

Zetasassi products are available from: MARYLAND METRICS

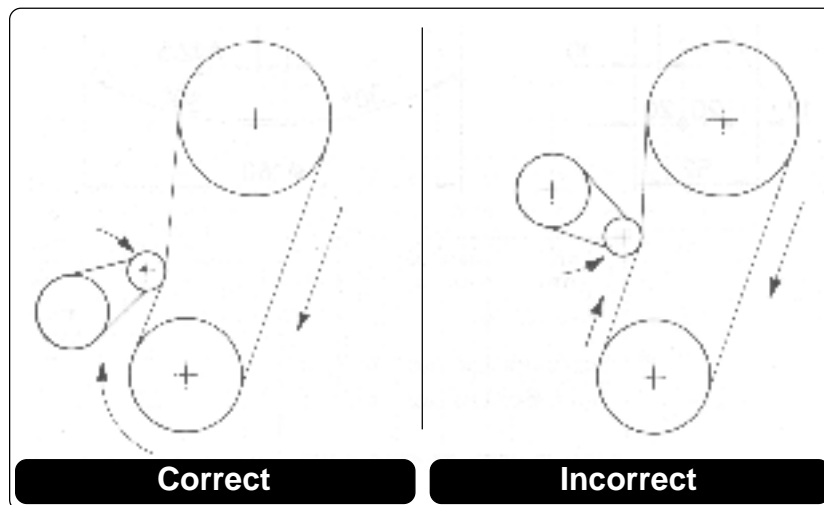
## Introduction to Belt and Chain Tensioners

Zetasassi Belt and Chain Tensioners are available from: Maryland Metrics for customers in the US, Canada and Mexico. These well-made tensioners will improve the operation of belt and chain drives by many hours by keeping the tension constant. This occurs because the tensioners create a:

- 1) Reduction of noise.
- 2) Uniform and more efficient transmission of drive torque.
- 3) Decrease in wear.
- 4) Increased life of belts and chains.

These units are easy to install and maintenance-free. The spring-loaded units, available in rotational and linear movement types, will automatically keep the tension constant, eliminating frequent manual adjustments which would interrupt the operation of the machinery.

All tensioners should be installed on the slack side of belts and chains. For rotational movement units, please make sure to install the units, as shown below.

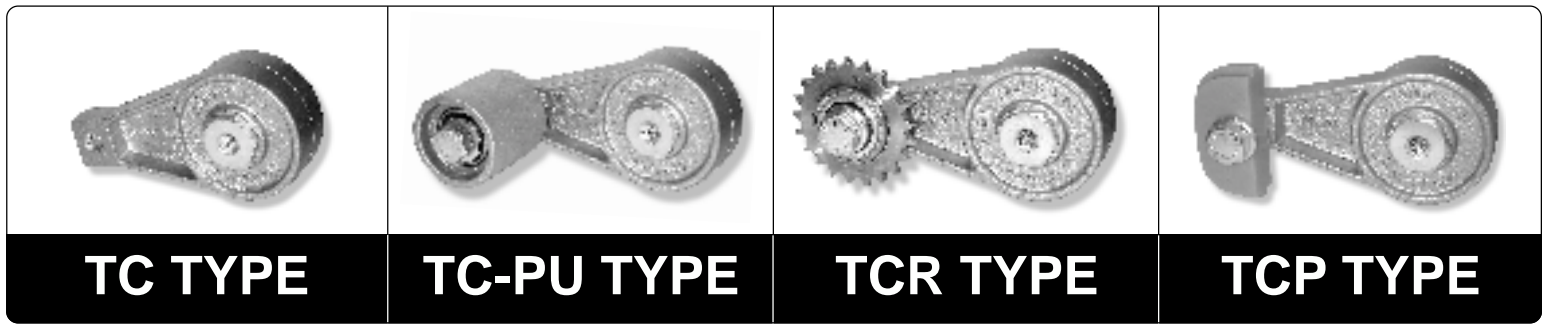


It is also recommended, for both rotational and linear tensioners, that the tension force be applied from the outside of the belt or chain loop as to not reduce the wrap-around angles of the belt or chain over the pulleys or sprockets.

As shown in the pictorial index on page 4, several designs of tensioners are offered as arm only, arm with roller attached for belts, arm with sprocket attached for chains, or arm with polyethylene sliding head for chains.

Further variations are offered, as well as replacement heads, as shown in the pictorial index on page 5.

Most chain tensioners are also offered with ASA or ISO single, double and triple chain heads. Availability of heads other than for single chain is given on each product page.

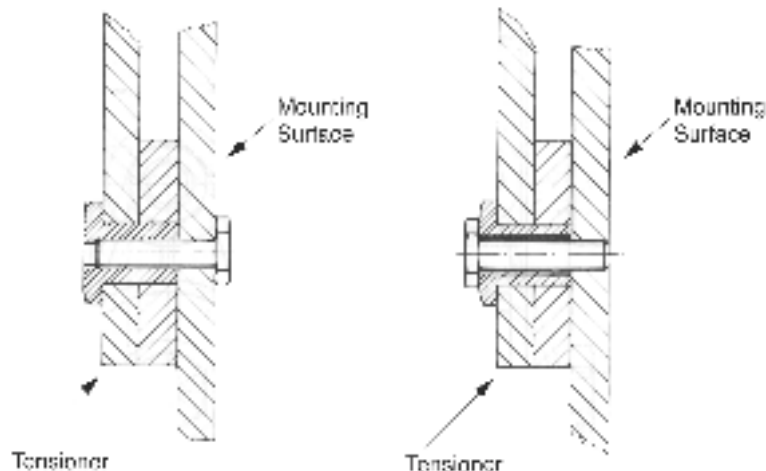


Type TC, TC-PU, TCR and TCP (pages 30 thru 33)

