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TURNING PAINT IK



ENGINEERED ATOMIZATION: PATENTED "LV TECHNOLOGY"

DENNIS MATHEWSON: "FOOLING A TERMITE"

CLASSIC COLLISION REPAIR CENTER: TURNING PAINT INTO PROFIT

NEW MIANIFOLD AUTOMATIC SPRAY GUNS

WOOD BROTHERS RACING #21

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INNOVATIONS

IN THIS ISSUE

In this eighth installment of *INNOVATIONS*, we will relay a message from ANEST IWATA Corporation's President, Mr. Takahiro Tsubota. We will also present:

- "Turning paint into profit" through waterborne conversion.
- Engineered atomization, our patented LV Technology.
- Dennis Mathewson "fooling a termite" with his woodgrain airbrushing technique.
- New manifold automatic spray guns from ANEST IWATA.
- More creativity from Iwata-Medea and Artool.
- Wood Brothers Racing #21.



ANEST IWATA CORPORATION A MESSAGE FROM THE PRESIDENT

In April 2008, I assumed the office of president of ANEST IWATA Corporation and appointed executives of the coating equipment & systems department and the compressor department as well as the domestic sales department; some are newly promoted and others were transferred. Therefore, the fiscal year 2008 was started under the new management team. I've been working hard to get closer to the goal with a day-to-day progress, trailing my predecessor's words, "management is to realize ambitions, to become a frontier and to challenge for innovations."

The fiscal year 2008 is the halfway point to the goal of the three-year mid-term business plan of ANEST IWATA group; we will take the next big step towards strong growth for the future. Although our target is high, we carefully approach and conduct every business area since the world economy of today is rapidly changing with great amplitude. We will attempt to manage businesses with a more flexible attitude and stay away from exaggerated growth; we will accomplish "operational excellence with constant improvement."



As to the North American market, it is strategically an important and growing market for ANEST IWATA among the expanding global markets. It is true that environmental protection regulations are getting harder and faster for the coating industry of the region; however, we are not discouraged by environmental protection trends at all. We would like to step forward with positive attitude which are backed by product development to satisfy the needs of customers in the North American market.

In order to accomplish this goal, we will enhance each "Genba-ryoku," which is "Powers and Expertise found in the factory floor or office scene," in the area of "sales and marketing," "production" and "research and development." These Powers and Expertise engage ANEST IWATA to customers and the market where customers actively pursue their businesses. My new management team share this concept.

- 1. Our sales and marketing team will reform themselves from within to "the people, who are willing to work strategically with customers," listen to their voices for developing a closer relationship.
- 2. Our production team will transform their own to: "Kanban-System," "work-cell based assembly" and "pull production with." In the meantime, we will strongly support the developing quality control systems for increasing product reliability in order to eliminate complaints and dissatisfaction.
- 3. Our R&D team will give a full attention to the needs of customers, listen to their voices, emphasize on quick and timely product development ensuring the finished goods are the custom-made design to fit the customer. By doing this, we can capture shares in niche markets for further growth.

Our corporate staff will address the establishment of internal control systems, which are backed by compliance and risk management frame-work. ANEST IWATA, as a public company, will thoroughly introduce the integrated management system to conduct 26 international affiliated companies.

ANEST IWATA Corporation is the parent company of ANEST IWATA USA, Inc., a direct subsidiary of ANEST IWATA Corporation.

THE INTERNATIONAL WOODWORKING MACHINERY & FURNITURE SUPPLY FAIR

The International Woodworking Machinery & Furniture Supply Fair – USA® is one of the world's largest trade shows for the furniture manufacturing, architectural woodwork, custom and general woodworking industries – and it's more than woodworking.

Wednesday-Saturday, August 20-23, 2008 Atlanta, Georgia Hours: 8:00 a.m. – 6:00 p.m.



Visit us at booth #4927



TURNING PAINT INTO PROFIT DANNY VOTEL ON WATERBORNE CONVERSION Pacific Produx, Inc.

The change to waterborne basecoats is not just an environmental issue; it's a change in technology! Waterborne basecoats offer collision repair shops better coverage, less material usage, and faster dry time. Waterborne paints are cost-effective for body shops in Southern California and have increased production time, allowing for more cars to pass through the shop's spray booth everyday. As waterborne basecoat is introduced into your area it's a great time to update your shop equipment. Technology advances in spray, air, cleaning, and disposal equipment will make it much easier to adapt to the waterborne changes in your shop.



