CREATING THE **In-House Lab:**
A Strategic Planning Guide

**FEATUREING ARTICLES ON...**
Choosing your lab format, determining space and set-up requirements, training the staff, maintenance and service, managing lens inventories, and calculating profitability

**PLUS!**
A Lab Resource Center and Product Showcase

A supplement to Vision Care Product News, May 2004
A Tool for Success

Achieving success in the dispensary of an ophthalmic practice is never guaranteed, even with a proficient doctor performing accurate refractions and competent opticians filling them. There are many excellent practitioners who have failed in businesses in communities where seemingly less knowledgeable or less capable competitors have flourished. There’s often a fine line that separates success from failure, and a few key factors often make the difference.

It’s my opinion that the two most important factors that you must consider are these: How can I control my cost of goods? How can I provide a level of customer service that will keep my patients from going elsewhere?

The high cost of consumer advertising makes it nearly impossible to compete with large corporate optical companies, but that does not mean that you cannot be successful in a head-to-head competition. Many corporate optical providers are marketing quick turnaround and low price. In order to compete, you need to bridge the gap between yourself and your competitors.

The integration of a finishing lab, surfacing lab, or lens casting system may provide you with the means to both control costs and improve service to your patients. You can provide patients with the same dependable quality of care and make it less likely that they will take their prescriptions with them when their exam is completed. The following sections represent a blueprint for getting started, the first steps in improving your chances of success.

Raymond Dennis, MEd, ABOM

Raymond Dennis is the Program Director of the Opticianry Program at Middlesex Community College, Middletown, CT.

Index to Advertisers

<table>
<thead>
<tr>
<th>ADVERTISER</th>
<th>PAGE</th>
<th>PHONE</th>
<th>WEBSITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.I.T. Industries</td>
<td>CV4</td>
<td>800-729-1959</td>
<td>aitindustries.com</td>
</tr>
<tr>
<td>Briot USA</td>
<td>19</td>
<td>800-292-7468</td>
<td>briot-usa.com</td>
</tr>
<tr>
<td>Gerber Coburn</td>
<td>3</td>
<td>800-843-1479</td>
<td>gerbercoburn.com</td>
</tr>
<tr>
<td>National Optronics, Inc.</td>
<td>CV2</td>
<td>800-247-9796</td>
<td>nationaloptronics.com</td>
</tr>
<tr>
<td>Optek</td>
<td>13-16</td>
<td>800-524-5454</td>
<td>optek-online.com</td>
</tr>
<tr>
<td>Practical Systems, Inc. (PSI)</td>
<td>CV3</td>
<td>800-237-8154</td>
<td>looktopsi.com</td>
</tr>
<tr>
<td>Santinelli International, Inc.</td>
<td>7, BRC</td>
<td>800-644-3343</td>
<td>santinelli.com</td>
</tr>
<tr>
<td>Vision Systems, Inc.</td>
<td>9</td>
<td>866-394-1030</td>
<td>patternless.com</td>
</tr>
<tr>
<td>WECO USA</td>
<td>23</td>
<td>877-872-9326</td>
<td>weco-usa.com</td>
</tr>
</tbody>
</table>


Project Editor: Raymond Dennis, MEd, ABOM
Design Director: Karen Blankenship

This supplement is also available on the Web at visioncareproducts.com/houselab.

On the Cover: The Kappa SP from Gerber Coburn integrates tracing, blocking and edging functions.
To Lab or Not to Lab?

The decision to invest in an in-office laboratory is a considerable one that invites many questions. Here are some things to consider during the process.

In their desire to provide better service, improve profit margins, and operate their optical dispensaries more efficiently, many practices have considered adding an optical laboratory. But to do so is not a simple decision and requires a good sense of what the outcome should be.

Is an in-house laboratory right for your practice? Let’s find out.

Reasons for an In-House Lab

Let’s begin with the discussion of some of your motivations for wanting to install an in-house laboratory. Some of these include:

- **A desire to reduce the cost of goods sold**
  Over the past several years there has been a remarkable number of new lens materials, lens designs, and lens treatments made available to the ophthalmic consumer. These innovations offer dramatically improved peripheral vision, lighter weight, reduced reflectance, and improved durability, to name a few benefits. An interesting byproduct of this trend has been a tendency for dispensers to offer these products at prices that represent lower markups. As a result, the cost of goods in the average practice, as a percentage of sales, is rising. One motivation then for installing an in-house laboratory would be to gain some control over these costs.

- **A desire to control quality**
  Every few years, a major media player, usually a big market newspaper or TV network, will do an exposé on the quality of eyeglasses.

  Traditionally, the reporter will visit several different eyecare and eyewear providers, submit to an exam, and purchase a number of pairs of eyeglasses. The glasses are then handed over to a trusted optical professional for analysis. (*ABC News* used this approach several years ago in an exposé about eyewear.)

  The astounding results of the ABC study were that nearly 50% of the eyeglasses purchased failed to meet the ANSI Z80 standards for first quality eyewear, the current accepted industry standard. To make matters worse, it didn’t seem to matter where the glasses were purchased; those obtained from independent ophthalmology dispensaries, optometric offices, independent opticians or commercial practices were all equally as good or bad as the others.

  The point here is that the quality of the finished product varies widely throughout the ophthalmic marketplace. We’ve all had patients walk in with eyeglasses that were purchased elsewhere and were radically incorrect. Hence, this fuels our desire to produce a superior product, thereby offering our patients a better value for their eyeglass consuming dollars.

*Continued on page 4*
A desire to control when the work will be performed
One of the most unnerving experiences in all of optical dispensing is having to face an irate patient whose glasses aren’t ready in time. Obviously there are quite a few reasons why this would happen. One of them is being dependent on someone else’s work or production schedule. The desire then is to perform the work in-house in order to control workflow and deadlines.

A desire to close more sales
Those optical dispensaries that have in-house laboratories have a strategic advantage over those that do not. While making sales presentations, an optician who has an in-house laboratory can offer at least some of his or her patients the option of getting glasses quickly, in some cases within an hour or so. Since consumers are often motivated to buy when they can receive the purchase immediately, on-site manufacturing can be a significant weapon in the optician’s arsenal of closing techniques.

A desire to shorten turnaround time
Many optical dispensaries without in-house laboratories provide eyeglasses to their patients, “within a week to 10 days.” This lead time is often mandated because of the complexity of a production cycle that includes order entry, manufacturing, delivery, fabrication and quality assurance before the product can be dispensed to the patient.

By having an in-house laboratory, at the minimum, the order entry and delivery dimensions of the process can be eliminated, thereby reducing the overall turnaround time.

