

**New from  
Whitney!**

# Whitney SlugMagic™ Slug Retaining Dies

***The Next Generation is Here!***



**“Make your slugs disappear!”**

Whitney has taken die technology for sheet metal and plate to the next level by addressing slug-pulling with a new product, SlugMagic dies. Slug-pulling occurs when the punched slug adheres to the punch surface and “pulls” back into the newly formed hole, creating a dowel pin between the die and the material. SlugMagic dies trap the slug in the die, below the material surface, and release the slug so that it ejects freely from the die. SlugMagic is intended for most standard application holes, and can be used on machines both with and without vacuum slug removal. SlugMagic dies are available in both rounds and shapes.

***Rugged Solutions from the Leader in Plate Technology***

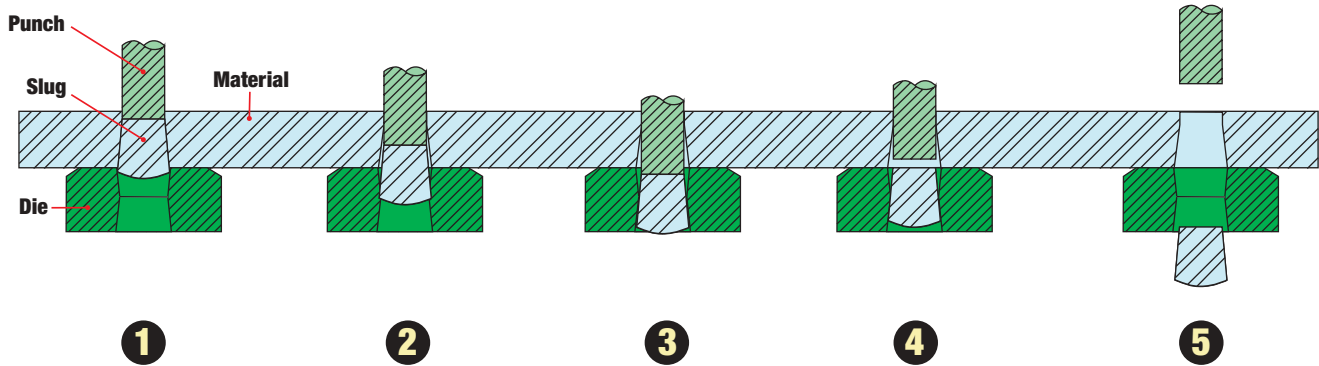
***Whitney***

W.A. Whitney Co.  
[www.wawhitney.com](http://www.wawhitney.com)

# SlugMagic™ Slug Retaining Dies

## “Make your slugs disappear!”

SlugMagic Series dies work like magic to prevent nasty slug pulling from occurring. These dies are designed to capture slugs in the die, and release them as soon as the punch retracts. This is done using a double conical shape of the inside die surface. The following sequence describes how SlugMagic Series dies work:



1. The punch enters the material and the slug begins to form. The top of the slug is sized by the punch, and the die sizes the bottom of the slug. This means that the bottom of the slug is bigger than the top.
2. As the punch penetrates through the material, the slug is forced inside the die opening. The top of the die opening is conical in shape (drawing is exaggerated for clarity), and the bottom of the slug squeezes through the neck of the cone—an interference fit, since the slug width at this point is larger than the neck opening.
3. The punch reaches the bottom of the stroke. At this point, the bottom of the slug is past the neck of the cone.
4. Punch retracts. The neck of the cone prevents the bottom of the slug from pulling back up with the punch, i.e. the neck strips the slug from the punch.
5. Once the slug strips from the punch, it falls freely, since it no longer adheres to the punch, and since the lower portion of the die has relief with a reverse conical shape.

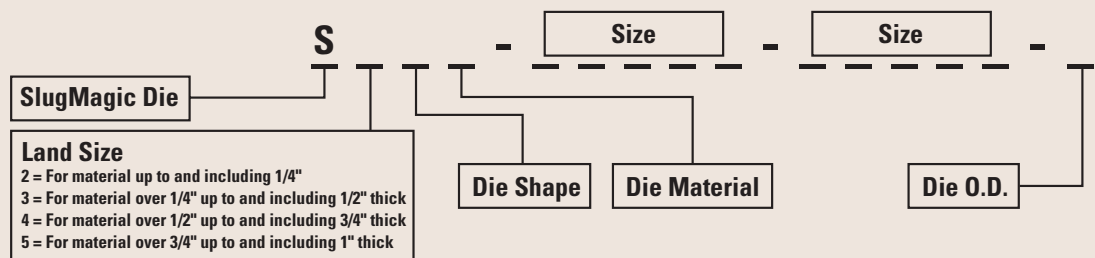
Depending upon the thickness of the material being punched, you must choose either 2, 3, 4, or 5 series dies. Each die series is necessary so that the depth of the neck is appropriate for the material being punched. Improper selection of series may result in the dies being ineffective for slug pull prevention.

Because of their unique shape, SlugMagic dies are effective on machines with and without vacuum slug removal systems.

**Order the NEW  
SlugMagic Today!**

**1-800-435-2823**

### SlugMagic Part Number Key



**Note: SlugMagic dies are to be used with flat face tooling only!**



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