

# The Future is Water

For years, concerns about the environment have driven discussion in the automotive industry about moving toward basecoats with lower VOC emission. Chemists at paint companies have been hard at work searching for solutions that deliver a lower VOC without compromising the gleaming finish that automobile owners expect on their cars, whether straight from the manufacturer or after a repair. Waterborne coatings meet those requirements.

For the last decade, waterborne coatings have been used successfully in Europe and now new regulations going into effect are mandating that collision repair centers in California and Canada move from solvent-borne to waterborne.

For those shops that have converted, several pleasant surprises have been encountered. First, the conversion process has proven to be less difficult than what shop owners originally anticipated. And with the proper guidance and right products, application is often found to be better than with solvent-borne products. Another benefit that shops have discovered is that implementing waterborne products has heightened not only the image of their business but also that of the collision repair industry, positioning it as an environmentally responsible business sector.

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calendar

### California Countdown

Months remaining before rule changes go into effect:

SCAQMD:  
**4 months**

San Joaquin Valley:  
**10 months**



## Carl’s Collision Center ... Taking a “Green” Approach

Everyone is thinking green these days, and Carl’s Collision Center is no exception. Going “green” means respecting the health of others and the environment.

The Garcia family has offered quality collision repair for almost 50 years, and the business has earned a sterling reputation for customer service and dependable repairs.

Just over two years ago the business moved from a 6,500 square foot facility to an airy new, state-of-the-art 30,000 square foot facility. Located in Fall River, MA, the collision center now employs 55 people and includes an in-house training center, three

spray booths, two prep decks, and a special room dedicated to aluminum repairs. Setting an example for other shops in the Massachusetts/Rhode Island area, Carl’s Collision Center is becoming a more environmentally friendly shop with its conversion to Autowave waterborne refinish system.

Shops on the East Coast are making the switch to waterborne on a voluntary basis and Carl’s Collision is one of the first in the northeastern market to make the switch.

“Moving to waterborne is the right thing for the environment, our employees and

our customers,” said Garcia. “Being a good citizen and a positive force in the community is important to us, and we know that using a low VOC system will help us to be a better neighbor.”

“Plus, the refinish technology that’s available in waterborne paints today is



exceptional. Garcia, known for his eye for color said, “The resulting color with Sikkens Autowave is exceptionally crisp, deep and rich.” He notes,

“Our customers are pleased with the results, especially knowing that it’s a “green” choice.”

Carl’s Collision has also taken other steps to create a healthy, environmentally conscious shop, including switching to high-volume, low-pressure spray guns, revamping the lighting system to include new energy-efficient light bulbs and shop-wide efforts to recycle everything from paper and glass to printer cartridges.

“Even the smallest changes add up to make a difference, and we’re committed to doing our part in protecting the environment,” Carl said.



Carl (left) and his father Manuel Garcia.

## Which Waterborne Curing Device is Right for Your Shop?



*This is the second installment in Rick Farnan's series on waterborne curing devices. Rick is Facility Planning Manager for Akzo Nobel Coatings, Inc.*

### IS YOUR SPRAY BOOTH READY FOR WATERBORNE CURING DEVICES? WHICH DEVICE IS THE RIGHT ONE?

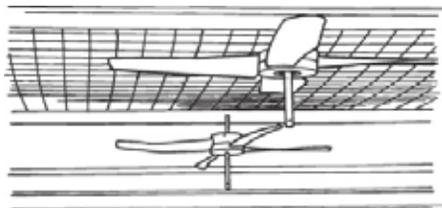
**Reminders:** All down draft spray booths are not created or installed equally. (Visit the Akzo Nobel Coatings Inc. web site for more information)

There are three categories of waterborne curing devices: Air Accelerators, Fans, and Blowers/Nozzles. We addressed Air Accelerators in Volume III of *Ecological*. This article will address the second category, Fans, including the various types available,

key locations for placement in the cabin, and the support equipment necessary to properly function and maintain efficient operation.

#### FANS

There are ceiling fans and corner-placement fans. Accordingly, there are two locations for proper placement of both types. The ceiling fans are centered below the ceiling filters.



Corner fans are installed in the upper corners of the booth. Both fans use an electric motor approved for its respective location and application. When activated, both provide adequate air flow around the vehicle to accelerate curing.

These fans are designed to speed up the velocity of air coming from the filtered ceiling and provide a higher blast of filtered

air to the vehicle. The fan speed can be adjusted to deliver a specific amount of air to surround the vehicle. A Start/Stop switch allows the operator to activate the fans only after the base coat is applied, providing adequate flash-off before the next coat of material.

**Hint:** The ceiling fan uses a motor that is located on the top of the paint booth. Check to confirm that you have adequate ceiling height and that the filtered plenum of the booth is suitable for this type of motor/shaft/fan connection.

