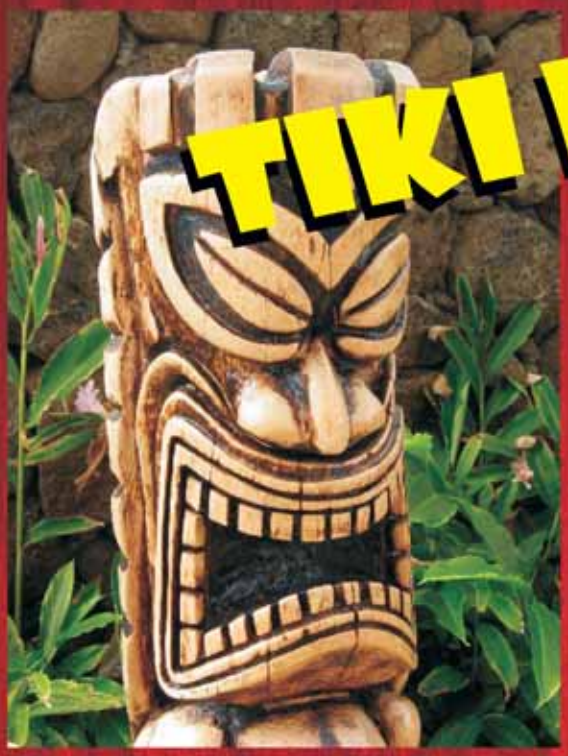
INNOVATIONS

ISSUE 5, SPRING/SUMMER 2007

AWFS® FAIR VEGAS
JULY 18-JULY 21, 2007



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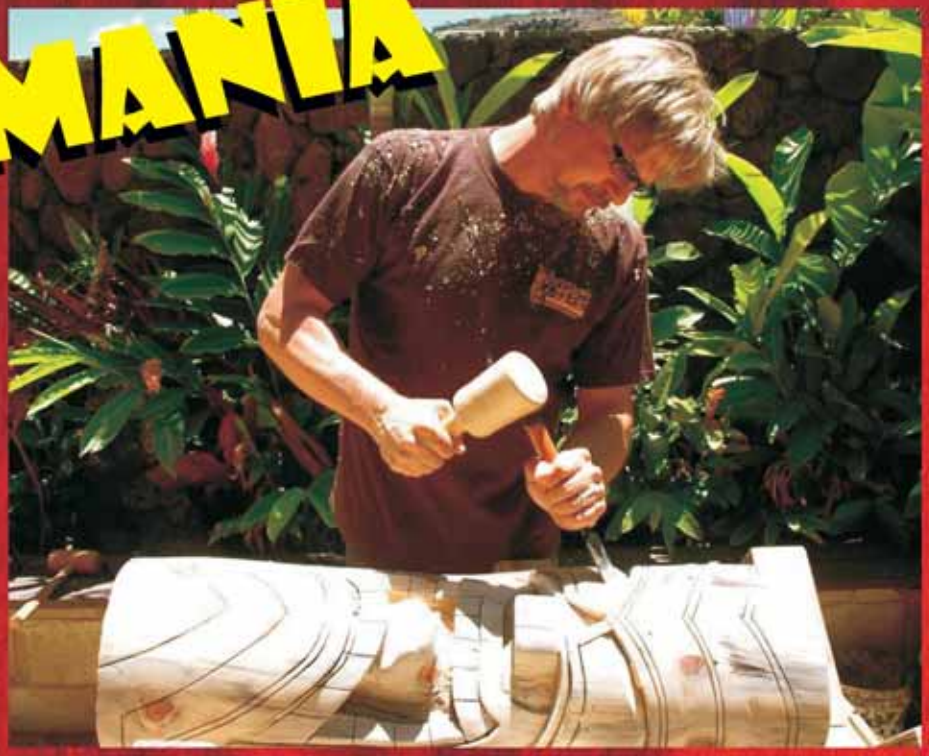

WATERBORNE IN EUROPE

THE NEW LPH400 LVX eXtreme BASECOAT GUN

PAMELA SHANTEAU: CUSTOM AUTOMOTIVE & AIRBRUSHING 101

NGR STAINS AND TONERS

SPRAYING LATEX

ANEST IWATA

INNOVATIONS

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IN THIS ISSUE

In this fifth installment of *INNOVATIONS*, we detail ANEST IWATA and our experience with waterborne in Europe.

