



Potential Failure Mode and Effects Analysis

Component Name Component Function	Potential Failure Mode	Potential Effect(s) of Failure	Severity	Potential Cause(s) of Failure	Occurrence	Design Controls		Detection	RPN SxOxD
						Prevent	Detect		
Gates V-belts									
Transmits power via torque from drive sheave to one or more driven sheaves in a specific configuration installed at recommended tensions.									
	Belt tensile break	Drive fails to function	8	High dynamic peak loads greater than design input value and belt capacity	2	Drive design software and PTPA Support Line	Drive design review	2	32
	Edge cord failure	Reduced belt life	7	Sheave misalignment	3	Proper installation procedure	PM program; inspection	2	42
	Sidewall wear	Reduced belt life	7	Sheave misalignment	3	Proper installation procedure	PM program; inspection	2	42
				Worn sheaves	4	Replace worn sheaves	PM program; inspection	2	56
	Undercord cracking	Reduced belt life	7	Belt slippage	5	Follow tension recommendations	PM program; inspection	2	70
				Worn sheaves	4	Replace worn sheaves	PM program; inspection	2	56
				Underdesigned drive	2	Drive design software and PTPA Support Line	Drive design review	2	28
				Sheaves too small for belt section	1	Use larger diameter sheaves	Drive design review	2	16
	Belt surface hard or stiff	Reduced belt life	7	Hot drive environment	2	Improve drive ventilation	PM program; inspection	3	42
					1	Use belt with higher temperature rating	Drive design review	3	21