Installation Instructions for ES Series encoders

**CAUTION:** Be prepared for strong attraction of magnets that may cause the encoder or hub assembly to move suddenly. Keep body parts and clothing from between the encoder and hub. Keep workspace clear of metal chips and tools.

**INSTALLATION**

1. Use a rigid mounting bracket with a 1.8” diameter center hole (for hub clearance) or spacers to locate the encoder face at least ¼” from end of drive shaft. Allow space for shaft extender/reducer, if required. There will be about 8 lbs attraction force between the encoder and hub.
2. Install magnetic hub on drive shaft with magnet side out. Adjust to maintain a 1/16” to 1/8” air gap between the encoder face and the magnetic hub.
3. Tighten hub set screw to 12 in-lb.
4. Secure the encoder to the mounting bracket with screws and flat washers.

**NOTE:** The ES Series magnetic coupling can accommodate more misalignment but for best performance, align the center axis of the encoder and the drive shaft within 1/8” parallel and 3 degrees angular offset.

**IMPORTANT:** Allow sufficient air gap between encoder and magnetic hub to accommodate axial end play of drive shaft during operation. Severe damage may result if rotating hub contacts the encoder housing.

Magnetic hub adjustment after the encoder has been secured (if needed):
1. Place a non-magnetic spacer between the encoder and magnetic hub.
2. Carefully loosen set screw and slide hub into final position.
3. Tighten set screw and remove spacer.

**NOTE:** If the external hub accidentally gets stuck to the encoder during installation or adjustment, slide it sideways to release. Do not pry against the flat face of the encoder.

**INSTALLATION EXAMPLES**

**HEX STAND-OFFS**

- **BEI ES25 Encoder with enclosed Magnetic Hub**
- Hex spacers to fit motor – depend on shaft length, etc.
- Air Gap between housing and External Magnetic
- External Magnetic Hub – required for encoder operation. BEI accessory part
- Motor or other drive system

**NEMA 56C ADAPTER**

- **Motor or other drive system**
- **Shaft adapter – example: 5/8” to 1/4”**
- **External Magnetic Hub**
- **NEMA 56C adapter**

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