

PULLEY APPLICATION GUIDE

REMOVING WORN V-BELTS

When preparing to install a new set of V-Belts, turn off the machine, lock electrical control switches where possible, and make sure all components are in a safe position. Be sure to follow the company safety standards and procedures that apply to your area and job.

Most drives have two pulleys/sheaves, one on the motor and one on the drive machine. The motor case usually has slotted holes to allow for adjustment toward and away from the drive machine. Loosen the motor hold down bolts and drive the motor toward the drive machine to the inner end of the adjustment to release the tension belts. Use a pry bar against the motor base if needed. The belts should now be quite loose. If the drive has an idler instead of an adjustable motor base, loosen the hold down bolts and swing the idler away from the belts, allowing them to hang loose. Be sure to use all the adjustment in the drive to loosen belts completely.

Now remove the belts carefully from each sheave/pulley. Do not move motor or machine after belt removal.

WARNING—AVOID SERIOUS INJURY

Do not pry belts off drive or attempt to roll them off by rotating pulleys/sheaves. In doing this, you can severely cut your fingers or hands and may receive serious and/or permanent injury.

INSPECTING PULLEYS/SHEAVES AND COMPONENTS

Check the pulleys/sheaves carefully for worn grooves or damage. (Safety tip: Always use gloves or a cleaning rag when checking the inside of grooves to avoid being cut by nicks or burrs.) Sometimes you can actually see the worn areas in the groove sidewall, but a more dependable way is to use a Sheave Gauge.

If pulleys/sheaves are excessively worn, remove them and replace with new ones. Worn pulleys/sheaves can seriously shorten the life of V-Belts, especially joined belts. If original pulleys/sheaves are satisfactory, or if new ones have been installed, put new belts on the drive as shown below.

NOTE: While drive is shut down, inspect all other drive components such as shafts, bearings and guards. Repair or replace damaged and worn parts.

INSTALLING AND TENSIONING NEW V-BELTS

With the pulleys/sheaves or idler moved to minimum center distance for belt removal as described above, the new belts can be easily placed over the pulleys/sheaves and dropped into the grooves. (If the motor has been moved, readjust to provide slack for easy installation.)

TENSION YOUR DRIVE PROPERLY

Your final installation step is to tension your drive properly for trouble-free service. In general, a few simple rules will eliminate tension problems:

- The best tension for a V-Belt is the lowest tension at which the belt will not slip under a full load.
- Simply take up the drive until the belts are snug in the grooves. Run the drive for about 15 minutes to “seat” the belts. If the belts slip, tighten them until they no longer slip at the peak load.
- Remember, too much tension shortens belt and bearing life.
- Check tension at the end of the first day’s operation. Check it periodically thereafter and make any necessary adjustments.

Although tensioning of a V-Belt drive is usually not critical, accurate tensioning can help assure proper drive performance. We realize that many experienced maintenance personnel have developed a “feel” for belt tension—but because of improved materials now being used by many manufacturers, today’s belt can “feel” considerably different on the drive.