**Hint:** Regardless of which device is being used, keep a hand-held air Accelerator available for hidden/hard-to-reach areas. To summarize, first review your cabin design and building ceiling clearance for proper installation. Secondly, make sure that your paint booth has good balance and even air flow at the grating level. You must know when to activate these devices.

**Hint:** Fan placement and exposure time are critical for proper curing of waterborne coatings.

## North Ranch Bodycraft Takes the Plunge

"In 16 years of painting cars, Autowave is the best product I've ever used, bar none," said John Detlefson, Paint Department Manager for North Ranch Bodycraft in Thousand Oaks, California. A long-time Sikkens user, the shop recently made the switch to waterborne to comply with state regulations. "It's simple to use, blends easily and delivers great coverage."



Tom & Alex Sarac, owners North Ranch Bodycraft

Detlefson found that learning to use Autowave was a breeze. An Akzo Nobel rep spent three days in the shop training and answering questions. John was spraying on his own after the third car. "Sure it's a different product, but

it's very comfortable to spray. I was able to train another painter to use it in less than two weeks."

North Ranch has ceiling fans installed in the spray booths, and Detlefson likes to use a hand-held dryer for most repairs. He's found the drying times with Autowave are as fast if not faster than solvent-borne paints. Detlefson says his department is moving about 1,500 paint production hours a month, a number that has increased by about 10-15% since the conversion. "Autowave offers all-around good coverage and excellent color match," said Detlefson. "It's a fantastic product."

## Autowave® Three Most Frequently Asked Questions



Richard Lawrie, Technical Manager, West Market, Akzo Nobel

### MIXING:

#### What if I use regular tap water instead of Activator WB?

Purified water does not contain the components which support Autowave in sprayability, flow, and evaporation. Activator WB is especially designed for optimum Autowave performance. (Regular water can affect Autowave's performance, e.g., creating wetting craters, variance in performance per color, etc.)

### APPLICATION:

#### Can I use the same gun for both waterborne and solvent-borne paint products?

This is not recommended. Residual impurities can cause craters to occur in either product when the same spray gun is used.

#### What can I do to reduce the flash-off times, and which kind of equipment must I use?

1. Heat and air acceleration will reduce the Autowave flash-off times.
2. A wide range of waterborne basecoat drying (air acceleration or amplification) equipment is available in the different markets. Air acceleration in combination with temperature increase inside the spray booth is most beneficial and can be installed also as a combined system. Criteria for equipment selection are dependent on:
  - Customer need; number of cars to be painted in the body shop.
  - Willingness or need for investment. Some customers can do with low investments, a relatively cheap tool such as a Wind Jet or Air Jets on stands. Some will need or prefer a more advanced system from AirWave. There are ceiling fans, the integrated wall-mounted systems up to a full integrated Qad system.



## Arctic Green: Hak's Auto Body Goes Waterborne

(as seen in *Collision Repair e-zine* August 14, 2007)

Running a shop in the Northwest Territories has its own unique challenges, distinct from those encountered in sunnier climates. But there's at least one thing that remains the same: collision repair facilities must convert to waterborne to stay in business.

One shop that's ahead of the curve is Hak's Auto Body, a 7,500-sq. ft. collision repair center located in Yellowknife, NWT. Owned and operated by Hak Mujcin for over 30 years, the facility recently converted to Akzo Nobel's Sikkens Autowave® making it the first shop to convert to waterborne technology in the Northwest Territories.

"It's exciting to be ahead of the game and beat the rush" says Hak. "We always do our best to be up to date with our equipment, so there wasn't much more that we needed to do."

Hak's son Mirsad, who does the painting, commented, "It's really impressive, not like old solvents where sometimes you would get dust in your base. Our transition took three days and then everything was flying. We didn't lose any production."

## Sikkens Autowave Early Converters Win Trip to Miami



Three lucky Sikkens Canadian customers – and their spouses – won a trip to Miami February 20th – 22nd. Included were airline and hotel accommodations for two and \$500 mad money. All Sikkens Canadian customers were eligible to enter the drawing; the only criteria being full conversion to Sikkens Autowave prior to the contest announcement on January 25th. Shops that had already made the conversion were automatically entered.

### THE WINNERS:

*John & Christine MacNeil, Owners, **Blaikies Chrysler**, Truro, Nova Scotia – Converted to Autowave August 2007.*

*David & Anne Holmes, Owners, **High Street Auto Body**, Strathroy, Ontario – Converted to Autowave November 2007.*

*Darren & Loriann Boates, Owners, **Bruce Chevrolet**, Middleton, Nova Scotia – Converted to Autowave July 2007.*

## New EPA Rule Impacts Collision Repair Shops

The Environmental Protection Agency issued a new rule on January 9, 2008 that impacts more than 55,000 collision repair shops across the U.S. Akzo Nobel is working closely with environmental advisory groups to encourage the adoption of environmentally-friendly practices by its customers and the industry. Following are some FAQ's about the new rule.



