TECHNICAL
BULLETIN
#1212

PORTEC
IT'S YOUR TURN

Checking and Adjusting Belt Chain Tension on the Outside Radius of a Portec Power Turn

How to Check the Chain Tension

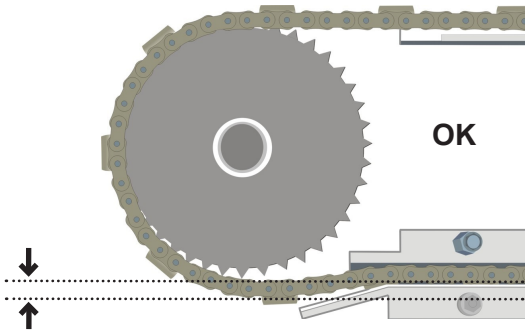
There are two ways to check the belt chain tension on the outside radius of a Portec Power Turn.

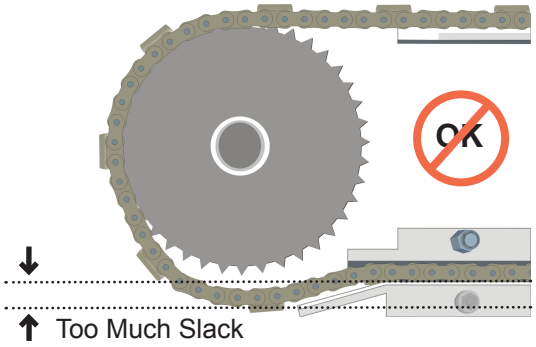
Check Under Sprocket

If there is visual access under the conveyor, chain tension can be checked without removing the chain cover. This procedure must be done *while the conveyor is running*.

1. Look to the underside of the sprocket on the discharge/ drive end of the conveyor. The chain should have ⅛ " to ⅜" (3.2 - 9.5 mm) of slack between the bottom of the sprocket and the lower guide.

Chain slack may develop during the initial run-in period, while the chain seats on the chain guides and after a long period of operation.





Safe practice requires that if the conveyor is to be opened for inspection, cleaning, maintenance or observation, the electric power to the motor driving the conveyor must be LOCKED OUT/TAGGED OUT in such a manner that the conveyor cannot be restarted by anyone; however remote from the area, until conveyor cover or guards and drive guards have been properly replaced.

One Forge Road
Canon City, CO 81212 USA

WWW.PORTEC.COM
INFO@PORTEC.COM

TEL: +1(719) 275-7471
FAX: +1(719) 269-3750

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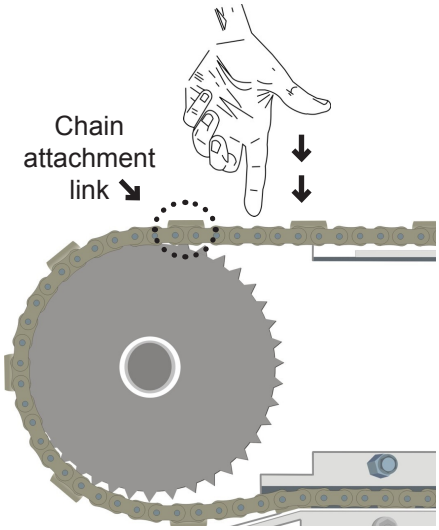
Check Above Sprocket

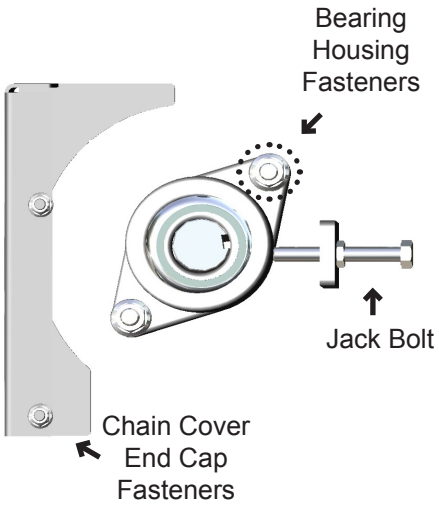
If there is no access to the underside of the conveyor, it must be turned off. Follow appropriate Locked Out / Tagged Out Procedures.

1. Remove the outside radius sideguard and chain cover.
2. Adjust the chain attachment links so that they are not blocking access to the area between the sprocket and the belt chain guide.
3. Push down on the chain in this open area with moderate pressure. There should be some give, but no more than 1/8" (3.2 mm) maximum. If there is no give, the chain is too tight.



Adjusting the Belt Chain Tension

1. The chain tension can be adjusted at either end of the conveyor. Loosen fasteners on the bearing housing and chain cover end cap (only on outside radius).
2. Use the jack bolt next to the bearing housing to move the end roll assembly. Move the end roll assembly until the chain can only be depressed ⅛" (3 mm) between the sprocket and the chain guide. Use moderate pressure to flex the chain. It is preferable to adjust both ends equally, although this may not be possible because of drive and conveyor placement.
3. Tighten the backing nut used on the jack bolt, bearing housing fasteners and end cap fasteners.



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