We introduce the new LPH400 LVX eXtreme basecoat gun, suitable for spraying most basecoats. We also feature our compact automatic guns with typical setups, and introduce our new LPH100 LVP pressure gun.

We discuss the benefits to positive flow rates with our Mix & Spray Reusable/Disposable/Recyclable Cup System.

We recap the 2007 East Coast Air Affair and ASET.

Rounding out the issue, we introduce our new application engineer "MITZ," who presents a technical discussion about paint defects.

TELL US WHAT YOU THINK!

We're open to suggestions for article ideas and photo opportunities.

Call **513-755-3100** or e-mail inquiry@anestiwata.com

WATERBORNE IN EUROPE

AND ANEST IWATA

In some European countries, waterborne coatings have been used for over 17 years. During that time, ANEST IWATA has been at the forefront of new technology for applying these materials.

Whether it is for automotive refinish, OEM (automobile) or aerospace, ANEST IWATA has been selling the LPH and the W lines of equipment for all of these industries with great success. In most of these industries, ANEST IWATA has become the benchmark and industry standard for waterborne applications.

ANEST IWATA spray equipment, with its patented cut fluid nozzles with pre-atomization technology ("LV Technology"), is quickly becoming known for its advances in application technology.

A large number of OEM manufacturers in Europe are using ANEST IWATA spray equipment, including Jaguar, Aston Martin, Bentley, Lotus, Honda, Citroen, Renault and Fiat. This shows that, for color control and finish quality of waterborne basecoats, ANEST IWATA is seen by the professionals as being the "go-to" brand for tough applications. Because automotive refinish is such a competitive industry in Europe, it is critical that the painter achieves the right results the first time, every time. ANEST IWATA spray guns, with their advanced technology, ensure the best results.

Body shops within Europe now rely on a quick throughput of vehicles to make a profit. ANEST IWATA's range of LPH400 and W400 spray guns give the painter the speed and control required to achieve these kinds of results.

ANEST IWATA companies in Europe have been collaborating with ANEST IWATA USA and ANEST IWATA Corporation in Japan to develop waterborne technology suitable for the North American market. ANEST IWATA is ready to provide the best solutions for our North American customers once waterborne coatings are implemented.