A desire to minimize a competitive weakness
One well-known marketing phrase states that customers vote with their feet. This means that customers tend to frequent those establishments that have the types of products and services they need, want, and expect. In this context, optical dispensaries that do not have in-house laboratories operate at a competitive disadvantage to those that do. There is a strong desire to improve the overall health of one’s business by strengthening its strategic position.

Challenges You Will Face
As the saying goes, that was “the good news.” The other side of installing an in-house laboratory is that there will be challenges. Some of these include:

Operating a manufacturing facility
Operating a laboratory, especially a full-service laboratory, requires a different set of skills than operating either a medical practice or retail business. The laboratory focuses primarily on two things: quantity of output and quality of output. The quantity of output obviously pertains to the number of eyeglass units that can be produced within a particular period of time, say an hour. Since time is money there is more of a tendency to focus on how quickly work can be produced within the accepted standards, when operating an in-house laboratory.

With regard to those standards, as stated above, installing an
in-house laboratory provides you with total control of the quality of the finished product.

- **Acquiring new skills or hiring those who have them**
  One of the most perplexing aspects of today’s optical world is that the vast majority of opticians recently trained have never made a pair of glasses from beginning to end. For a practice contemplating installing an in-house laboratory, there will be a need to determine if the current staff members have the necessary skills to do the work.

  If the practice determines that the staff is not sufficiently skilled, the practice will need to decide if the better course of action is to train the existing opticians or hire additional opticians who already have the necessary skills.

- **Increased liability**
  Once you begin to fabricate your own eyeglasses you become their final producer.

  ‘Once you begin to fabricate your own eyeglasses you become their final producer.’

Looking at Both Sides of the Lab Proposition

<table>
<thead>
<tr>
<th>POSITIVES</th>
<th>NEGATIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FINISHING</strong></td>
<td><strong>NEGATIVES</strong></td>
</tr>
<tr>
<td>1. Reduction in lab costs</td>
<td>1. Additional space may add to overhead costs</td>
</tr>
<tr>
<td>2. Ability to control quality to your standards</td>
<td>2. Increased electrical consumption</td>
</tr>
<tr>
<td>3. Better turnaround time</td>
<td>3. Noise control may be an issue</td>
</tr>
<tr>
<td>4. Improved competitive service advantage</td>
<td>4. Investment in inventory</td>
</tr>
<tr>
<td>5. Ability to provide some patients with eyeglasses while they wait</td>
<td>5. May require additional employees</td>
</tr>
<tr>
<td><strong>SURFACING</strong></td>
<td></td>
</tr>
<tr>
<td>1. Reduction in Lab Costs</td>
<td>1. Significant financial commitment</td>
</tr>
<tr>
<td>2. Ability to control quality</td>
<td>2. May not be in the scope of knowledge of current personnel and management, consultation and training costs required</td>
</tr>
<tr>
<td>3. Better turnaround time</td>
<td>3. Additional space and electrical consumption</td>
</tr>
<tr>
<td>4. Improved competitive service advantage</td>
<td>4. More significant inventory required</td>
</tr>
<tr>
<td>5. Ability to provide more patients with eyeglasses while they wait</td>
<td>5. May require additional employees and associated training costs</td>
</tr>
</tbody>
</table>

of the lenses primarily with regard to their impact resistance.

Those practices that are considering installing an in-house laboratory should undergo an analysis of their insurance coverage to make certain that they have the right type of coverage and sufficient coverage against the risk of a lawsuit in the event that an eyewear product they produce fails.

- **Environmental concerns**
  Over the years there has been increased scrutiny and regulation over the disposal of industrial waste products. This extends to the wastewater, coolant, slurry, and particles of ground plastic that are the byproducts of lens surfacing and edging processes. Suffice it to say that it is no longer acceptable to wash these materials down the drain or to dispose of them in the trash; they must be disposed of properly, which can create some inconvenience and cost.

  As with any weighty business decision, choosing to open an in-house lab carries with it many determining factors. The best way for you to make this choice for your practice is ascribe a numerical value to each determinant (i.e., “improving work flow” might be a +3, while “dealing with environmental issues” might be a -3) and see how it all adds up.

  At the end of the day, only you can decide what works for your practice.
Choosing to integrate an optical laboratory into an ophthalmic office dispensary is often a difficult decision to make. This is primarily due to the fact that the eye care professional generally has very little experience in dealing with this segment of the optical business.

A recent conversation that I had with a former student who currently works as a general manager for a full-service independent optical laboratory was particularly illuminating. He revealed that nearly 75% of all of the work done by his lab was producing complete eyewear. I was quite surprised that the ratio of finished work (where the lab either utilizes stock lenses or provides surfaced lenses, and does the fabrication of the eyeglasses as well), to uncut lenses (where the surfaced lenses are supplied to the ultimate dispenser for finishing) was so skewed in favor of the finished work.

Perhaps my surprise was due to a personal bias toward in-house labs. My experience over the past 30 years has been that in-house labs do provide an optical business with a competitive edge, and successful businesses look for every edge they can get. And quick turnaround, better quality control, and improved profits are certainly advantages that every business needs.

While I am not suggesting that every optometric or ophthalmology-based dispensary needs to integrate a full-service surfacing and finishing lab, it is tough to compete if virtually all of the eyeglasses you dispense take a week or more to complete. We live in a world where instant gratification is unfortunately an issue for many consumers.

Surfacing vs. Finishing Only
In the past, deciding whether to offer basic finishing services or full service was a relatively easy one to make. The volume of work generated by the practice was pretty much the sole deciding factor.

The finish lab has been traditionally the first step toward a practice’s fuller integration of services. Today, this option is more viable for more dispensers than ever—on many counts. Finishing equipment, such as today’s crop of patternless edgers, tracers and digital blockers, has become so simple to use that there’s no need to hire skilled personnel. And its higher degree of accuracy minimizes redos and contains costs. Also, much of the new equipment is multi-task capable, which keeps costs down and space investment conservative.

The costs associated with equipping a complete surfacing lab, coupled with the cost of stocking a wide range of lens styles and lens materials, and the amount of space required, have made the full-service option viable principally for larger practices.

But the recent emergence of excellent mini-lab packages and in-office lens casting systems, has changed the way that optical businesses must view this question. In the past, the only way that a practice could produce

Continued on page 8
first-quality bifocal, trifocal, and progressive lenses in a variety of lens materials to meet their customer’s needs was by having them produced by an outside lab, or bearing the start-up costs associated with a large surfacing operation. But these new technology options now provide considerably less expensive alternatives.

The Lens Casting Option
Current in-office lens casting systems, for example, are capable of producing photochromic lenses in both single vision and multifocal styles, including proprietary progressive designs. While in-house lens-casting or grinding systems have been around for 20 years, it is my opinion that it is only in the past few years that the in-office casting technology has met the quality standards that most optical businesses require.

