



“ If you get the right combination of people and continue to recruit and develop them you can do great things, independent of pricing models, market conditions and technology. At Optimax we feel secure, even during tough times, because of the quality of our workforce. That has more to do with our success than anything else.”

– Michael Mandina, President/Founder

# Optimax Systems, Inc

## Recruiting & Developing 21st Century Technicians

In the early '90s Optimax Systems, Inc., was one of the first manufacturers to adopt a breakthrough computer-controlled technology for grinding and polishing lenses allowing them to offer unique services to their customers. Since then, this small upstate New York firm – known for thinking big – has kept innovating, getting smarter, faster and more precise. From its early beginning, when it was launched in the basement of a barn, this nine-person shop

with sales of \$1.4 million has expanded substantially. Today Optimax Systems is America's largest prototype optics manufacturer, operates out of a 40,000+ square foot facility with impressive technological capabilities and employs 140 people, with revenues of nearly \$15 million and a steady stream of defense, semiconductor, medical and aerospace clients. Signature projects include the Mars Exploration Rover Mission and the Mercury Messenger project for NASA. Today, "Precision Optics in One Week" and Optimax Systems

Today, Optimax Systems employs nearly 140 people. They have a small, lean management staff and the rest – 90% – make up the manufacturing workforce, primarily opticians, technicians and engineers; approximately 6% of opticians are female.

Optimax technicians grind and polish optical

### Optimax Systems, Inc. Ontario, NY

- Founded 1991
- Manufacturer of prototype optics
- Privately-held
- 2009 Revenues: \$13,200,000
- 140 employees
- Average turnover for last 3 years: 16%
- Average tenure: 8 years
- 2010 Top Small Company Workplaces Winner as awarded by Winning Workplaces and Inc.

[www.optimaxsi.com](http://www.optimaxsi.com)

go hand in hand, a turnaround time that was once unheard of in the industry. It is one thing to create a catchy tagline, but quite another to build a compelling financial model around it, coupled with a campaign to educate the market about a new way of doing business. While the economy has taken a toll on many, this is one of a handful of firms in the optics industry that is well positioned to provide real value to its customers through their small

volume, high quality and fast delivery services. While business slowed down over the past year, with some impact to the Optimax workforce, 2010 has been particularly robust; revenue is up more than 30% and bookings are up 50%, the highest in the history of the business.

Much of Optimax's success is due to its dynamic, team-based culture, enlightened management practices, lean operation and innovative approaches to recruiting and retaining its production workforce.

## The Workforce

materials such as glass, crystal, ceramic and stainless steel producing components up to 300 millimeters in diameter; 80% of their business involves optics that measure 10 to 100 millimeters in diameter. To handle this detailed precision work involving

**"As we have grown the business, we wanted to create a place where people could take pride in their work, continue to add value and provide a good lifestyle for their family."**

**– Rick Plympton, CEO**

*continued on page 3*

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## The Workforce *continued from page 2*

the latest technology, CEO Rick Plympton says they must hire *“technicians for the 21st Century. These are the people who can program computerized machinery and have strong math, science and communication skills.”*

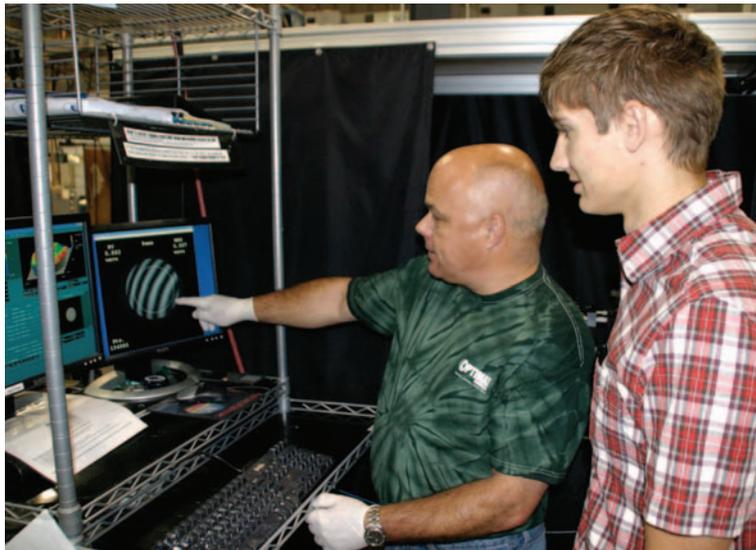
Over the years, Optimax has built strong relationships with area high schools and colleges in order to ensure a workforce pipeline with an interest in manufacturing, so it is not unusual for the firm to have a handful of high school interns at the company. Entry-level wages are competitive; hourly technicians can earn from \$9-\$15 depending on their skills and experience.

