Double Disk Type Flexible Coupling

MTD

**Configuration**

- Collar
- Disk
- Pin
- Hub
- Spacer
- Setscrew

**Features**

- **Merits**
  - **Zero Backlash**
  - Disk type flexible coupling
  - Identical clockwise and counter-clockwise rotational characteristics
  - Stainless steel disks absorb parallel, angular misalignments and shaft end-play
  - The coupling is easily anchored to the shaft with set screws
  - Centering is easy due to simple construction
  - Finished products featuring two different end bore diameters available in stock

**Application**

| Servomotor | — |
| Stepping Motor | ● |
| General-purpose Motor | — |
| Encoder | — |

**Features**

- **Zero Backlash**
- **High Torsional Stiffness**
- **High Torque**
- **Absorption of Misalignment**
- **Vibration Absorption**
- **Electrical Insulation**
- **Corrosion Resistant (All Stainless Steel)**

| : Excellent | : Very Good |

**Material & Finish**

- **Hub**: A2017. Anodized Aluminum Coating
- **Spacer**: A2017. Anodized Aluminum Coating
- **Disk**: SUS301
- **Pin**: SUS303
- **Collar**: SUS304
- **Setscrew**: SCM435. Black Oxide Coating

*Stock screws can be replaced with stainless steel screws. Please take advantage of our stainless steel screw option. For more information please refer to page 16.

**When Ordering**

Specify product code and both bore diameters.

**MTD-25-8×10**

*Product Code D1 D2*

**Technical Data**

**Eccentric Reaction Force**

**Thrust Reaction Force**

- Load (N)
- Eccentricity (mm)
- Compression (mm)
- Load (N)
- MTD-25
- MTD-32
- MTD-20
### Dimensions

<table>
<thead>
<tr>
<th>Product Code</th>
<th>A</th>
<th>L</th>
<th>W</th>
<th>E</th>
<th>F</th>
<th>M</th>
<th>Wrench Torque (N·m)</th>
<th>Stock Bore Diameters D1 - D1 (Tolerance H8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTD-20</td>
<td>20</td>
<td>7.5</td>
<td>27.3</td>
<td>6</td>
<td>3.7</td>
<td>M3</td>
<td>0.7</td>
<td>3  4  5  6  8  10  12  14</td>
</tr>
<tr>
<td>MTD-25</td>
<td>25</td>
<td>7.5</td>
<td>27.4</td>
<td>10</td>
<td>3.7</td>
<td>M3</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>MTD-32</td>
<td>32</td>
<td>7.5</td>
<td>27.5</td>
<td>15</td>
<td>3.7</td>
<td>M4</td>
<td>1.7</td>
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</tr>
</tbody>
</table>

- All products come with set screws.
- Hubs with shaft bore diameters of φ4 or less have one set screw.

### Specifications

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Max. Bore (mm)</th>
<th>Rated* Torque (N·m)</th>
<th>Maximum* Torque (N·m)</th>
<th>Maximum Rotational Frequency (min⁻¹)</th>
<th>Moment** of Inertia (kg·m²)</th>
<th>Static Torsional Stiffness (N·m/rad)</th>
<th>Errors of Eccentricity (mm)</th>
<th>Errors of Angularity (+)</th>
<th>Errors of Shaft End-Play (mm)</th>
<th>Mass** (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTD-20</td>
<td>8</td>
<td>0.5</td>
<td>1</td>
<td>31000</td>
<td>1.2×10⁻⁶</td>
<td>120</td>
<td>0.10</td>
<td>1</td>
<td>±0.4</td>
<td>21</td>
</tr>
<tr>
<td>MTD-25</td>
<td>12</td>
<td>1</td>
<td>2</td>
<td>25000</td>
<td>2.6×10⁻⁶</td>
<td>210</td>
<td>0.15</td>
<td>1.5</td>
<td>±0.5</td>
<td>27</td>
</tr>
<tr>
<td>MTD-32</td>
<td>14</td>
<td>2</td>
<td>4</td>
<td>19000</td>
<td>6.7×10⁻⁶</td>
<td>230</td>
<td>0.15</td>
<td>2</td>
<td>±0.6</td>
<td>43</td>
</tr>
</tbody>
</table>

* Adjustment of rated and maximum torque specifications for load fluctuations is not required. For more detailed information, please refer to For Better Drive on page 34.
** Based on the maximum shaft bores.

### Changes in Static Torsional Stiffness Caused by Temperature

100% values represent product performance at 20°C. Because MTD experiences very little change in static torsional stiffness caused by temperature, the effect on response is minimal. However, please take into consideration that operating at high temperatures may lead to misalignment due to shaft distortion or elongation from thermal expansion.

- The technical data contained in this catalog is for convenient reference, but they are not guaranteed values. More detailed technical data can be downloaded from our homepage.