

THE AUTOSTABLE BELT

SELF CENTERING CONVEYOR BELT IN CANADA



Autostable is Sempertrans self-centering conveyor belt, which virtually eliminates lateral movements with a centering force five to eight times higher than that of conventional conveyor belt. "This prevents material loss and all misalignment-related damage to the belt or conveyor system"

Sempertrans marked a significant achievement by installing its Autostable conveyor belt at SFPPN in Quebec, Canada. This 1.5-kilometer reversible conveyor, which transports iron ore, is the largest Autostable belt Sempertrans has ever installed worldwide. The innovative design of the Sempertrans Autostable conveyor belt effectively solves the persistent problem of belt mistracking.

This ensures that the belt stays perfectly aligned, preventing material loss and avoiding damage to both the belt and the conveyor system caused by misalignment. As a result, the operation runs smoothly and efficiently, with reduced downtime and lower maintenance costs. This installation highlights Sempertrans' commitment to providing cutting-edge solutions that enhance productivity and reliability for their clients.

SFPPN PROJECT IN NUMBERS

Client: SFP Pointe-Noire
Location: Sept-Iles, Canada
Year: 2019

Transported material	Iron Ore
Conveyor belt width	72"
Conveyor belt length	1.5 km long conveyor
Transport capacity	10.000 tph
Motors	4 motors each 600 kW
Speed of belt	3.8 m/s
THE LONGEST AUTOSTABLE BELT IN THE WORLD	

AUTOSTABLE BELT: THE CONCEPT

One of the main challenges with conveyor belts is off-centering, which leads to mistracking. Sempertrans tackled this issue by developing the Autostable belt, which **centers itself without additional equipment**. By reducing the risks of off-centering, the Autostable belt prevents edge deterioration, ensuring longer lifespan and more reliable performance.

- Unique Self-centring mechanism
- Provides stability along the whole belt length
- Possibility to increase the loading capacity
- Can be adapted to most conveyors, including curved installations
- Centering force 5 to 7 times higher compared to standard conveyor belts



Sempertrans Autostable conveyor belt was the sole solution against the serious mistracking problem the customer was facing. It helped achieve better stability and safety of their conveyor operations, resulting in belt lifetime 3 times longer. Additionally, by increasing the troughing angle, fewer edge damages occurred, particularly in installations with idler adjustment issues.

This improvement allowed for the possibility of increasing installation output by replacing the standard belt with a wider Autostable belt. The excellent tracking capabilities of the Autostable belt enabled the use of tighter tolerances, allowing wider belts to be used on the same conveyor system. Furthermore, the form-locking design of the Autostable belt allowed it to navigate tight horizontal curves while maintaining its position, ensuring excellent tracking even for reversible conveyors.

SEMPERTRANS SUPPLIED:

- Tailored belt design requiring elaborate, structural engineering calculations and planning to fit unique Flyingbelt construction
- Production of 15 km of specialty Metaltrans conveyor belt
- Installation and positioning of several bits of belt in a record 75 days and 22 splices by six Sempertrans Service technicians 30 m above ground

OTHER BELTS VS AUTOSTABLE:



BENEFITS OF AUTOSTABLE BELT

Compared to traditional conveyor system



INCREASED PRODUCTIVITY

Instant conveyor capacity increase due to wider Autostable belt possible



INCREASED BELT SERVICE LIFE

Elimination of tracking problems reduces edge damage and spillage, increasing the overall belt service life.



EQUIPMENT SAVINGS

Savings on equipment due to tighter mistracking tolerance, allowing for more narrow pulleys.



Excellent Tracking

Provides excellent tracking for reversible conveyors.



Reduced Adjustments

- *Fewer adjustments needed for movable conveyors.*

ABOUT SEMPERTRANS

Sempertrans is one of the largest and most technologically advanced conveyor belt manufacturers in the world and part of the Semperit Group. We are headquartered in Vienna, Austria but operate globally with production facilities in Poland, France, China and India.

Conveyor belts made by Sempertrans are distinguished worldwide for their high performance, high operational reliability and long service life through continuous focus on R&D and sustainability.

Our product portfolio ranges from general and engineered solutions to specialised covers. It includes conveyor belts with both textile and steel cords, which perfectly meet the requirements of their respective fields of application – from underground and surface mining to heavy industry and shipping ports.

Sempertrans is committed to finding the most suitable and reliable solution to help optimise the effectiveness of our customers' business operations. We offer application engineering, product development, manufacturing, installation and maintenance services.

ABOUT SFPPN

SFP Pointe-Noire is a premier railway and port logistical hub dedicated to serving the natural resource industry. Strategically located on the North Shore and catering to Newfoundland and Labrador, it handles more than 10 million tonnes of ore annually.

SFP Pointe-Noire offers seamless rail transportation and commodities handling, ensuring efficient and reliable movement of natural resources. Committed to supporting the industry's logistical needs, it provides a vital link between extraction sites and global markets.