Limitations of early systems included the inability to produce lenses in high index materials, or to produce progressive lenses. Modern lens casting can allow individual practices to achieve a substantial (in some cases more than 50%) reduction in lens costs. This certainly makes it important to consider when discussing the possibility of incorporating a lab into your practice. The significant strides made in lens casting technology provide a good alternative to the practice that can’t justify the investment, in dollars and office space, in more extensive capital equipment.

Surfacing On-Site
For practices that produce a greater volume, or for those that may have multiple locations in a relatively small geographic area, the integration of a full-service surfacing lab should still be an important consideration. New, more compact generators and fining/polishing equipment have made space considerations less of an issue, and the surfacing of semi-finished lenses on-site provides the optical business with a considerably wider range of lens products than the in-office casting system.

Additionally, the current menu of mini-lab alternatives, offered by major equipment suppliers, are relatively affordable, easy to operate and require 200 sq. ft. or less.

A wider range of lens styles, lens materials, and perhaps most importantly, name brand lenses products, may be important to some businesses, especially those that market their products. There is significant evidence that consumers who are pleased with optical products that they have purchased are loyal to the brand name associated with that product. The thrust of consumer advertising by some of the bigger lens companies is meant to capitalize on and build that brand awareness.

Weighing the Options
If a practitioner is considering the expense of either a full service surfacing lab, or a lens casting system, or even just a finishing lab, he or she should do a careful analysis of the overall costs for current lab services, and compare them with the equipment, materials, supplies, and labor necessary to bring lab services in-house.

Review of your lab bills should help you to identify which charges are incurred for surfacing-related costs, and which are finishing (edging, tinting, grooving, drilling) costs. Be certain to look at your total job order output for a period of at least six months to get a realistic picture of your current volume, and be conservative when projecting volume increases.

Making this important decision for your practice may require the assistance of a trained, professional consultant. Doing some analysis of your job output and costs in advance of hiring a consultant will probably save you time and money, as well as give you a clearer picture of the dynamics of this important part of your practice.
The amount of space required to accommodate an in-house optical laboratory would certainly depend on the choices that you have made concerning whether you will provide strictly finishing services or will also include surfacing or lens casting. As a general guideline, I believe that the average full-service lab will require approximately two times the space needed for a finishing lab.

I strongly suggest that if you are planning to implement a full-service lab that you consult with the manufacturers of the equipment that you purchase to determine specific electrical, plumbing, safety, and ventilation needs before you proceed with further planning. It has been my experience that creating a crowded, uncomfortable environment as a workplace is usually counterproductive for employees.

I am convinced that employees who will be working in the space should be consulted in the planning stages. A short visit to another optical store in your area could provide you with a great deal of useful information. I have found that attending meetings of your local professional association can often provide you with the opportunity to interact with fellow practitioners, who will be happy to share information about their labs with you. I also recommend that you ask the manufacturers of the equipment that you purchase to provide assistance in your planning. Finally, there is no substitute for practical experience and expertise, so be sure to have a conversation with either a professional consultant, or an experienced optician to avoid pitfalls in your planning.

The following is a list of the primary considerations:

1. Overall space requirements
2. Lab configuration
3. Electrical requirements
4. Plumbing requirements
5. Counter or workbench space
6. Storage space
7. Lighting considerations
8. Safety issues
9. Ventilation and temperature control
10. Noise abatement

Overall space requirements

Space seems to always be at a premium in optical offices and it is always difficult to try to justify the allocation of new space. The first consideration should be the productivity of the space. In the case of the optical laboratory, the space should be considered a potential revenue-generating space. Overall, the space will cut costs and increase profits as we have discussed elsewhere.

For the new optical lab, I generally recommend a space with a minimum of 100-120 sq. ft. I prefer a rectangular layout with a width of at least nine feet and a length of about 12 ft. The overall width allows for workbenches on both sides with a width of about 30 in. each, and a four-foot wide space in between. Four ft. of space between the two benches allows for two adults to pass each other comfortably.
if necessary, and still allows the optician or lab technician the ability to move from one bench to the other with no more than two steps, economizing on wasted movement and time.

The overall length of approximately 12 ft. should provide adequate countertop space for the lensometer, blocker, edging equipment, hand-stone, tint unit, frame warmer and any other peripheral equipment you may want to utilize. Bench height is determined by the height of the equipment you choose, but probably should be somewhere between 30-40 in. The space beneath the bench tops should be utilized for lens, job tray, and other storage needs. A simple, sliding door front is generally all you need.

Be sure to use overhead space for storage with the use of cabinets where possible. Shelving for job trays, wall space for magnetic tool bars, or under-cabinet lighting should also be considered. The area used for lensometry and final inspection should probably be designed as a desktop with space for a chair to fit under the desk. Opticians spend a fair amount of time at the lensometer and standing all day in a lab is uncomfortable and may lead to workplace injuries.

**Employees have a right to know the potential harm that products they work with might cause. An MSDS (Material Safety Data Sheet) station with forms that detail the potential harm of products like dyes, alcohol, heat transfer fluid (from the tint unit), and lens neutralizer is a must.**

### Lab Configuration

In configuring this space, you must consider the workflow. I would position the lensometer closest to the entry where it is easily accessible, because it will be the most frequently used piece of equipment in the lab.

Necessary for neutralizations of existing eyeglasses, final inspection, and lens layout, the lensometer should be placed in a location with adequate “elbow room” to use the instrument comfortably. In the fabrication process, after a lens is marked up in a lensometer, it will be “laid out” for decentration, and then blocked for edging. These two functions are often combined in one unit of the modern patternless edger.

The edger is the next step in the process, and should probably be placed directly next to the layout area. The location of the tinting unit may be determined by the ability to locate it near a means of ventilation. Other peripheral devices can subsequently be placed on the bench to suit individual needs of the optician.

### Electrical Requirements

There are never too many electrical outlets in an optical lab. Be certain to check what the local electrical “codes” require before you begin. This is far too important to consider anything but the services of a qualified or licensed electrician. You are responsible for creating a safe work environment for your employees and OSHA may pay you a visit one day (as OSHA did the optical lab at my college).

I suggest that you utilize ground fault outlets with a dedicated circuit for the edger and you should try to avoid any situation where you will ever require the use of either extension cords or “breaker bars” (multi-plug outlets used to increase the number of outlets available). Remember, mechanical devices tend to “draw” more power on start-up than they do while running. Equipment manufacturers should be able to tell you what amperage they draw during start-up and subsequently while running. Be sure to provide outlets on all walls and wall switches for lighting in convenient locations.

