Mag Drill - Magnet Adhesion

Mag drills must magnetize to a solid surface. Magnetic strength is related to steel thickness. Minimum thickness is 3/8”. If the material is thinner, the magnet will not hold well. Clamp another piece of steel on top or below the thinner steel for stronger adhesion. Material that is clean and free from coatings will offer the best surface for the magnet. For non-ferrous materials use a Vac-pad™ (HMD904 & HMD905 Non-swivel drills only) or clamp a piece of steel on top of it.

Mag Drill - Surface Requirements

A clean smooth surface will allow the magnet to ‘stick’ better. Situations where the magnet will have reduced holding power...
- a) Material less than 3/8” thick
- b) Coatings or paint layers on material
- c) Chips, dirt, or grease between the magnet and the material
- d) Curved surface (Surface should be flat. For pipe applications, a pipe adapter should be used.)
- e) Magnet only partially on work surface

How Do I Keep My Mag Drill from Slipping?

Make sure the drill’s magnetic base is clear of chips and debris and is securely attached to a clean surface. Uneven surfaces or large debris buildup prevents the magnet from obtaining optimal holding power, which can cause the drill to shift or lift during operation. A safety chain or strap also helps to prevent injury if the drill shifts. If it does shift or lift during the cut, it is very possible the cutter will break. Hougen mag drills have a built-in safety circuit that stops the motor when the drill lifts from the material. Always use a safety chain especially in horizontal & overhead positions.