



The Advantages at a glance:

- easy-handling
- contactless measurement with one-sided belt touch
- measuring on all belt types including all different types of tension members, e.g. steel, Kevlar, glasfiber
- reliable measuring results that are highly reproducible
- connection for external sensor for measuring hard-accessible parts
- an LCD indicating how full the battery is
- optical and acoustical indication of necessity of battery change

Pre-Tension

Pre-tension highly influences the operating conduction and life of the whole gearing. It is therefore one of the few figures which the user of tooth-belt drives has to set for himself. Pre-tension depends on the geometry and the stress of the tooth-belt drive so that the high values of the positioning and repetition precision are attainable, and through that the desirable transmitting behaviour can only be realised under the condition of a certain pre-tension. For this reason it is advisable to set and control the pre-tension of the tooth-belt by using the belt-tension measuring instrument, BRECO Measuring Device TSM alpha 2.

BRECO Measuring Device TSM alpha 2

The fully electronic measuring instrument enables the controlling of the set-up pre-tension in tooth-belt drives in a very easy and secure way. Special sensors register the vibration of a tooth-belt that has been stimulated in advance. The instrument registers the belt's self-frequency. The light insensitive sensors allow for a relatively high measuring distance between the sensor and the belt. For this reason the instrument is very well adjusted to production and installation/ assembly conditions. Using the basic physical principle of a string vibration, the pre-tension and self-frequency of the belt are connected with each other. It is therefore an easy and fast task to calculate the belt's pre-tension according to the measured frequency.

Technical data:

measuring range	5 to 500 Hz
measurement dissolution	1 Hz
maximum measurement tolerance	± 1 Hz (more than 100 Hz ± 2 Hz)
measurement display	3-digit LCD-display
power consumption	in operation approx. 60 mA (3V) on stand-by approx. 0.03 mA
dimension (L x W x H)	120 mm x 65 mm x 30 mm
weight	160 g
sensors	external Sensor with \varnothing 15,5 mm and 125 mm in length and connection cable with mini-USB-socket
battery	2 pieces of 1.5V battery type Micro AAA
information provided by the display	"3.07 V Bat": battery level = 3.07 V „000“: instrument ready for measurements „Bat“: change of battery necessary „OFF“: The device is switching off
testing intervals	The instrument should be tested by the manufacturer every two years. Please contact the BRECO sales partner.