Since the firm spends so much time recruiting and developing employees, their leaders intend to keep them. Optimax’s turnover is low, averaging 16% annually over the last three years; average length of tenure is eight years. During the recent recession when business slowed down and some companies were laying off large numbers of people, Optimax worked with its local government to implement a short-term shared work program where employees who worked fewer hours could receive a supplemental unemployment check, along with their paycheck. *“We made sure that whatever pain our company felt due to the recession was shared by everyone so that when things improved we could respond immediately with our team intact,”* says Alejandro Mendoza, Human Resources Manager.

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## Intentional Culture

The leaders of Optimax Systems, President Michael Mandina and CEO Rick Plympton, have been very intentional in creating their corporate culture, a culture that can be seen as an extension of their combined personalities. Both come from blue collar backgrounds, starting out their careers on the production floor and working their way up. While they were technicians they pursued engineering degrees, and later as their business management responsibilities grew, they went back to school to obtain their MBAs. Both are very hands on, enjoy being in the trenches and place a high value on relationships – inside and outside of the company. Most importantly, they believe in teams. *“It is not about 1-2 people doing heroics, it’s about the*



*whole team working together,”* says CEO Plympton.

As a model, years ago they adopted principles and practices from the Toyota Motor Corporation. This approach, so closely aligned with the philosophy of Optimax leaders, emphasizes:

- 1) **Continuous improvement**, innovation and going to the source of the problem.
- 2) **Respect for people**, taking responsibility and doing your best to build mutual trust.
- 3) **Teamwork**, stimulating personal and professional growth and sharing in the risks and rewards.

*continued on page 4*

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## Intentional Culture

continued from page 3

**“Working together as a team is just as important as technology, even more important. You have got to have a workforce that allows the technology to work to its maximum potential.”**

**– Mike Mandina, President**

Optimax’s operation is driven by cross-functional cells, each one manufacturing lenses of different sizes and shapes. To meet their demanding production schedules, cell members, at all levels, must be knowledgeable of the entire manufacturing process and continuously look to find improvements to the standard work processes. And, they must be able to collaborate with their cell peers and with the other cells throughout the company. Reinforcing the team culture are two key practices established by its leaders nearly 15 years ago: its bonus structure and performance review system.

### **Bonuses That Drive Behavior**

In the mid-’90s, its leaders developed a bonus structure where every month they close the books and review their performance in an all-staff meeting discussing their sales, on time delivery, future orders, etc. If for that period they realized a profit, management takes 25% of the profits and distributes it amongst the workforce based on wages, tenure and service. Its leaders have found that the monthly bonus structure influences employees’ daily behaviors much more than annual bonuses. *“Each month employees look at our performance, they know what is important. We are much more focused on our performance metrics and understand that we must provide 100% quality and on time delivery to our customers every single day,”* says Plympton.

### **Team Peer Reviews**

In many companies, it is not unusual for top management to undergo 360-degree peer reviews. What distinguishes Optimax is that all employees, hourly and salary, participate in annual peer reviews – a practice almost unheard of in the industry. In their unique process, the key question is not “Am I satisfying my supervisor?” Rather it is “Am I satisfying my team and what can I learn to create more value?” Managers sit down with their direct reports and discuss the feedback received from several of their peers on their particular strengths, performance as a team member and areas for improvement. The review is based upon a process developed in house which assesses essential skills, aptitudes and interpersonal relations. As part of the process, employees create an Individual Learning Plan outlining their career interests and future development opportunities. This review, according to Human Resources, allows managers to provide valuable feedback, to establish goals and to ensure that everyone – team members and supervisors – understand their roles and expectations. Merit increases are routinely given based upon the peer reviews and newly acquired technical capabilities.

