# Airbrushing Armor

by Eric Christianson

There are many approaches to airbrushing armor kits; all have something to add that is unique and useful. Over the years I have settled on a system that allows me to build about 98% of the model kit before painting and weathering, and 98% of THAT can be painted using an airbrush.

## The Equipment

The airbrush I use for most of my work with armor is my old trusty Pasche H with the 'middle' (3) tip. I have found that there is very little my Pasche cannot do given the right mix of paint and thinner, some practice, and a little patience. I run my airbrush from a 20lb C02 tank fixed with a regulator and a capacity gage. I found that a setup using a manifold and two line switches was cheaper and easier to manage than buying a quick release valve and two male nubs. I have a second airbrush, a Badger Sotar 20/20, that I use for detail work on aircraft finishes. The C02 air source is silent, moisture-free, and lasts about a year before I have to run to the local gas supply store for an $18 replacement tank.

The paints that I use for armor are mostly Tamiya acrylics – although 'acrylic' is a misnomer. I use lacquer thinner

to thin Tamiya paint to produce a perfectly smooth finish that dries a little less than dead-flat. And dries quickly!  I also use Model Master Enamels for airbrushing American armor.

Every time I use my airbrush I use the same procedure, with steps that have become second-nature to me. That way there are few surprises which makes everything a little more enjoyable. For me, the following approach works best:

1. I first turn on the booth lights and exhaust fan to get the air in the booth and my model room circulating and pulled through the exhaust vents.
2. I pull down three containers of cheap lacquer thinner for cleaning; a small jar for using an eyedropper with, a jar that can be attached to my Pasche to blow some thinner through, and a large squirt bottle for cleaning the color cup and refilling the other cups as necessary.
3. I put the No. 3 tip and color cup onto my airbrush body and turn on the air tank to make sure the equipment is all working.
4. I open the jar of paint and hit it with my Badger paint mixer – just about the most useful tool in my booth, aside from the airbrush –

really – it's the best five bucks you'll ever spend. I run the mixer in an old jar of lacquer thinner to quickly clean it off after mixing the paint.

5. Using a toothpick to control the flow, I pour the paint I need into a cheap plastic ketchup cup you can pick up at fast food restaurants. Usually this amounts to just less than 1/8th of an inch of paint in the bottom of the plastic cup (resulting in a full, standard-sized Pasche color cup). To that I add another 1/8th inch of Gunze Self-Leveling Thinner (SLT) – in my opinion, the best darn airbrush thinner on the market. Because the plastic cup is translucent, I can see when I have reached a 50/50 mix.

6. I then use a Tamiya paint mixing tool (another excellent doo-dad – leave it to Tamiya) and evenly mix the contents of the cup. Again, since the cup is translucent, I can splash the mix up on the inside of the cup to see just when the paint starts to get thin enough. I think it's ready when the mixture turns translucent in about 1 second as it drains off the inside the cup – otherwise I add more thinner until it does.


7. Next I pull on my spray mask, and put a latex glove on my left hand (I am right-handed). I use this glove throughout the session to test paint flow and to hold the model.

8. I pour the contents of the plastic cup into the airbrush paint cup, adjust the air to about 20lbs psi and away I go. I start by painting the back of my (gloved) hand until I get the right pattern, and then move on to the model.

Tamiya paint thinned with SLT goes on beautifully – it is actually difficult to create drips and runs – the paint sticks and covers just about any way you spray it on.