AWFS® FAIR VEGAS

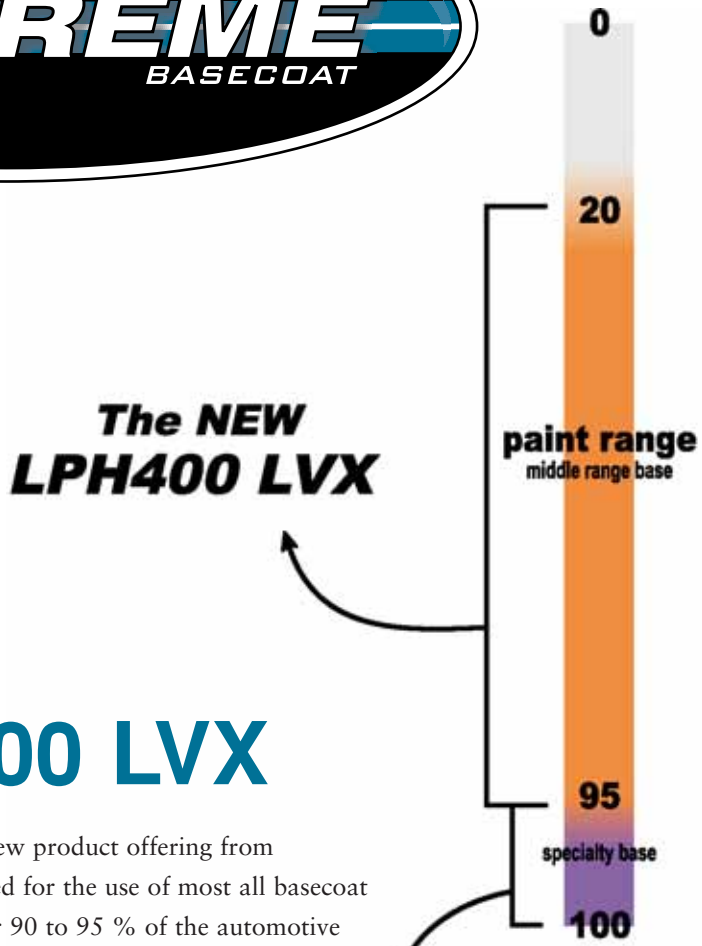
JULY 18-JULY 21, 2007

This year during the AWFS® 2007 show, custom artist Dennis Mathewson will be in our booth demonstrating some his kustom carving and painting techniques. Over the years, Dennis has fine-tuned his multifaceted talents, to create more than imitate. Not only is Dennis known worldwide for his unique island-inspired artwork style, vibrant use of color, and highly desired Kustom mixed paints, but he has also been a master instructor for over 20 years, sharing his knowledge of airbrushing and kustom painting, filling classes and workshops with students eager to learn from and be inspired by him.

Dennis is currently touring and teaching for ANEST IWATA in the U.S. and in Japan at the ANEST IWATA factory in Yokohama. He instructs annually at the Airbrush Action Magazine's Getaway in Las Vegas and makes numerous appearances at shows and events globally.

Experience a one-of-a-kind demonstration of his techniques at our booth #405 at the Las Vegas Convention Center Wednesday, July 18 through Saturday, July 21, 2007.

eXTREME LV BASECOAT



THE NEW LPH400 LVX

The new LPH400 LVX eXtreme Basecoat technology is a new product offering from ANEST IWATA. This gun and cap technology was developed for the use of most all basecoat colors. It is engineered to provide the best in application for 90 to 95 % of the automotive basecoat colors used. The LVX eXtreme basecoat works on all solvent borne colors new, old and waterborne basecoats. The LVX teams up with the LVB technology to solidify our offerings as the very best solution for basecoat applications. Pigments used in today's coatings have different atomization needs to perform at their best. Color match, metal and xyrillic pearl control cannot be achieved with only one gun setup for best application results. The LVX will work best for solid colors and most metallics and pearls. The LVB cap works best for hard-to-control xyrillic pearls, and certain aluminum pigments that are prone to blotchiness or the "puppy paws" effect. The eXtreme basecoat LVX system is fantastic for waterborne as well.

Field testing and evaluation reports show the LVX to be faster than the competition, providing smooth application with almost no technique change. The LVX sprays best at an inlet pressure of 16 to 18 PSI and applies about 25% more material than the LVB with the same fluid tip size. Therefore, if a 1.4mm is used for base, a 1.3mm may be the best choice with the LVX. The LPH 400 creates a siphon effect on the gravity cup depending upon which cap is used. The purpose for this is to allow the proper atomization for the color or coating: *engineered atomization*.

You will be greatly impressed with the LVX and ANEST IWATA's fantastic solution to basecoat application. The LPH400 LVX will be available in August 2007. Check with your ANEST IWATA dealer for this great new product offering, and feel the eXtreme ease of basecoat application.

Mix & Spray System

Reusable / Disposable / Recyclable Cup System

Mix & Spray System allows the user to save time in preparing paint, cleaning time and cleaning materials. The disposable, reusable or recyclable gravity cup is graduated for easy, accurate mixing. Any leftover paint can be stored in the cup and sealed with the supplied caps. The unique air valve with an anti-dripping system creates a positive flow to the gun, which means there is no change in the paint delivery rate, resulting in an even flow and great finish. With inner liner systems, the bag creates a negative flow situation that inhibits the flow rate. Guns are designed to operate within certain parameters, and having positive flow is very important.