### Plumbing Requirements

The major concerns with plumbing are access to water and drainage of wastewater. I prefer to have a sink in the lab, and would position it on the bench that the edger will be placed on. This will allow you to more easily pipe the water flow to the edger and sink with the minimum amount of pipe used, and will allow you to have both the sink and edger drain into the water outflow system. Most modern edgers...
Continued from page 11

are set up to utilize a built-in solenoid valve that allows you pipe in fresh water for each new lens cut. This eliminates the need for a recirculating pump and bucket and the hassle of changing the smelly water that sits in a bucket under the workbench.

Be sure to check with the local Department of Health to insure that you can dispose of edger waste in this way. Some municipalities require that the edger discharge be treated as toxic material. In selecting a sink, you might want to consider a wide “slop sink,” and should definitely consider an adaptor for the faucet that allows for the attachment of an “eye wash” station. This relatively inexpensive adapter provides your staff or patients with a place to flush a foreign body or chemical from the eye in an emergency situation.

Lighting Considerations
I am an advocate of the use of natural light whenever possible, with the use of incandescent light or “daylight corrected” fluorescent lighting as a backup. Natural light will be helpful in evaluating and matching tint colors and creates a “warmer” atmosphere for the workplace. The window may also provide an opportunity for increasing airflow and providing ventilation (see below).

The presence of wall-mounted cabinets may produce shaded areas that may necessitate under-cabinet lighting. I also like to have a single unfrosted incandescent bulb in the area that I check my finished work. The unfrosted bulb allows me to use the reflection of the filament to inspect the surface quality of the lens surfaces and the coatings that are often on them.

Safety Issues
Providing a safe workplace is essential and several simple things can be done to help accomplish that goal. Employees have a right to know the potential harm that products they work with might cause. An MSDS (Material Safety Data Sheet) station with forms that detail the potential harm of products like dyes, alcohol, heat transfer fluid (from the tint unit) and lens neutralizer is a must.

I like to recommend that the floor be covered with a slotted rubber mat to reduce the stress on the backs of the employees and to provide for some drainage of spilled fluids to reduce the possibility of slip-and-fall incidents, the above-mentioned seating area for the lensometer, and latches on cabinet doors to prevent them from becoming sources of head banging injuries. I have recommend the use of hot-air frame warmers to eliminate the chances of spilled glass beads causing slip-and-fall incidents as well.

Ventilation, Temperature Control, and Noise Abatement
Proper ventilation is appropriate for two main reasons, to provide adequate venting of the fumes from the tint unit, and to reduce the smell emitted during the edging of some high index lenses. This odor may be offensive to customers and employees alike. It may be necessary to have the lab separated from the adjoining space by a door, preferably with a window to see in or out.

Due to the confined space, it is important to have a means of controlling the temperature in the lab, and a separate heating and air conditioning duct and controls should be considered. The sound created by the modern edger is considerably less noisy than older machines, but it may be a little annoying to patients that are seated in adjoining spaces. Try to utilize noise-level reducing wallboard products in the room design where possible, and keep the door closed when the edger is operating.

Plan, Plan, Plan
The decision to integrate a lab into your practice is an important decision that takes careful planning and contingencies. Don’t forget to include your staff in the planning process. Some employees have a difficult time dealing with change, but seem to be more accepting of it if they are a part of the new undertaking. This segment could serve as a preliminary outline, but time and space do not allow me to address some of the important issues with the depth or breadth that they deserve.

Be certain to utilize all available resources, including the Web site for Vision Care Product News at visioncareproducts.com to find additional information. This wonderful Web site provides you with a search capability to research previous articles that might help you with a wide variety of optical problems.
One of the drawbacks of today’s sophisticated optical manufacturing equipment is the perception that anyone can become an expert lens maker instantly by using it. While it’s true that you do not need to be Einstein to fabricate a pair of eyeglasses today, the fact remains that having a thorough understanding of both optical theory and an appreciation for what constitutes a well-made pair of eyeglasses is something that remains important.

Thirty years ago, a mentor of mine told me that the quality of any optical business depended on one person. It wasn’t the person making the eyeglasses, but rather the person checking them that mattered. It is actually quite easy to teach an apprentice or assistant to operate the edger and ultimately perform most of the tasks necessary to make a good pair of eyeglasses, and our modern machinery certainly makes this easier than ever before.

But understanding the influences of the prescription on lens thickness and curvature, and knowing how to select frames that are made of materials ideally suited to a particular prescription, are not necessarily learned in the lab.

Learning for Life
Without question, I believe that ophthalmic professionals of all types need to be lifelong learners. I can’t imagine why anyone would want to remain stagnant, especially if they have a vested interest in the success of the company or practice. That success can without question be achieved by an investment in continuing staff education.

This may sound somewhat self-serving coming from a teacher, but I have been the personal beneficiary of the results of education in my retail business experiences, and have seen the effects on practices for which I have consulted.

Access to educational materials is incredibly easy today. Not only are there excellent education programs for opticians and optometric technicians at more than 30 community colleges in the U.S., but many of the courses taught at the colleges are also available online.

A visit to the Web site of the National Federation of Opticianry Schools (NFOS) at (nfos.org) will help you to explore the education opportunities available to you, and will also assist you in locating numerous other optical education resources as well. When you enter the Web site you can find links to literally hundreds of other optical Web sites in a section called optical links. The NFOS has provided hundreds of hyperlinks to optical associations and organizations, lens and frame companies, contact lens companies, optical journals and periodicals, low vision providers, and the Web sites of most of the
companies that produce the equipment used in the lab.

I have used the visioncareproducts.com Web site numerous times to locate articles about new equipment, or new lens products to share with my students and regularly recommend that doctors I consult for do the same for their staff. Increasing sales of premium products is easy if you are fully familiarized with the features and benefits of the products you are selling, and visiting the Web site of the lens manufacturer may very well give you access to free educational materials that you can use.

Vendors as Educators

Of course, one of the best sources for education and training is the optical supplier community, particularly those who supply your equipment.

The amount of time needed for an untrained person to operate modern equipment is relatively short. It is important to note that this is a function that is best provided by someone with an understanding of what factors must be considered to make a good pair of eyeglasses. While much of the equipment is in fact quite simple to operate, the computer needs accurate information to do its job correctly. Accurate pupillary distance measurements and segment heights are needed as input to the machine.

Unlike the past, today’s equipment often contains sophisticated modular computer components that are not easy for the average practitioner to troubleshoot. Equipment companies offer hands-on training at the time of installation, and several offer the opportunity to come to their corporate facilities for seminars that provide basic to advanced training sessions.

Beyond initial training, all equipment suppliers offer troubleshooting and technical support services via telephone and/or Internet (some offer you the option of emailing information to them for their evaluation and emailing answers back). These forms of technical support offer a lifeline to the customer.

