

Belt tools

SKF Belt Frequency Meter PHL FM 10/400

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One of the most accurate belt tension measurement methods

Correct belt tension is crucial for the whole drive system, its service life and the service life of associated components such as bearings and seals. Therefore, it is important to get accurate and reliable results when measuring belt tension.

The SKF Belt Frequency Meter is one of the most accurate tools available for measuring belt tension. Readings are quick, reliable and, most importantly, repeatable. The tool is extremely easy to use and minimizes the risk of errors.

Wide range of applications

The SKF Belt Frequency Meter consists of a hand-held meter and an optical sensor to provide contact-free belt tension measurements for most of the following belt types, even in a noisy environment:

- V-Belts (wrapped, cogged raw edge, ribbed)
- Banded V-Belts
- Timing belts

The SKF Belt Frequency Meter is capable of measuring belt vibration frequencies from 10 to 400 Hz. Based upon the measured belt frequency, the SKF Belt Frequency Meter calculates belt tensions up to 9 900 N (2 200 lbs.).

Easy and quick to use

- Simply key-in the span length and mass data. Data can also be saved and recalled for repeated use, if necessary
- Aim sensor at centre of selected belt span and pluck or tap the belt
- The display will show the measured frequency which can be toggled to either newton or pound force values
- Readjust the belt tension, if necessary, and take another measurement to confirm correct tension



Belt tools
SKF Belt Tension System

**High quality belt drive maintenance –
reduces time and effort**

The SKF Belt Tension System is a motor base for electric motors. Due to the system’s hydraulic cylinders, belt maintenance becomes an easy task. The SKF Belt Tension System allows quick belt replacement and tensioning, while not disturbing the initial alignment. By connecting a hand-held hydraulic pump, the cylinders of the SKF Belt Tension System can be moved up and down. This enables a controlled moving of the motor axis which is directly related to the belt tension and the pressure in the cylinders. This unique function allows for quick and easy belt tension checks as well as belt replacements.

Additional required and recommended tools:
Only a hammer and a hand-held hydraulic pump, such as the SKF THPT1, are required for using the SKF Belt Tension System. Additionally, it is recommended that you use a laser alignment tool, e.g. the SKF Belt Alignment Tool TMEB 2, and the SKF Belt Frequency Meter for checking the tension of the belt when the SKF Belt Tension System is initially installed.

Selection guide for the SKF Belt Tension System:	
Designation	IEC Motor class
PHL 160/180 H1	160 and 180
PHL 200/225 H1	200 and 225
PHL 250/280 H1	250 and 280
PHL 315 H1	315
PHL 355 H1	355
PHL 400 H1	400

In addition, several NEMA standard motors can be mounted on the SKF Belt Tension System. To do this, please contact SKF for additional information.

- Various benefits for the belt drive achieved by use of this system**
- Alignment is necessary only once, independent of the number of belt replacements
 - Safe, simple and fast belt replacement
 - Less costly, time-consuming breakdowns of the whole system
 - Less vibration improves system efficiency
 - Quick and reliable tension checks
 - Easy preventive maintenance
 - Repeatable maintenance quality
 - Reduced costs due to prolonged belt life



Belt tools

SKF Belt Alignment Tool TMEB 2

SKF Belt Alignment Tool TMEB 2

Belt-driven machinery downtime caused by misalignment is a thing of the past

The SKF Belt Alignment Tool, TMEB 2, aligns the pulleys where it counts most – in the grooves. V-guides and powerful magnets allow the TMEB 2 to be fitted in the grooves of the pulley. With only two components, a laser-emitting unit and a receiver unit, the TMEB 2 is fast and easy to attach. The three-dimensional target area on the receiver unit allows the easy detection of misalignment as well as its nature; whether it is horizontal, vertical, parallel or a combination of all three. Armed with this precise information, the operator can easily make the appropriate adjustments until the laser line corresponds with the reference line on the receiver unit.

Versatile and user-friendly

- Powerful magnets allow fast and easy attachment
- Easy-to-use, requires no special training to operate
- Three-dimensional target area simplifies the alignment process
- Facilitates simultaneous adjustment of tension and alignment
- V-guides facilitate the alignment of a wide range of V-belt pulleys
- Special side adaptor, allowing alignment of multi-ribbed and timing belt pulleys as well as chain sprockets, is available as accessory
- A maximum operating distance of 6 meters (20 ft.) makes it suitable for use in various applications
- Sturdy aluminium housings provide great assembly stability and accuracy

Pinpoint accuracy with laser technology

- Aligns grooves of the pulley rather than its face, allowing the alignment of pulleys of unequal width or with dissimilar faces – even fits applications where the pulley face cannot be used as a reference
- No trial and error. The laser position indicates the nature of misalignment allowing easy and accurate adjustment

