

**Liquid Face-Lift**

**MedSpa Regulations Update**

**THE Aesthetic Show Preview**

## **Alma Delivers Economical Fractional Options**

Ablative fractional resurfacing has emerged as a must-have option for physicians who wish to offer effective skin rejuvenation. Since Alma Lasers, Inc., (Buffalo Grove, Ill.), introduced their first ablative fractional device to the market, numerous competitors have joined the fray. The economic crisis has increased a focus on competitive factors such as technical support and the cost of disposables. "Safety and efficacy have always been the most important factors to consider when choosing a device," said Bruce Katz, M.D., medical director of the Juva Skin and Laser Center (New York, N.Y.). "Usually economic factors are secondary, but these days that gap seems narrower than it used to be."

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# Pixel's Results and Reliability Restore Confidence During Uncertain Economic Times

By Kevin A. Wilson, Contributing Editor

In a swelling sea of competition for ablative fractional resurfacing dollars, Pixel technology from Alma Lasers promises users much more than safety, low downtime and great results. Pixel offers three economically viable options which allow any aesthetic practitioner to credibly enter the ablative fractional arena during a down economy. In addition, Alma Lasers offers top marketing and technical support to help physicians attract prospective patients and keep their devices running smoothly.



**Bruce Katz, M.D.**  
Medical Director  
Juva Skin and Laser Center  
New York, NY

Turning back the clock has always been the most common concern of patients seeking aesthetic improvement, and despite an unpleasant fiscal climate, that has not changed. The once popular bulk ablative CO<sub>2</sub> resurfacing was pushed from favor by its side effects and a trend toward treatments that offer results with reduced discomfort, risk and post-procedure downtime. Unfortunately, the advent of non-ablative fractional therapy, which coupled an erbium-doped glass fiber laser with a computer controlled scanner to lay patterns of microscopic wounds just beneath the skin, proved to be somewhat of a disappointment. The technology itself was sound: space between wounds sped up the healing process, as did the undamaged epithelium – but results were modest and required numerous treatments.

According to Edward Zimmerman, M.D., a plastic surgeon with a private practice in Las Vegas, Nev., Alma's Pixel was one of the first devices on the

market to apply the principle of fractional micro-wounding with an ablative laser, as a handpiece for the Harmony platform. "The 2940 nm wavelength is highly absorbed by water. A large proportion of the aesthetic community believes that truly beneficial skin rejuvenation and tightening can't happen without at least some degree of ablation, regardless of the energy or wavelength," he conveyed. "Erbium is generally considered to be a bit safer with quicker recovery than CO<sub>2</sub>. You can change the length of the pulse to provide more (longer pulse) or less (shorter pulse) heat and the ability to spot test enables customized treatment for each patient. Because of this I can treat regardless of skin color. I perform test spots utilizing a range of parameters and pick the settings with the safest and best results after a few weeks. Then I treat the texture, tone and superficial pigmentation of the skin or the face, neck, chest, décolletage and backs of the hands – literally nose-to-toes."



**Edward Zimmerman, M.D.**  
Plastic Surgeon  
Las Vegas, NV

Many physicians quickly realized that fractional CO<sub>2</sub> was unavoidably the next step. "Alma quickly answered with the Pixel Omnifit," Dr. Zimmerman continued, "which is a handpiece that cost-effectively converts many fully-ablative CO<sub>2</sub> laser platforms – between 30 and 100 watts – into devices with effective fractional capability. Alma eventually developed the Pixel CO<sub>2</sub> as a stand-alone device providing fractional CO<sub>2</sub> treatments.

Perhaps the most important advantage of fractional CO<sub>2</sub> technology is

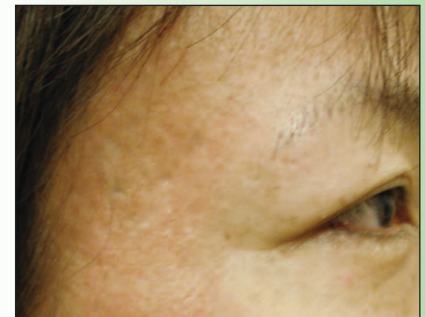
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"A large proportion of the aesthetic community believes that truly beneficial skin rejuvenation and tightening can't happen without at least some degree of ablation, regardless of the energy or wavelength."

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Acne scars before Tx



Acne scars after four Pixel treatments  
Photos courtesy of Bruce Katz, M.D.