Another way that the companies support their products is to provide well-written step-by-step operations manuals to teach the special functions of their equipment. In addition to the operations information, the manuals often provide extensive troubleshooting guides to assist with problem solving. Some manufacturers provide videotapes or CD-Roms that also address these needs. More importantly, the availability of field technicians and telephone technical support offers a lifeline to the customer. Often, adjustments or calibrations required can be performed by the practitioner on-site without requiring a technician to visit, saving both time and money.

Training Face-to-Face

It is also important to expose your staff to the interactive learning environment of face-to-face continuing education at local, regional or national meetings. I love going to Vision Expo East in New York or Vision Expo West in Las Vegas to take advantage of 20 or more individual course choices in every hour of the three-or-four day event. The wide range of seminars available can provide valuable educational opportunities for just about everyone from a brand new apprentice to an old guy like me.

Encouraging and financially supporting the staff of any optical business to seek new information will often be repaid many times over. As a presenter, I actually try to think about how my presentation will benefit the attendees. I want to be sure that I give the attendees ideas that will generate a profit for them, one that will make them more money than they have spent on the course.

Every optician is a teacher in a way. We help our patients to understand the nature of the products we have to offer, and without a thorough understanding of those products we falter. As a consultant I am asked to analyze why certain optical dispensaries are not very profitable, and I can tell you, most of the answers are based in issues that can fairly easily be resolved in a well-developed training program. I believe that the use of continuing education training programs on a regularly scheduled basis can play a huge role in the success of any optical business.

I also believe in rewarding employees that use their knowledge to help increase profits for the practice. Education seems more fun when there is a reward attached to it, and it should be fun whenever possible. A suitable reward for your top salesperson or the lab employee with the lowest redo rate might be a trip to Las Vegas to attend Vision Expo, where they just might learn something new.

At the end of the day, the difference between the successful in-office lab and the one that becomes a liability to the practice can be summed up with the phrase so often used by computer pros: Garbage in, garbage out. ◆
Your investment in lab equipment should be thought of as a long-term one. It is likely that the more expensive elements of the lab, such as the edger, will serve your needs for at least five years.

This of course is dependent on how much work you are producing and how well you care for the machine. In order to maximize the lifespan of your equipment there are several things that you need to do. First, you need to carefully explore the terms of your warranty and service plan. While I am generally not a believer in extended service or warranty coverage for household appliances or electronics, I feel a little differently about the protection that an extended warranty or service plan for the edger might offer. Remember, you are dealing with a fairly sophisticated electronic instrument, which operates on computer technology that can be affected by water, power surges, or other unforeseen problems.

You need to have assurances that your equipment will be serviced in a prompt manner, and I would want to know whether a “loaner” machine will be made available in case of a serious problem. You can’t continue to provide the type of service that your customers expect if this critical machine is out of action for any extended period of time.

Check in with Peers
Prior to purchasing I, for one, would want to talk with at least a few other optical professionals in the area who have equipment from the same manufacturer to discuss their experiences with the company’s service department. Remember, your customers are depending on you, and you need to be able to provide for their needs. Carefully choose suppliers whom you can confidently depend upon to guarantee that your customers’ needs will be met, regardless of circumstances.

When your equipment is installed, it is important to make sure you learn everything you need to know about its operation, care and maintenance. Most manufacturers provide an overview of this information in person, and also provide a comprehensive instruction manual. Make sure that you involve any employees likely to use the machinery in the training the supplier offers, and press for as much time as they will give you.

Be certain that you have identified a “point person” at the
equipment company whom you can contact with questions or concerns. Fully discuss the maintenance that the machine requires and set up a scheduled maintenance regimen to follow. Be sure to delegate this responsibility to someone that you can trust and be certain to let that person know that you will be checking to be certain that the maintenance is performed.

Most patternless edgers have calibration procedures that need to be followed periodically. These procedures are designed to compensate for slight changes in wheel circumference which will compromise the sizing of the lens, or may be used to insure that the axial orientation of the lens is accurate. Since most patternless edgers have lens layout and blocking attachments, these too must be maintained and calibrated.

I would expect that during the first year of ownership, you will be able to have the equipment evaluated, maintained, and calibrated at either no cost, or certainly at a low cost by the manufacturer. Be certain to watch what they do, and ask questions about what you can do to avoid or solve problems in the future.

Maintenance a Must
Normal maintenance of all of the equipment in the lab is a must. I have generally asked lab personnel to follow a schedule that requires them to perform daily and weekly maintenance procedures. Daily, machines need to be cleaned and inspected. I like to run at least one “test lens” on the edger each day. I would hate to find out that the first lens I cut today is too small when it is an AR-coated polycarbonate progressive that cost me $75. I would much rather it is a reject lens that my lab has sent me for the expressed purpose of calibrating or checking the machine.

Weekly, I will ask the lab personnel to consider changing the dye in the dye unit if I have been using it regularly. Leaving dye units on all day will cause some degradation of the dye quality over time, and this can be minimized by turning on the unit when needed (perhaps for two hours at the end of each day when you can do all of your tinting). Dye pots need to be both physically and chemically clean when they are emptied, and care should be taken to avoid cross contamination of dyes. If you are mixing colors, the lens should be rinsed between colors.

When developing your maintenance schedule, be sure to integrate the manufacturer’s recommendations and be aware if anything exceeds requirements. Remember, the equipment will become an important element in providing good, dependable service to you customers. As my father used to say, “A job worth doing is a job worth doing well.” Maintaining your equipment is clearly a job worth doing.

Lab Service and Maintenance Checklist

(Be certain to defer to manufacturer’s recommendations to ensure warranty validity.)

**DAILY**
1. Clean and rinse all external surfaces of edger and hand-stone.
2. Rinse internal edging chamber.
3. Leave edger chamber cover open to allow for evaporation of excess water to inhibit rusting.
4. Check temperature and level of dye pots and adjust to manufacturer’s recommendation.
5. If using water recirculation system in your edger, empty bucket and eliminate grit to avoid abrasion of lens surfaces.

**WEEKLY**
1. Run automated maintenance function on edger.
2. Check dyes and replace as needed.
3. If using screen to trap larger plastic particles to avoid drain clogging, empty screen.
4. Dress hand-stone and edger wheels if not a part of automated function.
5. Check level of heat transfer fluid in dye unit.
6. Evaluate edger axis accuracy and centering and calibrate as necessary.
7. Clean lensometer pins and check ink pad.

**MONTHLY**
1. Run automated maintenance function on edger.
2. Check dyes and replace as needed.
3. If using screen to trap larger plastic particles to avoid drain clogging, empty screen.
4. Dress hand-stone and edger wheels if not a part of automated function.
5. Check level of heat transfer fluid in dye unit.
6. Evaluate edger axis accuracy and centering and calibrate as necessary.
7. Clean lensometer pins and check ink pad.
Whether to maintain a lens inventory or go with a "just-in-time" supply strategy depends on your business philosophy, your cash, and your comfort level.

