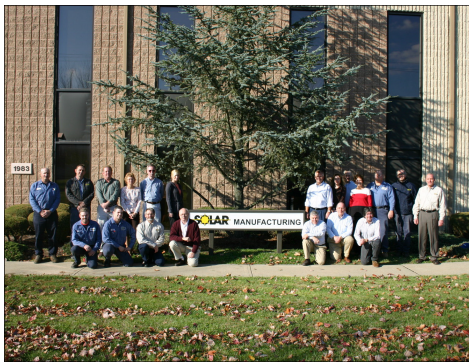


# the hot zone news

## Solar Manufacturing Moves

*Growing company moves across town to a 65,000 sq ft, newly remodeled building in Souderton.*

After its conception in 2002, Solar Manufacturing has experienced a surge in development, expanding from the visions of CEO William R. Jones and five fellow pioneers to 20 employees and a need for increased space. This need was met in September when all Solar Manufacturing employees moved from their location in Telford Pa., to a newly renovated, 65,000 square foot building in Souderton, Pa. Along with remodeled office space, the



building includes a manufacturing plant that has been cleaned and painted with new, high-intensity lighting, a new water recirculation system for testing furnaces, additional electrical power distribution and improved loading docks to accommodate three trucks instead of one.

Conveniently located near quality fabricators and suppliers of engineered products and services, Solar Manufacturing will continue to expand their production of vacuum furnaces and hot zone rebuilds. Part of the renovated office area has been designated for the recently created Solar Technology Center. Staffed by engineers, chemists, and metallurgists, the Solar Technology Center will be used to perform research and development to keep Solar Manufacturing in the forefront of vacuum furnace innovations. ☀️

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### Sales top \$6 million

Business continues to grow as Solar Manufacturing receives orders for furnaces, hot zones and replacement chambers. Rolls Royce of Indianapolis, IN will be receiving a replacement chamber for a Vacuum Furnace Systems (VFS) model VL-48x54, measured and engineered at Solar Manufacturing. Delivery is expected for the third quarter. Another replacement chamber was installed at Thermo Techniques, in Danville, IL for an Abar-Ipsen model HR-34.

*(CONTINUED ON PAGE TWO)*

## SOLAR MANUFACTURING TAKES ON THE ASM HEAT TREAT SHOW IN PITTSBURGH, PA

SAMI's Sales and Marketing team traveled across the state in late September to attend the American Society of Materials Heat Treating Show and Conference in Pittsburgh. Along with 600 square foot booth, they also brought along a few surprises. See page five for more photos and a recap.





## Meet the New Employees



### Steve Savoni

As the new Purchasing Manager, Steve Savoni comes to us with 27 years of experience working in the heat treating technology industry. The Philadelphia native spent 18 years as a purchasing supervisor and then purchasing manager at Abar Ipsen Industries and nine years as the purchasing manager at Selas Heat Technology Co. A father of three sons, Steve enjoys fishing, working around the house and volunteering as a soccer coach.

### Susan Sowden

For over 25 years, Susan Sowden has been working as an accountant in the manufacturing industry. The Delaware Valley College graduate and mother of two boys comes to Solar Manufacturing as the new Accounting Manager. In her spare time, Sue enjoys genealogy and scrapbooking, giving workshops on both.



### Erin Royce

A recent college graduate, Erin Royce joins Solar Manufacturing as the new receptionist and marketing assistant. Erin received her degree from Belmont University, in Nashville TN. She

will be greeting customers and directing calls, along with writing press releases, designing the newsletter and redesigning the Solar Manufacturing and Magnetic Specialties web sites.

