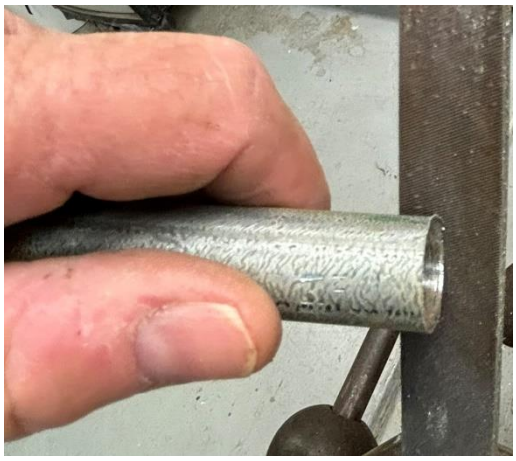
Deburring Electric Metallic Tubing (EMT)

By R. G. Sparber

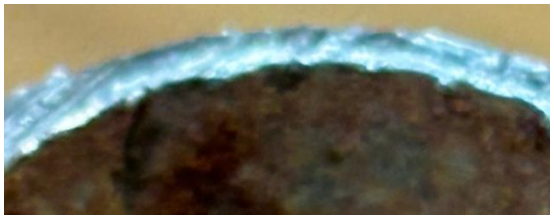
After sawing off the end of a piece of scrap ½" EMT, I am left with a variety of sharp edges that can easily cut through plastic insulation. It is standard practice, and code, to remove these burrs.



The outside burrs and face of the cut are efficiently deburred using a flat file.

The inside burrs, which are most likely to harm insulation, take more care.

One way to deburr the inside is to use a deburring tool. These tools are excellent on aluminum, but my effectiveness isn't good enough on EMT.



This closeup shows a thin ridge that I formed with the deburring tool. It is small but razor-sharp.

Another approach is to use a round file. It is effective but depends on my ability to hit all of the burrs. I must file and then closely inspect for burrs. If necessary, I must go back and clean up any areas I missed.

I have no doubt that plenty of people do this well and have no need for another option.

For the rest of us, I propose using a step drill. They are available from Harbor Freight at a reasonable price.

I wouldn't bother with this approach for one or two cuts, but it has an advantage when you have a lot of conduit to install. The big one, for me, is that I don't need to inspect the deburred surface. I know it will be clean.

Here is the inside of a conduit after the inside had been “rotary deburred.”

A few passes with a flat file on the outside and face, and I’m done.

On short pieces of EMT, I use slip lock plyers while I drill.

If I drill in too far, there is a risk of sharpening the face of the cut. Then, the file can fold over the sharp edge.

So far, this problem hasn’t been bad enough for me to file the face further. The edge is not big enough to reach inside the conduit, where it can do damage.

I welcome your comments and questions.

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