

LOW NOISE

HIGH SPEED CONVEYOR CARRY ROLL NOISE SOLUTIONS

High speed (>500fpm) unit conveyors have been known to exhibit a high pitched, 100+db, sound emitting from the carry rollers. Controlled field testing has confirmed the belt can excite a vibration in the roller tube creating the noise. PPI has developed solutions with the capability of drastic noise reduction.

FIELD TEST

PPI performed controlled tests where multiple roll types were monitored under the exact same conditions. A section of conveyor emitting high noise was selected for the test area. Existing rollers were confirmed to be new and in good working order. The customer had recently changed these rollers thinking the noise was bearing related and found there was no change in the noise level with the new rolls. Decibel readings were measured at 5 separate locations on each of the 5 test rollers; Below the edge of the roller, below the center of the roller, between the next roller, above the edge of the belt on the carry side, and above the center of the belt on the carry side. The sound monitor was held within 1-3 inches of the point of interest.



Both low noise products achieved a 15db noise reduction at the rolls. This resulted in a 10db noise reduction at a work station about 15 feet below the tested conveyor.

CONVEYOR DETAILS:

- 150ft
- Horizontal
- 10 HP
- 540fpm
- 42" Rough top PVC Belt
- Metal slider pan on carry side.
- 2.125" steel rollers on return.
- Formed sheet metal conveyor frame.

FEATURES AND BENEFITS:

- 15db noise reduction
- Wide concentric grooves
- Promote airflow between roller and belt
- Machined for low TIR
- PVC/phthalate resistant, 85 duro, neoprene lagging

Rubber Lagged Aluminum Tube

- Aluminum tube
- Deep groove ball bearings
- 50% lower weight than standard carry roller assembly
- Drop-in equivalent to all common 2.125" carry rollers



Rubber Lagged Aluminum Tube

Rubber Lagged Steel Tube

- Steel tube
- ER bearings
- Nearly a drop-in equivalent to all common 2.125" carry rollers. (2.375" diameter)



Rubber Lagged Steel Tube



USA | CANADA | CHILE

www.ppi-global.com | sales@ppi-global.com

Product shown are for illustrative purposes only and may display optional accessories or components. Please contact your sales representative for more information on product specifications. PPI respectively reserves the right to make changes in engineering, design and specifications; add improvements; or discontinue manufacturing at any time without notice obligation. PPI and its respective logos are trademarks of Precision, Inc. in the US and/or other countries.