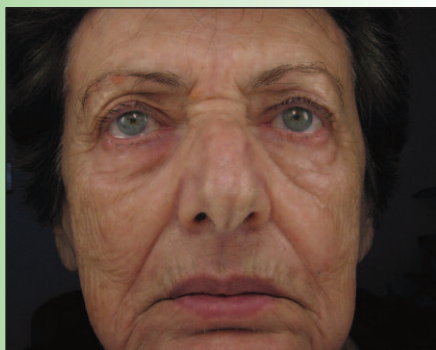


Before Tx



After Pixel Tx

Photos courtesy of Eduardo Weiss, M.D.



Before Tx



After Pixel Tx

Photos courtesy of Eduardo Weiss, M.D.

the ability to treat effectively with low downtime and risk. The skin between microscopic wounds is left undamaged, so healing is more rapid. Another advantage to fractional systems such as Pixel is the ability to safely and effectively blend the treatment area into the surrounding skin. "I can blend into hairlines, the brow, along the edge of the ears, and into the vermillion border of the lips, without lines of demarcation as you might have with fully ablative resurfacing. It's easy to stack passes or change the energy dose in different areas, customizing treatment location by location and providing a nice uniform result," said Dr. Zimmerman.

With Pixel, new users can rely on preset parameters to simplify treatment, according to Dr. Zimmerman. More advanced operators will modify settings, such as energy and pulse width, based on their own experience. "There are a lot of ways to modify these technologies but in my experience, this is largely unnecessary. A square or rectangular Pixel pattern is efficient and easy-to-use. You don't have to worry about asymmetric overlap and moving parts that can shift out of alignment or change the output of the unit. These bells and whistles, available on other units, are generally superfluous to the clinician and add extra cost and complexity."

By modifying the simple parameters, Pixel treatment can easily be adjusted to fit the downtime restrictions of each individual patient. This is a huge advantage, according to Dr. Katz. "You can perform a single treatment or multiple treatments at higher energies, which will achieve better results at the expense of downtime; or provide four to six treatments at lighter parameters for those who can't allow more than a few days of downtime. Pixel is very easy to work with. The learning curve is very minimal."

Spot sizes for all versions of Pixel are 7x7 pixels (micro-wounds) in a 10x10 mm spot; or 9x9 pixels in an 8x8 mm spot for more density of pixels. The Er:YAG Pixel with the Harmony Platform features adjustable pulse width (short, medium and long pulse mode) and energy from 300 mJ to 2,500 mJ per pixel. The Pixel CO<sub>2</sub> platform offers up to 40 watts of power with variable pulse widths from 50 μm to 1,000 μm. "I use the Er:YAG Pixel for less aggressive treatments where patients want little or no downtime, such as fairly superficial discoloration, scars and wrinkles. Treatment is almost painless," said Eduardo Weiss, M.D., medical director of Hollywood Dermatology and Cosmetic Surgery Specialists in Hollywood, Fla. "I also like it for fine lines around the eyes, pigmentation and mild sun damage."



Eduardo Weiss, M.D.

Medical Director  
Hollywood Dermatology and Cosmetic  
Surgery Specialists  
Hollywood, FL

"The Harmony<sup>XL</sup> Er:YAG Pixel laser only goes so deep – maybe 70 to 150 microns – so you need to apply very little topical anesthesia, if any, for only 20 minutes instead of an hour," explained Peter Rullan, M.D., medical director of the Dermatology Institute (Chula Vista, Calif.). "You can get good results even with a single pass. For example, a patient with mild acne scars can be treated with the Er:YAG Pixel even while undergoing acne treatment with Accutane from Hoffman-LaRoche, Inc. (Nutley, N.J.). This has replaced the superficial chemical peels in my practice."

"I really like using the Pixel CO<sub>2</sub>, especially after analyzing the deeper ablative technologies that my colleagues use; they are bloody and



**Peter Rullan, M.D.**  
Medical Director  
Dermatology Institute  
Chula Vista, CA

painful procedures. I don't buy into the idea that deeper is better," Dr. Rullan added. "This will go 600 microns deep and that is enough to treat facial photaging. Some aspects of aging are better treated with neurotoxins or volumetric dermal fillers, rather than treating deeper. I use a modified phenol peel for very deep rhytides of the upper lip while using the CO<sub>2</sub> for the face and neck. Other deeply ablative lasers need intravenous sedation, narcotics or oral sedatives, and are slower than Alma's device. When colleagues come into my office to observe me with Pixel CO<sub>2</sub>, they're amazed at how quickly I can treat a full-face and neck (10 to 15 minutes)."