For example, the operating air pressure for an ANEST IWATA LPH400 is 16 psi. If you have a bag system in place, and the recommended operating air pressure is 16 psi, and you need to take some of that operating air pressure to collapse a bag system or vacuum the paint, what pressure is the gun operating at? Do you know what pressure you need to collapse the bag? These are critical issues for any gun, and may sometimes cause issues such as color matching problems. With the advancement in coatings, and with many OEM's painting vehicles with more exotic colors, the flow rate is critical.

With so many application variations such as wood, plastic and automotive refinish, the Mix & Spray System is ideal for use with gravity fed spray guns.

Mix & Spray System is available for use with all 400, 300 and Air Gunsa series spray guns.

SPRAYING ADHESIVES

OR OTHER NON-FINISH COATINGS

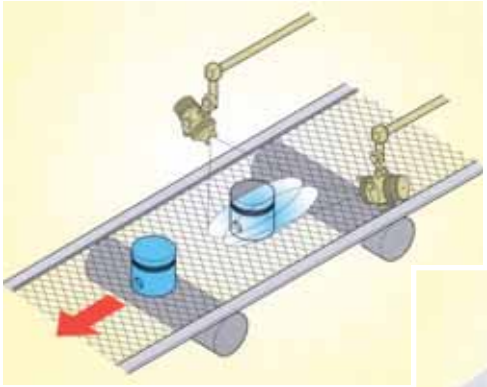
If a fine finish is not your ideal end result, why spend the money on a spray gun made for such applications?

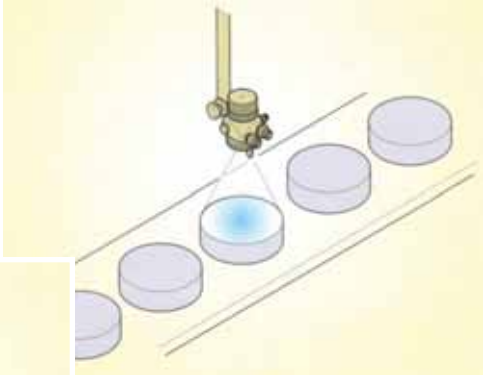
ANEST IWATA has a wide range of affordable hand and automatic conventional air spray guns that perform extremely well with mold release, adhesives and other general spray applications.

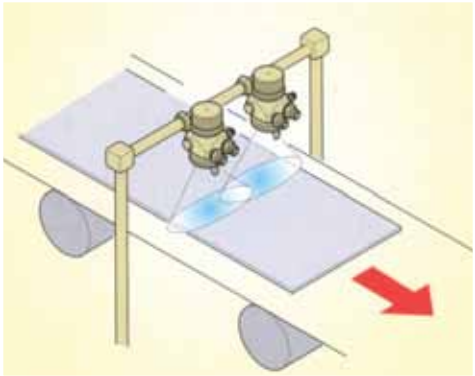
In most of these applications the most important end result is uniform particle size and even distribution. ANEST IWATA has proven technology to suite most all of these situations, doing so with minimal capital expenditure.

ANEST IWATA's SGA-101 compact automatic spray gun is a very affordable automatic air spray gun. Small on size but big on performance, this spray gun is easy to setup and maintain, offering superior atomization without all the adjustments necessary on other spray guns. This means simplified setup and maintenance and repeatable performance. If you need a little more flexibility, ANEST IWATA's full line of TOF spray guns are designed to meet your needs. Taking the SGA-101 concept one step further, the TOF series guns offer a wide range of options and features from the most simple single air inlet design to fully adjustable versions. Round pattern air caps are available on most TOF designs for smaller patterns and shorter spray distances. The TOF's compact design allows for multiple unit installations in tight quarters. All of these benefits come at a surprisingly low cost.

EXAMPLES OF TYPICAL SETUPS







W-77 & W-71

30 YEARS OF PERFORMANCE

Need a manual spray gun? ANEST IWATA's proven W-71/77 series spray guns offer superior atomization at a cost that can fit any budget. These are not your typical "throwaway" spray guns. The W-71/77 series spray guns are a proven design that has been in production for 30 years. Both guns are also available in stainless steel versions.