### EXACTLY WHAT IS EPA'S NEW RULE?

Its official name is "40 CFR Part 63 Subpart HHHHHH, National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources". It applies to all collision repair shops, and to many other small shops that paint metal and/or plastic parts. It also includes separate requirements for businesses that use chemical paint strippers containing methylene chloride (MeCl).

### WHAT ARE THE NEW REQUIREMENTS, AND HOW WILL THEY AFFECT BODY SHOPS?

The rule requires the use of specified equipment and management practices. Shops must also keep records of training and compliance activities, and must submit reports and notifications to EPA or other designated agency. Existing shops have up to three years to comply; new shops must comply on start-up.

### WHAT ABOUT BODY SHOPS THAT HAVE ALREADY UPGRADED THEIR EQUIPMENT TO COMPLY WITH VOC STANDARDS?

Shops that use the following equipment and practices may already comply with many of the requirements:

- Apply spray coatings in a booth, prep station, or mobile enclosure; all with exhaust filters that capture at least 98% of the paint overspray;
- Use HVLP spray guns (or other application equipment with high transfer efficiencies);
- Use enclosed gun washers (or other methods that reduce emissions of cleaning solvent).

### IN ADDITION TO UPGRADING SHOP EQUIPMENT, IS ANY SPECIAL TRAINING REQUIRED?

Shop owners must certify that their painters have received hands-on and classroom training. Training and certifications are valid for up to five years.

Required topics include:

- Selection, setup, and operation of spray equipment;
- Application techniques to improve transfer efficiency;
- Environmental compliance.

### ARE ANY SHOPS EXEMPT FROM THE RULE?

Although EPA intends this rule to cover all body shops, there is a provision for shops to petition the agency for exemption. The petition must include a description of coatings sprayed and a certification that these coatings do not contain "target HAPs": compounds of cadmium, chromium, lead, manganese, and nickel.

### HOW DOES AKZO NOBEL SUPPORT ITS CUSTOMERS WITH REGULATORY COMPLIANCE?

Akzo Nobel being committed to corporate social responsibility is working to remove hazardous emissions from their paint. Furthermore they offer training and shop walk-throughs to assist customers in achieving compliance with existing and new regulations. Shops have found that these environmentally-friendly practices result in a cleaner, healthier, more productive and more profitable workplace.

- Akzo Nobel worked closely with EPA to develop a Checklist for Best Practices that can be found at:

[http://www.epa.gov/opptintr/dfe/pubs/projects/auto/self\\_eval\\_checklist.pdf](http://www.epa.gov/opptintr/dfe/pubs/projects/auto/self_eval_checklist.pdf)

- To see EPA's Fact Sheet on the rule; go to:

[http://www.epa.gov/ttn/atw/area/psmc\\_fr\\_fs121407.pdf](http://www.epa.gov/ttn/atw/area/psmc_fr_fs121407.pdf)

- For updates on the rule and other topics of interest to body shops, check out the "What's New" link at:

<http://www.ccar-greenlink.org/>

## What Sikkens Customers are Saying About Their Autowave Experience ...



“ In 16 years of painting cars, Autowave is the best product I’ve ever used, bar none. It’s a fantastic product, offering all-around good coverage and excellent color match.”

**John Detlefson, Paint  
Department Manager  
North Ranch Bodycraft  
Thousand Oaks, CA**



“ The resulting color with Autowave is exceptionally crisp, deep and rich. Our customers are pleased with the results, especially knowing that it’s a “green” choice.”

**Carl Garcia, Owner  
Carl’s Collision  
Fall River, MA**



“ It’s been two full months since our Autowave conversion and the change hasn’t slowed our productivity down at all. In fact, our refinish productivity has increased from 185% to just over 200%.”

**Bill Williams, Body  
Shop Manager  
Richmond Chrysler  
Dodge Jeep Ltd.  
Richmond, BC**



“ The color match and appearance with Sikkens Autowave are superior to solvent-borne and once you get used to it, there’s nothing difficult about using the new products and processes.”

**Nick DiLuca, Owner  
CARS Collision  
Burlington, ON**



“ My technicians actually like using Autowave better than solvent-based products. They like the performance, color match and the blending with the metallics.”

**Dana Alexander, Owner  
Dana’s Collision  
Fredericton, NB**



“ As with any new tool or product there is a learning curve, but we didn’t experience any serious set backs so we were up and running. To sum up our experience ... our refinish technician, Tim Gregory, was asked six months after we made the switch, “What product do you prefer?” and the answer was Autowave.

**Darren Boates, Owner  
Bruce Chevrolet  
Middleton, Nova Scotia**

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