

Rolled Baking Band

Trouble Shooting Guide

Problem	Possible Cause(s)	Solution(s)
Belt not tracking properly	<ul style="list-style-type: none"> Product debris build up on rollers or support wear strips 	<ul style="list-style-type: none"> Check all rollers and belt support surfaces for debris build up and remove
	<ul style="list-style-type: none"> Drive & Idle Infeed rollers not set parallel to each other and 90° to conveyor centre line 	<ul style="list-style-type: none"> Adjust Infeed and drive roller so that they are at 90° to conveyor centre line. Do not track belt by adjusting end rollers. These must be set parallel to each other. See <i>"Tracking of Friction Driven Meshes"</i> guidelines
	<ul style="list-style-type: none"> Belt support rollers not set level and at 90° to conveyor centre line 	<ul style="list-style-type: none"> Adjust belt support rollers to be level and at 90° to the conveyor centre line. Return side tracking rollers can then be adjusted horizontally to track belt as per <i>"Tracking of Friction Driven Meshes"</i> guidelines
	<ul style="list-style-type: none"> Infeed roller belt tension/length adjustment rollers are not set to be equal on both sides (must be at 90° to conveyor centre line) 	<ul style="list-style-type: none"> Ensure that infeed belt length adjustment roller is adjusted equally both sides of the conveyor
	<ul style="list-style-type: none"> Uneven loading of product 	<ul style="list-style-type: none"> Check pattern of loading across width and adjust to give uniform loading
	<ul style="list-style-type: none"> Uneven temperature across belt in hot process 	<ul style="list-style-type: none"> Uneven temperature across width will cause uneven belt expansion. This will impact on the drive tension across the width of the belt. Adjust heaters to give even temperature pattern
	<ul style="list-style-type: none"> Belt stretched on edge 	<ul style="list-style-type: none"> If belt is stretched on one edge then the belt should be replaced. As a short-term measure (to continue production) consider flipping over every metre of the affected area of belting to help balance out the stretch on one side. With belt lengths in general being 100m+ in length you should consider carefully whether to adopt this practice as it would require multiple joins in the belt. Please remember this is only temporary as the belt has been damaged
	<ul style="list-style-type: none"> Original fitting sequence of belt lengths not in order of numbered boxes 	<ul style="list-style-type: none"> It is important that when fitting the belt lengths to the oven that they are fitted in box number order. This ensures that the number of coils across the width match at the join position
	<p>Note: It is normal to expect that each belt supplied will track differently to the previous belt. Refer to the <i>"Tracking of Friction Driven Meshes"</i> guidelines when fitting a new belt</p>	
Belt runs to one side	<ul style="list-style-type: none"> Drive & Idle rollers not set parallel to each other and 90° to conveyor centre line Belt support rollers not set level and at 90° to conveyor centre line 	<ul style="list-style-type: none"> Track belt according to the <i>"Tracking of Friction Driven Meshes"</i>
	<ul style="list-style-type: none"> This could be by over tensioning on one side, heating imbalance across width, non-uniform loading of product or belt damage in use 	<ul style="list-style-type: none"> To correct this run off condition it will be necessary to correct the straightness of the belt. This can be done as shown in the <i>"Straight Belt Adjustment Instructions"</i>. This procedure may have to be performed at various points in the length of the belt depending upon the severity of the belt run off