To highlight the importance of the peer reviews and hold themselves accountable, at their monthly all-staff meetings, the status of mandatory reviews is monitored and reported out as to how many have been completed, overdue, etc. This subtle peer pressure has been key to dramatically increasing the timeliness of the performance reviews. Three years ago barely a quarter of the performance reviews had been completed on time; today the rate is close to 90%.

**“Performance management at Optimax is extremely important. We place a heavy emphasis on providing feedback in a timely, effective manner.”**

**– Alejandro Mendoza, HR Manager**

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## Recruiting and Retaining Talent

The most challenging part of business can be finding and retaining capable, productive employees, at all levels, especially critical to Optimax as they strive to defend their value proposition for high quality and fast delivery. In addition to fostering a culture of collaboration, its leaders have approached this challenge in two ways: by establishing



standardized work processes and internal training systems, and by partnering with local government, colleges and industry to develop a regional approach to attracting and training skilled workers.

### Growing from Within

Experienced leaders understand they need to continue to develop their entry-level talent to be successful and to ensure employees have the right skill sets and attitude to compete in a global marketplace. At Optimax, in order to achieve a flexible, cross-trained workforce, they provide a highly structured set of activities in which all hourly production employees participate: mentoring, on-the-job training, lean manufacturing training and external development.

**Mentoring:** Core to the developmental process at Optimax is their mentoring program — something its leaders have spent a great deal of time designing in order for it to be useful and meaningful. The intent of mentoring is to help employees learn about, and feel more comfortable in, Optimax's culture; have a safe place to ask questions; and, most importantly, to be able to build a trusting relationship with another co-worker. All new employees are assigned a mentor for a minimum of 90 days and there is a structured timeline of events that are expected to take place during this time period, including: much one-on-one time, monthly lunches, introductions to all staff, orientation to computer systems, understanding the bonus program, etc. *"Instead of a boring HR orientation, this*

*mentoring relationship helps new employees understand our environment and what is expected in a far more effective manner,"* says HR Manager Mendoza.

One of the more effective mentoring activities is requiring all recruits to read the book *QBQ – The Question Behind the Question*, a best-selling

book aimed at increasing one's personal accountability and eliminating unproductive behaviors such as blaming, complaining and procrastination. The mentor and mentee have structured discussions about the book and what it means to them. The mentee identifies ways he/she hopes to apply the principles to his/her work life and is invited to write them down on paper and sign it – almost as a type of personal contract. *"This book was really helpful,"* says Mike, Assistant Team Leader. *"I learned not to settle for the initial 'because' answer. We analyze the situation and look at why it happened or didn't happen, looking for the root-cause so you can solve the problem and avoid it happening again."*

**On-the-Job Training:** The most intensive skills training takes place primarily within the work cells. Optimax's manufacturing is driven by knowledge sharing within its work cells, of which they have about 25. Optimax has documented its optics manufacturing know-how through ISO 9001 and provides ongoing updates through its continuous improvement culture. Each cell has a specific Training Time Table detailing the core skills, proficiency levels and instructions associated with every aspect of manufacturing a particular optic, from polishing and machining to inspection. These agile employees are thus able to move from cell to cell proficient in the different work processes and can expect to receive wage increases as they acquire additional skills.

*continued on page 6*

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## Recruiting and Retaining Talent

continued from page 5

**Continuous Improvement:** As a lean manufacturer, Optimax spends a great deal of time documenting, creating and updating its standard work procedures. For the past few years, the firm has held internal training on continuous improvement where they identify the practices that create true value and what does not to cut out the areas of waste. These efforts have resulted in better processes leading to more money earned and saved. Detailing specific work processes for running certain parts and training employees has eliminated wasted time and material. The freed time gives Optimax the opportunity to start and finish more jobs consistently. Also, creating standard work methods allows employees to better predict when a part will be finished, which, in turn, gives the optician greater confidence in setting and meeting deadlines, increasing satisfaction of customers and staff.

