

Belt tools

SKF Belt Frequency Meter PHL FM 10/400

SKF Belt Frequency Meter PHL FM 10/400

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

