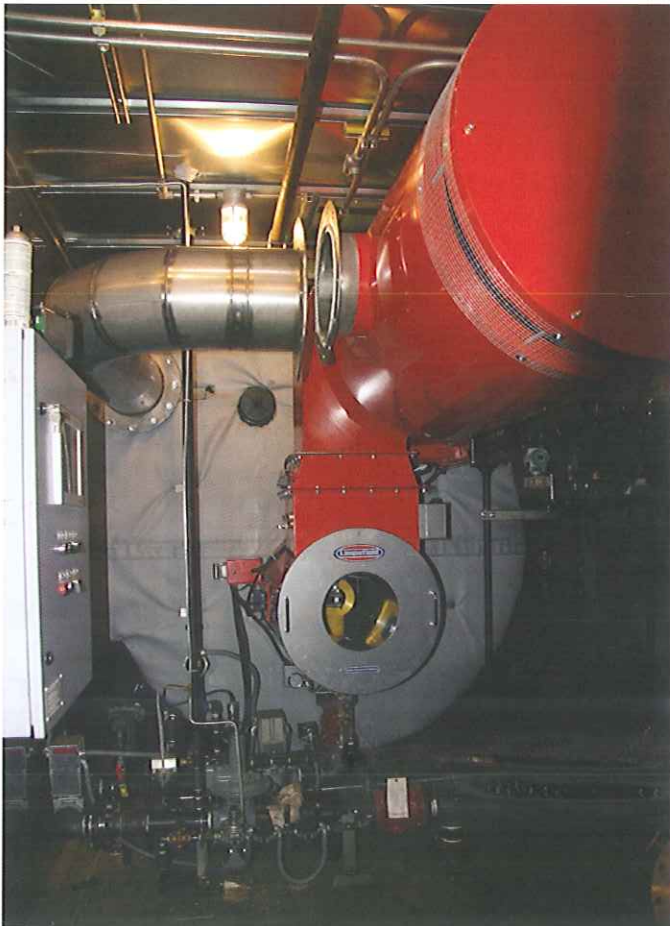
The first in the market to offer the super high efficiency mobile boiler systems in a rental fleet

used on Ware's rental boilers for several years now and it has proven to be more reliable and less maintenance for customers' burner control systems. "Adding these new burners to the equation will raise the efficiency to a whole new level," says Taylor.

Ware will be the first in the market to offer the super high efficiency mobile boiler systems in a rental fleet. "The great thing about competition is it forces us to constantly improve our products, and if we can save our customers money on their fuel and electric bills, then we are being good stewards of our resources all at the same time. It's a win, win situation that you just can't beat," said Taylor.

Two 650 horsepower super high efficiency mobile boiler systems will be tested and available for customers to start using in April. The Limpsfield/Autoflame burner conversion projects are the single largest boiler room energy efficiency sector available on the market. Customers can see fuel savings ranging from 10% to as high as 31%. And, when variable frequency drives for the blower motors are included, they realize additional electrical savings as well.

continued on pg. 4



A Critical Partner Is Needed When Selecting Equipment

Steam demand in today's industry is being utilized more efficiently and causing companies to revisit their current steam generating equipment. This demand is what led a management team, at a North Georgia Carpet Mill, who continuously is trying to find ways to increase efficiency and productivity, while reducing costs and environmental impacts, contacted Ware.

The Georgia Carpet Mill manufactures innovative modular, broadloom and woven flooring solutions for residential and commercial spaces. The management team wanted to reduce steam requirements and decrease upkeep costs. Ware was asked to help determine the best step forward to not only get them up to current standards but get them ahead of the game with state of the art technologies.

The nature of the demand, aging equipment and the oversized boilers combined to create excessive cycling and inconsistent pressure and flow fluctuations. There was a chance that the lead boiler would fail or cycle to the point that the finished product quality would be affected. This lack of confidence in the system led the manufacturer to purchase a smaller unit as a back-up and it was required to run on low fire to maintain a steady steam load and backup.

Ware engineer's first plan of action was to get a good grasp on what loads were present in order to proceed with a plan of action. There are

typically some easy ways to get good estimates on the usage, but in this case many obstacles arose.

