The Technical Truth About Premium and Value Grade Belt Tensioners

OE specification knowledge ensures proper belt tension, alignment and damping of the Accessory Belt Drive System.

Precise machined surfaces and assembly tolerances mean no customer returns due to belt noise or belts jumping off the drive.

Patented damping system increases tensioner, belt and accessory component life, reducing customer returns due to vibration complaints.

High quality casting process means durability that meets or exceeds OE requirements even under extreme conditions.

Patented labyrinth seal protects internal components to meet or exceed OE life expectancy requirements.

Life expectancies meet or exceed OE requirements.

Full line coverage for Domestic, Import and Heavy-Duty applications.

No OE experience means parts are reverse engineered with no system knowledge.

Imprecise and inconsistent assembly tolerances lead to customer complaints of noise, vibration or belt jump.

Inferior damping control results in potential for system malfunction or angry customers with vibration complaints.

Inferior casting quality could lead to housing cracking and premature failure.

Poor sealing with multiple paths for contaminants to enter internal components, drastically reducing life.

Low durability parts with poor life expectancy.

With a full line of over 550 tensioners globally, you can count on Gates to supply premium quality tensioners you can depend on.

Gates ensures that every tensioner they manufacture is built to rigid tolerances and specifications that guarantee OE fit, form and function.

Premium grade parts eliminate the need to worry about customer comebacks or expensive repairs impacting your bottom line.

For more information about Gates DriveAlign® Automatic Belt Tensioners, talk to your Gates Representative or visit: www.GatesAustralia.com.au.
## GATES DRIVEALIGN® TENSIONERS

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## VALUE GRADE TENSIONERS

- No OE experience means parts are reverse engineered with no system knowledge

- Imprecise and inconsistent assembly tolerance leads to customer complaints of noise, vibration or belt jump

- Inferior damping control results in potential for system malfunction or angry customers with vibration complaints

- Inferior casting quality could lead to housing cracking and premature failure

- Poor sealing with multiple paths for contaminants to enter internal components, drastically reducing life

- Low durability parts with poor life expectancy

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**Quality is Remembered Long After Price is Forgotten.**
CRITICAL ROLE OF A BELT TENSIONER

An ABDS tensioner’s primary job is to automatically adjust the tension in the serpentine belt to ensure proper function and reliability. These tensioners also have the important job of damping peak loads during engine acceleration and deceleration as well as damping vibrations caused by the engine firing.

PREMIUM VS. VALUE GRADE TENSIONERS - WHERE IS THE “VALUE?”

The body of a tensioner must withstand the forces and vibrations encountered during operation. There is a large difference between premium and value grade casting quality.

Premium parts have very consistent grain structures with no discontinuities or porosity.

Value grade parts exhibit inconsistent grain structure resulting in inferior strength. Even the slightest misalignment of a value grade part during installation can lead to failure. Worse yet, because of location, a broken or cracked casting may be hard to detect, leading to potential safety issues.

TENSION

Belt tension is determined by power requirements of each accessory and drive geometry.

Properly aligned belt

Improper tension caused by value grade tensioners can lead to accelerated belt and component wear.

ALIGNMENT

Tensioner pulleys must operate within the same plane as the belt. Any tilt or offset can cause accelerated belt wear, noise and in extreme cases, the belt can jump off the drive.

Premium tensioners hold tight alignment tolerances using precision assembly and machining practices to ensure reliable service.

Value grade parts are reverse engineered and reveal poor alignment right out of the box.

CAVING = LACK OF PRECISION IN MANUFACTURING OF INFERIOR RAW MATERIALS

CASTING

Premium tensioners use premium friction materials and damping systems with no understanding of system requirements.

DAMPING

Damping is a critical attribute of any belt tensioner — smoothing peak loads and system vibration.

Premium tensioners exhibit consistent grain structure and use proprietary damping systems that mimic complex human systems.

Value grade tensioners attempt to mimic complex damping systems with no understanding of system requirements.

Without proper damping, belt noise, vibration and accelerated wear are likely resulting in customer comebacks.
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