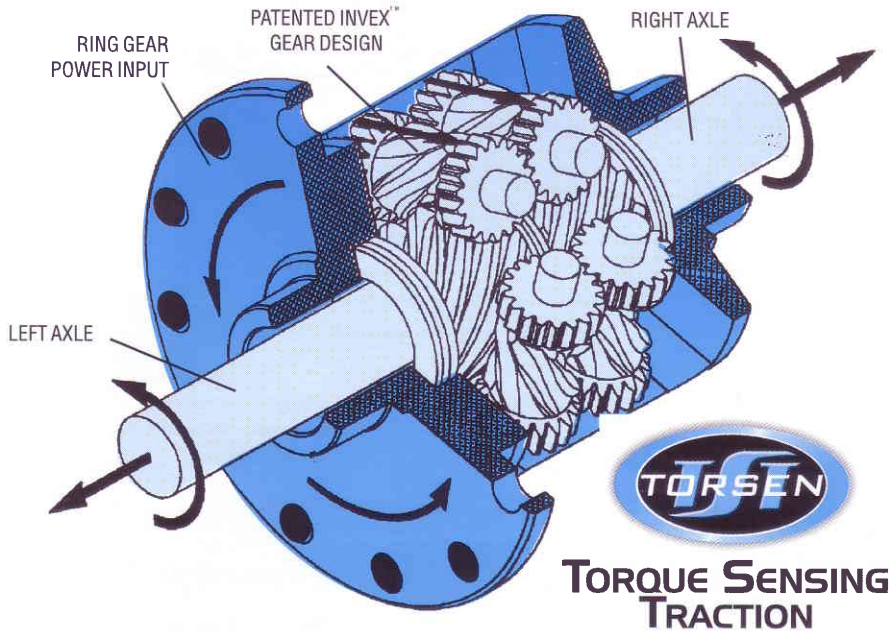


TORSEN

T-1 Torque Sensing DIFFERENTIAL



Type 1 Traction Differential

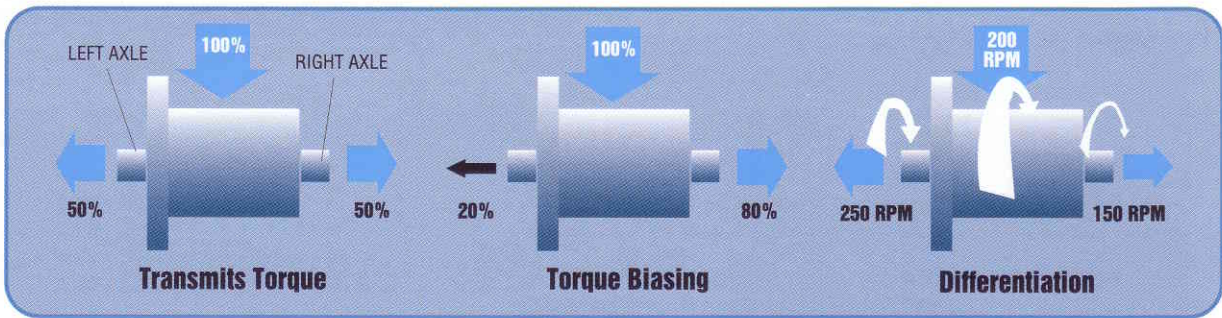
The TORSEN T-1 Traction Differential is ideally suited for rear, center, and all-wheel drive applications. It can also be used in front wheel drive applications where high TBR is desirable.

Unlike conventional speed-sensing, limited-slip differentials, TORSEN T-1 is a full time torque-sensing, torque-biasing system. Torque and differentiation are continuously managed between the two axles and biased instantaneously according to variable road conditions. There are no clutches or pre-load to worry about, in fact, the T-1's patented INVEX™ gearing system is designed to perform for the life of the vehicle.

The TORSEN T-1 Traction Differential is available in any torque biasing range from 2.5: 1 to 5.0:1 and can be designed to fit most standard axle housings without modification. In addition, TORSEN is fully compatible with ABS and Traction Control Systems, providing the ultimate synergy in traction management.