As gas consumption increased, the local utilities had set up multiple meters to feed the plant. The only way to truly find what meters fed which part of the plant was to dig up the surrounding area which was not an option. Therefore, it was not possible to get a true fuel usage of the boilers from back calculations based on gas usage. The nature of the processes made the utilization of standard flow calculations difficult if not impossible. It was determined that the best route would be to actually monitor the flow with vortex steam flow meters.

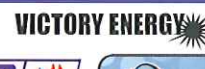
Two Rosemount meters provided both answers and new challenges for the engineers. They found that the amount of steam fluctuated from flows so low, that they were lower than the meter turndown ability, with spikes over 18,000 - 20,000 pph for short bursts. Taking a simple reading for a day and finding the average would not provide proper representation of what system they would need.

The engineers at Ware utilized the analog output capability of a simple data logger and sampled for 30 days in order to ensure an accurate baseline to make the best recommendation. All data was collected and analyzed. It was decided that a max load of 20,000 pph would be required with adequate steam discharge area to account for the large flow variations. Thinking through experience and intuition, a 600 hp burner on a 700 HP Firetube shell was chosen because it provided both adequate steam load as well as enough steam capacity to handle the steam spikes.

Completion of the usage study provided the first answer. Next, the mill's engineers were very concerned with both environmental and economic impacts with the new system and wanted the most efficient unit that they could get while maintaining low emissions. Ware proceeded to investigate the products best suited to the strict constrictions and found that using a York Shipley 700 hp Dry Back shell with a Limpsfield LCNO 73 burner with FGR controls would meet their needs.



In addition to reducing their emissions requirements of sub 30 ppm NOx, Limpsfield guarantees a sub 3% O₂ emission across the entire firing range from low to high fire. In essence, the





The GRIME

April / May 2011
Newsletter

Equipment List

All equipment listed is for sale or lease and is subject to availability

Unit	HP/PPH	Year	Manufacturer	Fuel	Type	Pressure	Controls
VE7	150,000	2008	Victory	Gas	Steam	250	IRI
VE8	150,000	2008	Victory	Gas	Steam	250	IRI
VE5	120,000	2008	Victory	Gas	Steam	250	IRI
VE6	120,000	2008	Victory	Gas	Steam	250	IRI
VE1	85,000	2008	Victory	Gas	Steam	350	IRI
VE2	85,000	2008	Victory	Gas	Steam	350	IRI
VE3	85,000	2008	Victory	Gas	Steam	350	IRI
VE9	79,280	2008	Victory	Gas	Steam	550/525SH	IRI
VE10	79,280	2008	Victory	Gas	Steam	550/525SH	IRI
VE11	79,280	2008	Victory	Gas	Steam	550/525SH	IRI
747	75,000	2000	B&W (Low NOx)	G/#2	Steam/SH	750/750	IRI
750	70,000	1996	Nebraska (Low NOx)	G/#2	Steam/SH	750/750	IRI
752	60,000	1980	B&W	G/#2	Steam	750/750	IRI
709	60,000	1979	Zurn (Low NOx)	G/#2	Steam	500	IRI
741	60,000	1979	Zurn	G/#2	Steam	550	IRI
SB79	40,000	1986	Cleaver Brooks	Gas	Steam	260	IRI
SB80	40,000	1986	Cleaver Brooks	Gas	Steam	260	IRI
615	40,000	1975	B&W	G/#2	Steam	325	IRI
SB29	1,200	1990	Johnston (Low NOx)	G/#2	Steam	200	IRI
496	800	1990	York-Shibley (Low NOx)	G/#2	Steam	200	IRI
634	800	1972	York-Shibley	G/#2	Steam	150	IRI
SB123	600	2008	York-Shibley	G/#2	Steam	150	UL/CSD1
SB63	500	1985	Superior	G/#2	Steam	150	IRI
SB18	300	1995	Clayton	G/#2	Steam	200	IRI
415	250	1980	Eclipse	#2 Oil	HT/HW	954	IRI
719	250	1987	Superior	G/#2	Steam	150	IRI
SB136	250XID	2010	York-Shibley	G/#2	Steam	150	UL/CSD1
SB144	175XID	2010	York-Shibley	G/#2	Steam	150	UL/CSD1
SB142	175XID	2010	York-Shibley	G/#2	Steam	150	UL/CSD1
SB125	150	2008	Superior	G/#2	Steam	150	UL/CSD1
SB76	150	2007	York Shibley (5 of these)	#2Oil	Steam	150	UL/CSD1
SB127	100XID	2009	York Shibley	G/#2	Steam	150	UL/CSD1
SB141	100XID	2010	York Shibley	G/#2	Steam	150	UL/CSD1
SB143	70	2010	York Shibley	G/#2	Steam	150	UL/CSD1
RB753	15	1986	Fulton	Electric	Steam	150	UL
SB65	15	2007	Fulton	Gas	Steam	150	UL

