



# UJT-500 SERIES

## Friction Torque Limiters

*PT Tech's UJT-500 Series is a maintenance-free continuously engaged friction type torque limiter. The torque setting is pre-set at the factory. The tamper resistant torque setting can only be changed by installing a different complement of spring cup bolts thus preventing equipment damage due to unauthorized adjustment.*

*The spring cup bolts are pretested and pre-shimmed to maintain a consistent and predictable force on the friction material. They eliminate the need to adjust the torque limiter torque setting at installation and throughout its wearlife. The spring cup bolts are color-coded according to their strength. The torque is easy to verify by counting the quantity and color of spring bolt assemblies.*

*The standard output is machined to accept a Spicer industrial driveshaft. The UJT-500 Series is available with optional input and output configurations. The UJT-500 Series clutches are continuously engaged. They are not subject to nuisance trip-outs like releasable torque limiters (shear pins, ball detent, pressurized slip devices, etc.). The UJT will act like a torsional shock absorber and does not limit drive engine performance because the torque setting is above the engine or electric motor's peak torque.*

**Single, double, and triple disc**

**Flange-mounted universal joint driveshafts**

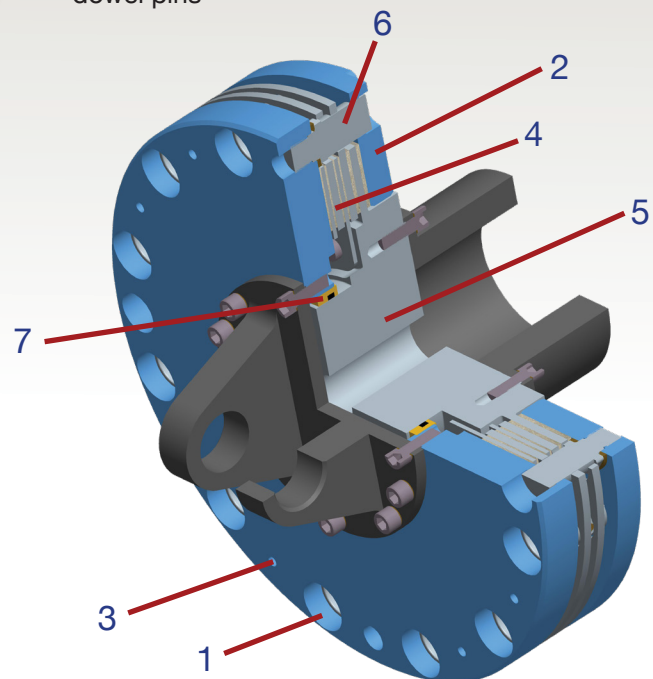
**SAE (Spicer) mounting configurations**

### How It Works

The UJT series friction type torque limiters require no adjustment at installation or throughout their entire wearlife. They require no lubrication and no resetting after slip has occurred. Wear can be accurately and readily measured without disturbing the unit.

A complement of spring cup bolts assemblies (Item #1) exert a precise clamping force between the pressure plate (Item#2) and input flange (Item #3). This force is transmitted from the input side of the torque limiter to the friction discs (Item #4) that are attached to the output hub (Item #5). The entire output of the torque limiter is shaded.

In the multiple disc UJT torque limiters, the clamping force is transmitted from the input side via the separator plates to the friction plate assemblies that are engaged to the output hub through closely toleranced hardened dowel pins



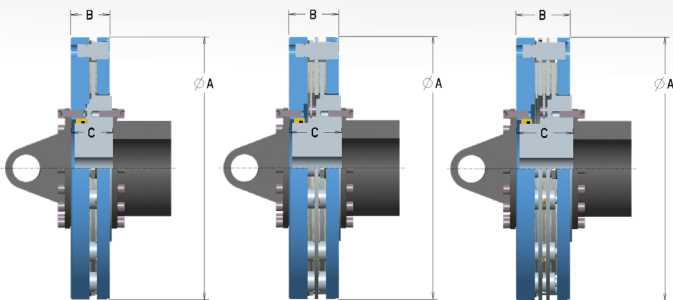
## DIMENSIONAL DATA

Torque Limiter <sup>2</sup>	28	228	328	35	235	335	344
A Outside Diameter	mm 364.0 in 14.37	mm 365.0 in 14.37	mm 364.0 in 14.37	mm 443.9 in 17.48	mm 443.9 in 17.48	mm 443.9 in 17.48	mm 552.4 in 21.75
B Overall Length	mm 82.0 in 3.23	mm 90.17 in 3.55	mm 90.17 in 3.55	mm 87.63 in 3.45	mm 95.8 in 3.77	mm 100.8 in 3.77	mm 209.5* in 8.25*
C Distance between Flange Faces	mm 74.93 in 2.95	mm 86.87 in 3.42	mm 93.98 in 3.70	mm 80.52 in 3.17	mm 94.49 in 3.72	mm 99.57 in 3.92	
Input Mounting Configuration <sup>3</sup>	1710	1810	1810	1810	1810	1810	LoveJoy CJLFH 140
Output Mounting Configuration <sup>4</sup> (Spicer)	1710	1810	1810	1810	1810	1810	Size M QD Bushing