ANEST IWATA offers a variety of equipment that can help you achieve maximum success with solvent or waterbase coatings. All of the Century Series spray guns have stainless steel needles, nozzles, and fluid passageways with an exterior chrome plated body for resistance to corrosion. The patented LV Technology requires less air consumption, increasing material breakup and reducing peripheral overspray. The engineered atomizing technology allows the material to perform better than other HVLP guns, and doesn't violently blast paint material onto the vehicle surface. ANEST IWATA spray guns use "engineered atomization" to smoothly break up paint material, leaving a more consistent finish with minimal overspray.



Classic Collision Repair Center in Los Angeles is a prime example of how technology has maximized profitability within the shop. In addition to installing automatic spray gun washers, dust-free sanding systems, and energy efficient downdraft booths, Classic Collision is using ANEST IWATA spray guns to promote higher transfer efficiency, reduced air consumption and increased production time.

"The guns we were using before had too much overspray, which was wasting material," says Eric Brown, Shop Manager. "When we switched to waterborne earlier this year, the Paint School recommended ANEST IWATA as the best option for waterborne application. We are now using the LPH400-LVX for basecoat."

The new LPH400-LVX eXtreme (orange air cap) breaks up the material differently than the traditional silver cap. While the silver cap's fine atomization might be the best choice for clearcoat, the LVX offers an advantage with color coats because it provides a coarse paint droplet that allows for faster coverage.

"I was used to spraying at 30-45 pounds with my old guns, which wasted a lot of air pressure and material," says Oscar Velazquez. "The ANEST IWATA tulip-shaped spray pattern allows the material on the top and bottom of the fan to hit the panels at a direct angle, minimizing overspray and allowing for a wet pattern without dry edges. With most waterborne colors I can achieve full coverage in two wet coats, which saves a lot of material."

Air movement is the most important factor in drying the new waterborne paints. Classic Collision Repair Center uses ANEST IWATA ADG-1 "Aquadry" venturi blowers. The ADG-1 is the only venturi blower to offer two separate air adjustments, a 6:1 air volume adjustment and a butterfly valve to adjust the amount of air supplied to the blower. At 14 psi @ 13 cfm, the ADG-1 consumes less air than ordinary blowers and maximizes air-to-surface velocity over a longer distance. Running the compressor less often will ultimately lower your energy bill.

Before investing in any eco-friendly products, make sure to do the research yourself. Making changes around the shop can be expensive, but investing in new technology from ANEST IWATA will ultimately pay for itself in a short period of time. With the increasing costs of materials, it's important to buy quality equipment. ANEST IWATA spray equipment will last longer and will incur less maintenance costs overall, and replacement parts are readily available.

Talk to your local representative about all of our money saving tips, promoting less material usage, increased production times, and excellent waterborne coverage!

ENGINEERED ATOMIZATION PATENTED LV TECHNOLOGY



ANEST IWATA's patented LV Technology is setting the standard by which all other spray guns are measured while turning paint into profit. This exciting technology is a natural evolution in ANEST IWATA's continuing commitment to providing the best spray solutions for our customers.

The unique technology creates a double "engineered atomization" process within the sprayed coating. LV Technology works by focusing air down the special slits in the fluid nozzle that direct air towards the center of the nozzle orifice.

This change in direction also causes the air stream to speed up, meeting the fluid in the center of the tip where a powerful pulverization of the fluid occurs. This pulverization is the pre-atomizing step which expands the paint stream 4 to 5 times that of the fluid opening and it is now a mixture of air and paint rather than fluid only. This air and paint mixture is much easier for the main atomization to break up, resulting in lower gun operating pressures. The secondary air cap piercings then complete the main atomization.

The many benefits of LV Technology include better appearance, better through dry, and better transfer of the material to the surface. Solvents that do not escape the film before drying or curing cause many common paint defects. Solvent pop, die back, shrinking, loss of gloss, softness of film, etc. are all defects caused by solvents remaining in the paint film. The ANEST IWATA LV Technology pre-atomization theory minimizes these problems because the in-flight loss of solvent is greater than with other technologies. Painters who have made the switch to LV Technology notice a significant reduction in product consumption and better appearance. Our patented LV Technology is available in HVLP and compliant high transfer efficiency spray equipment. Pressure, gravity and siphon spray guns are available with this technology.