Request a quote on-line at www.wareinc.com or call 800-228-8861

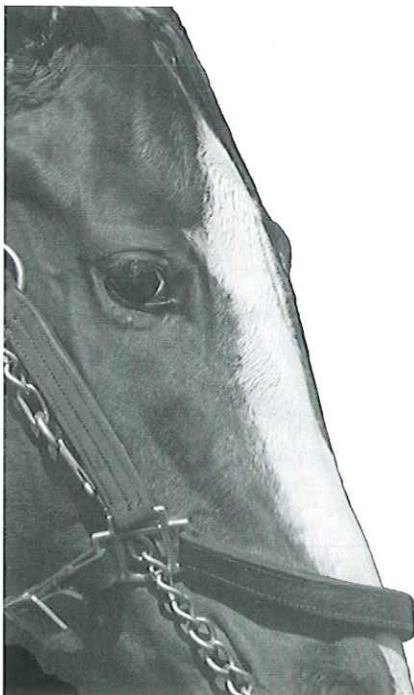
WARE buys used boilers

All equipment listed is for sale or lease and is subject to availability

Unit	Size	Manufacturer	Voltage	Type	Year
RC-24	30 Ton	Mc Quay	480 v	3 ph	2000
RC-21	40 Ton	Mc Quay	480 v	3 ph	1999
RC-1	60 Ton	Mc Quay	480 v	3 ph	1995
RC-2	60 Ton	MC Quay	480 v	3 ph	1995
RC-13	60 Ton	Trane	200-230 v	3 ph	1989
RC-5	95 Ton	Mc Quay	480 v	3 ph	1995
DH-01	100 Ton	Trane	480 v	3 ph	2008
DH-02	100 Ton	Trane	480 v	3 ph	2008
RC-6	105 Ton	Mc Quay	480 v	3 ph	1995
RC-8	155 Ton	Mc Quay	480 v	3 ph	1995
RC-10	195 Ton	Mc Quay	480 v	3 ph	1995
RC-11	195 Ton	Mc Quay	480 v	3 ph	1995
RC -25	300 Ton	Mc Quay	480 v	3 ph	2003

2011 YORK SHIPLEYS AVAILABLE IN APRIL 2011

Unit	HP/PPH	Year	Manufacturer	Fuel	Type	Pressure	Controls
SSB1	50 hp	2011	York Shipley	(Low NOx) G/#2	Steam	150	UL/CSD-1
SSB2	70 hp	2011	York Shipley	(Low NOx) G/#2	Steam	150	UL/CSD-1
SSB3	100XID	2011	York Shipley	(Low NOx) G/#2	Steam	150	UL/CSD-1
SSB4	150	2011	York Shipley	(Low NOx) G/#2	Steam	150	UL/CSD-1
SSB5	175XID	2011	York Shipley	(Low NOx) G/#2	Steam	150	UL/CSD-1
SSB6	250XID	2011	York Shipley	(Low NOx) G/#2	Steam	150	UL/CSD-1
SSB7	300XID	2011	York Shipley	(Low NOx) G/#2	Steam	150	UL/CSD-1
SSB8	400XID	2011	York Shipley	(Low NOx) G/#2	Steam	150	UL/CSD-1
SSB9	500XID	2011	York Shipley	(Low NOx) G/#2	Steam	150	UL/CSD-1
SSB10	600XID	2011	York Shipley	(Low NOx) G/#2	Steam	250	UL/CSD-1
SSB11	800XID	2011	York Shipley	(Low NOx) G/#2	Steam	250	UL/CSD-1



Kentucky Home to the Kentucky Derby and WARE

Kentucky is where WARE will be hosting its 2011 Partner's Conference on May 3rd and 4th.

