

Features and Benefits

- Four grades of magnetic materials
- Cost effective design
- High resistance to demagnetization
- Operation from -40°C to 125°C
- Tough environmental endurance
- Very resistant to chipping



Molded Target Magnet

Physical Properties of Magnetic Material

Table 1.1

Characteristic	Value	Units
Tensile Strength	6500	PSI
Flexural Strength	9750	PSI
Flexural Modulus	1.3 X 10 ⁶	PSI
Continuous Service Temperature	100	°C

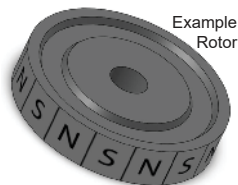
Magnetic Properties

Table 1.2

Characteristic	Magnalox 300	Neobond 12M	Neobond 30M	Neobond 32P	Units
Remanence (B _r)	1370	2500	4000	4300	Gauss
Coercive Force (H _c)	1180	2400	3250	2500	MGOe
Energy Product (BH _{MAX})	0.40	1.3	3.1	3.2	Oersted
Intrinsic Coercive Force (H _{ci})	2300	7500	7000	6900	Oersted
Reversible Temperature Coefficient	-0.2	-0.35	-0.4	-0.4	/°C
Specific Gravity	3.5	4.0	4.7	4.45	---

Pole Counts

Alternating north and south magnetic poles are symmetrically located on the outer diameter for radial sensing.



Note: (N)orth/(S)outh markings are for illustration and do not appear on the actual product.

Available Pole Counts	32, 36, 50, 64, 120
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Target Rotor Physical Outline - Engineered Polymer Hub (Mounting Style H)

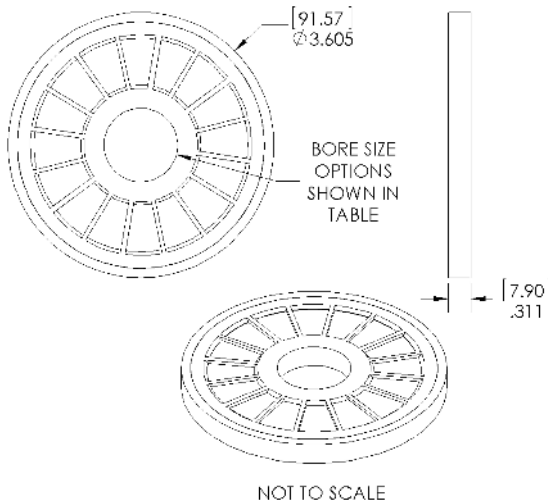


Table 2.1

Bore Size (.inch)	Motor Shaft OD Size (nominal)	NEMA Guide Shaft Tolerance	Magnet Bore MIN. (inch)	Magnet Bore MAX. (inch)
1000	1 in (1.000")	+0.0000"/-0.0005"	0.994	0.997
1182	30 mm (1.182")		1.119	1.122
1125	1 1/8 in (1.125")		1.176	1.179
1375	1 3/8 in (1.375")		1.369	1.372

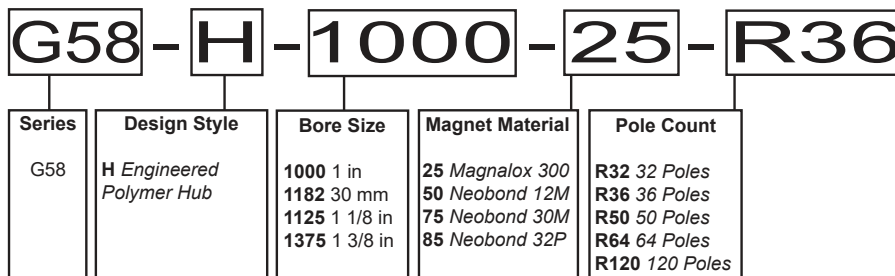
Other bore sizes available upon request.
Contact sales@phoenixamerica.com.

Target Rotor Mounting Guidelines - Engineered Polymer Hub (Mounting Style H) For Press Fit Application

- Proper alignment of the target rotor is critical for optimal performance.
- A machined step on the motor shaft provides a quick and repeatable method for positioning the target rotor. Spacers or other fixturing should be used if no mechanical locating features are on the shaft.
- A chamfered lead in on the shaft will aid in aligning the rotor.
- Prior to insertion, the motor shaft should be clean and free of any oils, lubricants, or solvents.
- Proper fixtures and support must be used to ensure the magnet is pressed on straight and aligned with the motor shaft.
- Opposite end of motor shaft should be supported to avoid undue stress on motor bearings during the pressing operation.
- In applications with high torque or environmental extremes, a retaining compound can be used to enhance the strength of the press fit.



Part Number Description



Example: G58-H-1000-25-R36