0 psi: Note the fluid velocity of the LV spray nozzle has long dwell time in the atomization area This is because of the concave design of the fluid nozzle

0.7 psi: Notice how the fluid stream is starting to shred and break up these ligaments of fluid this is the pre-atomization process. Air comes around the tip and then is directed by the slits to the center of the nozzle that creates the breakup. This is less than 7/10 of 1 psi.

4.4 psi: The fluid is pre-atomization and awaiting the main atomization from the air cap to break up even further. Note that the non-LV tip is just starting to cut the fluid.



FOOLING A TERMITE

I was fortunate and honored last July to have been an attendee as well as being a demonstrator at the AWFS show in Las Vegas. Since I am known mostly for my airbrushed tiki art, I enjoyed the opportunity to also demonstrate my other passion for tiki carving. I hand tooled a 4 foot tiki in the ANEST IWATA booth during this four day event. In a world of high tech machinery, this hand-carved tiki attracted more attention than the airbrushing demos I normally do at tradeshows for ANEST IWATA. I did bust out some gear at the end to highlight the tiki we named "Tiki-San." My favorite airbrushes of choice used on this project were the Iwata TH (with a fan air cap) and an Eclipse CS for some detailing. I used FURH Industrial waterborne wood stains for my colors, which performed perfectly. Wood stains are very similar to the tinted clears that I use in my automotive custom painting which are called "candy colors."



The only difference here is that these wood stains are made specifically for woodworking and wood refinishing projects. These wood stains worked equally well as candys in appearance and performance on Tiki-San with my equipment. I even used an ANEST IWATA LPH-400 LVX spray gun to apply a water base clear sealer coat right at the wood show without any complications at the fun and eventful weekend's finish with my ANEST IWATA friends.



Dennis Mathewson has been airbrushing and custom painting for nearly forty years. He is president of his busy custom paint shop in Honolulu called Cosmic Airbrush. Well known in the industry for his vibrant use of color and island inspired artwork, Dennis also has a signature line of custom paint manufactured by the Alsa Corp and his popular template line manufactured by Artool. Recently, his career has expanded into the fine art world with his highly desired paintings gracing the walls of upscale galleries located in Honolulu as well as Lahaina, Maui. Dennis also writes for magazines and instructs airbrush and custom paint classes globally in Asia, Europe and across the U.S.

To contact him or to view more of his artwork, visit his Web site at <u>www.cosmicairbrush.com</u> or his fine art at <u>www.cosmictiki.com</u>.



Here is a quick step-by-step on how to simulate real wood using paint and ANEST IWATA spray guns and IWATA airbrushes. Its look appears so real, you can almost fool a termite!

- 1. First, I apply a light or pale gold metallic as a base color. Here, I am using an Alsa urethane base color custom tinted to my liking. With different base colors, you can achieve the look of different types of wood, like cherry, walnut or even oak. After the base is applied, I tape off lines separating panels.
- 2. A translucent brown base color is mixed and applied with a ripped up sponge (an old trick from the 70's van era). I drag it right over the gold base, pulling it in one direction to create an organic looking grain as I twist it in a certain spot to create a knot.
- 3. Once the base grain is created, I then bust out my trusty IWATA airbrush with the same brown color and give the wood the necessary details, lines, cracks, dots and even tones and fades are added. Airbrushes like the Eclipse or HPC's work great here. It dries almost immediately, then I drag a red scotch brite pad right over the airbrushing in one direction, allowing some of the gold base to show through.
- 4. Now, I use a stiff dry brush and some of the same Alsa base brown (Fonzy's flesh tones in Coco Bean). I dry brush in one direction right over the airbrushing giving the wood look some small lines and more detail.
- 5. Once the graining is completed, I then use my favorite T-H airbrush; this airbrush is more like a mini spray gun with its changeable air caps for fan or dot patterns. This is very cool; I love how it sprays small amounts of a light brown, gold candy base color that I mixed here. Using color blender brown, true gold, orange candy concentrates reduced 1:1 with medium reducer, this is similar to wood stain colors, giving me the same final wood look.
- 6. Using a lighter bases and yellow oxide colors in the same process to do an oak look wood grain.













