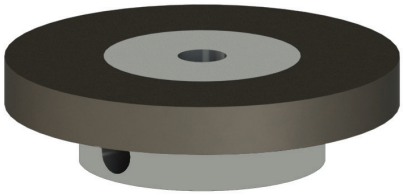
## Features and Benefits

- 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
- Wide range of pole counts



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 |

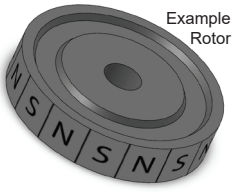
## Magnetic Properties

***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 | 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 36, 38, 40, 60, 64, 100, 120 |
|---|---|



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## Target Rotor Physical Outline - Aluminum Hub (Mounting Style B)

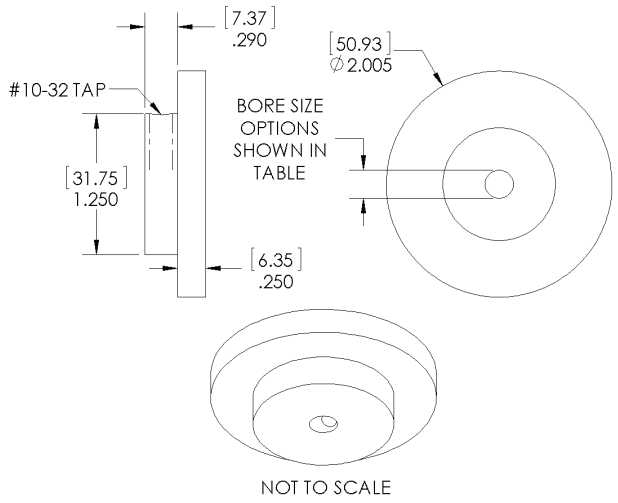


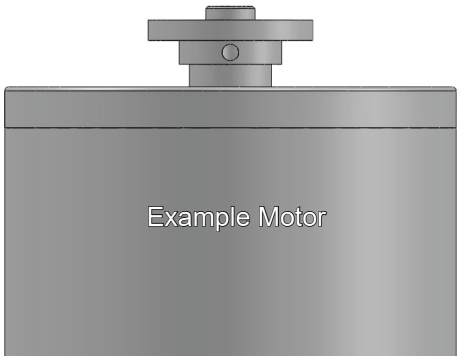

*Table 3.1*

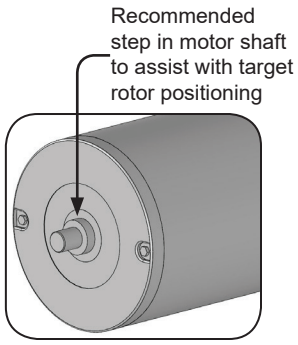
| Bore Size (.inch) | Motor Shaft OD Size (nominal) | NEMA Guide Shaft Tolerance | Magnet Bore MIN. (inch) | Magnet Bore MAX. (inch) |
|---|---|---|---|---|
| 250 | 1/4 in (.2500") | +0.0000"/-0.0005" | .2507 | .2516 |
| 276 | 7 mm (.2758") | | .2767 | .2778 |
| 313 | 5/16 in (.3125") | | .3134 | .3145 |
| 315 | 8 mm (.3150") | | .3159 | .3170 |
| 375 | 3/8 in (.3750") | | .3759 | .3770 |
| 394 | 10 mm (.3940") | | .3949 | .3960 |
| 473 | 12 mm (.4728") | | .4737 | .4748 |
| 500 | 1/2 in (.5000") | | .5009 | .5020 |
| 625 | 5/8 in (.6250") | | .6259 | .6270 |
| 750 | 3/4 in (.7500") | | .7509 | .7520 |
| 875 | 7/8 in (.8750") | | .8759 | .8770 |
| 985 | 25 mm (.9850") | | .9859 | .9870 |

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

## Target Rotor Mounting Guidelines - Aluminum Hub (Mounting Style B)

- 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 to properly position the rotor if no mechanical locating features are on the shaft.
- While the hub is held in the proper position, use a hex wrench to tighten #10-32 set screw.
- For permanent applications, a threadlocker or retaining compound is advised in conjunction with the set screw.



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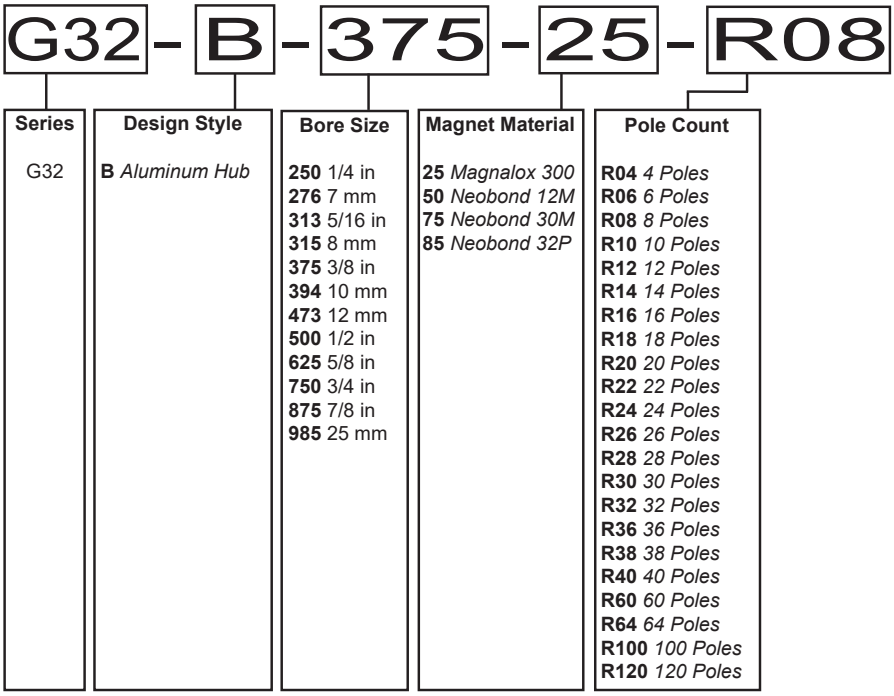
**Part Number Description**




Example: G32-B-275-25-R08



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