Each year WARE's Partners gather to hear what's happening in the industry and what's new at WARE. After the conference the partners will enjoy a fun day at the Downs "Churchill Downs".

manufacturer was both **reducing their carbon footprint as well as reducing their fuel costs with one modification.**

Finally, the time came for both the removal of the existing 42,000 pph watertube and the installation of the new York Shipley/Limpsfield package unit. The next few weeks were a flurry of cranes, welders, pipe fitters, technicians, masons, and other technicians in order to complete the job safely and efficiently.

When the burner was fired and commissioned, Ware technicians achieved exactly what they promised with less than 30 ppm NOx and a 3% O₂ level across the board from a 17% firing rate to 100% firing rate. The cycling was reduced dramatically to minimal or no cycling on a daily basis. Chris Harper, a senior service technician of Ware, discussed the commissioning by describing the new burner set up as a "Breath of fresh air from the traditional linkage burner setups."

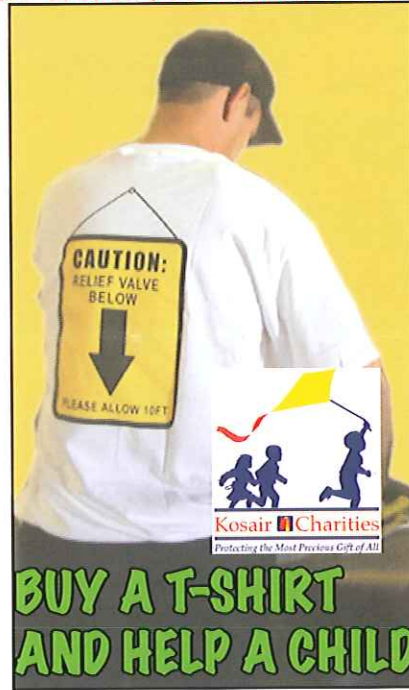
The boiler now runs on auto using its Autoflame MK7 Touchscreen control system, while the 35,000 pph is finally doing its intended role as an emergency backup.

"The work we did with this Georgia carpet mill is a perfect example of how Ware is not just an equipment provider but a critical partner in the engineering and consultation of the unit selection process," said Patrick Gigandet, engineering consultant for Ware.

"Employing the latest in XID high efficiency boiler tube technology with York Shipley boilers, Limpsfield burners and Autoflame controls, Ware is once again leading the industry with innovative technological enhancements to our rental fleet," says Taylor.

For more information about a Ware super high efficiency mobile boiler system, call the Rental Department at 1-800-228-8861.

Get Your Spring Fashion at www.4steamware.com



WARE and AUTOFLAME will be hosting a training session for Operators and End Users on:

April 18th and 19th, 2011
Residence Inn Chattanooga
Near Hamilton Place
2340 Center Street
Chattanooga, TN 37421

And On

April 14th and 15th, 2011
Holiday Inn Lakeview
505 Marriott Drive
Clarksville, IN 47129

If you would like information about this session contact Missy Blain at 800-228-8861 or email her at melissa.blain@wareinc.com.



Check The Valve Shop out. They offer testing, diagnosis, maintenance and repair services for all makes and models of valves. All Valve Shop repair procedures strictly adhere to the industry standards and codes.

