**Permanent Magnet Coupling**

This two piece rare-earth permanent magnet coupling is for contact-free torque transmission through any non-ferrous wall, with the benefit of slipping when the maximum torque is exceeded, protecting mechanical components in the drive line from damage.

**Ideally suited to:**
- Marine applications removing the need for shaft seals
- Laboratory mixers and vessel agitators
- Driving submerged pumps or compressors
- Driving across vessels where contents must be isolated
- Food processing
- Pharmaceutical industry
- Where a safety slip mechanism is required
- Solar / low power applications requiring extremely efficient torque transmissions
- Rotary indication through barriers

**How Disc Couplings Work**

Disc couplings consist of opposing discs with powerful rare earth magnets. The torque applied to one disc is transferred through an air gap to the other disc. Because of the simple flat design, you can have angular misalignment of up to 3° or a parallel misalignment of up to 6mm and still transmit nearly full rotational torque. Easily isolate drive side components from clean or contained processes.

This is our simplest and most versatile coupling.

**Advantages of Disc type Couplings:**
- No wearing parts - wear free transmission of torque
- Synchronous design
- No slip at any speed - protecting mechanical components in the drive-line from damage
- No physical contact between driving and driven parts
- Simplifies containment barrier
- Custom designs available
- Overload protection up to 110%
- Electrical, mechanical and chemical isolation

**Technical Data:**

Material - 400 Series stainless steel
Magnet (Nickel-Plasted) NdFeB*
Operating temperature - 140°C
*Also available with SmCo magnets rated up to 280°C

**Note:** Couplings are delivered with an integrated stainless steel cover to protect magnets and allow for clean operation and easy maintenance. The above images show exposed magnets for illustration only.

All dimensions are subject to change without notice.
## Permanent Magnet Coupling

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<thead>
<tr>
<th>P/N</th>
<th>HP @ 1750 rpm</th>
<th>KW @ 1750 rpm</th>
<th>Max Speed</th>
<th>*Weight per hub Kg.</th>
<th>Torque Normal Nm</th>
<th>Torque Peak Nm</th>
<th>A mm</th>
<th>B mm</th>
<th>C Max mm</th>
<th>D mm</th>
<th>E mm</th>
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### Notes:

*Weight per hub includes magnets.

Hubs sold separately.

Please refer to recommended bore sizes in the table below, see Notes and then How to Order.

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### Notes:

PMK20 has one set screw (grub screw), PMK40 and PMK50 have two set screws.

PMK60 and PMK70 have one set screw and keyway (for bores 11mm and larger).

Keyways start with bores 11mm and larger.

All larger sizes of Permanent Magnet Couplings are supplied as solid bores, with additional costing for boring & keyway machining.

PMK150-PMK200 are manufactured to order. Minimum order quantity 2 hubs (different bores accepted).

### How to Order:

P/N for 1 hub + bore code + P/N for the other hub + bore code  
EG: 1 off PMK20-0000(solid) + 1 off PMK20-0236 (6mm bore)

Please contact TEA Transmissions - email: sales@tea.net.au for price and delivery.

CAD files available via our website: www.tea.net.au

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Thank you for viewing product information on TEA’s range of engineering components.

Now please contact us at the nearest office to you for any further information, prices and availability:

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Fax: 61-(0)7 4129 2437
Email: sales@tea.net.au
www.tea.net.au

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T.E.A. Machine Components Inc.
2281-F Dabney Road
Richmond Virginia 23230
USA
Ph: 1-804-342-0004
Fax: 1-804-342-0006
Email: sales@teausa.net
www.teausa.net

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