*The **W-77** is a well-balanced general purpose spray gun with built-in air adjusting valve suitable for medium to large size painting jobs in a wide variety of industries. The W-77 is available in pressure feed, siphon feed and gravity feed. Needle nozzle sizes from 1.2mm to 2.5mm are available.*

*The **W-71** is a smaller version of the W-77 with a built-in air adjustment valve. It is very versatile and available in pressure feed, siphon feed and gravity feed, and is suitable for small to medium painting jobs in a wide variety of industries. Needle nozzle sizes from 0.8mm to 1.5mm are available.*

For more information, or to find a local distributor, please visit our Web site at www.anestiwata.com.

LPH200-LVP & THE NEW LPH100-LVP

The ANEST IWATA LPH200-LVP full size pressure spray gun and the new LPH100-LVP compact spray gun offer proven "LV Technology" in a pressure feed design ideal for woodworking, industrial and fleet applications.

Our patented "LV Technology" and pre-atomization theory allows the horn air on the aircap to do what it was intended to do, form the pattern. Many other spray guns rely on the horn air to complete atomization, resulting in poor particle distribution and uneven patterns.

Speaking of the aircap, the renowned ANEST IWATA Tulip spray pattern is a result of many refinements to the aircap. This tulip-shaped pattern makes for a softer spray and reduces overspray, significantly reducing waste while being environmentally friendly.

The new LPH100-LVP manual spray gun now gives the end user all the benefits of the full size LPH200-LVP in a smaller package. This new spray gun is based on the successful LPH100 series pressure feed spray guns with the addition of ANEST IWATA's patented "LV Technology." These features produce unsurpassed finish quality while allowing access to tighter spaces and closer spray distances, reducing user fatigue and waste.

The LPH200 or the LPH100, coupled with our 0.8mm needle/nozzle combination, are ideally suited to troublesome NGR stains and toners. The combination of the "LV" nozzle and the LV6 aircap eliminate a lot of the mottling commonly associated with NGR stains and toners.

NGR STAINS AND TONERS

In today's highly competitive world of cabinet, furniture making and restoration, controlling your cost of goods sold is paramount.

The use of NGR stains to add depth to wood products is not new. However, production facilities have long struggled to control the mottling that can occur when spraying these finishes on harder woods such as maple. In the past, the expensive reworking of pieces by hand has proven too expensive to keep costs down. Adding a second coat can melt out some of the mottled appearance, but does not always eliminate the problem, and also increases material usage and adds a costly step to production.

The use of NGR stains can also allow manufacturers to keep costs down by allowing the use of less expensive substrates. The depth added by using one or more coats of NGR stain at the beginning of the coating process can give the appearance of expensive woods like cherry while using lower cost woods like maple. NGR sap stains and toners also allow the use of less than perfect specimens by evening out sap/heart wood transitions and other imperfections in the substrate. Some solutions in the past relied on extremely high aircap pressures to increase particle speed and coverage. Although this does help, it does not completely solve the problem. Increased material waste and booth filter usage add to the problem of keeping costs down, not to mention the possible fines if you are in an HVLP mandated district.

Rework, wasted material and wasted time. These all add up to higher costs and lower productivity. Having the proper equipment can keep material waste to a minimum, while eliminating the need for rework. ANEST IWATA's patented "LV Technology" allows you to save time, material and fully atomize the coating for flawless finishes.

The ANEST IWATA LPH200-LVP is an ideal HVLP solution for these applications. These spray guns work best when the pattern adjust is turned about 2 full turns from the closed position and the inlet air is 3-5psi lower than the maximum recommended inlet pressure. The paint pressure should be 2-3psi for a flow of 4-5 ounces per minute. (This can vary with different hose diameters, lengths, position of pot relative to the gun, etc). Fluid adjust and air adjust valves on the guns should be full open (choking the needle down can cause excess wear and poor atomization). Accurate air and fluid pressure regulators are very critical when working with these low pressures. Spray distance should be about 4 inches. Spray technique is also a factor for achieving flawless results. Slower gun speed and a consistent spray angle are imperative.