Belt Runout	Note: There will be some natural wander of the belt over both the drive & idle infeed roller which is due to the slight manufacturing variations in wire formation and tensile. This is normal and should not exceed 25mm of total travel across the roller. Therefore, ensure that all rollers & supports are in the order of 75mm to 100mm wider than the belt	
Belt slips on drive roller	<ul style="list-style-type: none"> Conveyor too long for belt specification Load too heavy for belt specification Operating temperature too high for belt specification 	<ul style="list-style-type: none"> Check with Wire Belt Company Technical Sales with full description of application
	<ul style="list-style-type: none"> Drive roller too small for the application to create enough contact friction drive 	<ul style="list-style-type: none"> Consider increasing the terminal end drive and idle shaft drum rollers Lagging existing roller with a high friction temperature resistant material such as Ferrodo brake drum lining material
	<ul style="list-style-type: none"> High friction between belt and wear strips/support rollers 	<ul style="list-style-type: none"> Reduce the friction between wear strips and the belt by using an alternative wear strip material Check all belt support rollers that they are free rotating
	<ul style="list-style-type: none"> Low or inconsistent belt tension 	<ul style="list-style-type: none"> Check operation of infeed tension/belt length adjustment roller mechanism and correct any operational defects
	<ul style="list-style-type: none"> Drive press roller (if fitted) does not exert enough pressure trapping the belt to the drive roller to maintain smooth drive operation 	<ul style="list-style-type: none"> Increase press roller pressure against belt until smooth belt drive is achieved Ensure press roller operates parallel to the drive roller it is working against
	<ul style="list-style-type: none"> Automatic belt take-up is stuck and failing to exert constant tension to belt 	<ul style="list-style-type: none"> Check the operation of belt take-up unit and ensure it is free to operate equally on both sides of the conveyor
	<ul style="list-style-type: none"> Belt take-up roller is at the end of its travel creating slack in the belt 	<ul style="list-style-type: none"> Remove a section of belt, adjust take-up and reconnect the belt ends. Refer to <i>"Mesh Joining Instructions"</i> for correct procedure
Curve to wire strands across width or Convex/Concave belt camber	<ul style="list-style-type: none"> Belt drag on one edge or position across belt width 	<ul style="list-style-type: none"> Check for uneven friction across width. It could be a rough wear strip, catching edge, product build up on rollers, uneven temperature across width, etc. There are many causes so a thorough investigation of the belt circuit and process is necessary. Contact Wire Belt Company Technical Sales if you are unable to locate and clear the problem.
	<ul style="list-style-type: none"> Belt mesh worn 	<ul style="list-style-type: none"> Inspect belt thoroughly particularly on its underside and replace belt if wear is excessive. Belt can be turned over if wear is not too excessive
	<ul style="list-style-type: none"> Uneven pressure of belt on drive roller if conveyor is fitted with a drive press roller 	<ul style="list-style-type: none"> Check and adjust drive pressure roller so that it is acting parallel and with even pressure across the width of mesh on the drive roller
	<ul style="list-style-type: none"> Temperature difference across belt is greater than 12°C 	<ul style="list-style-type: none"> Reset heat distribution pattern and check for ingress of cool air into the operating environment