Once your office lab is ready to go, the next critical decision you will need to make is whether or not to stock lenses. Keeping lenses in stock will speed service and provide instantaneous backups in the event a lens is spoiled during processing—something that will happen. On the other hand, putting lenses into stock will require you to invest valuable cash flow dollars in inventory.

As with most things in business life, there is a balancing act between investing too much money and not investing enough. The determining point will be how often your lens inventory "turns," which refers to how often the lenses are replenished. Because of the sheer number of lens powers needed to stock even one type of lens (stocking a lens in a power range of Plano through + or – 4.00D with a -2.00D cylinder will require you to stock 256 unique sku’s), the turn ratio for lens inventories is lower than that for frame inventories.

Keeping with our example, and assuming that you purchased an average of one pair of each lens power, you would need to utilize all of these lenses within one year to obtain one turn. In the case of the average independent ophthalmic practice this would be a reasonable target.

Alternative to Keeping Stock
One alternative that is becoming popular is to order lenses from a local distributor, buying group, laboratory, or stock house on an "as needed" basis. Under this scenario the dispensary places its lens orders daily and receives just what it needs when it needs it, a variation on a "just-in-time" inventory model. Such ordering systems are not quite as profit enhancing as keeping stocks of lenses, but they have proved successful for smaller laboratories.

What Lens Products to Put Into Stock
As mentioned elsewhere, the number and variety of lens materials and options has increased dramatically over the past ten years. Besides CR-39®, which is still the staple of the industry, there is an ever-growing number of mid-index, high-index and ultra high-index lenses available as stock. These in turn come in a variety of sizes (diameters).

Beyond that, some lenses that are available for stock have already been anti-reflection coated by the factory. This is a tremendous advantage if your practice dispenses a high percentage of its orders with AR coating. This option is growing in its popularity, because it saves you the time of waiting for the lens to go through the extra process after it has been edged, thereby saving valuable turnaround time.

Which lens products should you put into stock? Here are some recommendations:

• Start Simple: If the person who will be making the eyeglasses is new to the laboratory process you may want to inventory lenses that are not expensive, such as CR-39 lenses. This will save you money in the event that the spoilage rate is high during their learning period.

• Stock to Improve Sales: Stock those lenses you want to encourage your
opticians to recommend most often to patients. In this way they will be able to provide the completed eyewear to the patient more quickly. Those lens materials you wish to discourage would take longer to obtain, equally discouraging to the patient.

• More Stock is Better than Less Stock: Once you have decided to put in a supply of lenses it is best to stock as many lenses as you will foreseeably use. Ideally the lens materials that you will use the most often, or will save the most on by supplying them, are the ones you should choose. A good way to make this determination is to perform an analysis of your laboratory bills for the past three-to-six months. By making notes of what lenses were ordered from your laboratory you'll get a clearer picture of what to start with.

Sizes and Ranges
There are other decisions to make after determining what material(s) to stock. Most lenses available for stock are made in a defined range of powers; not all powers are available for stock. In addition, lenses come in different sizes (diameters). There may be one, two, or three diameters available. Again, your usage analysis will dictate which lenses to keep in stock. For example, if you see lots of kids you may want to stock smaller diameter lenses. The same would be true if your frame inventory is chockfull of frames with small “A” measurements.

As for ranges, it is generally a good idea to stock as much of the available range of a lens as practical. This then assures you that your patient will receive two lenses from the same manufacturer, with the same design characteristics, hardness and tintability.

The Initial Order
In order to get the most out of your new in-house laboratory you will need to stock an inventory of lenses sufficient for your needs. What lenses to carry and how many of each type is partially an art and partially science. The scientific part is well-known to the companies who manufacture eyeglass lenses. What they know is that the distribution of vision anomalies within the general population is consistent and therefore the consumption of the particular powers is also consistent, at least relatively. This helps make setting up your initial inventory much easier, as the vendor you choose will more than likely have a suggested inventory based on this knowledge.

Replenishment Ordering
As lenses are used you will need to keep track of them and place replenishment orders in much the same way as frames are reordered for stock. In the case of lenses however, it is more common to keep more than one of each than it is with frames. Lenses are counted in pairs and it is likely that a patient will require the same prescription in both eyes.

One time honored system for managing lens inventories is known as min-max. Under this system you determine what the minimum inventory would be, what the maximum inventory would be, and what the reorder quantity would be. In practice then, you would place an order for the reorder quantity when the number of lenses of a particular power has reached the minimum inventory level. In theory, when those lenses have been received into stock you should be at the maximum inventory level for that particular power.

In smaller laboratories and those that do not use optical laboratory-specific software programs, this is commonly done by collecting the discarded lens envelopes or boxes and using them to place the replenishment orders.

Of course, those laboratories that have lab-specific software programs have a distinct advantage, as most of these programs can keep track of inventory, trigger orders, and in some cases even suggest when inventory levels need to be adjusted.◆

◆ A range that will accommodate about 80% of all Rx’s you prescribe.
One of the interesting facts about the in-house laboratory is that, in itself, it does not generate a profit. Facilities such as these are often characterized as cost centers. Cost centers are facilities that use profits, not generate them. For this reason there is a general tendency to minimize expenditures on and within these facilities, thereby limiting the drain on profits as much as possible. This at least partly explains why it is not uncommon to find in-house laboratories located in back rooms, basements, and occasionally off-site.

However, there is a danger in merely looking at in-house laboratories as cost centers and the inherent cost-cutting efforts that accompany that designation. Too much emphasis on profit retention can leave a laboratory with inexperienced help, insufficient lens inventories, and outdated equipment, which brings to mind the old adage about being “penny wise pound foolish.”

Perhaps a better way of viewing an in-house laboratory is as a profit enhancer. This does not mean that the laboratory will begin to generate profits, but rather that it will allow other areas of your business to do so by reducing cost of goods and providing higher levels of service.

For example, knowing that you have the ability to custom tint lenses could provide those opticians who sell to be more comfortable offering a wide variety of solid, gradient, and custom tinted lenses to patients.

