Design & Supply of magnets and magnetic assemblies for magnetic couplings in magnetic pump & drive applications

Eclipse Magnetics designs, produces and supplies magnets and magnetic assembly solutions for contactless magnetic couplings to meet the pull out torque requirements for drives and pumps.

Magnetic Couplings Solutions
Design, improve, optimise, supply, support

Eclipse Magnetics understands the needs of motor, machine, drive and magnetic pump coupling manufacturers to design commercially viable magnetic coupling solutions that have any of specific pull out torque, higher torque rating, torque through larger air gap, higher temperature operation, reduced weight, reduced cost or higher efficiency. This can include Rare Earth free and hybrid material designs. We use 3D magnetic FEA software.

Whether the application is designing for higher temperature operation, increasing pull out torque, designing to prevent drive motor stall and burn out or size reduction, Eclipse Magnetics will help you get your solution. We can design canister and pancake magnetic coupling systems. Only magnetic fields couple the two sides of the magnetic coupling (there is no mechanical contact). If one side gets stuck (e.g. blocked pump flow) the other side is designed to slip (pull out torque rated) preventing costly damage of a motor burn out.

We like to use mutual NDA. We can assist you to design for torque, temperature, field strengths, position sensing, weight reduction, miniaturisation, higher efficiency, cost reduction and even rare earth replacement.

We have Dr Ewan Goodier, an Electronic & Electrical Engineer with a PhD in the field of motor designs that use magnets, to assist with your application design and technical support. He has helped in the design of magnetic couplings for over ten years.

Our China Joint Venture also allows us to supply our solutions with PPAP and C of C.

We even offer methods to allow for better recyclability to help meet WEEE requirements.

With an unrivalled expertise in designing value adding magnetic solutions Eclipse Magnetics is a trusted partner for reliable long-term contract manufacturing supply. This includes holding stock in UK for guaranteed fast call off supply.

Application examples include:-
- Contactless magnetic drives
- Magnetic Pump Couplings
- High Torque drives
- Motor burn out protection
- Pancake couplings
- Canister couplings
We can design magnets for assemblies and we can supply magnets and magnetic assemblies / sub-assemblies.

Examples of Magnetic Coupling topologies.

Example of some of the magnet shapes that are possible.

- **BREADLOAFS**
- **CONCENTRIC RADII ARCS**
- **VARIABLE RADII & SIDES**
- **RECTANGULAR BLOCKS**
- **DISSIMILAR RADII ARCS**
- **FLAT SURFACE ARCS**
- **CURVED BLOCKS**
- **TRAPEZIOIDS**

We can design assemblies and we can supply magnets and magnetic assemblies/sub-assemblies.

Please contact us to arrange a visit, request a quotation or to get technical support and design help.

www.eclipsemagnetics.com
www.magnets2buy.com