NEW MANIFOLD AUTOMATIC SPRAY GUNS

ANEST IWATA is excited to announce the introduction of an all-new line to augment our growing offering of automatic and robotic spray guns. These new Manifold Automatic Spray Guns were developed in accordance with our U.S. customers' needs in mind. We talked with our end users and integrators to insure that all the features they wanted were incorporated into the design, and kept out any features deemed superfluous. The end result is a product that meets the needs of our discriminating U.S. customers at a reasonable price.

As the name suggests, this line of automatic spray guns is mounted to a manifold that is permanently affixed to the robot or reciprocator. There are two choices for the gun-to-manifold connection method. The traditional four bolt method is a less expensive choice, while our patent pending "one-touch" manifold release offers unparalleled ease in a tool-less design.

The aircap offers the proven performance from our WRA/LRA automatic spray guns. One of the features that our customers deemed essential was an indexing aircap. We incorporated this into the design with two position detents. This allows quick reinstallation after scheduled maintenance.

The manifolds themselves are stainless steel and offered in two configurations. One design has all of the air inlets on the rear of the manifold and the fluid inlets on the side. A second configuration allows all the fluid and air connections to be made on the rear of the manifold.

Manual fan pattern adjustment and PLC controlled pattern width are also options on these new spray guns.

As expected, these new manifold spray guns come in two main types: HVLP and Air Spray. Both of these are offered in multiple tip sizes and can be special ordered with various needle/nozzle materials such as hardened 420J stainless or tungsten carbide, as well as with Derlin needles.

Along with all of these options, the overall design was kept as simple as possible to lower the overall part count and make maintenance as inexpensive and quick as possible. This keeps operating costs low and down time to a minimum.



TECHNICAL DISCUSSION with "MITZ" "PROPER TOOLS PREVENT UNEXPECTED TROUBLE"

When I inspect returned spray guns, the most common problem is air leaking from the nozzle. This happens when the Air Valve Seat Set or Air Valve is damaged. The cause of this trouble usually comes from solvent getting into the air passage when washing spray gun. Therefore, we do not recommend letting the spray gun soak in solvent during the washing process because this can cause serious damage to these parts. Also, we recommend plugging the air inlet when using a gun washer.

The second most common problem is a defective spray pattern or "the inability to control the spray pattern."

"WHAT'S HAPPENING WITH MY SPRAY PATTERN?"

If you find something wrong with your spray pattern like a "Crescent" or "Inclined" shape, please check the front edge of fluid tip and air cap. Paint buildup may be the cause of this problem but it is very easy to solve. Just clean or remove the obstruction and make sure that the nozzle or air cap is not clogged. Our MK-5 gun maintenance kit (part #2950) is perfect for this procedure. After cleaning or removing the obstruction, you should be able to continue your paint job if your spray pattern is correct. On the other hand, if your spray pattern is still not correct, you must check if the nozzle is centered in the air cap.



CENTERED POSITION



"CENTERED NOZZLE"

Put the Air Cap on the spray gun and observe the center hole carefully. Is the nozzle tip in the center of the hole? If not, there may be some damage. Remove the air cap and check the seat section between fluid nozzle and air cap. This is a friction fit and the purpose of this is not only for the alignment of the air cap, in relation to the nozzle, but also to separate the atomizing air from the pattern air. Therefore, if the air cap is not seated correctly the atomizing air will mix with the pattern air and cannot be shut off even if pattern adjustment knob is completely closed.

"USING THE RIGHT TOOLS"

The non-centered position problem usually happens during the loosening or tightening of the fluid nozzle. We recommend our Century Series Gun Wrench (part no. #93538600) or a boxed end wrench of correct size for this operation. Wrench sizes for fluid nozzles of ANEST IWATA spray guns are as follows:

W / LPH - 400: **19mm** W / LPH - 300, - 440: **17mm** LPH - 50/80: **14mm** W, WA, WRA / LPH, LPA, LRA - 200: **19mm** W, WA, WRA / LPH, LPA, LRA/ SGA - 101: **17mm** RG - 3L: **8mm**







Using a crescent wrench for this is not recommended because a crescent wrench is not an accurate tool and may not fit tight between the wrench face and the flat hex face of the fluid nozzle. A loose fit may cause stress on the edge of the fluid nozzle and can strip the edges of the nozzle. Moreover, stripping the nozzle will distort the seat section of the nozzle and if the air cap is forced on, it will distort the air cap seating surface. Once this occurs, you must replace not only the fluid nozzle but also the air cap. Please be sure to maintain your ANEST IWATA spray equipment properly to insure you achieve the highest quality results.