Rapid belt wear	<ul style="list-style-type: none"> Belt slips on drive roller – see above. Support wear strips have sharp edges in contact with belt 	<ul style="list-style-type: none"> Remove all wear strip sharp edges to present a smooth surface for belt to run over. There should be no abrupt corners or edges of the support structure to impede smooth belt operation
	<ul style="list-style-type: none"> Surface level of carry way belt support wear strips are set too high in relation to the belt underside level as it exits the infeed roller or discharges to the out-feed roller 	<ul style="list-style-type: none"> The surface level of the carry way wear strips should be adjusted to the level of the infeed & discharge belt support rollers
Distortion of belt	<ul style="list-style-type: none"> Wear to belt support rollers 	<ul style="list-style-type: none"> Check and replace any rollers that are worn and uneven across width
	<ul style="list-style-type: none"> Product debris build up on rollers or belt support members 	<ul style="list-style-type: none"> Remove all debris and fit constantly operating scraper to any driven roller if debris build up persists
	<ul style="list-style-type: none"> Rollers are crowned 	<ul style="list-style-type: none"> All rollers must be straight & parallel (not crowned).
Damage to belt mesh	<ul style="list-style-type: none"> Support wear strips have sharp edges 	<ul style="list-style-type: none"> Remove all wear strip sharp edges to present a smooth surface for belt to run over
	<ul style="list-style-type: none"> Oven belt catching against in-feed product loading conveyor 	<ul style="list-style-type: none"> Check for damage to both loading conveyor & oven belts - action repair. Set loading conveyor to give adequate clearance to oven belt
	<ul style="list-style-type: none"> Discharge product scraper blade set too close to oven belt causing damage to oven belt (particularly the belt edges) & scraper blade. Discharge scraper blade damaged 	<ul style="list-style-type: none"> Check for damage to both discharge scraper blade & oven belt - action any repair to both. Set scraper blade to give adequate clearance to oven belt. Consider making the scraper blade in sections to reduce likelihood of total belt width damage to both belt & blade
Belt edge damage	<ul style="list-style-type: none"> Belt has wandered to one edge and is contacting the conveyor frame 	<ul style="list-style-type: none"> See above for “Belt not tracking properly” & “Belt runs to one side”
	<ul style="list-style-type: none"> Belt may have come into contact with edge tracking rollers, guide frame, infeed loading conveyor or discharge product scraper blade 	<ul style="list-style-type: none"> It is recommended that edge belt guides do not interfere with the smooth operation of the belt. They should only be used to actuate an emergency stop function of the conveyor belt if the belt tracks off to one side greater than the normal limits. Check clearances between oven belt, infeed loading conveyor and discharge scraper blade. Reset as necessary – see “Damage to belt mesh” above,
Belt corroding prematurely	<ul style="list-style-type: none"> Operating atmosphere or temperature not suited to belt specification 	<ul style="list-style-type: none"> Consult with Wire Belt Company Technical Sales with full details of process application
Belt vibration	<ul style="list-style-type: none"> Belt passing over either rough or uneven surfaces or obstructions such as an angle, wear strip edge, etc 	<ul style="list-style-type: none"> Check complete belt circuit and remove any rough or uneven surfaces or obstructions
	<ul style="list-style-type: none"> Incorrect belt tension 	<ul style="list-style-type: none"> Adjust belt take-up to either increase or reduce belt tension and note any change in vibration
Belt surging on carry way infeed	<ul style="list-style-type: none"> Belt tension too high or too low 	<ul style="list-style-type: none"> Trial the increase or decrease of belt tension and note if belt surging stops
	<ul style="list-style-type: none"> Bearing failure of any of the rollers within the belt circuit that are in contact with the belt 	<ul style="list-style-type: none"> Check all bearings are free rotating and not damaged. Replace as necessary

Excessive belt stretch	<ul style="list-style-type: none"> Product load too heavy for belt specification Friction between belt and support rollers & wear strips too high Operating temperature too high for belt specification and/or belt material. 	<ul style="list-style-type: none"> Consult with Wire Belt Company Technical Sales to reassess application and belt details.
Black debris build up on belt and conveyor frame structure	<ul style="list-style-type: none"> Normally occurs in the belt "Break In" phase of installation 	<ul style="list-style-type: none"> As new all wire of the belt mesh and wear support surfaces have microscopic peaks at the surfaces. This black debris is caused by the peaks of these surfaces rubbing against each other in operation until they become polished and "seat in". After the "Break In" phase of the belt the system should be thoroughly cleaned. This process may have to be repeated before this black debris is reduced to an acceptable minimum
Belt corroding in storage	<ul style="list-style-type: none"> Unsuitable storage environment 	<ul style="list-style-type: none"> Rolled Baking Band is manufactured in Carbon Steel and is vulnerable to corrosion from atmospheric moisture, as well as sweat/oils from hand contact. In optimal conditions, <i>spare belts can be stored for up to 2 years;</i> <ul style="list-style-type: none"> Sealed or controlled storage environment. Minimum temperature of 15°C. Protected from ground water and moisture in the air. In countries with high humidity and more extreme ambient temperatures, additional care should be taken to avoid reduced storage life.
	<ul style="list-style-type: none"> Small amount of rust on belt 	<ul style="list-style-type: none"> Spare belts should be regularly inspected to ensure it is free from rust. If a small amount of rust is apparent, this can be removed from the belt surfaces and the belt put into use. Rust removal will reduce the useful life of the belt, as belt material is removed in the cleaning process. If there is a lot of rust, the lifetime of the belt can be greatly reduced.