

# TORQ-TENDER® H-TLC TORQUE LIMITERS

## The Intelligent Alternative to Friction-Type Torque Limiters.

The unique features in the Zero-Max H-TLC give the designer wider parameters in solving motion control problems.

**H-TLC Is Durable.** The H-TLC torque limiter is designed for hostile environments. In many applications, a torque limiter may wait for months or years before it is required to disengage. During this time, the torque limiter may be subjected to moisture, corrosion, acids, salts or any number of other contaminants which inhibit the proper operation of the torque limiter and prevent disengagement.

The H-TLC will never rust because its major components are designed from special polymer materials that are resistant to water, salts, mild acids and most other contaminants. Even in temperatures from -40°F to +180°F (-40°C to +82°C), the H-TLC still withstands many corrosive elements and abuse.

**H-TLC Is Dependable.** It works on a spring loaded convex pin and detent design which reacts to overloads... but not to lubricants. Unlike friction-type designs, you can submerge an H-TLC in oil and still depend on precise disengagement at your design limits.

**H-TLC Is Repeatable.** Unlike friction-type torque limiters the H-TLC does not generate an amount of heat which can alter the transmittable torque. When a friction-type torque limiter disengages, it generates heat which often alters its disengagement characteristics.

The H-TLC's resilient \*Nylatron GS® and \*\*Delrin® materials will not build up, or retain, the kind of heat unique to friction designs.

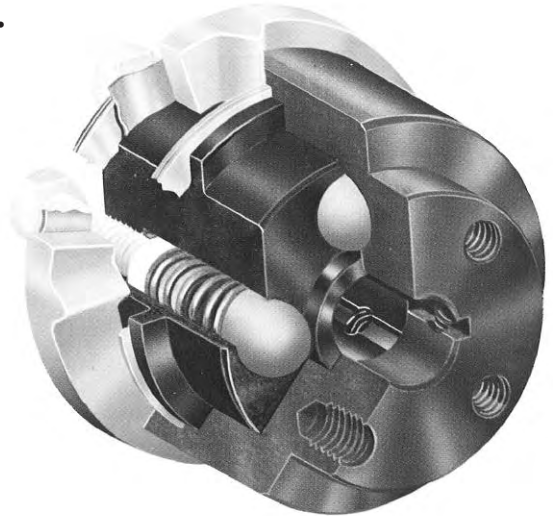
**The Torque Setting Is Adjustable.** If operating conditions require periodic changes in torque settings, the H-TLC gives you that ability. Simply adjust the unit's external compression bolts until the desired new torque setting is reached.

### The H-TLC Will Trigger Automatic Alarm and Shut-Down Systems.

One of the H-TLC's most important special features is its ingeniously simple and inexpensive actuating disc assembly. The actuating disc is used to provide a mechanical displacement that can be sensed and feed back into the machines PLC to initiate the proper response.

### Multi or Single Position Re-Engagement.

The H-TLC-500 has 4 re-engagement positions and the H-TLC-1000 has 6. If your application must maintain phase, you can order H-TLC with only one re-engagement point. The single position H-TLC torque limiters torque rating will vary from the catalog ratings (consult factory for torque range).



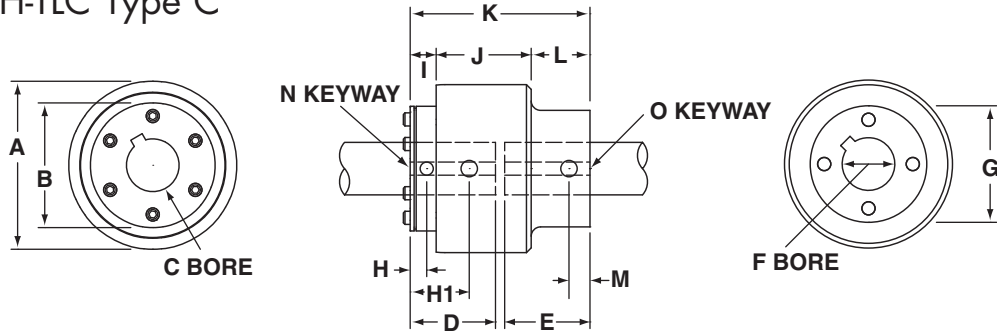
Model	Torque Range		Housing Bore		Shaft Bore		Shipping Weight
			Minimum Bore	Maximum Bore	Minimum Bore	Maximum Bore	Pounds (Kg)
	Inch Pounds	Newton Meters	INCH (MM)	INCH (MM)	INCH (MM)	INCH (MM)	
H-TLC-500	4 to 150 *	0.5 to 16.9 *	0.250 (8)	0.625 (16)	0.250 (8)	0.500 (13)	1/2 (0.23)
H-TLC-1000	40 to 500 *	0.5 to 56.5 *	0.500 (13)	1.125 (28)	0.500 (13)	1.000 (25)	1 (0.45)

\* See Torque Chart

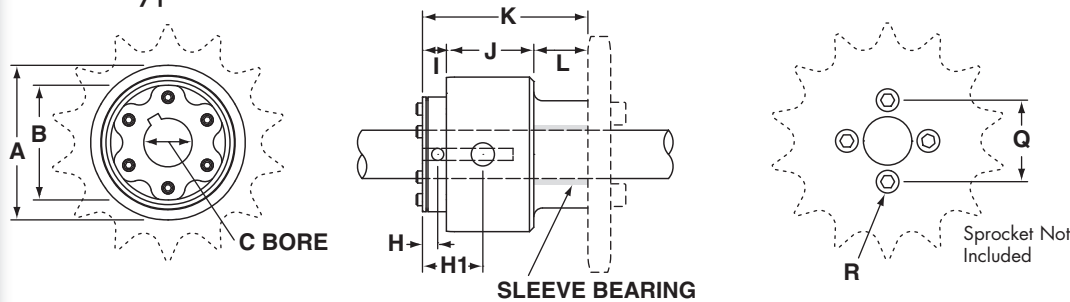
**Note:** \*Nylatron GS® is a registered trademark of Polymer Corp. \*\*Delrin® is a registered trademark of El Dupont Company

