

# In This Issue

The Hendrik Group, Inc. is retained to fix a competitor's air supported belt conveyor! We can rebuild it...we have the technology!

The Hendrik Group, Inc. offers a leasing program to their customers, so they may prepare for the changing global economy!

HoverGlide Q & A...The Hendrik Group, Inc. continues to answer the most asked questions about air supported belt technology.

# HoverGlide

## Air Supported Belt Conveyors

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# The Hendrik Herald



Volume 1, Number 2

July, 2003

## A Helping Hand!

...extensive carry back on the return belt that plugs the return belt section,  
...spillages at the load point,  
...dust generations at discharges, load points and tail sections,  
...not meeting design capacities!

- The belt speed is inadequate to handle design capacity.

These problems are due to designer inexperience in conveyor design, and errors in calculating the correct air volumes and power requirements.

These are just some of the problems a central California company is having with a competitor's air supported belt conveyors. They hired The Hendrik Group, Inc. to do a survey of the conveyors and make suggestions for improving the above outlined problems. The survey revealed the following problems:

The solutions to correct the above are costly, since four of the conveyors are about 70 feet above grade. Most of these problems could have been avoided had the supplier followed some of the standards listed in the CEMA handbook for conveyor design. Most reputable conveyor designers use the CEMA handbook as their "bible" for conveyor design. The most often neglected and/or manipulated standards are:

- No belt cleaning or scraper devices were supplied which causes a great deal of product carry back.
- Conveyors are loaded on an unsupported section, between the tail pulley and where the plenum starts, causing extensive spillages. Spillages are carried back on the return belt, plugging the tail enclosure.
- Transition distances from trough to pulleys were wrongly calculated, causing excessive belt edge wear.
- No skirtboards were provided in loading areas to help divert the material in the direction of the belt travel, causing spillages and plugs while loading.
- The conveyors are under powered, causing the conveyor to stall under a fully loaded start. The conveyors are now run at reduced capacity to avoid stalling.
- The fan output capacity and pressure are inadequate to lift the load, causing plenum wear.

- conveyor transition distances at tail and discharge
- conveyor edge distance of material on belt
- starting a fully loaded belt
- standards for calculating length of skirtboards
- standards for pulley shaft design
- standards for pulley / bearing friction, skirtboard rubber friction on belt, skirtboard material of friction
- standards for belt cleaners
- standards for take-up distances and types of take-ups
- the gauge thickness for plenum beds, troughs, covers, etc.
- types of belt cleaning used

The Hendrik Group is presently working with this client to develop a phased program for correcting these deficiencies. How may we help you?

# HoverGlide Q&A

The Hendrik Group fronts many questions about the air supported belt conveyor on a daily basis. We hope it is because people are as excited about this technology as we are. We will try to address your issues in this section, but of course, feel free to call us for additional information.

**Q:** May the air be recycled?

**A:** Yes. This may be done as long as the conveyor is totally enclosed. Air escapes between the plenum plate and belt for the entire length of the conveyor. This air may be captured at the discharge and/or loading areas. Depending on the dust generations, this air may be directed back to the fan through intake filters other than those supplied as standards.

**Q:** Is there a limit to the conveyor length?

**A:** Not really. Due to pressure drops in the plenums, we suggest placing a fan every 650-700 feet. However we can supply one fan for up to 1000 feet, depending on the width of the conveyor, material handled and the handling capacity.

**Q:** Are covers needed for operation?

**A:** No. We do recommend at least covering the first 20-30 feet at the loading area to reduce the dust generations.

More in the next issue.

## Alternative Project/Equipment Financing!

Through various lending institutions, The Hendrik Group, Inc. is able to offer flexible, asset based financing (leasing) for prospective clients. Why is leasing such an attractive alternative? Companies are leasing cars, computers, telephones, even office furniture. So now, leasing options offer a creative and cost effective method of financing complete projects.

*-100% cost coverage* - all "soft" costs including insurance, taxes, maintenance, training, freight, installation, software and other related services may be included.

*-Conservation of capital* - off balance sheet financing will not affect established or additional credit lines, preserves borrowing capacity, enhances cash flow and

does not disturb current debt ratio.

*-Credit diversification* - established credit lines are undisturbed, providing the ability to respond to opportunities and emergencies.

*-Total flexibility* - longer terms



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and lowered, fixed payments are structured to fit the client's budget.

*- Avoid capital budgeting constraint* - Equipment is acquired outside the capital budget. Lease payments are paid out of the operating budget.

*- Tax savings* - Payments are written off as direct operating expenses, reducing current taxable income.

Please give us a call and let us know how we may serve you.



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**Thought for the day:** An open mind creates a magnitude of opportunity!