Gregory S. Keller, M.D., a facial plastic surgeon in Los Angeles, Calif. also uses the Er:YAG Pixel version for milder skin resurfacing. "However, for heavier resurfacing that requires more aggressive treatment, we use the Pixel CO<sub>2</sub>. With Pixel CO<sub>2</sub> we can really dial up treatment parameters to tackle all but the deepest wrinkles," he continued. "It's a home run around the eyes, where our results are nearly equivalent to those we obtained with older CO<sub>2</sub> and erbium resurfacing devices, without the risk, pigment changes and downtime."

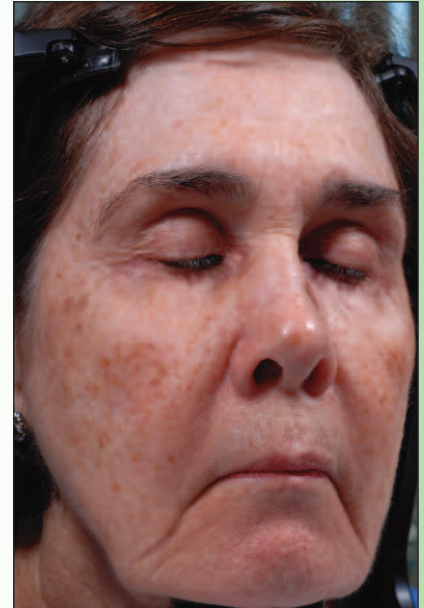
According to experts, the Omnitfit and stand-alone Pixel CO<sub>2</sub> offer the same adjustability and ease of use that have been hallmarks of Alma devices. "I chose Pixel technology because it's elegant and relatively simple. A wide variety of results can be obtained by changing only a few settings and outcomes are equal to or better than

more complex competing technologies," stated Dr. Keller. "The Pixel pattern is very precise and the device is easy-to-use. Though I see each patient and treat the most challenging or high dosage patients, my ancillary staff can do some treatments and Alma has systematized the interfaces so that the devices are easy-to-use and provide uniform results."

Alma device users can promote Laser360, a multi-treatment package for overall facial rejuvenation, using the variety of laser and light-based modalities at their disposal. Although some physicians prefer to perform the treatments a few weeks apart, many choose to complete all adjunctive procedures on the same day which is perfectly safe. "You can combine the Advanced Florescence Technology (AFT) with Pixel, and add the ST (near infrared) or Accent<sup>XL</sup> radiofrequency treatment to address pigment, vascular lesions, texture and tightening all at once," Dr. Keller noted. "If patients receive the entire package the results are quite dramatic." He similarly packages Pixel with the Accent<sup>XL</sup> to achieve non-surgical skin tightening for patients that are unwilling to go under the knife for a face-lift.

Dr. Weiss also offers Laser360. "I will often do one pass with the AFT 540 handpiece on the Harmony<sup>XL</sup> for brown spots, followed by one or two passes with the erbium Pixel to enhance the overall result. I'll repeat this after four to six weeks if necessary. For patients with telangiectases I may use the AFT 515 or 570 instead of 540. I also have the long pulse 1064 Nd:YAG handpiece as well, which is among the 16 different handpieces available for the Harmony platform."

For its main indication, skin rejuvenation, Pixel is universally respected.



Before Tx



Three weeks after Pixel Tx

Photos courtesy of Peter Rullan, M.D.

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“Patient satisfaction is greater than 95%. My patient base has increased from word-of-mouth about Pixel treatment.”

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Before Tx



After Pixel Tx

Photos courtesy of Eduardo Weiss, M.D.

“Patient satisfaction is greater than 95%,” reported Dr. Weiss. “My patient base has increased from word-of-mouth about Pixel treatment.”

In addition to skin rejuvenation with Pixel – termed Pixel Perfect – the modality is also useful for other indications, and with a variety of adjunctive treatments. “For really bad acne scars I use Pixel CO<sub>2</sub> in combination with other types of scar treatments, like subcision and chemical reconstruction of superficial scars (CROSS) for rolling and ice-pick scars, respectively. This combination helps create a more homogenous look to the skin for a better overall outcome,” advised Dr. Rullan. “I use the erbium Pixel for more superficial lesions, shallow wrinkles or boxcar scars. These treatments seem to dry out pimples as well, so you can somewhat treat acne along with the scars. The fractionated erbium is also good for melasma, teenage acne and scars, or mild photo-aging, where treatment must be minimally ablative. You’ll mostly see improvements in texture and tone, for which the full effect takes six months to develop. I’ve seen some amazing results 12 months after three treatments with the Pixel Er:YAG.”

Another emerging indication that’s stirring the community is stretch marks. “Pulsed dye lasers are still fine for red stretch marks but there hasn’t been much for older, white ones,” said Dr. Katz. “Fractional CO<sub>2</sub> is really the first application I’ve seen that works for those. The results have been promising.”