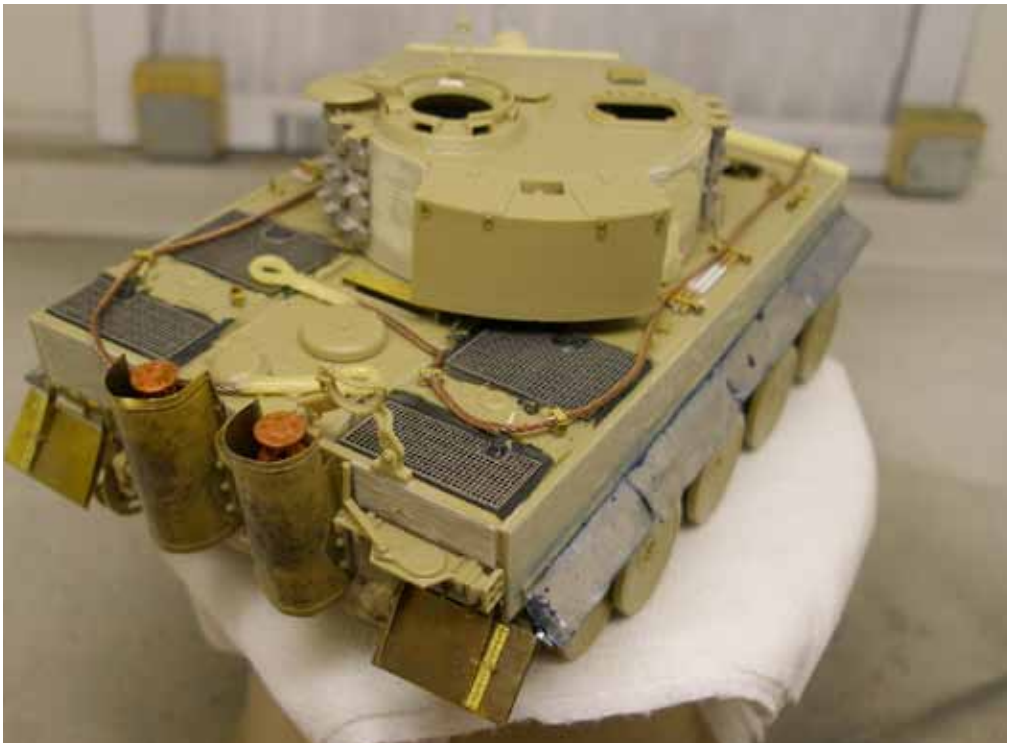
A final note about cleaning. Unlike most people, I break down my airbrush after every session (it's just three parts!) and clean it. I use cheap lacquer thinner to clean everything, and just about every kind of paint. I do not use Q-Tips (too fluffy) - instead I use the cheap brand of 'cotton-swab-o-Q-Tip-Wannabe's' sold at Target for next to nothing. The wadding is less fluffy and they will easily fit in all the places I need them to. I use thin pipe cleaners for the color cup neck. I leave the booth fan on for 20 minutes after painting. I throw all the refuse into an air-tight kitty litter container so the air in my model room returns to normal very soon after each session. Most airbrush sessions last about 20 minutes and I airbrush about twice a week or so.

But that's it – no special mixes or expensive materials or fancy techniques. Just basic stuff – and more often than not I am rewarded with a really fine result. So let's get to it!

## The Model

I build an armor model almost completely before painting. For example, the only items I left off the Tamiya Tiger I (Mid-Production) in the photographs below are the machine gun, antenna, fire extinguisher and hatches. The first two items are too vulnerable to the frequent handling the model goes through when laying down the finish and weathering. The fire extinguisher (in this case) will receive a stencil that I don't want painted over, and the hatches will receive paint on both sides since I want to pose them in the open position with figures. All of these items are painted along with the rest of the tank – they just aren't permanently attached yet.

With armor sporting photo-etch grill covers I will hand-paint the heavy engine grills (I use Floquil Engine Black) before attaching the photo-etch covers. This is because even paint airbrushed at 20lbs will not penetrate the photo-etch enough to color the grills underneath – and bare plastic



may end up showing on the completed model.I painted the exhaust stacks and added a rust pigment at this stage because the stacks are difficult to get to after the photo-etch covers are added. The bright rust color will be toned down during the finishing process.

