

# Tools

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Ensuring long belt life and optimum performance requires more than a quality belt. Carlisle® belts by Timken are backed by a team of experienced sales people, expert engineers, and an array of useful tools that can assist you in properly selecting, installing and maintaining your equipment to realize superior efficiencies and maximum belt life – saving you time and money.

Always eager to assist you in analyzing or designing your next drive, Timken can provide training and guidance in the use of these tools.

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## Drive Engineer

Drive design software can be downloaded at: [www.carlislebelts.com/drive-engineer](http://www.carlislebelts.com/drive-engineer), or scan the QR code provided.

This Windows®-based program is user friendly and facilitates both new drive selection as well as existing drive analysis. The package includes information about part numbers, pricing, horsepower capacity, warnings for drive limits, service factors, hub loads, bushings, diameters, center distance and tensioning – in short, everything needed to design a maximum-efficiency drive system. Drive Engineer is a new generation of analysis software that helps end users increase their drive efficiency, drive life and overall knowledge of belt drives.

Windows® is a registered trademark of Microsoft Corporation.



## PowerMiser

Use the PowerMiser program to calculate the savings you'll realize with Carlisle® belts by Timken.

Simply enter the basic parameters of your drive system such as hours used per year, motor rating (HP), and motor efficiency. Plug in your local utility rate, and select an energy efficient Carlisle belt. PowerMiser does the rest, providing estimated annual energy costs, savings and payback.

PowerMiser is included with Drive Engineer software or can be downloaded as a separate tool at: [www.carlislebelts.com/powermiser](http://www.carlislebelts.com/powermiser) or scan the QR code provided.



## Industrial V-Belt Drives Service Manual

Proper belt tensioning and alignment are important for energy efficiency and drive life. Consult Timken's "Industrial V-Belt Drives Service Manual" for helpful tips on proper installation and maintenance of belt drives.

Available at: [www.carlislebelts.com/service manual](http://www.carlislebelts.com/service manual), or scan the QR code provided.



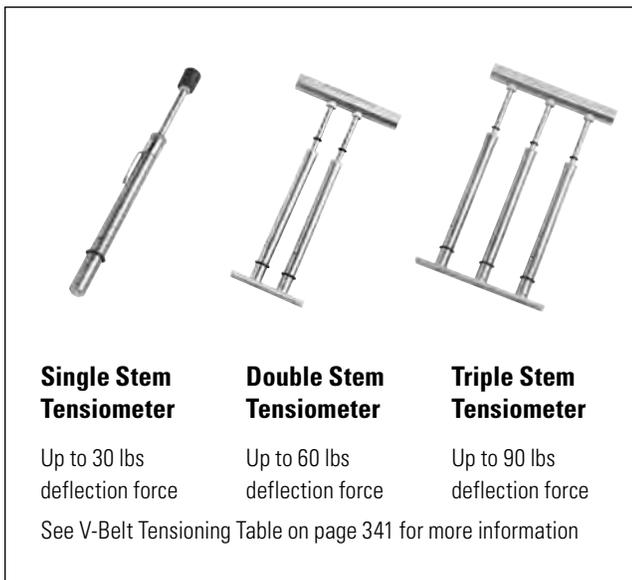
## Tension-Finder® V-Belt Tensioning Device

### Part Number 108039-A

Eliminate your tensioning headaches with the "Tension-Finder®" – a simple, easy and accurate alternative for tensioning individual v-belts or bands.

- No measurements
- No math
- No computers
- No o-rings

NOTE: Not for use on belts with aramid, glass or carbon fiber cords.



## Spring-Loaded Tensiometer

Single Stem

**Part Number 102761**

Double Stem

**Part Number 105575**

Triple Stem

**Part Number 105576**

Proper belt tensioning is one of the most important factors for satisfactory operation and long service life. Too little tension will result in slippage, causing rapid belt and sheave wear. Too much tension can result in excessive stress on the belts, bearings, and shafts.

The force required to deflect a span length by a given amount is related to the tension in the belt. The tensiometer measures that deflection. It can be used on v-belts, banded belts or synchronous belts.



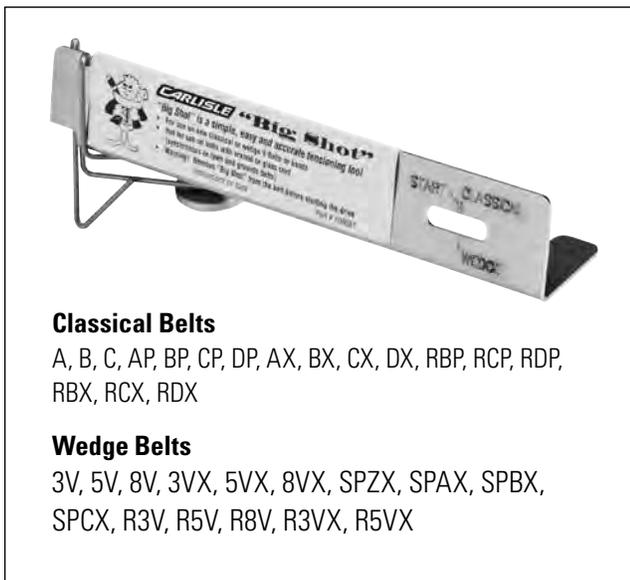
## Frequency-Finder

### Part Number 109061

The Frequency-Finder is an electronic instrument that precisely measures the frequency used to calculate the static tension in synchronous, v-belts, and v-ribbed belts. It displays the frequency on an LCD screen.