Dr. Katz will soon complete a fifteen patient study using Pixel CO<sub>2</sub> to treat facial wrinkles and acne scars, with impressive findings. “We did an average of two to three treatments at intervals of two or three weeks,” he explained. “The data shows that around 80% of subjects have seen

75% to 100% improvement, and we’re seeing 50% to 75% improvement in the rest.”

This study also looked at histology, which showed a direct correlation between power and depth of penetration. “We went from 30 watts to 60 watts. At 30 watts we had 40 microns of wound depth and up to 1,600 microns at 60 watts. We discovered that you can reliably use energy to determine the depth of penetration. This allows us to consistently tune treatment to each patient’s needs for results and downtime.”

Ultimately, time will tell who put the best product out there in terms of efficacy, safety, versatility and fiscal feasibility, but these physicians are betting on Alma Lasers and Pixel technology, partly because of the company itself. “I chose CO<sub>2</sub> Pixel Omnifit because I have many devices from Alma Lasers and I am extremely happy with their service and support,” said Dr. Weiss. “As a dermatologist, I see a wide variety of patients whose needs may be more medical than cosmetic. Alma devices, especially the Harmony platform, offer the ability to provide many treatment alternatives to address the various cosmetic needs my patients may have. As new devices and handpieces come out I can expand my capabilities with a more reasonable investment. Also, CO<sub>2</sub> Pixel Omnifit costs approximately one-third as much as a new stand-alone platform, so I was able to give new life to my ablative CO<sub>2</sub> laser and deliver safe, effective fractional treatments at a fraction of the usual cost.” Furthermore Pixel requires no disposables, which further reduces the costs.

“Other technologies require disposables, which you have to factor into the cost of treatment,” said Dr. Katz. “If you’re comparing devices that are

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"Honestly, I don't know how I'd do without Pixel in my practice. It's so effective, safe and reliable."

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Acne scars after four Pixel treatments

Photos courtesy of Bruce Katz, M.D.

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Alma Lasers also offers quick response depot service to users in case a machine goes down which, according to the experts, is a rare occurrence. "Alma has taken good care of me and my experience with the local representatives has been excellent. The devices are extremely reliable, and in the four or five years I've been using their equipment I may have needed the depot service twice, and in each case I received a loaner within 24 hours," explained Dr. Weiss. "This is extremely valuable because reliability reduces revenue loss due to machine downtime. Patients must often schedule these procedures into their lives, even for something with relatively little downtime such as Pixel. They take time off from work or school and may be very excited. Disappointing them may be costly, so the less often you need to reschedule procedures, the better. It helps to know that if something happens with the equipment, you'll have a replacement in a relatively short time."

"I've had no problems with the Alma devices since I purchased them," Dr. Keller shared. "In fact I had a problem with the old CO<sub>2</sub> laser I was driving the Omnifit with and they gave me a contact reference for that device. We were down less than one day."

For new and established practices of any size, Office by Alma marketing and educational support provides a variety of services to help physicians promote their Alma devices. For a reasonable cost, physicians can choose from among several templates for brochures, posters, counter stands, postcards or open house invitations and similar materials, rather than designing them in-house or relying on an advertising firm. These are customizable to include the name and contact

information of the practice. "I've found the marketing support materials to be high-quality and quite effective," said Dr. Keller. "Every prospective consultation gets one."

"We use a lot of Alma's brochures and marketing materials," said Dr. Zimmerman. "The price is right and compared to reinventing the wheel on my own, it's much easier." Dr. Katz agreed, "Office by Alma is a nice feature that comes with the technology, and is especially useful for a smaller practice. Either way, whatever you create in-office often looks amateurish, these clearly do not."

In these tough times, "dealing with a larger, international company like Alma Lasers is comforting because you know they're likely to be there over the long haul," said Dr. Zimmerman. "It doesn't matter how inexpensive or good a product is today if, in a year or so, you're crossing your fingers trying to buy replacement parts or disposables from some unknown distributor to keep your unit running and fiscally viable."

While a new Pixel technology is in the works, which will marry fractional technology with another popular modality, physicians and patients alike will continue to enjoy fractional ablative resurfacing with the current Pixel offerings. "Honestly, I don't know how I'd do without Pixel in my practice. It's so effective, safe and reliable," said Dr. Keller. We did a survey and basically 100% of our patients were ecstatic with Pixel and would recommend it to their friends. This wasn't after six months or a year of using Pixel, this was among those receiving their first treatment. We've never had that level of satisfaction with anything else."