The Tiger has exposed tracks (they are not covered by fenders, etc.), so I will paint the tracks separately and attach them later after all the airbrushing is done. Otherwise, I would attach the tracks before I start to paint. I find I can paint the wheels and surrounding areas with an airbrush without messing up the tracks and visa-versa. Tanks are filthy. Any slight over-sprays can easily be hidden by weathering later on. If I am building a kit that has individual links, such as Dragon's MagicTrack, I will always attach the tracks before painting. I used an after-market set of all metal tracks for this Tiger.

All tools, cables and other combat paraphernalia are attached to the model before painting. The only exceptions to this are items that will be attached on top of decals or markings, such as on the Dragon JagdTiger in the following photograph. In my experience, however, this is unusual.

### Before Painting: Will I spray on a primer coat or wash the surface to remove oils and mold release agents?

Most models, especially resin kits/parts, have a considerable amount of mold-release agent that is still present on the surface of the parts. Add to that all the fingerprints and other assorted oils introduced during assembly and you end up with a surface that will tend to resist most paints, at least in spots. There are two alternatives for removing this stuff: Spray a primer coat on the model, or clean the surface of the model. Both alternatives will produce a good surface for the camouflage paint to grip on to.

If my model has been assembled using a bunch of different materials, such as with the Tiger I above (styrene, resin, photo-etch, aluminum, lead foil, steel, brass - even latex rubber!), I will spray on a coat of Gunze Mr. Surfacer 1200, thinned 50/50 with Gunze SLT.

If I build my model right out of the box and it is mostly plastic, I will wash the surface – but probably in a different way than most. Rather than submersing my model in soapy water and

scrubbing the surfaces (risking damage to the delicate parts attached), I use a tire-cleaning spray-foam product which seems to do the trick without me having to touch the model.

After assembly, I place the model in a plastic tub and cover it entirely with foam. I let the foam evaporate and then rinse it thoroughly with warm water and let it dry. The paint seems to adhere to the plastic just fine after that.

## Painting

### Base Coat

Once I have a good surface, I begin by giving the entire vehicle (and tracks) a dark base coat to deepen the shadows and crevices all over the model. This sets the tone for the overall armor finish - dark, menacing, heavy.

Most of the time I use Tamiya NATO Black, but sometimes (as in the case of WWII American and Russian armor greens and drabs), I will use a dark brown if I think the final coats will blend better with brown. I thin Tamiya paints with a 50/50 mix of paint and Gunze SLT.
I want complete coverage – all the nooks and crannies, top bottom, wheels and sides.

I find my airbrush can hit whatever my eyes can see if I get the right angle with the airbrush. To get complete coverage I will spray an entire side without turning the model.

Once everything I can see is painted, I turn the model 45 degrees to expose all the surfaces that were missed. Once these are painted, I turn the model another 45 degrees, and so on, until no more of the original surface is showing – top, bottom, sides, everything. Don't forget the hatches and antennas and anything else left off the model.

## Tracks

When the base coat is dry, I spray the tracks with a mixture ratio of 70/30 XF-68 NATO Brown and Tamiya XF-9 Hull Red. I thin this mix 50/50 with SLT. Unlike the base coat, I do not want complete coverage. I want nothing to appear consistent, as if the tracks have just been out in nature doing what tracks do.

If the tracks are attached to the vehicle already, I dial the pressure down a little (about 15lbs) and try to avoid the surrounding hull and bogies/ wheels, but any overspray can be fixed later with the post-shading coat. If the tracks are separate I crank up the pressure to about 30lbs – there are a lot of little nooks and crannies in the track. I find hitting tank tracks with paint under low pressure takes forever.

