

MAGNETIC (FLEXIBLE) DIES



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Magnetic (Flexible) Dies

Magnetic tools have come a long way over the past few years. Most common materials can now be cut with a flexible tool. So how do I determine if I should buy a magnetic or solid tool? There are three primary criteria that should be considered to determine this.

1. Do I have the Magnetic cylinder of the right size to run this job?

To determine this, measure the repeat of one label or set of labels (length of label and space between labels). Then see if you have circumference of a magnetic cylinder that is evenly divisible by the repeat.

2. Do I have the correct undercut on the magnetic cylinder to cut this material?

To determine this, simply subtract the overall thickness of the material from the undercut of the magnetic cylinder. If the resultant number is .009" or greater this material is not too thick to cut with your magnetic cylinder.

Example: Undercut .019" - overall thickness of material .009" (make sure you include all plies) = .010" and ok for this magnetic cylinder.

3. Do I have an extreme number of inches on the tool?

This can cause the steel not to adhere to the magnetic cylinder properly. As a general rule of thumb, the inches of engraving on the tool should not be more than three times the square inches of the plate. For example: A 2.00" across x .375" around rectangle. If we go 4 across and 20 around on a 80 teeth 10" tool, the formula for figuring the inches of engraving is $(2 * (2 + .375)) * 80 = 380"$, the area of tool is 10" across x 10" around = 100 sq. in. 380" is greater than

100" x 3, so this tool would have an issue adhering to the roll. However, if we cut the number across down to 3 the engraving inches fall to 240" which is now less than 3 x 100 and should not have issues when adhering. 2

As the undercut becomes greater than .019" (i.e. .024" or .030") the probability of the 4 across die adhering properly is even less.