*“At Optimax,” says Matt, an up and coming Team Leader, “they like to try different things and have a lot of trust in us, letting employees work out the best way to get things done, so they developed a standard work form to document the best way to do something. This form is then used to train employees and build upon as new ideas arise. All employees can write a standard work form and offer ideas. Gift cards are given out at the monthly meetings for the new ideas.”*

**External Development:** In their recruitment the company makes it very clear that they are looking for those individuals that “are not afraid to continue with their

**“We frequently take on the work that is beyond current manufacturing technology. Our team enjoys a good challenge.”**

**– Rick Plympton, CEO**

**“Our purpose is simple: to leverage optics manufacturing know-how for programs that benefit mankind and to provide an attractive lifestyle for employees.”**

**– Rick Plympton, CEO**

formal education.” Optimax pays up to \$5,000 in tuition per employee annually. Since 2001, when the company started tracking its tuition payments, they calculate that they have paid out approximately \$200,000. In large part, this tuition has been used for sending opticians to technical schools to develop new skills and knowledge. Each year the firm sends, on average, 10 employees to various classes and degree completion programs.

In addition to sending employees to technical school, Optimax takes advantage of a variety of state subsidies to offset the cost of other onsite training of hourly employees in: analytic troubleshooting, project management, presentation skills, various computerized machinery and other technical courses.

**Each year, the firm sends an average of 10 employees to various classes and degree completion programs.**

### Grooming Leaders

Optimax utilizes regional expertise for leadership development. Many employees work for years on developing technical skills, then, without warning, are tasked with managing others. Optimax developed a Team Leadership Program to help technicians cope with personnel management responsibilities and learn team building concepts and strategies for “modeling the way.” In addition, Optimax has a “Read to Lead” program where they discuss books in small groups so that everyone can share in the discussion to enrich the lessons from the book.

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## Benefits At A Glance

- **Health Insurance:** 50% employee premium paid by employer
- **Health Insurance:** 50% dependent premium paid by employer
- **Dental Insurance**
- **Vision Insurance**
- **Employee Assistance Program**
- **Life Insurance**
- **Long and Short Term Disability**
- **401K**
- **Pre-tax spending benefits**
- **Paid Time Off:** PTO Plan – 10 days plus 9 holidays/year
- **Tuition reimbursement:** \$5,000 per employee/year

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## Success Story



When Mike was hired 14 years ago as a fabricator at Optimax, he came right out of high school. Today, he is the second shift Assistant Team Leader for the entire shop, helping to resolve technical, engineering and human resource issues. During high school, while he worked on a two-year machining certificate, a manager from Optimax visited the school to discuss optics technology and their available apprenticeships. Mike was selected as an apprentice during his senior year; upon graduation, he was hired full-time.

Over the years, Mike has taken advantage of an abundance of learning opportunities, served in many capacities and received several wage increases along the way. As a new recruit, Mike went through a three-month training program learning how to make the optics and work the machinery. *“What really caught my attention about Optimax is the dedication of the employees and the owners. It’s not uncommon for people to work*

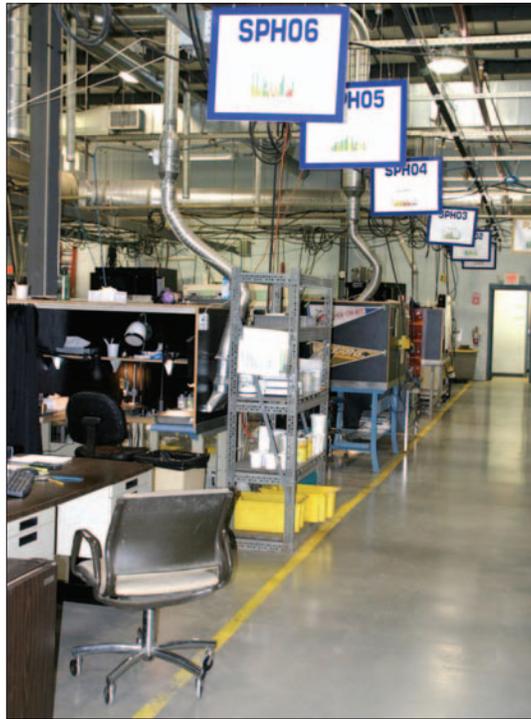
*late, not because they’re asked to but because they want to see the jobs completed successfully. We have an ownership feeling and that’s what makes us stay,”* says Mike. Five years later, he progressed from a fabricator to technician, to Team Leader. While finishing his Associates Degree in Mechanical Engineering at a local community college, he transferred to third shift so he could attend school. Upon completion he returned to second shift as a Team Leader, cross training employees and helping them to troubleshoot their own problems. He recently went through a leadership program to learn about the basics of business, people management and production.

