Belt Storage and Handling

Proper belt storage impacts performance

Storage Recommendations

Belts should be stored in original packaging.

In order to retain their serviceability and dimensions, proper storage procedures must be followed for power transmission belts. Quite often, premature belt failures can be traced to improper belt storage procedures that damaged the belt before it was installed on the drive. By following a few guidelines, these types of belt failures can be avoided.

Recommended

Belts should be stored in a cool and dry environment with no direct sunlight. Ideally, belts should be stored at less than 85°F and with lower than 70% relative humidity.

Not Recommended

Belts should not be stored near windows, which may expose the belts to direct sunlight or moisture.

Belts should not be stored near heaters, radiators, or in the direct airflow of heating devices.

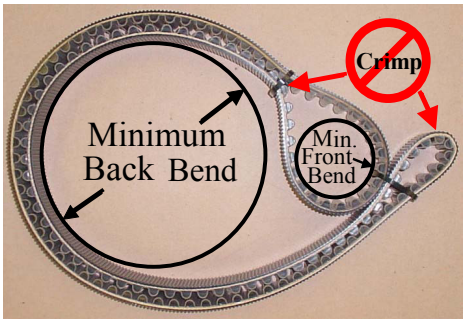
Belts should not be stored near any devices that generate ozone such as transformers and electric motors.

Belts should not be stored where they are exposed to solvents or chemicals in the atmosphere.

Improper storage techniques can damage the tensile cords and cause premature failure.

Do not store belts on the floor.

Do not store belts on the floor unless they are in a protective container. Floor locations are exposed to traffic that may damage the belts.



On stored equipment, relax belt tension.

Do not crimp belts during handling or while being stored. To avoid this, belts must not be bent to diameters smaller than what is recommended (minimum recommended diameter for inside bends and 1.3 times the minimum recommended diameter for back side bends).

Do not use ties or tape to pull belt spans tightly together near the end of the belt.

Do not hang on a small diameter pin that suspends all of the belt weight and bends the belt to a diameter smaller than the minimum recommended diameter. Improper storage will damage the tensile cord and the belt will fail prematurely.

Handle belts carefully when removing from storage and moving to the application.

Storage Effects

Belts may be stored up to six years if properly stored at temperatures less than 85°F and relative humidity less than 70%.

For every 15°F increase in storage temperature above 85°F, the time the belt can be stored without reduced performance decreases by one-half.

Belts should never be stored at temperatures above 115°F.

At relative humidity levels above 70%, fungus or mildew may form on stored belts. This has minimal affect on belt performance, but should be avoided if possible.

When equipment is stored for prolonged periods of time (over six months), the belt tension should be relaxed so that the belt does not take a set, and the storage environment should meet the 85°F and 70% or less relative humidity condition. If this is not possible, belts should be removed and stored separately in a proper environment.

To learn more about proper belt storage and handling procedures, contact your Gates representative about the Preventive Maintenance Training Kit, available from authorized Gates Distributors (product #9975-0002). The kit includes a DVD presentation as well as training materials for 10 people.

For more information about Belt Failure Analysis and to download our Preventive Maintenance Manual visit www.gates.com/analysis.