Standard Hopper Grate Magnets are made with one (1) inch diameter magnets on two (2) inch centers. This creates a one (1) inch gap between magnets. Consequently, the magnets are required to attract and hold tramp metal from a maximum distance of one half (1/2) inch. Due to the fact that Ceramic Grate magnets capture and hold significantly greater amounts of tramp iron when compared to Alnico magnets, they are the preferred choice in the Plastics Industry. Other benefits in using Ceramic Grate magnets are their lower costs when compared to Alnico and their ability to resist demagnetization, less than 1/2 of 1% over one hundred years.

PPE Stainless Steel Grate Type Hopper Magnets have been designed and developed for use by the Plastics Industry. They are not a “me too” copy of existing magnets with plugged and pinned ends allowing entry of contaminants. Our magnets are a fresh new approach to not only trapping ferrous metals, but to also eliminate the problem of material contamination. Ask the man who cleans the magnets about plugged and pinned open ends. The components used in construction of our magnets are top quality comparable or better than any other magnet brand available. We will always maintain top quality at fair prices.

PPE Magnetic Flux Fields are properly arranged to attract metal and hold it to the magnetic tube with full power. Our full 1” diameter magnetic tubes used on all models also insures full holding power. We make no pompous, wild claims about being all things to all users or about being first or last, but we will challenge any other suppliers claims about quality, design, delivery, guarantee, and fair prices.

FACTS ABOUT
HOW TO MEASURE:

Years ago a hopper magnet source suggested you select your magnet size by measuring up to 10 inches from the feed outlet in your material hopper. This was a good idea at the time because it applied to a few relatively small plunger presses like the old 10D8 Reeds which processed small amounts of material compared to today's standards. Through the years other suppliers followed the 8 to 10 inch suggestion like sheep in a herd since it seemed right because it kept the buyers’ initial magnet purchase price lower.

Today’s molding conditions and today’s volume of materials processed require magnets suited to the application both in design and the amount of protection they offer. The frequency of today’s high cost of screw and barrel repairs is an indication that more foreign damaging ferrous metals are getting past the grate type hopper magnets than ever before. We realize a larger magnet will increase your initial purchase price but you will eliminate many hours of expensive press down time to justify it. Remember the larger the hopper magnet, the greater the area of protection. We have observed 8” round magnets in 6 foot high 30” round hoppers which should have had a 29” round magnet in it’s place.

Here’s why you should select the correct magnet size:

1. An 8” round magnet gives you 50.265 square inches of magnetized area as opposed to 660.62 square inches in a 29” round magnet.

2. A larger magnet will permit you to process more plastic through it between cleanings, however, magnets should be checked and cleaned as often as possible. Don’t wait until you change material or color before cleaning your hopper magnet.

3. A larger magnet allows the material to pass over it more slowly permitting longer exposure to the hopper magnet’s magnetic field of flux. This is why we question the use of small drawer type magnets. They can be cleaned more easily but they pass more material faster over a smaller magnetized surface.

**FOR MAXIMUM PROTECTION WE RECOMMEND:**

1. A hopper magnet as close to the full size of your hopper as possible. For example, an 18” inside diameter hopper should have a 17” diameter round magnet.

2. The minimum size magnet used should be at least 3 to 4 times the hopper feed opening outlet size. For example a 4” x 4” feed outlet requires a 12” x 12” or a 16” x 16” square magnet.

3. Be sure the magnet is sized to your hopper. A square hopper should have a square magnet, a round hopper, etc. The magnet should rest on the inside taper of the feed hopper allowing an equal clearance on all sides.

4. Select the model which is suitable for your application. Fine, medium, and coarse materials require the correct diverter angle and spacing to insure continuous material flow without bridging.