Chestnut on Maple

Cherry on Maple

True Brown Shade on Maple

SPRAYING LATEX

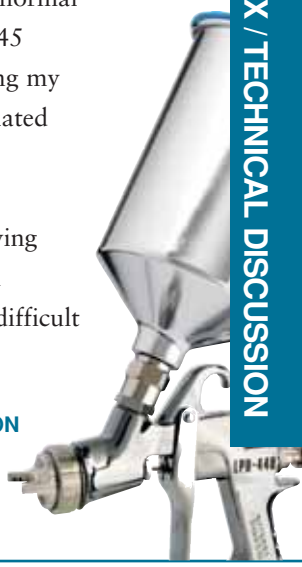
For years, spraying exterior latex with a gravity gun was too slow or too difficult for contractors. Most contract painters have been taught that latex paint can only be sprayed efficiently with an airless system. My experiences as a painting contractor and dealing with automotive paint made me think there had to be a way to get good and efficient results spraying exterior latex with a gravity gun. I looked at my own home and decided it was time to experiment!

I experimented with different brands of latex paint. I tried different combinations of mixing, thinning, spraying, and so on. Almost at wit's end, I came up with a combination that sprayed latex almost as if I was shooting solvent automotive paint. I chose an ANEST IWATA LPH440 gravity gun with a 2.0 nozzle because I know from spraying primer that the spray pattern is sharp or very defined. Spraying at a normal 6 to 8 inches, I sprayed 120 spindles in about 45 minutes. Mixing in a plastic pitcher and refilling my cup as needed eliminated all the cleanup associated with pressure or airless systems.

This might not be for everyone, but after spraying cars, and now 120 spindles in 45 minutes with minimal overspray and no masking, it will be difficult for me to get out those 3" sash brushes again.

TO MAKE ONE QUART
1 quart latex paint
20 oz. distilled water
3 oz. latex conditioner

TO MAKE ONE GALLON
1 gallon latex paint
77 oz. distilled water
12 oz. latex conditioner



TECHNICAL DISCUSSION with "MITZ"

In recent years, painting equipment has become much more efficient, thereby reducing paint usage, maintenance time and the overall cost to run a paint system. HVLP spray guns have higher transfer efficiency than conventional spray guns, making it possible to reduce not only paint usage but also downtime for booth maintenance. Furthermore, easy-to-clean equipment (pumps and spray guns) with stainless steel fluid passages can reduce the amount of solvent used and time spent cleaning.

We must, however, consider the cost of paint defects. Even if we use efficient equipment such as described above, the savings become meaningless if the painted surface has contamination. Painting defects are almost always found after the baking process is finished, especially in the case of an automated paint line. To make up for this loss, we may have to repaint and or replace painted parts.

There are many types of paint defects, and each can have different causes. These can be divided into two categories. The first encompasses those defects caused by the spray setup, *e.g.* orange peel, sagging, cracking, lack of hiding, and color match. These defects can usually be solved by changing the spray settings, baking temperature, bake time and or solvent speed.

The other category includes the mishandling of workpieces, dirty equipment and system maintenance, *e.g.* seeding, fish eyes and dust contamination. These are very hard to solve completely because they depend on the vigilant maintenance of equipment and the whole spray environment. In the case of fish eyes, it is usually caused by compressed air contaminated with moisture or oil mist. If this happens suddenly, check the airline first. Is the mist separator full? Is the air dryer running correctly? In the case of air-operated equipment such as a paint agitator or a diaphragm pump, these can sometimes introduce water or oil to the paint supply. If these defects are only seen sporadically, you must check the pretreatment and handling of workpiece. Was the surface cleaned well? Did someone touch the surface? These are just a few examples. These defects can happen suddenly, but you can prevent them with periodic maintenance and careful material handling.

