Torq-Lok®
One-Way Bi-Directional Clutch (MTL)

Available Torque from 15 lb.ft. to 180 lb.ft

ADVANTAGES
• Ability to sustain substantial torque overload and shock loading
• Easily integrated with other MAXITORQ® clutch and brake products

OPERATION
• Standard torque range from 15 lb. ft. - 180 lb. ft.
• Unique friction disc/ball ramp design establishes locking torque
• Smooth rotation at the driving end regardless of the direction of the load
• Self-locking

CUSTOMIZATION
• Optional ability to set a firm slip point
• Custom designs and alterations available
• Available with integral spring applied clutch
• Available with integral input or output torque limiter

MAXITORQ® Model MTL TORQ-LOK® is a patented, one way, bi-directional clutch that permits the transmission of torque from the input shaft to the output shaft in either rotational direction. With its unique design, the MTL does not allow the output shaft to backdrive the input shaft.

MTL TORQ-LOK® units easily integrate with other Carlyle Johnson clutches, brakes or torque limiters, often creating a design that is lighter and more streamlined.
Specifications of Torq-Lok®
One-Way Bi-Directional Clutches

As with all Carlyle Johnson products, the MTL TORQ-LOK® clutch can be customized for your unique application, and operate to fulfill multiple functions. These units easily integrate with a variety of CJM products, providing torque outputs available from 10 lb.ft. to 180 lb.ft.

<table>
<thead>
<tr>
<th>Model</th>
<th>Holding Torque (lb. ft.)</th>
<th>ØA</th>
<th>ØB</th>
<th>ØC</th>
<th>Ø*</th>
<th>Shaft Size</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTL0350</td>
<td>15</td>
<td>5.25</td>
<td>4.25</td>
<td>4.75</td>
<td>1/4</td>
<td>7/8</td>
<td>3/16 x 3/32</td>
<td>5.52</td>
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<tr>
<td>MTL0450</td>
<td>60</td>
<td>5.75</td>
<td>4.75</td>
<td>5.25</td>
<td>1/4</td>
<td>1 3/8</td>
<td>1/4 x 1/8</td>
<td>5.60</td>
</tr>
<tr>
<td>MTL0600</td>
<td>180</td>
<td>8.06</td>
<td>6.44</td>
<td>7.31</td>
<td>5/16</td>
<td>1 7/8</td>
<td>3/8 x 3/16</td>
<td>8.48</td>
</tr>
</tbody>
</table>

*Other bore sizes are available. All dimensions are measured in inches. Dimensions are for reference only and are subject to change.

Carlyle Johnson’s MAXITORQ® MTL TORQ-LOK® is a patented, bi-directional one-way clutch that permits the transmission of torque from the input shaft to the output shaft in either rotational direction. In addition, MTL one-way clutches do not allow the output shaft to backdrive the input shaft in either direction.

By incorporating an MTL TORQ-LOK® bi-directional one-way clutch with a Carlyle Johnson spring applied clutch we can offer braking, torque limiting and manual driving with no backdrive.

Another standard option is to incorporate a Carlyle Johnson torque limiter on either the input or output side. A customer would add this on the input side if there was a desire to limit input driving torque. On the output side it would act as a mechanical fuse to allow the constrained component to slip should an excessive load condition occur.

For over one hundred years, The Carlyle Johnson Machine Company has been at the forefront of innovative power transmission technology. With advanced R&D, precision testing and prototype development we are the industry’s leading resource for effective and efficient power transmission solutions.