Where Are the Savings?
The question then is where will the savings come from if I install an in-house laboratory? Let’s look at some of these areas:

- **Surfacing**: surfacing is accomplished by taking a lens, known as a blank, and grinding away portions of its back surface in such a way that it will contain the patient’s unique prescription.
- **Casting**: this process uses molds, a substrate, a gasket, and a curing device to make lenses with the patient’s unique prescription.
- **Edging**: edging a lens means hogging it down from its original circular shape to the precise size and shape needed for it to fit into the patient’s frame.
- **Tinting**: tinting a lens is accomplished by immersing it in a dye bath and either manipulating it or monitoring it until it has reached the desired density or coverage pattern.
- **Grooving**: grooving is the process of cutting a deep channel between the edges of a rimless lens. This allows the lens to be securely mounted to the frame using a cord mounting.
- **Edge Polishing**: the grinding process used to edge lenses leaves the finished lens’ edge with a heavy white frosting. By polishing the lens’ edge it goes from translucent to clear, providing a more finished appearance. Most new lens-edging equipment can polish a lens’ edge while it is still in the grinding chamber, which eliminates the need for an additional manual operation.
- **Drilling**: some lenses are drilled with small holes that allow the endpieces and temples of the frame to be attached.

Outside laboratories charge for these services. These charges are based on the laboratory’s labor cost, cost of materials, machinery and maintenance.

Your new lab will certainly cost you money up front. But inevitably the benefits in timesavings, reduced cost of goods and higher service levels will positively impact your bottom line.
costs, overhead, and some margin for profit. In a grossly oversimplified way we could say that your costs will be similar and that you are attempting to retain the profit that is currently being paid to the laboratory.

There is one primary consideration however and it is that you must be able to generate enough savings to offset the cost of the equipment, the consumables, the overhead and the labor that you will need to produce the work. This will depend on the unique set of laboratory services your dispensary has traditionally paid for on a monthly basis, which you now intend to take in-house. Without a sufficient amount of savings you will not be able to offset your own costs. This would eliminate at least some of the incentive from the project.

How Much Can I Save?

How much revenue can you bring to the profit line by incorporating these services into your practice? Calculating the savings or increased profits will depend on the types of orders that you process on a day-to-day basis, and the capabilities of your lab.

In some cases the savings will reflect only the edging charges you are currently paying to process each job, in others it will include savings from tinting the lenses yourself, or from edge polishing.

As a general guideline, my experience is that you should be able to save from $10-$14 per job if you install a finishing laboratory, $18-$25 per job if you install a surfacing laboratory and $20-$40 per job if you choose custom casting.

On average, with just your in-house finishing lab, you should save about $12.00. A lab processing 10 orders per day would therefore produce a savings of $120/day or $600-$720 per week depending on your operating hours. That translates conservatively into $30,000 per year.

Specific calculations of the savings you may obtain can be provided by many of the equipment suppliers themselves. Several suppliers have developed computer calculators that factor in your current lab bills to determine the amount that you could save by integrating a surfacing or finishing lab.

Of course, for comparative purposes keep in mind that costs vary from lab to lab and may vary regionally as well. The manufacturer or distributor may also be able to provide you with an analysis of the savings you could save by integrating a surfacing or finishing lab.

What Will Surfacing Yield?

The calculations for deciding whether to integrate a surfacing operation become even more complex. The types of jobs that you will process become more of an issue than the number. Savings realized on progressive lenses will be greater than on bifocals or single vision lenses.

The mix of lens styles and lens materials that you utilize will play a significant role in justifying the cost of purchasing or leasing equipment. Several surfacing equipment providers have developed programs similar to the aforementioned calculator used in the analysis of the viability of a finishing lab.

Keep in mind that the figures you arrive at should be “net” figures, meaning that they represent your profit after deductions for all your expenses, which include:

- Labor cost
- Amortization of the loan for the equipment
- Cost of consumables
- Utilities
- Overhead
- Miscellaneous expenses

While every practice is different and the (profit) performance of one in-house lab may be quite different from another, the general consensus is that the investment will have a positive impact on your bottom line. If, even after several months of operation, this is not the case then it’s imperative that an evaluation be made, and possibly outside assistance sought.

Remote Tracing

One of the most exciting new technologies in the laboratory world is remote tracing. This technology allows the optician to store the unique circumference pattern of a frame as a digital file in three dimensions. This file can then be transmitted to an outside laboratory or used in-house. Saving time and working with more precisely accurate information ultimately means cost savings for you (in labor and redos).

By transmitting the file the optician provides the outside laboratory with the data needed to edge the lens, all without the necessity of having the patient’s frame. Likewise, the digital file can be stored and used when the patient’s lenses are received by your in-house laboratory uncut from the outside supplier.

Remote tracing is an especially valuable capability when patients purchase “lenses only,” meaning that they do not purchase a complete pair of glasses. In those cases the patient must bring in their frame and wait while the optician edges the lenses and mounts them in the frame.
A listing of important companies and informational resources pertaining to in-house labs.

National Optronics, Inc.
100 Avon Street, P.O. Box 1547, Charlottesville, VA 22902
Phone: 804-247-9796
Fax: 434-285-7799
Web site: nationaloptronics.com
Customer Service E-mail: nospa@nationaloptronics.com
Special Services: Factory-based, field service and training support teams. Installation included with purchase of equipment; no charge telephone support.

Optek, Inc.
6825 38th Street North, Pinellas Park, Fl 33781
Phone: 727-526-7872
Fax: 727-526-7872
Web site: optek-online.com
Customer Service E-mail: sales@optek-online.com
Special Services: Operational maintenance and repair training offered on-site at individual lab or in Optek classroom.

Practical Systems, Inc. (PSI)
11617 Prospect Road, Odessa, Fl 33556
Phone: 813-237-8154
Fax: 813-330-3800
Web site: looktopsi.com
Customer Service E-mail: info@looktopsi.com
Special Services: Technical support, available on-site training if necessary.

Santinelli International, Inc.
325 Oser Avenue, Hauppauge, NY 11788
Phone: 631-435-9020
Fax: 631-435-9020
Web site: santinelli.com
Customer Service E-mail: helpdeskemail@santinelli.com
Special Services: Training at product installation, toll-free technical support, additional on-site training if necessary.

Vision Systems, Inc.
711 A Wesley Ave, Tarpon Springs, Fl 34689
Phone: 813-934-1030
Fax: 813-934-9243
Website: patternless.com
Customer Service E-mail: viiserv@tampabay.rr.com
Special Services: Training at product installation.

Weco USA
5975 Shiloh Road, #110, Alpharetta, GA 30005
Phone: 887-872-9526 (ext. 2 for New Equipment Sales, ext. 3 for Tech Support, ext. 4 Customer Service)
Fax: 777-456-1119
Web site: weco-usa.com
Tracers—Trace II.
Special Services: Any purchase of a Weco edger includes installation and comprehensive training for staff along with toll-free technical support at the phone number above. Preventive maintenance is also available. Will provide free business analysis of practice lab expenses. Lease-purchase financing available.