Multifunction Capabilities

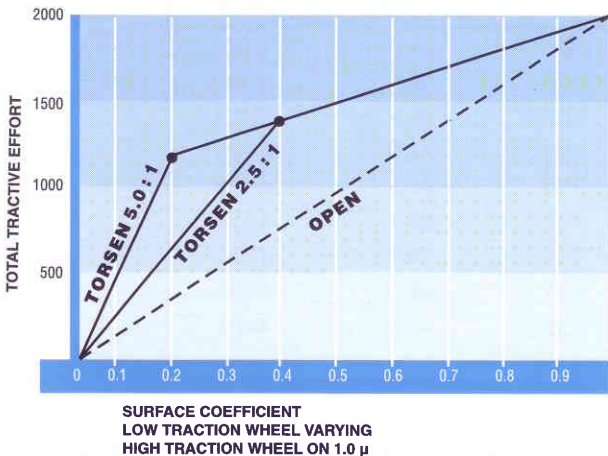
The TORSEN T-1 is an advanced, multi-function traction system, providing continuous, uninterrupted torque output, torque biasing and differentiation in one integral unit. It is always active, responding instantly to torque feedback from variable driving conditions.



Enhanced Performance

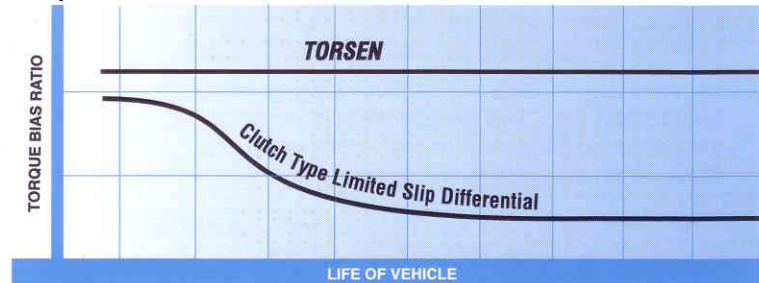
The TORSEN T-1's capability to immediately respond to variable driving conditions provides not only better traction management, but it also enhances the general performance of a vehicle. There is a marked improvement in total tractive effort as compared to vehicles equipped with conventional or limited-slip differentials. In addition, the efficiency of the T-1 allows the engine's torque output to be used more effectively, delivering more horsepower to the road. The combined improvement in traction and the augmented power results in a nimble, yet sure-footed vehicle that provides better handling, increased acceleration and an improved margin of safety.

Typical Split Coefficient Performance Curve



This brochure does not constitute an offer to sell. Specifications and other data subject to change without notice

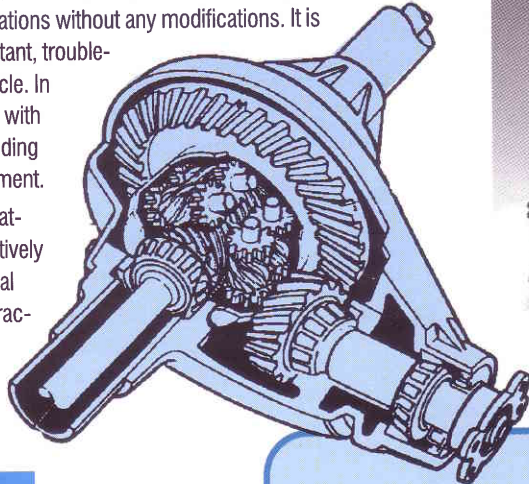
TORSEN Traction System Durability and Torque Bias Stability Compared to Standard Differentials



TORSEN T-1 Applications

Engineered for today's modern vehicles, the TORSEN T-1 Traction Differential is easily adaptable to most rear axle applications without any modifications. It is engineered for durability, providing constant, trouble-free torque biasing for the life of the vehicle. In addition, it is most suitable for operation with ABS and Traction Control Systems providing the ultimate synergy in traction management.

The TORSEN T-1 employs a unique, patented INVEX™ gearing system that effectively provides multiple functions in one integral unit: differentiation, torque biasing and traction management.



