RION STREET

INDU S INC 0 0

One Orion Park Drive • Ayer, MA 01432 USA • Tel: 978.772.6000 • Fax: 978.772.0021 • www.orionindustries.com

EMI/RFI Shielding Laminates . Insulators . Seals and Gaskets . Screens



Increased Waterjet Cutting Ability

Over the past two years ORION's production orders for cutting thermal interface materials and other soft or thin materials have sharply increased.

Being able to meet higher production demands necessitated the purchase of more equipment. Earlier this year we bought our third waterjet machining center: a state of the art Flow Mach 3, 4-Head Waterjet.

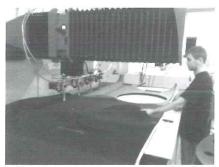
Waterjet cutting has several key features: it has cutting forces of 55,000 PSI to improve cut quality; it is tool free; and it yields faster production rates from four cutting heads.

This method of cutting is best for:

- thin film plastics & laminates
- · foams & rubbers
- thermal interface materials,
- and a wide range of other non-rigid materials such as leather, gels, Nomex®, vulcanized stock and collagen (medical applications)

Benefits over steel rule die cutting: Waterjet cutting holds much closer tolerances than steel rule die cutting, and cuts materials that are either too thick or too hard for die cutting. This is also beneficial for parts with lots of holes, which would require expensive tooling to produce, or for parts whose geometry is too complex or detailed for conventional tooling. We can create tightly nested programs that get the best utilization from the material without increasing tooling costs.

Lower production costs and improved production throughput save our customers money. If you have a new or existing application that could benefit from a cost reduction, please give us a call.



Adam Belleville operates the new 4-Head Waterjet to cut 48" diameter insulators out of laminated 2" thick vinyl nitrile foam.

New Orion® website offers more technical information, material specifications and design guides



ISO 9001:2008 Registered

UL Recognized

CCR Registered

ROHS Compliance

Company

About Orion Industries Industries We Serve

Terms & Conditions Downloads & Specifications Videos

Contact Capabilities

> Die Cutting & Stamping Wateriet Cutting Laser Cutting CNC Routed Plastics Formed Plastics



Manufacturing Process

Common Applications Custom Design Engineered Prototypes Manufacturing Materials

Services Overview

Die Cutting & Stamping



started with a simple swing arm press and small stamping press, to our state of the art prehousing 4 high speed Preco die created an almosphere of continual growth and

Rapid Prototyping





Electronic Insulation Products

We are able to offer high performance insulating films that meet UL94V-0 from 0.001° to .125° thick, and above. Our wide range of production capabilities, ensure that we provide the most cost effective solutions possible, while still maintaining your design



Thermal Transfer / Thermal Interface Materials

Through our strategic partnership with the Bergquist Company, Our company has been able to supply a wide range of thermal transfer products to our customers. We have developed body of knowledge about these various naterials and have learned to speak their language, sx



CNC Routed Plastics

In recent years, Orion Industries has expanded its capabilities of producing electronic insulation products to include thicker gauge materials. Through a process of CNC machining we are now capable of routing materials which are much thicker than those that can be die cut, and with much greater precision. »:



Seals and Gaskets Products

Orion Industries Inc has over 30 years experience in the design and manufacture of high performance gaskets and seals. Our processing capability allows us to fabricate parts from open cell sponge, closed cell sponge, and solid, dense gasketing materials

Waterjet Cutting Products

> Die Cut & Stamped Parts Electronic Insulators Thermal Transfer Materials / Cut Parts Wateriet Cut Parts **CNC Routed Products** Gaskets and Seals Shielding Gaskets Shielding Laminates Filters & Screens Formed Plastics Pipe & Tubing Insulation

Industries We Serve

Electronics

Power Supplies Commercial Lighting EMI Shielding Anti-Static Insulation

BioMedical

Electronic Devices Packaging Lids Medical Foams Roger's Medical Grade Urethane & Silicone

Automotive

Gaskets & Seals **EMI** Shielding Thermal Products Die Cut VHB Tapes

Military & Defense

Season's Greetings from Everyone at ORION



Q: I am designing an electronic assembly that needs a suitable thermal interface material to control and manage heat. What are your recommendations for some of these materials on the market?

A: When it comes to selecting the appropriate thermal interface material for an application, the numerous choices can make it a nearly unbearable task. The Berguist Company alone offers over 30 different Sil-Pad® materials for various types of applications. Given the numerous other sources of thermal products which do not use the same performance testing, comparing products can be very difficult.

Over the past several years ORION has worked with products from many different sources: Bergquist, Chomerics. Thermagon, Aavid, and others. We have developed a body of knowledge about these various materials. We have enjoyed the success that comes from years of understanding the products of these companies. ORION is also a fabricating distributor for the Bergquist Company.

In general, Sil-Pad is a term used for Bergquist's silicone rubber-based thermally conductive insulators. Typical construction for these products is a silicone binding material, compounded with thermally conductive fillers, which is then coated on a carrier material. Depending on the compounding, Sil-Pad materials on a fiberglass carrier exhibit thermal conductivities from 0.9 W/m-K in Sil-Pad 400 to 3.5 W/m-K in the high performance Sil-Pad 2000, Sil-Pad 2000 is available in thicknesses from 0.010" to 0.060". In addition to a fiberglass carrier, Sil-Pad materials are also available coated onto polyimide film. These materials: Sil-Pad K-4, -K-6, and -K-10, use a high performance film which exhibits improved puncture resistance. as well as a higher breakdown voltage. These materials are available at 0.006" thick, with thermal conductivities ranging from 0.9 W/m-K for Sil-Pad K-4, to 1.3 W/m-K for Sil-Pad K-10.

All of these materials are available from ORION as die cut parts, either as custom products or in standard configurations. Please contact your ORION sales representative for additional information on Sil-Pad interface materials, and for a list of standard configurations.

Sil-Pad is a registered trademark of The Bergquist Company.



Boy Scout Troop 4 at their 2009 Fundraiser



Frank Widmayer, President, welcomes his grandson Steve Husmer into the Company.

Third Generation Begins at ORION

Steve Husmer, grandson of ORION's founder and President Frank Widmayer, and youngest child of Stu and Julie Husmer, also with the company, has joined ORION as the first member of the third generation to be hired full time in the business. Frank was enthusiastic about bringing Steve into his now thirty-eight year old company. "This is a big day for me, to see one of my grandchildren come on board."

Steve primarily works with our newest customers who order thermal materials for prototypes or small production requirements, and provides them with material specifications, pricing and shipping information. He further supports the sales department with product and service inquiries, customer database order tracking, completing spreadsheets and sending out literature.

Steve is a recent graduate of the University of New Hampshire's Whittemore School of Business, and received his Bachelor of Science degree in Finance. The ORION sales group proudly welcomes Steve onto their team in support of ORION's continued rapid growth over this past year.

ORION provides Die-Cut Tree Tags to Boy Scout Troop 4

One consistent fundraiser offered by Boy Scout Troop 4 in Hopkinton, Massachusetts has been its disposal service of old Christmas trees. ORION has been proud to be a part of this over the years, by providing them with die-cut tree shaped tags imprinted with Troop 4 contact information. Customers simply call the scouts to arrange pickup of their old trees for a nominal fee - a timely and much appreciated service.

Scoutmaster Greg Kelley wrote "We really appreciate the support you've given us. Thanks!" It has been something we've enjoyed providing and we wish them another successful fundraiser this year.

ORION uses quality materials to produce high quality parts.















