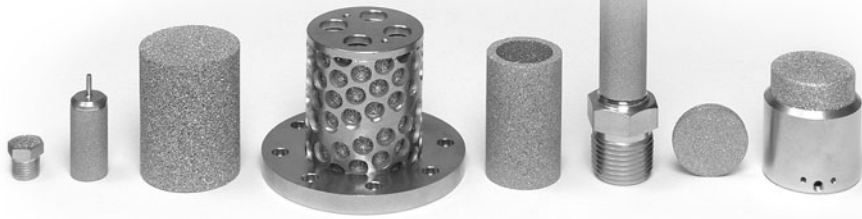


POROUS → WORKS

Vol. 3 – No. 1



News and Information on How Applied Porous Technologies Can Work for You!

Welcome



As we rapidly approach our 5th anniversary in business, I am continuously amazed at the growing number of customers that are using our products and the "challenges" they present to us in the way of new and unique applications. It is through the

creativity of our customers that we are able to continuously increase our knowledge and capabilities. In addition to a full line of standard parts, we also custom engineer sintered porous metal solutions to meet the challenges of many unique applications. Two of these are highlighted in this issue: Suros Surgical's titanium marker and ERL's high-performance nozzle filter.

As proud as I am of our first 5 years of success and the hard work and dedication of the employees of APT, I also realize that it is time to re-evaluate ourselves and make some improvements that will help guarantee that we continue our successes. As you will read in this issue, we have already embarked on a project to do just that. All of the people of APT are excited about this project and we all look forward to better serving all of our customers well into the future.

If you have a unique application that you feel we can assist you with, please visit us at our PITTCON booth, Feb. 28 - Mar. 3. Or, as always, you can contact us at 860-408-9793. Our engineers are ready for the challenge!

Sincerely,

Ed Swiniarski

Ed Swiniarski, President

Visit our display at:



Feb. 28 - Mar. 3, 2005
Orange County Convention Center
Orlando, FL
www.pittcon.org
Booth 3439

Inside...

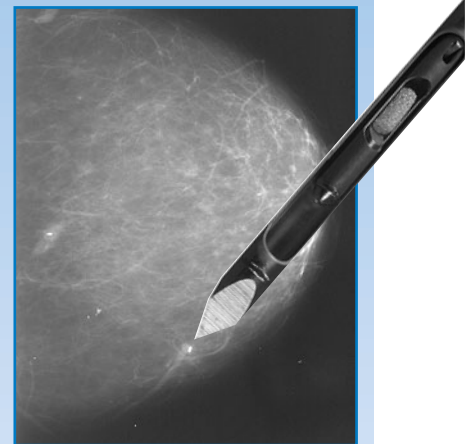
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Visit our website: www.appliedporous.com

Small Sintered Titanium Marker Makes A Big Difference in Lives of Women with Breast Cancer

When Suros Surgical Systems, Inc. of Indianapolis was looking for a new, innovative way to improve their breast biopsy system, they went in the direction of expanding options to offer a complete biopsy solution to physicians and patients. Suros, a medical device manufacturer specializing in minimally invasive tissue excision and biopsy within multiple surgical areas, developed a titanium biopsy site marker that complemented its widely adopted ATEC® breast biopsy system. A marker is placed at the biopsy site following a procedure to clearly identify where the biopsy was completed and is used as a visual reference point for future screenings.

Applied Porous was able to manufacture for Suros a biocompatible, implant-grade titanium marker to Suros's strict specifications. Titanium was chosen



X-ray image of the breast showing clear visibility of the titanium marker after deployment. Overlay of marker in the ATEC® biopsy needle.

please see "Implantable Titanium Marker..." on page 3

Applied Porous Technologies, Inc.

Featured Application: High-Performance Nozzle Filter For High-Performance Cars

Industry: Automotive
Customer: ERL Ltd.