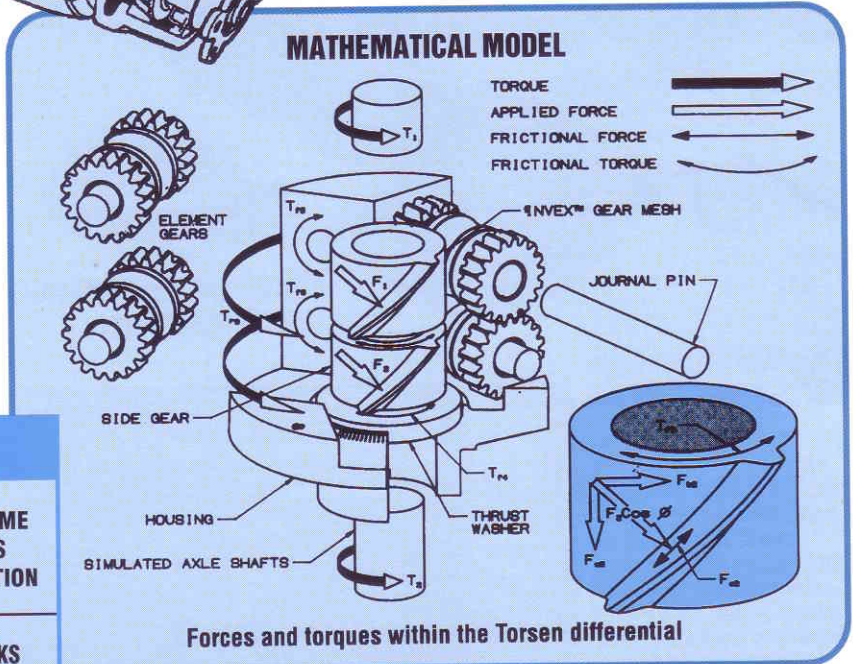
A typical TORSEN T-1 Traction Differential as used in many applications.



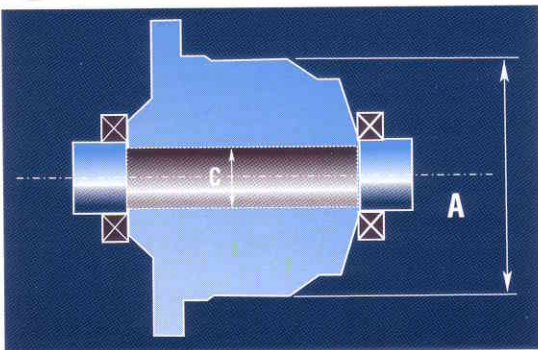
APPLICATIONS		
TBR	2.5:1 -- 3.5:1	2.5:1 -- 5.0:1
DRIVE TYPE	CENTER BOX	REAR WHEEL

The TORSEN T-1 Traction Differential is ideally suited for rear and center box applications. Units are available in 2.5:1 -- 3.5:1 TBR range for center box drive applications and 2.5:1 -- 5.0:1 TBR range for rear drive applications.

TORSEN T-1 Features			
ANTILOCK BRAKE SYSTEM COMPATIBLE	TRACTION CONTROL SYSTEMS COMPATIBLE	CONSTANT TORQUE BIAS CAPABILITY	LIFETIME BIAS RETENTION
MINI TIRE COMPATIBLE	GL-5 FLUID COMPATIBLE	NO MAINTENANCE	WORKS AT ALL SPEEDS



Standard TORSEN T-1 Specifications



NOTE: TORSEN T-1 Traction Differentials will fit most axle housings without modification. ZEXEL TORSEN engineers can design, test and manufacture custom units for your specific applications. Please call us with your OEM requirements.

SIZE	BODY DIAM. A (mm)	MAX SPLINE DIAM. C (mm)	SHORT DURATION (Nm)
7	95	25.5	1845
13	100	26.3	2000
22	108	28.5	2280
32	116	31.2	3100
38	120	34.5	4000
42	126	34.7	4300
47	133	36.3	4770
52	141	37.3	6200
62	155	41.7	7475