## Increasing Sales (continued from page one)

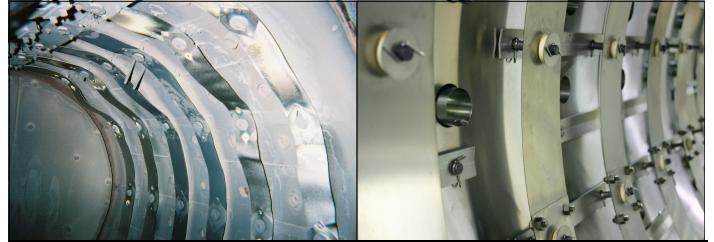
Hot zone business is booming as numerous companies ordered replacements from Solar Manufacturing. Dayton Progress of Dayton, OH, has ordered a new hot zone for their VFS model HL-26. The hot zone will include an additional layer of 1/2" thick graphite felt to improve thermal efficiency by approximately 22%, based on watts per square inch. This layer of insulation will not affect the work zone size. Other improvements include high velocity gas nozzles that are

strategically located for improved cooling and CFC caps around the front edge for improved durability. Temp-Rite Steel Treating of Harrison Township, MI has also ordered a replacement hot zone with high velocity gas nozzles for improved cooling for their VFS model HIQ-3836-2 vacuum furnace.

Closer to home, Solar Atmospheres of Hermitage, PA and Iron Bound Treating of Roselle, NJ, have ordered replacements for their VFS furnaces. Solar's HL-102x72 model will receive a graphite curved element from molybdenum, high velocity graphite gas nozzles, an additional layer of

graphite felt insulation and CFC caps to protect the front edge. Iron Bound's all metallic hot zone will include a .015" thick molybdenum hot face backed by two layers of .010" thick molybdenum and .018" thick 304 stainless steel.

Several hot zones have been completed and installed in their new



Before and after shots of the replacement hot zone for Iron Bound Heat Treating of Roswell, NJ. (photos by Josh Isaak and Erin Royce)

furnaces. Thermal One of Westland, MI received a replacement hot zone for their Abar Ipsen model H3636 Turbo Treater in June. Fabricated with a 1" thick graphite board with .015" thick graphite foil bonded to the hot face and backed by two layers of 1/2" graphite felt insulation, the flat straight elements were replaced with graphite curved elements. Hi-Techmetal Group of Cleveland, OH also replaced their Apar Ipsen HR-50 hot zone in July with the same specifications. ☀

For more information contact Dennis Hiddemen at 267-384-5040 Ext. 510.

## Solar Atmospheres of Western PA orders 24-ft furnace.

A new car bottom furnace with a working zone of 84" x 84" x 244" that supports a 50,000 lb work load will be delivered to Solar in early 2006. The furnace will be a high efficiency model rated for 2650° F and will incorporate the SolarVac 3000 Interactive Control System. The hot zone will be fabricated with five layers of graphite felt insulation. The dual 300 HP radial fan gas recirculation system is designed for high velocity quenching using an oversized distribution structure and improved gas nozzles, which are located around the hot zone for maximum cooling capacity.

## The SAMI Team

the brains behind the business



**William R. Jones, C.E.O.**, has more than 40 years of experience developing vacuum furnace and processing technology. A graduate of Penn State University, he is an American Society of Material (ASM) Fellow, and received the Eisenman Award for applications of

vacuum technology for outstanding contributions in the industry. He served as President of Abar Corp. for five years, and in 1978 founded the Vacuum Furnace Systems Corporation (VFS) to engineer and build vacuum furnaces. In 1982, he started Solar Atmospheres, Inc., a large vacuum heat treating company with plants near Philadelphia and Pittsburgh.



**James M. Nagy** is the Vice President of Operations at Solar Manufacturing. He oversees daily business functions and human resources. Jim spent 15 years at Vacuum Furnace Systems before coming to Solar

Atmospheres as the Business Manager.

**Peter Reh** became the Vice President of Sales after working in the vacuum furnace industry for over 20 years. Peter gained experience as a mechanical engineer at Vacuum Furnace Systems and Abar Corp. He worked as a sales manager at VFS before coming to Solar Manufacturing.



**Dennis Hiddemen** has over twenty-five years of experience in the vacuum furnace industry. Before becoming the Aftermarket Sales Manager, he spent nine years at Abar manufacturing hot zones for the Spare Parts Group. He also gained experience as Key Accounts Manager for Northeast Sales.