Equipment Leasing Companies
American Express Equipment Finance
1851 E. First Street, 6th Floor, Santa Ana, CA 92705
Phone: 800-444-8045
Fax: 830-285-9362
Web site: amexfr.com
GE Capital
44 Old Edgewater Road, Danbury, CT 06810
Phone: 800-474-2704
Fax: 877-969-4887
Web site: gecapital.com
Highland Capital
5 Center Avenue, Little Falls, NJ 07424
Phone: 877-527-41HC
Fax: 877-526-41HC
E-mail: info@highlandcc.com
Web site: highlandcc.com
HPSC, Inc.
60 State Street, 35th Floor, Boston, MA 02910
Phone: 800-225-2488
Fax: 800-526-0259
E-mail: Sales@hpsc.com
Web site: hpsc.com
Popular Leasing U.S.A., Inc.
16280 Westwood Business Park Drive, Ellwoodville, MO 65021
Phone: 800-829-9411
Fax: 800-829-9443
E-mail: cdepuy@popularleasingusa.com
Website: popularleasingusa.com
Preferred Capital
6860 West Snowville Road, Suite 110, Bexleyville, OH 44141
Phone: 800-338-4585
Fax: 440-546-7406
Customer Service: George Davis, Sales Mgr. 866-557-8887
Web site: preferredcap.com
Organizations
AR Council
2417 West 105th Street, Bloomington, MN 55431
Phone: 877-524-4477
Web site: arcouncil.org
E-mail: ar@arcouncil.org
National Federation of Opticianry Schools
1238 Robinson Point Road, Mountain Home, AR 72653
Phone: 870-492-6623
Fax: 870-492-6623
Web site: nfos.org
E-mail: saczechalkm@gvmail.dtcc.cc.nus (President)
A review of current product offerings from leading companies to help you assemble your in-office lab.

**A.I.T. Industries offers the Premium AIM Network.** The network features AIT RJP Software for in-office and remote tracing functions, compliance with the VCA remote order task force, VCA communication standard compliant software, and many other beneficial features. This system ups productivity and provides faster turnaround time for an in-office lab. It includes an extended parts warranty, one maintenance retraining visit, one software upgrade, and no-cost technical support. It includes the Delta-Scan® 3D, Speede® Pro, and Maxima Edger. [For more information, contact A.I.T. Industries at 800-729-1959 or aitindustries.com.](#)

**Briot USA's Axcell CL-D speeds up the edging process by performing all finishing steps automatically including drilling with a built-in drill.** Briot’s imaging technology automatically identifies up to 10 drill holes or slots for easy construction of rimless frames. The Axcell traces, centers, and blocks a job in about two minutes, and can handle most single vision, multifocal, and PAL lenses automatically. It has a 5-D tracer that measures size, shape, curvature, thickness, and frame bevel angle by using a double-stylus system. User-friendly, the Axcell CL-D’s tracer-blocker has a touch screen to aid the operator in making desired adjustments. [For more information, contact Briot at 800-292-7468 or briot-usa.com.](#)

**Gerber Coburn adds two Metrix lensmeters to its line of lens inspection equipment.** The Metrix automatic lensmeters provide verification data for surfaced lenses and final inspection details for finished lenses. The devices measure lens components such as sphere and cylinder powers, cylinder axis, PDs, and prism values. The lensmeters have a large color display and friendly user interface. The two models are Metrix, for basic lensometry functions, and Metrix-ConNect, which provides the same functions as the Metrix, but also provides unique software requests for job data from the host computer and compares it against the actual measurement values. [For more information, contact Gerber Coburn at 800-843-1479 or gerbercoburn.com.](#)

**National Optronics 6ES dry edger processes a variety of lens materials.** This edger is able to process CR-39® polycarbonate, high index, and Trivex™, materials down to an 18mm B. To improve cycle times, router blades are used to cut the material instead of the traditional wheel. The 6ES also features a powerful motor to polish the edge of polycarbonate lenses within 90 seconds. It works conveniently with the 4T tracer. [For more information, contact National Optronics at 800-247-9796 or nationaloptronics.com.](#)
SANTINELLI INTERNATIONAL

WECO USA

In-House Lab

Product Showcase

Optek, Inc. presents its OASIS Collective (Optek Advanced System for Integrated Surfacing). This is a complete surfacing lab system, which features a microprocessor control, Rx server network connection, and advanced software systems. The intelligent software establishes optimal configuration settings and manages the processing cycles at each cell. The OASIS Collective can be installed in as little as 100 sq. ft. and can be expanded to accommodate any volume. It can process plastic, polycarbonate, high-index, and Trivex materials. For more information, contact Optek at 800-524-5454 or optek-online.com.

PRACICAL SYSTEMS, INC.

PRACTICAL SYSTEMS, INC.

Optek, Inc. presents its OASIS Collective (Optek Advanced System for Integrated Surfacing). This is a complete surfacing lab system, which features a microprocessor control, Rx server network connection, and advanced software systems. The intelligent software establishes optimal configuration settings and manages the processing cycles at each cell. The OASIS Collective can be installed in as little as 100 sq. ft. and can be expanded to accommodate any volume. It can process plastic, polycarbonate, high-index, and Trivex materials. For more information, contact Optek at 800-524-5454 or optek-online.com.

Practical Systems, Inc. (PSI) provides LensSaver Dots to protect lenses. These dots are used to save and protect expensive lens material from the damaging effects of surfacing, finishing, blocking, and deblocking. The dots are placed on the backside of the lens to keep lenses from the effects of the edger chuck, and are placed on the front of the lens, with blocking pads, to prevent slipping and scratches during finishing and deblocking. LensSaver Dots are 36mm round and are double-tabbed for easy removal. For more information, contact PSI at 800-237-8154 or looktopsi.com.

SANTINELLI INTERNATIONAL

SANTINELLI INTERNATIONAL

Santinelli International presents its LE-9000SX Express Edger. This edger has all of the features of Santinelli’s LE-9000, with the highest speed and accuracy available in the series. Operators have the option to manually override automatic settings to enter safety beveling and grooving specifications, making this machine easy to use. Its on-board tracer digitizes 32,000 points of reference per frame side and the sides of the frame are independently measured, eliminating retouching. It also features the RISC microprocessor technology and process all lens materials including glass, plastic, CR-39, Trivex, and high-index. For more information, contact Santinelli International at 800-644-3343 or santinelli.com.

WECO’s 450 line of edgers includes the 450 drill & edge, with a built-in drill for three-piece rimless mounts. This combination edger/drill can drill up to four holes or slots in plastic and hard resin materials automatically with computerized precision. The unit edges all lens materials, grooves rimless lenses and polishes automatically as well. The integrated designed makes drilling and edging easier to execute, reducing the time and operator skill needed for accurate processing. This edger links with WECO tracers and blockers to provide a durable modular in-office finishing system with maximum versatility. For more information, contact WECO USA at 877-872-9326 or weco-usa.com.