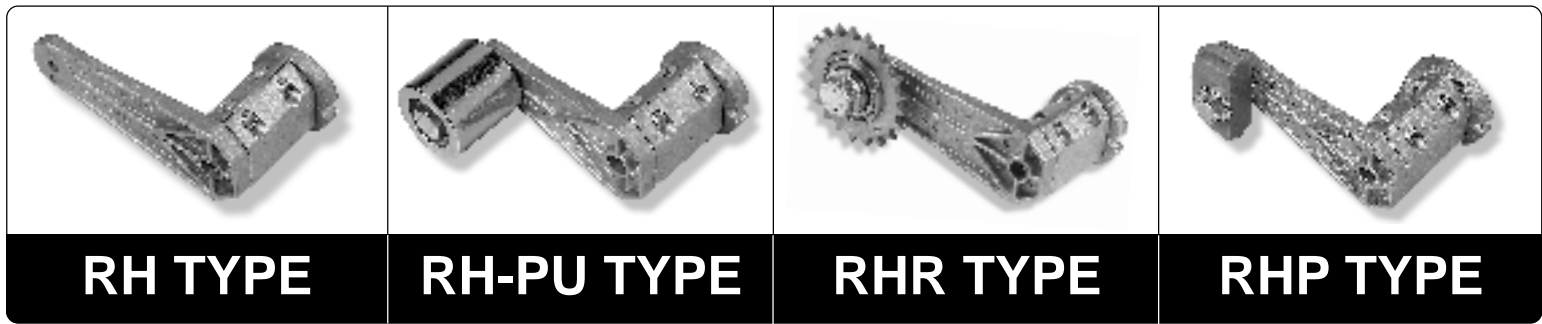
- Levers in high-tensile light alloy (except the smallest size which is plastic).
- Pulleys in zinc plated steel, aluminum or nylon.
- Sprockets in steel or hardened steel.
- Pulleys and sprockets have double-seal permanently oiled ball bearings.
- Sliding head's orientation is adjustable, and it is made of low friction, wear-resistant polyethylene (dynamic friction coefficient of 0.06 on dry steel) with maximum operating temperature of 65°C (149°F).

These tensioners take up the chain or belt slack, and keep the tension constant without the operator making any adjustments over a range of approximately 45° (30° for the largest size).

- Can operate at temperatures above 100°C (212°F)(except TCP series).
- Uses special steel springs with an extreme high yield point and prestress, so as to maintain the pressure as constant as possible throughout the range.
- Can be assembled either from inside or outside of the machine (see the illustration below).



**QTC, Econobelt & Zetasassi products are available from: MARYLAND METRICS**  
**P.O.Box 261 Owings Mills, MD 21117 USA E-mail: sales@mdmetric.com**  
**phones: (410)358-3130 (800)638-1830 faxes: (410)358-3142 (800)872-9329 url: http://mdmetric.com**  
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Type RH, RH-PU, RHR and RHP (pages 34 thru 37)

- Lightweight levers in high-tensile light alloy.
- Pulleys in zinc plated steel, aluminum or nylon.
- Sprockets in steel or hardened steel.
- Pulleys and sprockets have double-seal permanently oiled ball bearings.
- Sliding head's orientation is adjustable, and it is made of low-friction, wear-resistant polyethylene (dynamic friction coefficient of 0.06 on dry steel) with maximum operating temperature of 65°C (149°F).

These lightweight tensioners take up the chain or belt slack, and keep the tension constant without the operator making any adjustments over a range of approximately 30° of motion.

In a typical application, the following benefits were achieved\*:

- 23% increase of chain life.
- 7% reduction of vibrations.
- 12% reduction of noise.
- Reduction in chain slackening.
- Elimination of the need for maintenance.

\* The actual values will vary depending on the operating environment, type of lubricant and the conditions of the machine.

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**ET TYPE**



**ET-PU TYPE**



**ETR TYPE**



**NT TYPE**

The ET, ET-PU and ETR consist of die-cast alloy bases and mounting heads on which rollers or sprockets are attached via spring-loaded steel sliding arms. These units are also available with an integral "End-of-stroke" sensing switch which is not retrofittable and must be ordered at the time of initial purchase.

The NT series consist of die-cast alloy bases, zinc-plated steel sliding arms and polyethylene heads.

The ET series are especially suitable for high temperature operations over 100°C (212°F), since they are 100% metal.



**ORIENT1 TYPE**



**ORIENT1-PU TYPE**



**ORIENT1-R TYPE**



**ORIENT1-P TYPE**

The ORIENT1 series tensioners are not spring-loaded. They have the feature of being able to swivel in any direction, both before and after installation. The teeth built into the two mating parts allow the arm to be positioned every 15° throughout the entire 360° revolution relative to the base. At each of these 15° positions two of the eight holes in the arm align with the threaded holes in the base, so that the screws supplied with the unit can fasten the arm at the desired position. While these units lack the convenience of automatic tension adjustment, their simplicity and versatility in orienting and positioning offer an advantage in certain applications.

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