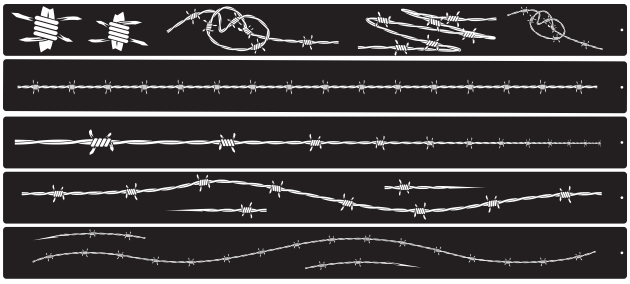
Dust Contamination

Fish Eye

NEW TEMPLATES

With the new Long Lines Series™ of Artool® Freehand Templates, you can have unlimited length to easily create very long artwork and graphics. This will save you time for achieving professional results.

You can apply WIRED™ on nearly all surfaces: flat-panel artwork, motorcycle tanks, fenders and helmets (any compound curve), kewl race boats, motor homes, trailers...it's endless!



Long Lines™ SERIES

- *Many of the ends of the WIRED templates can be interfaced for a totally seamless transition to either the next length of barbed wire, or the knot of your choice.*
- *An effective method of adhering the Long Lines Series templates to a surface is with a low-tack spray adhesive, which you can find in any art or office supply store.*
- *You can also flip-flop any of these designs to create a variety of kewl kustom twists 'n turns. Plus, you can layer and overlap them for an interwoven barbed wire look.*
- *The large barbed wire knots can be ghosted in for some unique FX. These two larger shapes can be very dramatic for multi-layering. Fill your WIRED artwork with colors and airbrush gradations for illusions of multi-layered 3-D relief FX.*

2007 EAST COAST AIR AFFAIR RECAP

Featuring 7 of the top airbrush artists in North America (Steve Driscoll, Bones, Pamela Shanteau, Ron Gibbs, Paul Quinn, Bob Soroka and Jason Doll), the 2007 Air Affair East was a huge success! While no blood was shed and nobody ended up in jail (?), there were dozens of satisfied students, and the artists all bonded in the spirit of co-operation and respect. The Pennsylvania College of Technology faculty was thrilled to be the host venue, and accommodated the program 100%. We hope to see you at the next one!

Driscoll Wired

2007 ULTIMATE AIR AFFAIR AND CAR SHOW

The 2007 Ultimate Air Affair is going to be held August 29 through 31, 2007, with the Ultimate Car Show to follow on September 1, 2007. Mark it on your calendar!

Contact Sherri or Kari at ASET for more information at **1-800-628-5449**.

The 2007 Ultimate Air Affair will feature an impressive list of artists, including Craig Fraser, Deborah Mahan, Fonzy, Abel, Dean Loucks, Bob Soroka, Gerald Mendez, Bones, Steve Vandemon, Jason Doll, Ron Gibbs, Ryno Templeton, Mike Lavallee, Dennis Mathewson, Steve Driscoll, and Paul Quinn!

CUSTOM AUTOMOTIVE AND MOTORCYCLE AIRBRUSHING 101

Pamela Shanteau's new book is a "coffee-table" quality, 160 page, hardcover book that is chock-full of airbrush how-to's and finished artwork, most shown with high-gloss varnished photos. A foreword written by Craig Fraser introduces the book and the importance of focusing on the basics in "how-to" books, and he describes how Pamela Shanteau has nailed the concept with this new title. Whether you're pursuing custom painting for profit, fun or both, this essential book was written by artists who have survived and thrived in the business for over 30 years. Custom Automotive & Motorcycle Airbrushing 101 by Pamela Shanteau will help you gain knowledge that you can immediately apply to any project imaginable.