**UJT 28 and UJT35**

**UJT 228 and UJT235**

**UJT 328 and UJT335**



## PERFORMANCE DATA

Torque Limiter	28	228	328	35	235	335	344
Maximum Torque (lb-ft)	2292	4584	6876	3024	6048	9072	11,770
Number of Spring Cups Bolts <sup>5</sup>	12	12	12	12	12	12	12
Torque per Spring Bolt:							
Gold (lb-ft)	191	382	573	252	504	756	
Red (lb-ft)	131	262	393	174	348	522	
Blue (lb-ft)	79	158	237	104	208	312	
White (lb-ft)	55	110	165	73	146	219	
Maximum Speed (RPM)	3000	2100	2100	2100	2100	1800	2000
Inertia - Total (lb-ft <sup>2</sup> )	17.4	19.4	21.5	41.3	45.1	48.0	146
Inertia - Output (lb-ft <sup>2</sup> )	2.4	2.7	3.2	6.0	6.9	7.7	28.7
Weight (lbs.)	94	104	114	164	182	198	400*

<sup>2</sup> TORQUE LIMITER size designation:  
UJT 28 and 35 single disc output  
UJT 228 and 235 double disc output  
UJT 328 and 335 triple disc output

<sup>3</sup> Male pilot

<sup>4</sup> Female pilot, wing bearing, or DIN configurations are available

<sup>5</sup> For specific applications more spring cup bolts can be added to increase maximum torque. Consult PT Tech for specific application analysis

## Important Features

### Accommodates a variety of driveshafts and couplings

The input and output can be modified to accept DIN or wing bearing style driveshafts or couplings.

### No adjustment at installation

Torque limiter is preset at the factory. Problems due to improper torque setting adjustment at installation are virtually eliminated.

### No adjustment throughout entire wearlife

Unique spring cup bolts provide consistent force on the friction surfaces as they wear. Problems due to improper adjustment by maintenance personnel are eliminated.

### Tamper resistant torque setting

Torque can only be varied by disassembling the torque limiter and changing the strength or quantity of spring cup bolts (Item #1)

### Torque setting easily checked

Color-coded spring cup bolts allow quick verification of torque setting. Special equipment and testing to check torque setting is eliminated.

### No maintenance

No lubrication and no adjustment feature virtually eliminate periodic maintenance.

### Graphited bronze bearing

The UJT series is permanently lubricated for long maintenance-free life (Item #7).

### Friction wear easily checked

The external wear indicator (Item #6) allows for a quick check of remaining wearlife.

### Low output inertia

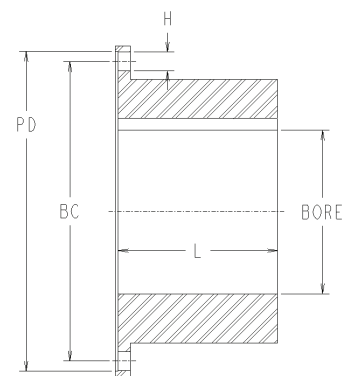
Provides excellent control of inertial shockloads.

### Easy installation

The UJT torque limiter is shipped fully assembled.

## COMPANION FLANGE SIZE

	1710	1810
Max. Bore	in 4.0 mm 101.6	in 4.0 mm 101.6
BC Bolt Circle	in 7.25 mm 184.15	in 7.25 mm 184.15
L Bore Length <sup>6</sup>	in 4.0 mm 101.6	in 4.0 mm 101.6
H Bolt Hole	in .38 mm 9.652	in .44 mm 11.176
Number of Bolts	8	12
Bolt Type	3/8 - 24	7/16-20
Bolt Tightening Torque	lb-ft 45	75
PD Pilot Diameters	in 7.75 mm 184.15	in 7.75 mm 184.15



<sup>1</sup> All dimensions are subject to change without notice

<sup>6</sup> Dimensions may vary slightly between manufacturers