

The "all feared" canopy cutting and trimming work can finally start. After all the time I've spent on bending the frame, it's a welcome change in type of work.

The plexiglass canopy comes molded in one piece and needs to be both trimmed down, and later cut in two halves when you are building a slider canopy like mine.

The long feared "big cut" as Vans builders tend to call it is coming real closeby now.

As this is my first article on plexi, I'll try adding all my tips here in the list below as I go.

A number of things that are very important when working with plexi is that :

- it is very brittle when cold. Do not try to work on the canopy in temperatures less than 25 degrees celcius. Once over 25, the material becomes very flexible, more bendable and has less risk of forming cracks during drilling.

- never ever use a traditional drill bit. The sides will "bite" on the last bit when you're almost through the material and will rip and crack it. I tried grinding down the edges of a traditional drill bit as you can find in some video's on EAA video's and did a lot of test drilling. But I still do not feel confident about this. I bought some real plexiglass drills at Abbeon.com and they work great.

- I found that the plexi glass cutting disc delivered with the kit works best in a die grinder. It gives you greater precision while cutting.

- Don't worry about having to stop half way through a cut. You will have to do it anyhow to secure the loose end with duct tape. So no problem in using an air pressured die grinder with small compressor.

- When drilling the plexi to the canopy frame with plexi tip drills, it's impossible to drill with the plexi drill in the canopy frame. You will break or dull them. A good tip here is to clamp the bubble on the frame, then insert some wooden popsickle sticks between the frame and the bubble and drill through. Then remove the popsickle sticks and change drill to a regular drill bit to drill through the canopy steel frame.

- practice your cutting skills with the die grinder on the scrap parts behind the molding marks. This will help you build confidence when you move closer and closer to the big cut seperating the bubble in two halves.

11/11/2020 - Initial canopy trimming - 6h

Category: 4.3. Slider Canopy

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Since it's getting colder in Belgium, there was no way I could heat my garage workshop to 25 degrees. The living room had to be reshaped in an airplane shop. No need to tell you my girlfriend loves me very much.

A little less now, but still enough to get away with it. I have a wood stove in my living room so combined with the central heating I could crank the temperature up quite rapidly.



I have a garmin biking gps which also shows temperature. As you can see below, i put it on the bubble and read a nice 33 degrees C.



I marked the molding flanges front and back and started cutting away. The molding flanges are the parts in the canopy where you see striped markings from the mold.

In the image below, you see I already cut half way through.



Then layed the frame in the bubble and did some more alignment checking. Notice the duct tape strips. You really want to do this to ensure the bubble won't open too much. It's still ok now, but the more you cut away the more flexible it becomes. After the big cut it will

be even worse.



You will need a zillion clamps. The more the better.



What worried me most at this point was the big gap underneath the front bar. I could stick my fingers under it. As the bubble is still in one piece, there is no flexing.

I sent a mail to vans support to ask them about this and they told me not to worry. It would fit well after making the big cut.



Then I made a first attempt to define the cut line for the big cut.



You need between 1/16 and 3/32 overhang from the front bar which is shown on DWG43 Detail B



I made this little tool block in hard wood and measured 3/32 from the front. Then filed away the wood behind. That way, I could put the sharpie pen in the gap and draw while moving the block along the front of the canopy bar.



It leaves a nicely defined edge. This is definitely the way to go.



Then I cut away the front mold. Here also you see the molding marks in the canopy.

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Enough sweating for today.