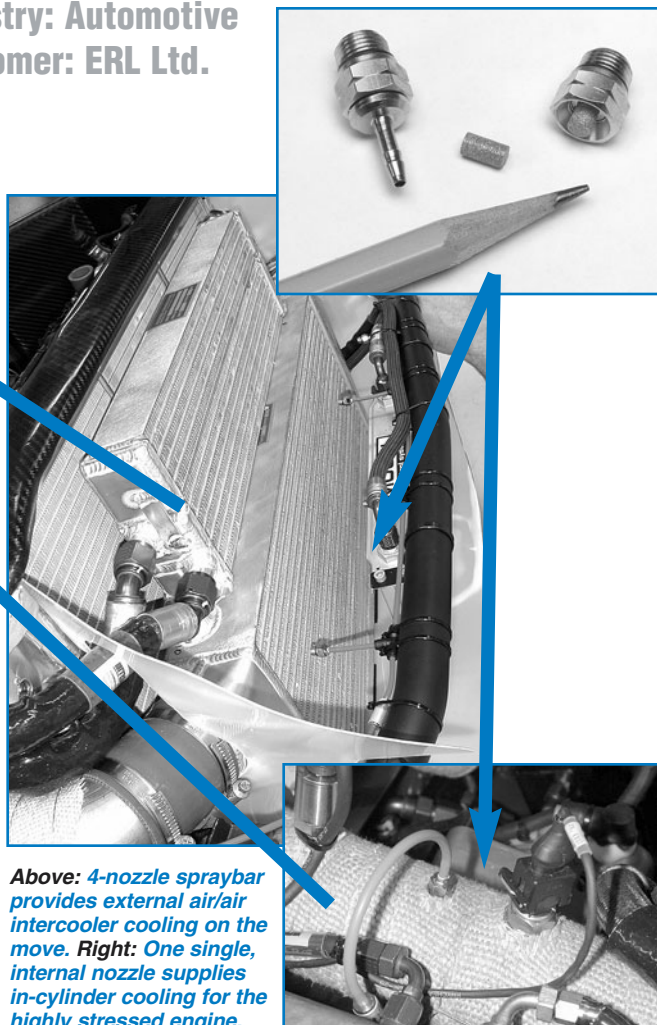


ERL Ltd. is an English company that manufactures a small atomizing nozzle for water injection systems that are used in internal combustion engines. This "Aquamist" nozzle was designed to supply atomized water, at various flow rates and droplet sizes, into high-performance engines such as those found in Ford, Mitsubishi, Subaru, Seat, Hyundai and Skoda World Rally Championship and Formula 1 racing cars. Its primary functions are to provide high-speed, in-cylinder cooling and to reduce the onset of detonation under extreme temperatures and pressures.

In preparing to introduce a new "low flow" nozzle in 2004, ERL first looked for an inline filter to prevent clogging. However, because of the complications of coupling an external inline filter at high line pressure, they decided that it would be better to use an internal filter. Although a convex disc filter was ERL's first choice, it was not practical, due to the dimensional irregularity and limited space within the nozzle cavity.

Sintered porous metal seemed to be the ideal solution for this application. This material could be manufactured to tight tolerances and could meet the requirements of today's CNC-produced mating parts. In speaking to a number of porous metal manufacturers, ERL found APT to be the most responsive. We quickly supplied ERL with in-depth engineering information and suggested specific answers to their needs.

APT worked with this customer to develop a small filter cup that could be incorporated into the existing fittings with minimal design changes. All contact during the product development stage was coordinated by APT's Dr. Christian Wegner through Applied Porous Technologies, Europe/Asia AB, our European Office in Sweden. Richard Lamb, ERL's Chief Engineer, says, "Excellent engineering support during the testing stage enabled us



Above: 4-nozzle spraybar provides external air/air intercooler cooling on the move. Right: One single, internal nozzle supplies in-cylinder cooling for the highly stressed engine.

to arrive at the final specifications in less than 10 weeks – a valuable asset indeed."

Once the design was complete, APT began to supply production quantities. ERL reports that this nozzle filter has met all expectations. It has been field-tested over the past six months on a wide range of temperatures and media, and it has performed flawlessly.

"The final unit price was a nice surprise," Richard Lamb adds. "APT will always be our first choice for sure."

We at APT would like to help make your next project involving a filter a "success story," as we have done with ERL Ltd. and Suros Surgical Systems, Inc. Please contact us with your requirements and let us show you what we can do.

Applied Porous Technologies, Inc.

5th ANNIVERSARY

**Celebrating 5 Years in Business,
Applied Porous Technologies
Adopts 5S Program to Improve
Future Performance**

In March, 2005, Applied Porous Technologies, Inc. will be celebrating the 5th anniversary of our business. These past five years have been both fast-paced and exciting. We are proud to say that we have enjoyed significant growth every year since our inception. We would like to thank all of our customers, both new and those that have been with us from the beginning, for their business and continued support.