*“They are willing to teach and give demonstrations to make sure you understand,”* he says. *“They have much heart in what they do to make sure you are successful – it has the student/teacher feel. I haven’t had a boring day in 14 years.”*

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## Collaborating Regionally to Develop Skilled Workers

Leadership at Optimax have long been active in the community and are committed to strengthening the manufacturing base in upstate New York. In 2007, Optimax President Michael Mandina helped launch FAME (Finger Lake Advanced Manufacturing Enterprise), where small and mid-sized manufacturing companies come together to promote advanced manufacturing and address shared concerns specifically related to the shortage of skilled workers. This was the region's first attempt at creating a broad industry cluster that is industry led, yet works in partnership with the region's Workforce Investment Boards (WIBs). "There are 1,500



manufacturing firms in the region and a broad initiative to develop 21st century technicians was missing," says Mandina. "Promoting jobs for optics technicians was not enough. Enrollment in our area community colleges' technology programs was declining; a broader effort was needed to increase the number of candidates." Due to their efforts, enrollment in the community colleges' technology programs has been steadily increasing over the last two years.

In 2010, FAME was instrumental in launching the first industry-certified optics training and job placement program, customized specifically for optics manufacturers in the greater Rochester area. Optics is a fast-growing industry in the area, especially in relation to high precision, low volume niche production. In a 2010 survey, local optics companies estimated that they will need about 100 workers each year over the next five years.

The program, which bundles existing courses in optical systems technology and precision machining, enables students to pursue jobs in either industry, allows for an easier transition of workers already skilled in precision machining into the optics industry and trains men and women who want to quickly get into the workforce.

Training funds to participate in the program are made available to eligible candidates through the area workforce development board. Successful completion of the credit program gives its participants an industry-approved certification.

In 2009, Matt, an optician and future Team Leader, was one of the first to graduate from the optician's certification program.

When Matt was hired five years ago as an entry-level Optical Fabricator, he immediately underwent an intensive three-month training period, working side by side with other fabricators learning the machines and polishing specs, and attending in-house and off-site classes for optical inspection training. "There's always something new, which is what I really like about the job," he says.

As Matt learned more about the business, he realized he had a number of ideas for improving production and a knack for training other employees; he is now in the process of becoming a Team Leader. "We all work as a team, but I am in the process of taking over the production control and will now manage four employees," he says. "Throughout the years Optimax has helped me grow into an adult and become more responsible, putting me through a leadership program that helped with personal skills." Matt also recently completed the two-year Optical Manufacturing Certificate program at a local community college, a new program developed with input from Optimax's management. "From what I've heard from friends, the culture at Optimax is really different from other factories. Everyone is treated equally and has input here. The culture here keeps me coming back. I thank everyone around me for helping me to grow," says Matt.

*continued on page 9*

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## Collaborating *continued from page 8*

### All Work and No Play - No Way

If it seems that Optimax Systems is all about work, continuous learning and metrics, think again. This is a workplace where folks like to play – starting with the CEO. More comfortable in a tie-dye T-shirt (their signature uniform) than a three-piece suit, CEO Rick Plympton loves to kid around and play video games, *"I really still consider myself a big kid,"* he says. Over time, some of the faces at the company have changed but one important goal remains the same – to make sure that "fun" stays part of life at Optimax.

Having fun, building relationships and growing community is what the long-standing Optimax Recreation Committee is all about. This employee committee plans monthly social events including: company picnics, summer Optipolooza music festivals, formal holiday dinners, end-of-winter Steakouts, spring Adirondack campouts and

autumn Oktoberfests. Employees also appreciate having access to an oceanside condo in Florida to which they can bring their families, an employment perk provided by the company.

## Conclusion

Optimax's purpose is simple: to leverage optics manufacturing know-how for programs that benefit human kind and to provide an attractive lifestyle for all employees, from managers and engineers to hourly technicians. This innovative culture keeps Optimax on the cutting-edge of technology and in the position to make a difference. Through its research and continuous improvement, Optimax is made aware of emerging needs in the defense, aerospace, and medical industries, and is able to provide critical support – which is how they have had a hand in exploring outer space, protecting American soldiers and diagnosing and treating illnesses.

**"The leadership at Optimax is committed to continuing education.**

**You can never be smart enough, and there is always positive reinforcement."**

**– Mike, Team Leader**





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