BOILER TRAINING

WARE BOILER UNIVERSITY 2011 CLASSES

MAY 17 - 19 / JEFFERSONVILLE, IN
SEPTEMBER 13 - 15 / CHATTANOOGA, TN
OCTOBER 18 - 20 / CHATTANOOGA, TN

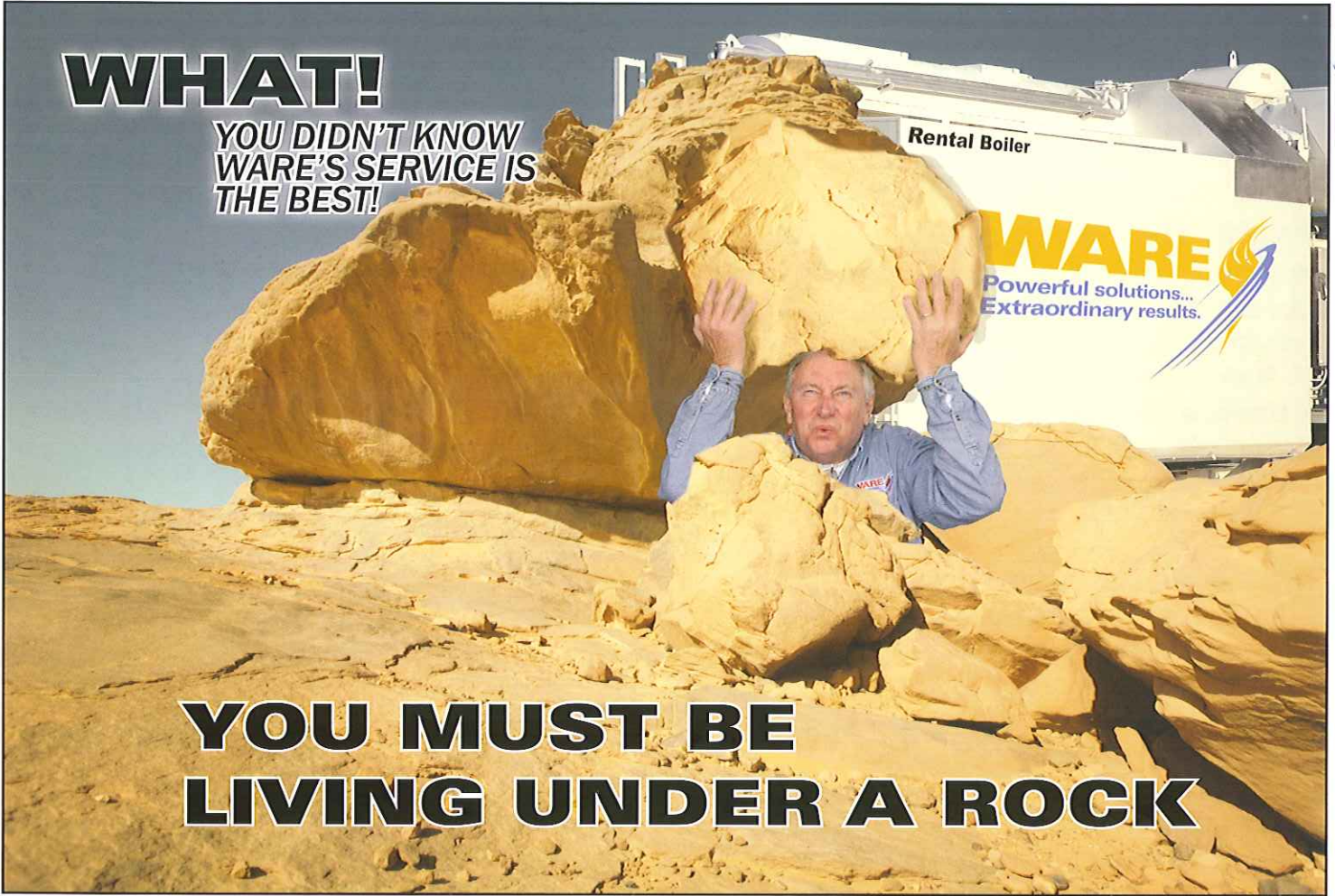
NOVEMBER 08 - 10 / JEFFERSONVILLE, IN
DECEMBER 06 - 08 / CHATTANOOGA, TN

RECEIVE \$100.00 DOLLARS OFF WHEN YOU REGISTER ON-LINE FOR BOILER UNIVERSITY. WWW.WAREBOILERU.COM



WHAT!

**YOU DIDN'T KNOW
WARE'S SERVICE IS
THE BEST!**



**YOU MUST BE
LIVING UNDER A ROCK**

WWW.WAREINC.COM | 800-228-8861 WARE

www.wareinc.com



4005 Produce Road
Louisville, KY 40218



PRSR STD
US POSTAGE PAID
NEW ALBANY IN
PERMIT #62