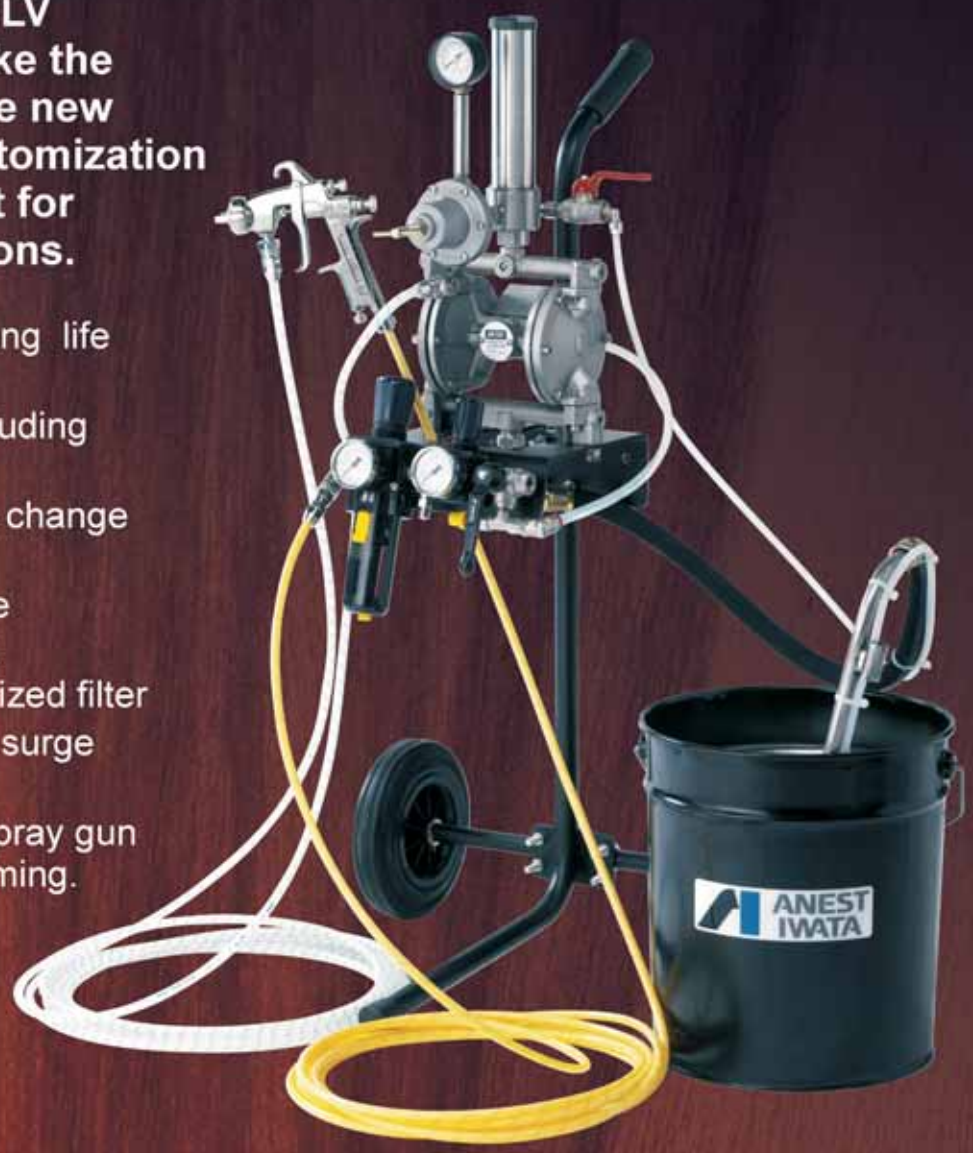
For more information on the latest airbrush and Kustom innovations, please visit iwata-medea's Web site at ***www.iwata-medea.com****.*

1:1 Double Diaphragm Pump System

DPS903N Cart Mount

The DPS903N Cart Mount Stainless Steel Double Diaphragm system is an extremely flexible system that allows you to spray in almost any situation. Combine this system with one of ANEST IWATA's patented "LV Technology" spray guns like the LPH200-LVP pictured or the new LPH100-LVP for superior atomization and minimal waste. Perfect for industrial or fleet applications.

- Teflon coated diaphragms for long life and easy cleaning
- Stainless steel wetted parts including long life SS ball valves
- ANEST IWATA's unique double change over valve prevents stalling
- PR-5B fluid regulator for precise metering even at low pressures
- Stainless Steel 120 mesh oversized filter for removing contaminants and surge reduction
- Dual regulators for pump and spray gun
- Recirculation valve for easy priming.



ANEST IWATA

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make Your Paint LOOK great!