

FLEXIBLE DIE MAINTENANCE



FLEXIBLE DIES are an excellent cost-effective option for cutting thin material such as paper and film. However, flexible dies tend to have a shorter useful life than solid. To maximize the life of your flexible dies, proper maintenance is key. Here are a few best practices to keep your flexible tooling cutting properly for the longest possible time.

Flex Die Tip #1: Handle dies properly.

Your **FLEXIBLE DIE** should be lubricated with a light machine oil such as 3-in-1. Do not use WD40 as it contains chemicals that will dry and cause oxidation. The tool should be stored in the rust inhibiting bag that it is shipped in to further reduce the risk of oxidation.

When putting the plate onto the **MAGNETIC CYLINDER**, be careful and apply the die slowly to avoid putting a permanent bend or kink in the plate.

When removing the tool from the cylinder, do not remove the die by hand. Instead, you should use a tool designed for plate removal. If you don't have one of these tools in your shop, just ask your Wilson representative and they can supply you with one.

Finally, a simple tip: anyone that encounters the tool must not be wearing any rings. The simple effect of a metal ring encountering the die blade will cause a low spot, which will ultimately shorten the overall life of the tool.

Flex Die Tip #2: Use the right accessories.

Be sure you are using the correct magnetic cylinder for your die. If you are unsure whether your magnetic rolls are ideal for your current application, we can help. Wilson offers free **MAGNETIC CYLINDER AUDITS** to help operators avoid unnecessary wear and tear on tooling.

Once you're sure that you are using the proper magnetic cylinder for your application, be sure to monitor it closely to ensure it remains in good condition. Any scars or imperfection in the magnetic cylinder can damage or reduce the life of your tooling.

The same principles apply to **ANVIL ROLLS**. It's important to **BE SURE YOU'RE USING THE RIGHT ROLL FOR YOUR APPLICATION**, and if you are using an adjustable anvil roll, keep it set to "0" or flat. If you are not using an adjustable anvil, we can provide you with shim stock in order to raise the blade height slightly so your dies can continue to run for the maximum amount of time.

Finally, it's important to have your anvil rolls checked on a regular basis with an anvil roll maintenance program. If you're a Wilson customer, we can put an **ANVIL MAINTENANCE PROGRAM** into place for you.

Flex Die Tip #3: Run with the material your die was designed for.

Even within the same type of material, there can be variance in material thickness. In other words, not all 40# paper is created equal. This is why it's so important to supply your die maker with sample material when designing and testing your dies...but that's a topic for **ANOTHER TECH TALK, WHICH YOU CAN READ ABOUT IN TECH TALK #15**.

To preserve the life of your die and get the best results, be sure to use it only with the material your die was engineered to cut.