*MEET MORE OF OUR TEAM IN THE NEXT ISSUE!*



## The Solar Technology Center

Renovations are nearly complete on the new, multi-functional Solar Technology Center. Staffed by engineers, chemists, metallurgists and information technology specialists, the Solar Technology Center will be used to perform research and development to keep Solar Manufacturing in the forefront of vacuum furnace innovations. Housed will be R&D members Ginny Osterman, Ph.D., Harry Antes, Ph.D., Trevor Jones and IT Supervisor Josh Isaak. A project in development is the research on a vacuum carburizing furnace and the testing of metal alloys in relation to heat treating. The Center will open in January 2006.

## Avoid disaster: schedule a service contract

Solar Manufacturing offers four terms of preventative maintenance service for vacuum furnace equipment. Service terms are offered as weekly, monthly, quarterly and annually. We can also provide preventative maintenance training at your facility.

Before signing into our program, we will visit your location to discuss the furnace operation and any issues or concerns you may have. We will provide a written analysis of your furnace and suggest a course of action.

Contact Dennis Hiddemen at 267-384-5040 Ext. 510 for more information.

## Please update your contact information!

Our mailing address and phone numbers have changed. Please enter the following information into your databases.

Mailing Address:  
Solar Manufacturing  
1983 Clearview Road  
Souderton, PA 18964

Phone Number:  
267-384-5040

FAX Number:  
267-384-5060

Web Site:  
[www.solarmfg.com](http://www.solarmfg.com)



## INDUSTRY RELATIONS: IT'S ALL RELATIVE

Even as SAMI enters its fourth year, we still address the question of our relationship with Vacuum Furnace Systems (VFS) and Solar Atmospheres. To ease lingering confusion, this article will explain the connection between these companies.

William R. Jones, who founded VFS in 1978, sold the business to the managers of the company in 1995. VFS was then sold to a large, German holding company in 2000. As a result of the sale in 2000, Mr. Jones saw the need for a more responsive furnace manufacturer who would focus on providing new, state-of-the-art, vacuum furnaces and replacement hot zones to the industry. Thus, Solar Manufacturing was founded in 2002.

Solar Atmospheres was founded in 1983 by Mr. Jones and his son, Roger Jones, and provides quality vacuum heat treating, brazing, carburizing and ion nitriding.

Solar Manufacturing designs and builds both new vacuum heat furnaces and replacement hot zones. Our hot zone designs include graphite insulated with many varieties and all-metal shields, as well as high efficiency, .040" Flex Shield backed by four layers of graphite insulation.

At Solar Manufacturing, we have over 100 years of combined experience in the design and manufacture of vacuum furnaces and replacement hot zones. Our staff has gained experience in the industry from Abar, Ipsen International, Vacuum Furnace Systems, Rollock and Drever. ☀

## NEW MIDWEST REPRESENTATIVE —

We are excited to announce a representative agreement, signed with Integrated Technologies, located in Rochester, MI. Alexander J. Gunow will provide sales support for new equipment and aftermarket services including replacement hot zones in Michigan, Indiana, Ohio and Kentucky. To request information on our products and services, contact Al at (248) 535-7799 or by email at [Agunow@aol.com](mailto:Agunow@aol.com).

## CENTRAL TERRITORY —

Kevin Duffy of The Duffy Company, located in Palatine, IL, will provide sales support in Illinois, Wisconsin, Iowa and Minnesota. To contact Kevin, call 847-202-0000.

## SAMI DOWN SOUTH —

We are expanding all over the country, and soon, the world. Alex Beltzhooven of Southeast Heat Processing Systems, in Charlotte, SC, will represent Solar Manufacturing in Georgia, Tennessee, and South and North Carolina. Contact Alex at 704-365-0186.