## Camouflage Coat

After the base coat has dried I give the model the first camouflage coat. I use Tamiya XF-60 Dark Yellow for late-war German armor. I lay it on with light coats until just enough of the base coat is covered, but not all of it. I spray downwards on the sides of the chassis and turret, and I try to spray any detail from directly above or in front – which allows a little shadow of the dark base coat to remain beneath (the detail). Remember – the dark base coat is there to fill in the shadows, but also to provide depth to the detail on the surface of the model. I try to stay away from edges of anything and from the crevices – and I will paint downwards in bands on the barrel concentrating on the areas between the demarcation lines

## Post Shading Coat

Once the camouflage coat has dried I will lighten that color a little and spray a thin 'post-shading' coat to give the surface depth and scale effect. I mix the base color 50/50 with a lighter color (in this case, Tamiya XF-55 Deck Tan), and thin that with 25/75 paint/ SLT. I spray light coats on each panel or exposed section from the middle outwards – staying away from the edges and crevices. I spray wherever the sun or weather might hit the vehicle's surface. The thin paint allows me to build the color up slowly. When complete, the vehicle should be lighter, but still show some of the original camouflage coat as well as enough of the dark base coat to make things interesting. Again – don't forget the items left off the model.

I could stop here, but this Tiger will receive two additional camouflage colors before it is done.

### Hatches...

Before applying a second camouflage color I temporarily attach the hatches that I had left off the vehicle. This is because I need to match the camouflage pattern across the outside of these hatches even though they will be open on the completed model. I could have done this earlier but I wanted to see (and mark with paint) the parts of the interior that can be seen from outside of the tank. I do this by shooting the airbrush directly down into the open hatch. Later (with the turret off), when I am painting the inside of the hatches (Model Master Panzer Interior Buff), I will be able to see (and paint) the areas marked beforehand.

### Additional Camouflage Coats

Each additional camouflage color was lightened up using a compatible color. The following picture shows the tank with a patterned coat of Tamiya XF-10 Flat Brown mixed with a few drops of Tamiya XF-64 Red Brown and a few drops of Tamiya XF-15 Flat Flesh over the entire tank, followed by a Tamiya XF-61 Dark Green also lightened with Flat Flesh applied directly over the brown.

Next will I apply dry transfers and hand-paint all of the on-board tools and paraphernalia.

### Clear Acrylic Coat

Once that is done, I spray a heavy, undiluted coat of Future Floor Polish, an acrylic, over the entire model (avoiding the tracks, if they are attached, as best I can). Future provides a tough, smooth surface that protects the underlying coats of paint from the washes and weathering to come.

If I am applying decals, the Future also prepares the surface for the decals to 'take' without silvering – although I recommend using dry transfers for armor that sports a coat of zimmerit anti-magnetic paste, as is the case with this Tiger I.. I let the Future dry for (at least) TWO days before doing anything. If I apply decals, once they are dry, I spray an additional coat of undiluted Future – but just to the areas that received decals. I then let this coat dry for another two days.

At this stage I will apply various washes to the glossy surface by hand and then dry brush the vehicle.

### Tone-Down Coat

Once dry I spray the vehicle with a thin, light dusting of the (lightened) base camouflage color. I mix it with SLT using a 25/75% ratio, paint-to-thinner. This 'tones down' camouflage/decals/ markings/ hand-painted detail and blends everything together.

### Road Dust Coat

I then use heavily thinned Tamiya XF-52 Flat Earth (25/75% paint-to-thinner ratio) and build up just a little color from the bottom up, around the fenders and lightly streaking

several areas. I want it to look like rain has washed some of the filth off the sides of the tank and left subtle streaks. Use this color very lightly and build it up until you can just barely distinguish it from the background colors. Then STOP!

## Flat Coat

Once I am happy with the look, I will spray the entire tank with a generous coat of Testor's Dullcoat thinned with Gunze Mr. Color 110 Thinner to deaden the finish to just above dead-flat. Testor's own Airbrush Thinner works well here too. This produces a surface that will more readily receive an application of various pigments and final detail.

Now that the airbrush can be put away, I will attach the tracks and get to work dirtying up my perfectly painted beast.