As we make plans for the next 5 years, we must first look internally to be certain we have the proper systems in place to support our present and future growth. We realize that some areas of our business have not kept up with the fast pace of our growth, and we need to place a priority on correcting those areas in order to move ahead. In particular, we

please see "Applied Porous Celebrates..." on page 4

Staff Spotlight:

Manuel Cardoso, Manufacturing Engineer



Applied Porous Technologies, Inc. is pleased to welcome Manny Cardoso to our team. Manny holds a B.S. in Mechanical Engineering from the University of New Haven. He has worked in a variety of engineering capacities for companies such as The Ensign-Bickford Company, Pratt &

Whitney and Sikorsky Aircraft. Through these positions, Manny has gained valuable experience in designing and managing manufacturing process improvements, as well as lean manufacturing systems. Manny is multilingual and speaks Portuguese and Spanish. He is also an avid soccer player and coaches a team of youth players in his home town.

We look forward to Manny playing a key role in our Manufacturing Process Improvement Projects.

Implantable Titanium Marker Assists Doctors and Patients

continued from page 1

because it provides permanent visibility under X-ray, MRI and ultrasound imaging. For this project, porosity and density requirements were not based on typical filtration performance, but instead on the combination of the material's biocompatibility and its interaction with the different imaging modalities. APT had to incorporate alternative testing methods to better describe the critical properties and re-certify the materials for use in an implantable device.

Quality and price were major factors when Suros selected APT as its vendor, but turnaround time was the most important to engineers. Suros's engineers were looking for a company to react quickly. To Suros, 'react quickly' meant that they needed a company to not only deliver the product quickly, but also provide quotes, make changes and respond promptly. According to Mike Hoffa, Director of Engineering for Suros, Applied Porous easily met that challenge and made the entire process work smoothly. "Suros moves fast," he said. "Applied Porous moves just as fast."

Applied Porous is currently supporting several projects that integrate porous metal media into medical devices. "Over the past few years, we have seen a steady increase in the use of porous materials in medical applications due, in part, to APT's continued efforts to develop unique micro-sized porous discs, cups and tubes, as well as welded assemblies," states Ed Swiniarski, President, Applied Porous Technologies.

APT welcomes new, innovative customers like Suros. Together with these customers, we will work to expand our capabilities to develop and produce unique porous metal media and assemblies,

providing our customers with a continuing supply of new design tools.



The titanium biopsy site marker is small and porous, making it easy for the physician to deploy to the biopsy area and see it under any imaging system at a later time.

Applied Porous Technologies, Inc.

First Year of Our European/Asian Sales Office Exceeds Expectations



Our European/Asian sales office, headed by Dr. Christian Wegner, has been very successful during the first 10 months of its existence. Sales topped our expectations, and many new customers in different geographical areas were served, most often from the inventory stocked at our European office. We currently service customers in many different industries, including pharmaceutical, medical, petrochemical/oil, science, laboratory, food, automotive, paper, aviation and military.

Over the past year, we have steadily increased our inventories, with the goal of handling most requests for standard items within one business day. Turnaround times have been reduced to an average of just 4 days, and we are working to do even better. For 2005, we plan to double our inventory to enable us to answer many of our customers' needs within the same day of receiving an order. In addition to a wide variety of filter discs in different materials, filter cups, solvent filters and flow restrictors, we stock a variety of filter rods, filter tubes and other products used by many different manufacturing industries on a regular basis.

We are looking forward to the launching of several new and exciting products this year, and plans are underway to publish a more complete catalog of standard products. Most importantly, we are making arrangements to meet with our European and Asian customers at a number of industry trade shows. Even though we may not be exhibiting, we will be attending shows that are related to our industries and will make ourselves available to meet with our customers in person. If you would like to meet with us during one of these shows, or at your facility, please do not hesitate to contact us. We would be happy to be of service to you.

Contact information for Europe office:

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Applied Porous Technologies Celebrates 5th Anniversary *continued from page 3*

recognize a significant need to improve our method for quoting lead times, as well as our on-time delivery performance. We know that these issues are critical to our customers, and we are determined to strengthen our processes so that we can meet your needs on all future orders.

Over the next year, we will be dedicating significant resources to restructuring our internal systems to better serve the needs of our customers. We have already made changes and additions to our personnel to provide more resources to our manufacturing and project management teams. In addition, we will be upgrading our data systems and

software so that we will have better access to real-time information on open orders and deliveries. Finally, along with our partner, Acceleron, Inc., and with the help of an outside consulting firm, we have embarked on a mission to implement a 5S program throughout our company. Our employees have fully embraced this program and are working hard to build a better Applied Porous Technologies, Inc.

All of us at Applied Porous Technologies, Inc. wish to thank you in advance for your support as we implement these positive changes. We look forward to continuing our relationship with each of you long into the future.

Applied POROUS Technologies, Inc.