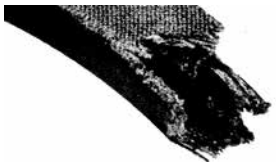
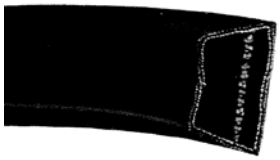
V-Belt Maintenance Tips

MASTERDRIVE®
POWER TRANSMISSION PRODUCTS

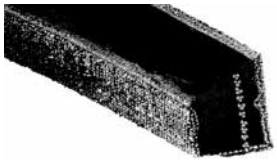
How to Diagnose V-Belt Failure



Snub Break
Cause
Cover wear indicates slip. Clean break reveals sudden snap.
Prevention
Maintain proper tension on the drive.



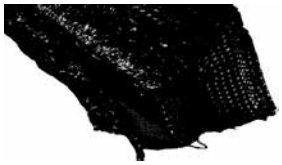
Distorted Belt
Cause
Breakdown of adhesion or broken cords.
Prevention
Do not pry belts on drives. Check sheaves for recommended diameters.



Abrasion
Cause
Foreign material and rust in sheaves wore away sidewalls, letting belt drop to bottom of groove.
Prevention
Dust guards help protect against abrasion. Tension must be maintained in dusty atmospheres.

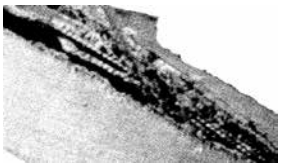
Oil Deterioration
Cause
Oil-softened rubber.
Prevention
Splash guards will protect drives against oil. Although Classical belts are oil resisting, excessive oil can cause some deterioration.

Cover Fabric Rupture
Cause
Cover fabric ruptured when belt was pried over sheave during installation.
Prevention
Proper installation of belts by moving motor so belts do not have to be pried into the grooves.



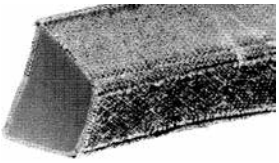
Slip Burn
Cause
Belt too loose. Belt didn't move, friction against sheave burned rubber. When belt finally grabbed, it snapped
Prevention
Maintain proper tension on the drive.

Base Cracking
Cause
Sever back-bend idlers. Improper storage. Excessive ambient operating temperature.
Prevention
Check storage conditions. If back-bend idler cannot be avoided, install idler for larger diameter. Avoid ambient temperature over 140°.



Ply Separation
Cause
Split along pitch line indicating belt ran over too small a sheave.
Prevention
Redesign drive using sheaves of proper size.

Ruptured
Cause
Ruptured cords in the plies.
Prevention
Check for rocks or tools falling into sheave grooves. Check tension. Belts loose enough to twist in groove can rupture cords.



Worn Belt Sides
Cause
Misalignment. Grit or dirt. Normal wear.
Prevention
Align sheaves. Replace belts as required.

V-Belt	Belt Section	Minimum Sheave Pitch Diameter
Classical	A	3”
	B	5.4”
	C	9”
	D	13”
	E	21”
Classical Cogged	AX	2.2”
	BX	4”
	CX	6.8”
Narrow	3V	2.6”
	5V	7.1”
	8V	12.5”
Narrow Cogged	3VX	2.2”
	5VX	4.4”

Safety should be your number one concern.
* Always turn equipment OFF before installing a belt.
* Every v-belt should have a proper belt guard.
* Before installation, check safe speed limits for sheaves.
* Before installation, lock out the disconnect switch, control valve or the like.
* Wear gloves when inspecting sheaves to prevent injury from burrs.