

Troubleshooting

Problem	Likely Causes	Possible Solution
Mismatched Belts	Mixed old and new belts. Drive misaligned. Worn pulley. Belts ride at different positions in grooves. Belts undertensioned. Mixed brands/types of belts.	Replace with new set. Belts get looser moving across drive. Realign drive. Replace sheaves. Position belts so all slack is on lower side. Retension. Replace belts with matching belts from one manufacturer.
Belts Stretch Too Much	Insufficient take-up. Overloaded. Belt tension is too high. Not possible to provide adequate take-up.	Provide necessary take-up. Redesign with larger pulleys or more belts. Retension to appropriate level. Use a shorter belt or provide additional take-up with idler.
Belts Slip or Squeal	Drive undertensioned. Drive overloaded. Pulleys worn, belt bottoms in groove. Oil or grease on drive. Insufficient angle of contact.	Retension to appropriate level. Redesign with larger pulleys and/or more belts. Replace pulleys. Provide shielding to keep drive clean. Redesign drive.
Belts Break	Improper belt installation. Belt levered or rolled into pulley, cord damage. Insufficient belt tension, belt whipped on start-up or under shock. Shock loads. Drive underbelted or undertensioned. Foreign material in drive. Excessive tension.	Install new belt properly. Tension properly. Reduce shock loads and/or check drive design. Provide shielding to keep drive clean. Tension properly.
Belts Jump Grooves or Turn Over	Drive misaligned. Belts undertensioned. Idler not properly located. Center distance not fixed. Excessive lateral whip and/or vibration. Interference from foreign objects.	Realign drive. Retension to appropriate level. Consult idler placement recommendations. Reinforce framework or use deep groove pulleys. Shorten center distance, add idler, or use banded belts. Provide shielding to prevent foreign objects from entering drive.
Belt Vibration	At or near resonant frequency. Pulsating load. Unbalanced pulleys. Shafting or frame too light leading to excessive vibration. Insufficient tension. Improper belt installation. Belt levered or rolled into pulley, cord damage. Worn pulleys. Drive misalignment.	Change center distance significantly, use banded belts, or add idler. Increase tension or increase flywheel effect of driven shaft. Use dynamically balanced pulleys. Do not exceed max RPM rating. Redesign or reinforce drive. Provide necessary tension. Install new belt properly. Replace sheaves. Realign drive.
Belts Weathered or Cracked	High ambient tension. Excessive heat caused by slipping. Pulley or idler too small, excessive belt flex. Chemical damage. Improper storage. Exposure to elements.	Provide ventilation. Check for causes of slip. Redesign drive. Provide larger diameter pulleys. Provide shielding to keep drive clean. Ensure proper storage of belts.
Belts Wear Rapidly	Belt hitting guard or frame. Drive misaligned. Worn pulleys. Drive overloaded. Debris entering drive. Improper belt installation. Belt levered or rolled into pulley, cord damage.	Allow adequate clearance. Ensure roper alignment. Replace sheaves. Check drive design. Provide shielding to keep drive clean. Install new belt properly.
Sticky or Swollen Belt Surface	Oil or chemical contamination.	Do not use belt dressings. Eliminate sources of contamination.
Belt Delamination	Sheave or idler too small for belt section.	Choose pulleys with appropriate diameters.
Banded Belt Backing Damage or Separation	Worn or incorrect sheaves or groove spacing. Rubbing on frame or guard. Idler malfunction.	Ensure pulleys meet applicable pitch tolerances. Allow adequate clearances. Check that idler moves freely.