

Dust Mask

Ken Rizza

I purchased high-impact Pyramex Capstone goggles with faceshield from OpticsPlanet Inc. (SKU yx-GG-GG504Tshield, \$19.95). The faceshield has a thick polycarbonate lens with protective tear-offs, flips up and down, and is tough—it will deflect more impact than a flimsy faceshield—yet is lightweight. And, I can wear prescription glasses under it. Fresh air to avoid woodturning dust was lacking, so I retrofitted the mask.

To begin, I bored a small hole in the front of the faceshield so I could use parts from an old continuous positive airway pressure (CPAP) machine to retrofit the mask. I used the connecting hose and the fitting that goes into

the CPAP machine's nosepiece section from the headgear parts. Almost any CPAP headgear design (and there are several) will have similar parts that could be used. For mine, I pushed the headgear retainer ring into the slightly smaller hole I drilled in the mask. The hose connection clicks in and stays in place. When I walk around my shop, I can simply pull the hose out and then push it back in when I return.

I was going to build a box to hold the machine, but instead bought a plastic container with a snap-on lid. I bored a hole in the end of the container at the same height as the hose that comes out of the machine. To seal the connection, I put duct tape on both sides of

the hole and cut a snug opening for the hose end to push through and connect to the machine. For the electrical cord, I cut a slit in the box, ran the cord through it, and sealed the opening with duct tape.

The CPAP machine has a small filter, but I wanted additional filtration and ventilation, so I cut a sizable square hole in the lid of the container and duct-taped in some filter material (also from a CPAP machine). Any appropriate air-filtering material would work. The final touch was to add an extra length of hose with a coupling.

To solve the on/off problem—the switch is on the back of the CPAP machine—I left the machine's switch

in the on position and wired a wall switch into the cord, which I mounted under the unit. The container with the CPAP machine is mounted on a shelf next to my tool rack.

I get a nice clean breeze of filtered fresh air blowing on my face and no lens fog. If you don't have an old CPAP machine lying around, check with your friends or look on eBay—you might just find one. My helmet works well and only cost about \$20. ■

Ken Rizza is a mortgage banker and has been turning since 2007. His neighbors call him the "go-to guy."



Ken Rizza and his dust mask/faceshield.



The air hose easily clicks into the retainer ring.



The breathing tube and headgear are from a CPAP machine.



The unit is mounted on a shelf near the lathe and turning tools. The switch is positioned just below the unit.



A filter added to the lid of the container provides additional air filtration.