## In the Zone...

### AVAILABLE FOR QUICK DELIVERY —

We have an HFL-3836-2EQ prepared for fast delivery. This furnace has a work zone of 24" wide x 24" high x 36" deep, a load capacity of 1500 pounds and an operating temperature of 2650° F. The furnace has a two bar,



*This HFL-3836-2EQ is ready to ship.*

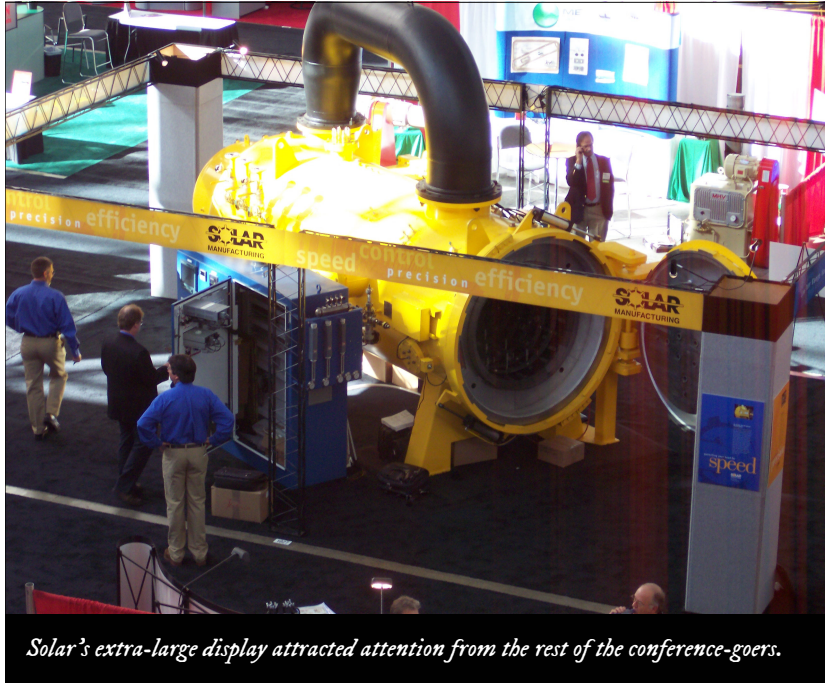
100 HP gas recirculation system, 16" varian diffusion pump, 615 booster and Stokes 212, 150 CFM mechanical pump. The SolarVac 3000 control system utilizes a Honeywell DCP-550 controller, Eurotherm 5180V touch screen digital recorder and Allen Bradley Panel View.

Contact Peter Reh at 267-384-5040 Ext. 509 for more information.



*The interactive control panel, SolarVac 3000.*

# SAMI makes a big impression at ASM trade show



From September 26 through the 29, the offices of Solar Manufacturing were emptied as many of our employees went to Pittsburgh for the annual ASM Heat Treating Expo and Conference. Our bright yellow furnace stood out among the many booths and our new company mascot, SAMI the Penguin was introduced to the masses. Myrt Jones, wife of CEO Bill Jones, dressed the part and handed out toy Samis to visitors. The conference was a great opportunity to network with potential customers and let the rest of the industry realize our capabilities. We look forward to seeing everyone at the 2006 FNA show next September. ✨



## Introducing SolarVac 3000: An Interactive Control System

We are proud to introduce a new interactive control system called SolarVac 3000. Designed for monitoring your vacuum furnace, the system utilizes an Allen-Bradley Panel View operator interface with a 15" color, touch screen monitor. The SolarVac 3000 replaces conventional hardwired panel controls

in combination with an Allen-Bradley Micrologix 1500 programmable Logic controller. The system provides the ability to monitor, control and display information graphically to enable an operator to quickly understand the status of the furnace. ✨

# WEB SITE REDESIGNED

Among the many changes taking place in the Solar Manufacturing building, expansions have occurred online as well. We've redesigned our web site and have made it easier to navigate, read and interact. Some new features include product sell sheets, complete employee contact information, quote forms to request information from our sales department and dozens of new photographs. Please visit us on the web at [www.solarmfg.com](http://www.solarmfg.com).



www.solarfmfg.com

267.384.5040



# Solutions

economic

vacuum furnaces

spare parts

rapid tech support

replacement hot zones

Energy efficiency really matters. We've developed a name in Aftermarket Services. Our engineers design replacement hot zones that are built for energy efficiency and durability. Whatever your insulation requirements, Solar replacement hot zones provide maximum performance. We incorporate proven experience in every hot zone through advanced insulation materials, innovative gas nozzle design and easy maintenance. When it's time to replace your vacuum furnace hot zone, contact Solar Manufacturing.



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Souderton, PA 18964