H-TLC Dimensions			
Models		500	1000
A	INCH (MM)	2.00 (50.8)	3.20 (81.3)
B	INCH (MM)	1.49 (37.8)	2.37 (60.2)
D	INCH (MM)	1.625 (41.3)	2.230 (56.6)
E	INCH (MM)	0.855 (21.7)	1.210 (30.7)
G	INCH (MM)	1.49 (37.8)	2.22 (56.4)
H	INCH (MM)	0.250 (6.3)	0.315 (8)
H1	INCH (MM)	1.250 (31.7)	1.625 (41.3)
I	INCH (MM)	0.563 (14.3)	0.520 (13.2)
J	INCH (MM)	1.187 (30.1)	1.81 (58.4)
K	INCH (MM)	2.50 (63.5)	3.45 (87.6)
L	INCH (MM)	0.750 (19)	1.12 (15.9)
M	INCH (MM)	0.375 (9.5)	0.400 (10.2)
Q	INCH (MM)	1.125 (28.6)	1.687 (42.8)
R	INCH	1/4-20 x 1/2 DP	5/16-18 x 3/4 DP
X	INCH (MM)	2.53 (64.3)	4.040 (102.6)
Z	INCH (MM)	2.275 (57.8)	3.270 (83.1)
Z1	INCH (MM)	2.125 (54)	3.110 (79)

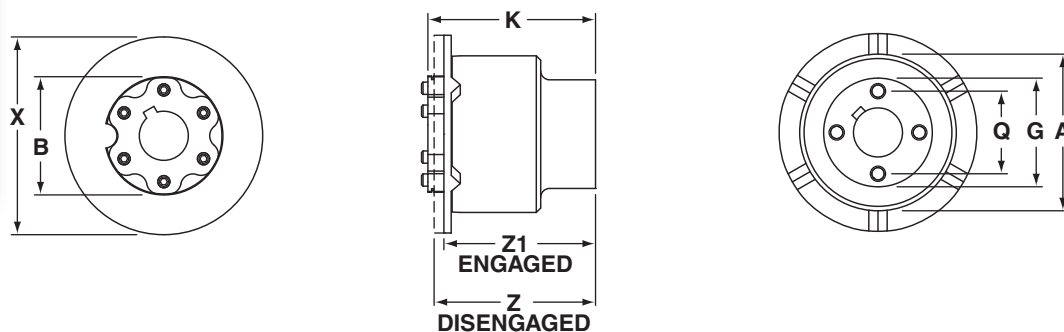
### H-TLC Type C



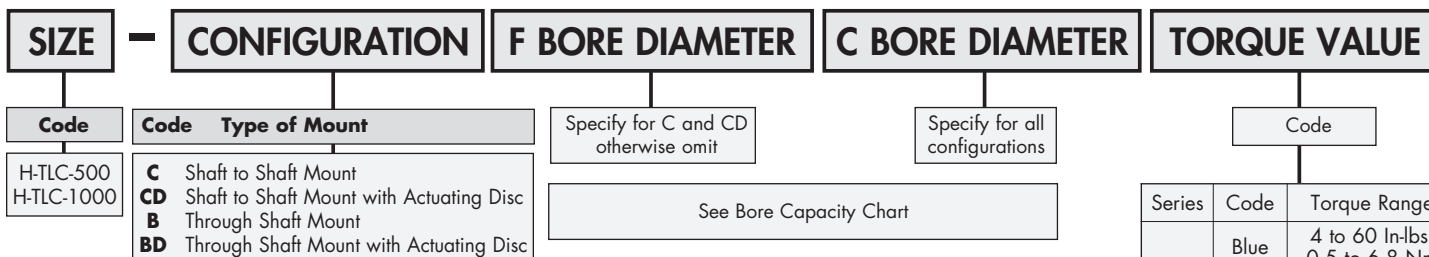
### H-TLC Type B



### H-TLC Type CD and BD (with Actuating Disc)



### Part Numbering Structure



#### Example:

Size H-TLC  
Shaft to Shaft Configuration  
Actuating Disc option  
F bore is 25mm  
C bore is 3/4"  
Torque value is 300 to 500 in-lbs.

Model code is:  
H-TLC-1000-CD 25mm 3/4" Gold

All bore over 0.437" or 10mm will come with the standard keyway

*Note: It is important to correctly identify the different bores for the Configuration CD. These options require an external device to interface with the H-TLC such as a proximity switch. How the bores are specified will affect the location of the Actuation Disc. Please contact the factory if further clarification is needed.*

Series	Code	Torque Range
500 Series	Blue	4 to 60 In-lbs. 0.5 to 6.8 Nm
	Red	40 to 125 In-lbs. 4.5 to 14.1 Nm
	Gold	100 to 150 In-lbs. 11.3 to 16.9 Nm
1000 Series	Blue	40 to 150 In-lbs. 4.5 to 16.9 Nm
	Red	140 to 350 In-lbs. 15.8 to 39.5 Nm
	Gold	300 to 500 In-lbs. 33.9 to 56.5 Nm