NOZZLE AND AIR CAP DAMAGE



NEW CUSTOM GRIP HANDLE

This new handle is designed to fit these Iwata Trigger Style Airbrushes:

- Kustom TH
- Revolution TR 1
- Kustom TR
- Revolution TR 2

This new custom grip handle has an ergonomic, textured, non-slip grip handle for better airbrush control. The new design adds comfort while holding your Trigger airbrush and it's easy to assemble.

You can find The NEW CUSTOM GRIP HANDLE at your local Iwata-Medea dealer or where Iwata-Medea and Artool products are sold.

Gealtollow

NEW ARTOOL TEXTURE FXTM TEMPLATES BY GERALD MENDEZ



Because of an advanced proprietary technology from Artool[®], natural and organic illustration effects can now be achieved like never before with the Texture FX[™] Freehand[®] Airbrush Templates by Gerald Mendez. You can easily use these organic textures to create hyper-living qualities with your artwork.

iwata

MEDEA

Artool[®] Texture FXTM Templates are produced using a special polymer-coated material and are solvent resistant. With proper care and without folding, Texture FXTM Templates will withstand years of repeated use.

Create unlimited textural possibilities: rocks, stone textures, outer space scenes, splashes, an endless variety of backgrounds, textural graphics, detailed reptilian skin effects, and so much more!







FX 2 "MASTER"



FX 1 "ORGANIC"

ISSUE 8, SUMMER 2008

RYNO AND OUTCAST CUSTOMS CMT's "TRICK MY TRUCK"



Be sure to check out "RYNO" with all his ANEST IWATA spray equipment and Outcast Customs on CMT's (Country Music Television) hit show "Trick My Truck."

Check local listings for air times, or visit <u>www.cmt.com</u> for more information.



WOOD BROTHERS RACING #21

The Wood Brothers Racing story began 58 years ago when family patriarch Glen Wood decided to try racing. ANEST IWATA is glad they continued their great tradition, and is proud to be one of their sponsors.



Twenty of NASCAR'S Greatest Drivers have driven for Wood Brothers Racing. That list includes Curtis Turner, Tiny Lund, Fireball Roberts, Bob Welborn, Dale Jarrett, A.J. Foyt, Glen Wood, Buddy Baker, Marvin Panch, Junior Johnson, Cale Yarborough, Ned Jarrett, Fred Lorenzen, David Pearson, Joe Weatherly, Ralph Earnhardt, Neil Bonnett, Ricky Rudd, Mark Martin and Bill Elliott.

Over the years, Glen enlisted family members to work on the car and serve as the pit crew on race weekends. His youngest brother Leonard was with the team from inception, and engineered the team's lightning quick pit stops. Leonard also built the engines.

For 53 years, the team was based in the hometown of Stuart, Virginia, before the team moved to North Carolina to be closer to the hub of racing. For two years, the team occupied a shop in Mooresville, North Carolina before moving to the current facility in Harrisburg, North Carolina, located just minutes from Lowe's Motor Speedway. The Wood Brothers shop now is home for the famous #21 Sprint Cup Team as well as the #21 NASCAR Craftsman Truck Series team. Jon Wood (Eddie's son) and cousin Keven Wood (Len's son) will share the driving duties of the Craftsman Truck Series events, while Keven will continue to compete at various short tracks in Virginia and North Carolina.

Wood Brothers Racing, now owned equally by Glen and his children Eddie, Len and Kim, is the oldest continuously operating Sprint Cup Series team in NASCAR, and the team has always raced Ford products.

Superior Atomization...

ANEST

LPH200 LVP

1:1 Double Diaphragm Pump System ANEST IWATA's patented "LV Technology" spray guns like the LPH200 LVP pictured or the new LPH100 LVP offer superior atomization and minimal waste. The LPH200 LVP or the LPH100 LVP combined with the DPS903N Cart Mount Stainless Steel 1:1 Double Diaphragm system an extremely flexible system that allows you to spray in almost any situation. Perfect for industrial or fleet applications.



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