The Frequency-Finder works on the principle of forced vibration. The frequency of vibration is related to the tension of the belt, i.e. the higher the frequency reading, the higher the belt tension.

- Measures the natural frequency of vibration in the belt span
- Simple, fast, repeatable and reliable
- Can be used on any type of belt
- Most precise method



### Classical Belts

A, B, C, AP, BP, CP, DP, AX, BX, CX, DX, RBP, RCP, RDP, RBX, RCX, RDX

### Wedge Belts

3V, 5V, 8V, 3VX, 5VX, 8VX, SPZX, SPAX, SPBX, SPCX, R3V, R5V, R8V, R3VX, R5VX

## Big Shot Tensioning Device

### Part Number 109081

A big shot is important and influential. A big shot has a reputation for getting the job done. The Timken "Big Shot" is a quick, easy and accurate device for tensioning new v-belts or bands. It's half the size of the Tension-Finder for use on drives with span lengths of 6"-12", including some HVAC applications.

Proper tensioning is necessary for long, satisfactory operation of any belt drive. Big Shot can be used to tension new classical and wedge v-belts or bands.

NOTE: Not for use on belts with aramid, glass or carbon fiber cords.



## Laser-Align

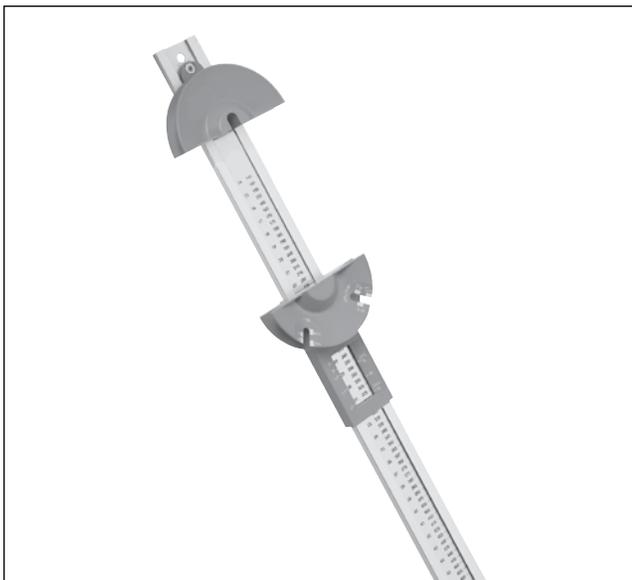
### Part Number 109083

Laser-Align is a tool for fast and accurate alignment of belt drive pulleys. Laser-Align is magnetically mounted against the side of one of the pulleys and two magnetic targets are placed against the top, bottom or side of the opposite pulley. The laser projects from the end of the tool onto the targets allowing the user to quickly correct all types of misalignment between the pulleys. Only one person is needed to perfectly align your drives.

Along with proper tensioning, alignment is critical to satisfactory belt life and performance.

A properly aligned drive saves money.

- Reduces wear
- Reduces vibration
- Increases belt life
- Increases energy savings



## Belt-Finder®

### Part Number 93859

This belt measuring device helps you easily find the correct replacement belt. A quick check shows the top width and length of classical (A and B section belts), wedge (3V and 5V section belts) and all FHP belts. The Belt-Finder measures belts up to 100 inches.



## Wallboard Display

### Part Number 93899

A popular inventory and display system for v-belts. One box includes 10 boards and 80 hooks. Each board is 36 inches long. The standard 6-inch hooks extend 5-3/8 inches. Extra hooks come in boxes of 25.

6" hooks, box of 25

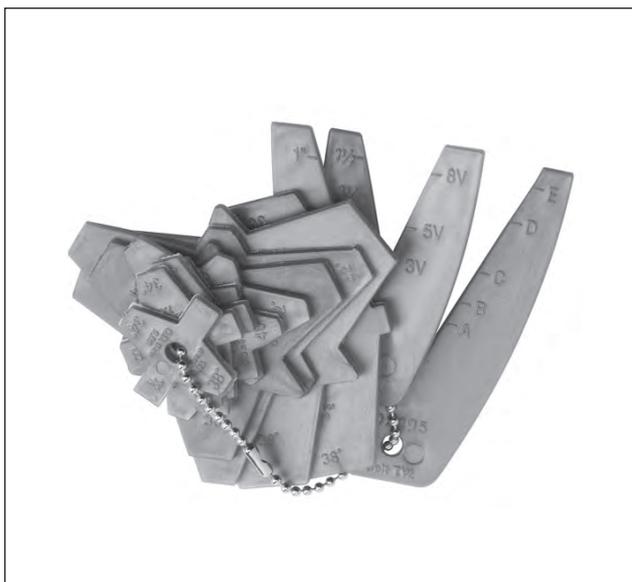
8" hooks, box of 25

12" hooks, box of 25

**Part Number 93899-H6**

**Part Number 93899-H8**

**Part Number 93899-H12**



## Sheave Gauges

**Imperial Set – Part Number 102495**

**Metric Set – Part Number 102496**

Sheave condition and alignment are vital to v-belt life and performance. New v-belts should never be installed without a thorough inspection of the sheaves. Particular attention should be given to wobbling sheaves, a shiny groove bottom and worn groove sidewalls.

Use the sheave gauge to accurately check grooves for wear. A flashlight held behind the template, when placed in the groove, will help you observe the amount of wear. Wear should not exceed 1/32" for individual v-belt drives and 1/64" for banded belt drives.

