

ORION INDUSTRIES INCORPORATED
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How Do We Meet our Customers' Needs?

At ORION, our primary focus is to meet customers' expectations from design to production. Over the years, we have built a range of equipment and cutting processes to accommodate a wide variety of materials and design constraints, giving us the ability to offer complete solutions to our customers' most demanding requirements, regardless of quantities.

So one might ask, how do we decide which approach to take in manufacturing a part in a particular way?

The major variables in process selection are:

Material being cut. Thin films, plastics and foams lend themselves best to be die-cut with steel rule dies, but can also be cut with our knife cutter, waterjet or laser. Since thicker, compressible materials might have an undesirable edge condition when die-cut, waterjet cutting may be the best option. For rigid plastic materials, laser cutting or routing may be the best process to choose.

Part geometry & tolerances. Parts with complex geometry may be too complicated for steel rule dies. If so, we may need to use other tooling types like chemically etched cutting dies, or digital cutting methods like waterjet cutting or routing. Similarly, if tolerances closer than 0.015" are needed, the same choices may need to be made.

How soon do you need them? If our customer needs parts overnight, or within a few days, a digital cutting technology is the likely solution. In most cases, these parts would be either waterjet or laser cut, with a few exceptions for thicker rigid plastics and phenolic which would be routed. If a short lead time is not a major concern and a customer can wait a week or so for parts to ship, then tooling such as a steel rule die can be considered. From there we can choose the most appropriate type of tooling for the material and part geometry.

Quantity of parts needed. If only a handful of parts are needed, then it may be best to use a digital processing method. Depending on the constraints above, this may be waterjet cutting, CNC routing, or laser cutting. (continued on back page)

FIRST® LEGO® League 2015



The ORION sponsored LEGO® Robotics Club at Ste Jeanne d'Arc School has had an exciting year! The Chargers and Igniters competed at the 2015 FIRST® LEGO® League competition at Nashoba Valley Technical High School in Westford, MA on December 5th. Twenty-four teams participated in this first round qualifier tournament vying for a chance to move on to the next round of regional competition.

Some students were able to draw on the knowledge and experience gained from last year's competition. Both teams exhibited a tremendous amount of energy and enthusiasm. Teams met each Friday afternoon for two hours from mid-September right up to the week of competition. As the competition neared, they added Saturday morning practice time to their prep time. This year two parent volunteers were added to our team of LEGO® Club Advisors who brought a lot of knowledge and expertise to the team.



Figure 1. Students program and test out their robots before the competition

Figure 2. The Chargers and Igniters showcase their ORION goodie bags

This year the teams were on a Trash Trek to discover the hidden (or not so hidden) world of trash! The **FLL Trash Trek Challenge™**, where more than 233,000 children ages 9 to 16 from over 80 countries, explored the fascinating world of trash. From collection, to sorting, to smart production and reuse, there is more to your trash than meets the eye.

This is the second year of competition for SJA's Robotics Club and both teams performed extremely well! The Igniters were awarded 2nd place for research on this year's topic - recycling. The Chargers came in fifth place overall. *"The progress, growth and maturity shown by the students this year is impressive,"* said Mrs. Amanda McLaughlin, SJA Robotics Club Advisor. The students worked really hard for months building, programming and testing their robots.

Please join ORION in congratulating the SJA Chargers and Igniters on their achievements at FLL 2015. We are so proud of their accomplishments! The future of these students and the LEGO® Robotics Club at Ste Jeanne d'Arc School is bright.

* Small Business * ISO9001:2008 * CCR Registered * ITAR Registered #M18334

* Waterjet Cutting * Laser Cutting * High Speed Die Cutting * CNC Drilling and Routing * Line Bending * Prototyping

ORION designs and manufactures custom parts, specializing in electrical insulation, gaskets and seals, thermal transfer materials and EMI/RFI shielding laminates.

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How Do We Meet our Customers' Needs? (continued...)

These processes will avoid the costs and lead times associated with building tooling to manufacture products. If orders of several hundred or thousands of parts are needed, then tooling becomes the most cost effective method of production. Steel rule dies, or male/female stamping tools, make for the best price point on high production quantities.

The bottom line is that the more information we have when we prepare a quote for a customer, the better we can fit the job to the most appropriate process. This is an essential element in keeping our customers happy and making sure that the product they receive will perform to their needs.

ORION Exhibiting At:

GASKETING/CONVERTING EXPO '16
April 5-7, 2016
Rosen Shingle Creek
Orlando, FL

ORION is a member of the Gasket Fabricators Association (GFA), a trade association of companies who provide custom-fabricated components and services like gaskets, tapes, adhesives, polymers, die-cutting, laminating, converting, and more.

The membership is comprised of companies of all sizes and offers regular, productive opportunities for companies to network, share ideas, and support each another in an easy, comfortable setting.

ORION is excited to be an exhibitor at the 2016 Gasketing/Converting Expo sponsored by GFA. This expo provides a unique and valuable opportunity for fabricators and suppliers alike to learn the latest technologies and great ideas. We invite you to visit us to discuss design issues, material alternatives and other product challenges to help get your product to market.



HAPPY HOLIDAYS
FROM ALL OF US AT ORION!



New Customer Service Representative



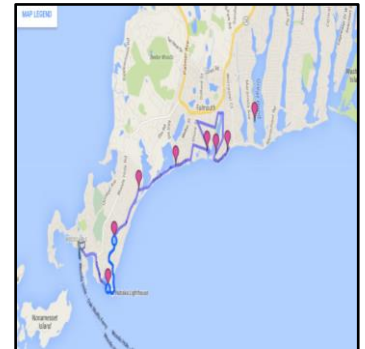
ORION is pleased to introduce the newest member of our sales team, Aurora Jokinen. Aurora primarily supports the sales department with product and service inquiries and is looking forward to becoming a regular contact for our customers. Please join us in welcoming Aurora to our team!

Team ORION!!!

One of ORION's Board of Directors, Dr. Richard R. Waller DC, and two of his daughters, Kaitlyn Waller and Kimberly Waller, participated in the 43rd Annual Falmouth Road Race this summer on August 16th, 2015.



Rick, Katie, and Kim Waller



Falmouth Road Race course map

The road race takes place on Cape Cod in Falmouth, Massachusetts and is seven miles long. More than 12,000 runners gather in Woods Hole, including many of the world's elite, though the essence of the event always remains a fun run. Back-of-the-pack joggers share the road with the best, forming a tapestry of colors from start in Woods Hole to finish at the beach in Falmouth Heights.

ORION is proud of its runners and will hopefully have the opportunity to cheer them on again next year!

ORION uses quality materials to produce high quality parts.

