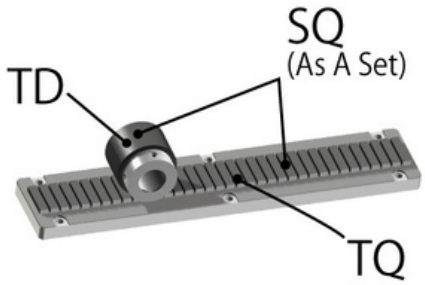
# NON-CONTACT MAGNETIC RACK AND PINION

## Converts rotational motion into linear motion without contact

**Non-Contact Technology Enables Clean, Quiet, and Safe Power Transmission**

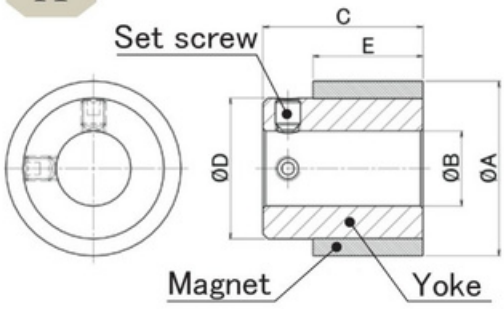
- No particle generation caused by contact surface wear
- Lubrication-free operation
- Barrier transmission enables seal-less structures
- Low noise and vibration through non-contact power transmission
- Easier assembly with high angular and eccentric misalignment
- tolerance Magnetic slip under overload helps improve safety



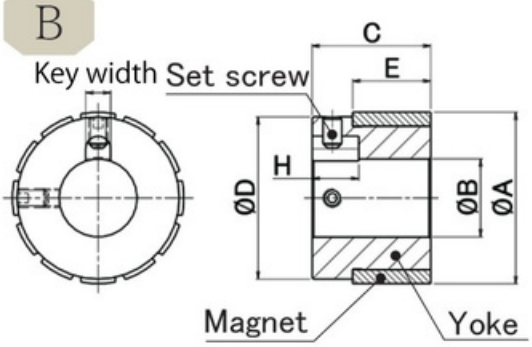

A rack and pinion is a conventional gear mechanism that converts rotational motion into linear motion through the engagement of a pinion gear and a linear rack. Magnetic Racks and Pinions are the magnetic equivalent of a rack-and-pinion system. By transmitting motion and force without physical contact, they help reduce particle generation and noise while eliminating the need for lubrication.

Magnet Material : Neodymium Magnet
Surface Treatment :
Magnets - Electrolytic Ni plating
Yoke - Electroless Ni plating (SC steel)

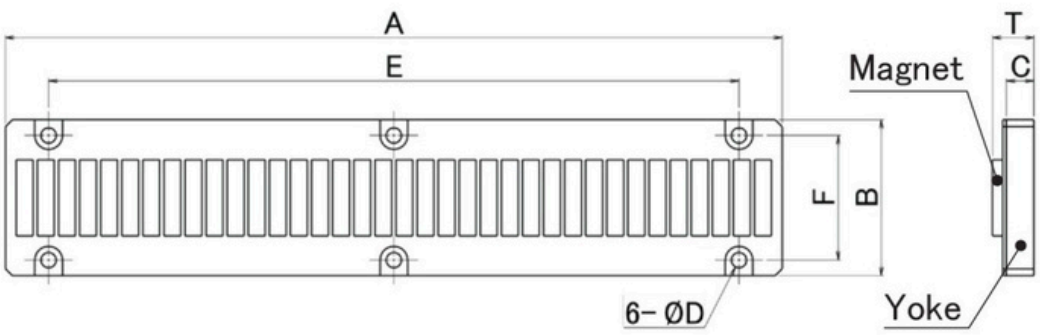
TD A




B




TQ



Made-to-Order Item

| Model (Set) | Model (Individual) | Reference drawing | Dimensions | | | | | | | | | | | Air Gap | 0.5mm | 1 mm | 2 mm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | A | B (Dimensions) | B (Tolerance) | C | D | E | F | H | T | Key width (Dimensions) | Key width (Tolerance) | Set screw | | | |
| SQ2626-18 | TD26-18 | A | 26 | 12 | +0.027 0 | 25 | 20.2 | 14 | - | - | - | - | - | M4 | Maximum transmissible torque (N·m) | 0.366 | 0.256 | 0.125 |
| | TQ26-36 | - | 170 | 30 | - | 8 | 3.3 | 150 | 24 | - | 12 | - | - | - | Thrust (N) | 28.43 | 19.71 | 9.71 |
| SQ3535-18 | TD35-18 | A | 35 | 15 | +0.027 0 | 32 | 29.3 | 22 | - | - | - | - | - | M5 | Maximum transmissible torque (N·m) | 1.255 | 0.968 | 0.572 |
| | TQ35-36 | - | 225 | 45 | - | 8 | 4.4 | 200 | 36 | - | 12 | - | - | - | Thrust (N) | 71.97 | 55.49 | 32.56 |
| SQ5555-12 | TD55-12 | B | 55 | 25 | +0.033 0 | 38 | 52 | 25 | - | 15 | - | 8 | +0.2 0 | M6 | Maximum transmissible torque (N·m) | 4.365 | 3.875 | 3.047 |
| | TQ55-24 | - | 360 | 50 | - | 12 | 4.4 | 300 | 38 | - | 16 | - | - | - | Thrust (N) | 157.79 | 140.1 | 110.5 |

The above product data are values measured under ambient temperature conditions.

Seimitsu Tower, A - 51, H Block, MIDC Industrial Area,
Pimpri - Chinchwad, Pune - 411018, Maharashtra.
+91 9028121211 / 020 - 46212700
www.seimitsu.in
sales@seimitsu.in