TRANSPIPE™

ENGINEERED SOLUTION FOR MATERIAL AND ENVIRONMENTAL PROTECTION

PRODUCT SHEET

HIGHLIGHTS

- Closed material transport
- Ideal for avoiding spillage and protecting the conveyed material
- Available with textile, steel cord, metal and aramide belts
- Standard range from diameters of 150 mm up to 600 mm
- Special constructions possible

Transpipe™ allows enclosed material transport whilst providing several other advantages over conventional conveyor belt systems.

THE CONCEPT

The principle of an enclosed conveying system is to load the Transpipe belt like a regular conveyor belt and then form it into a pipe shape along the conveying route.
Multiple loading and unloading sections are possible. As the return strand is also shaped like a pipe, spillage will be avoided in the return strand.

BENEFITS OF TRANSPIPE

Features	Advantages
Closed material transport	Protects the environment against conveyed material
Material protection against environmental conditions (rain, wind or dust)	Up to 36 m above ground level
Protection of the components of the conveyor against spillage of conveying material	On a length up to 15 km
Horizontal and vertical curves	Allows routing over difficult terrain conditions
Narrow width of installations	Less space needed on the routing
Fewer transfer points	Leads to smooth treatment of the material to be conveyed
Larger contact surface between material and belt (depending on type of material)	Allows increased angles of inclination

APPLICATIONS

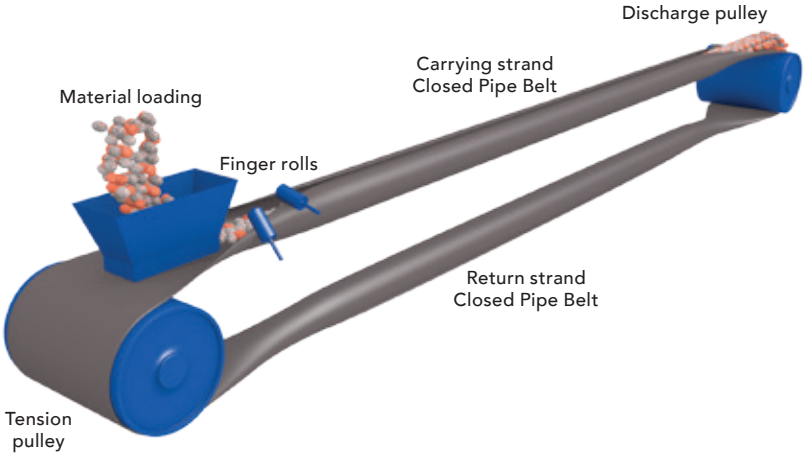
- Cement industry
- Steel industry
- Grain and sugar industries
  Mineral processing plants
- Port operations
- Chemical and fertiliser industries
  Overland conveyors
  Paper and wood industries
  Power and heating plants
  Recycling industry

COVERS

- Transdura (anti-abrasive)
- Transflam (flame retardant)
- Transtherm (heat resistant)
- TransEvo (energy saving)
- Transoil (oil resistant)

PRODUCT FEATURES

- A Transpipe™ belt can be guided through tight horizontal and vertical curves as it is supported by a set of 6 idlers. This results in the reduction of transfer points and an improved adaption to the existing topology of terrain or existing factory buildings.
- Higher inclination angles can be achieved as the inner side of the Transpipe offers more contact surface to the conveyed material compared to a regular conveyor belt.



WHY TRANSPIPE?

Correct cross rigidity

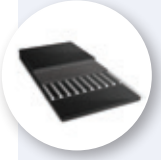
Transpipe offers a long-lasting rigidity due to a special carcass construction which is especially adapted to each individual application. Transpipe's cross rigidity will be adapted to each application individually in order to optimise both the power consumption and the stability of the belt.

Special covers

Special belts require special rubber covers. All Transpipe belts are equipped with covers especially developed for their application, providing extra Ozone / UV-Light protection for a long lasting belt.

WE ALSO RECOMMEND:

Autostable: Self-centring belt and troubleshooting solution against off-tracking



Sempercord: Steel cord belt with the highest strength and longest service life

Multitrans: Multi-purpose textile belt for general to highly demanding applications

For custom advice on defining the right belt for you – Transpipe or other – please contact your Sempertrans Sales Representative.

TAILORED TECHNICAL CONSULTANCY

Sempertrans' Global Application Engineering team will support in selecting the right carcass construction in combination with the right cover grade to fulfill the requirements of each application.
These expert technicians and professionals will cater to your needs at all stages of your project. Their mission is to provide the right technical solution for your specific conveying belting applications – from consulting services such as the tailored design and configuration of your conveyor belts, to local engineering support functions in case of technical conveyor issues. Whether your business requires a brand new conveyor belt or process improvements the Sempertrans Global Application Engineering team is there to support you.

CHALLENGES OVERCOME WITH TRANSPIPE™

Objective	Solution
Environment protection against conveyed material	Closed material transport
Material protection against environmental conditions (rain, wind or dust)	Closed material transport
Valuable product protection against theft	Closed material transport
Protection of conveyor components against spillage of conveyed material	Closed material transport
Conveyor routing over difficult terrain conditions	Tight horizontal and vertical curves
Limited space on the conveyor routing	Narrow width of installations
Smooth treatment of the conveyed material	Fewer transfer points
Increased angles of inclination	Larger contact surface between material and a belt
Larger contact surface between material and belt (depending on type of material)	Allows increased angles of inclination

EXAMPLES OF APPLICATIONS

Applications	Material example
Open pit mining	Iron ore, coal, gold ore
Cement industry	Cement, clinker
Chemical and fertiliser industries	Fertiliser
Grain and sugar industries	Grain
Mineral processing plants	Iron ore pellets, petroleum coke, lime powder
Overland conveyors	Iron ore, coal, copper, coke, aggregate
Paper and wood industries	Woodchips
Port operations	Grain, cement, sugar, sand
Power and heating plants	Coal ash, radioactive waste
Recycling industry	Sludge, paperpulp
Steel industry	Alumina

TRANSPIPE™ COVER GRADES

Transpipe belts are available in a complete range of cover grades:

	DESIGNATION	COMPARABLE COVER FOR FLAT BELTS	DESCRIPTION	Lowest possible T (°C)	Max. possible T (°C)	Max. allowable peak T (°C)
Transdura	X-P	X	Wear resistant, heavy duty applications	-35	60	60
	Y-P	Y	Wear resistant, standard applications	-45	60	60
	W-P	W	Extremely wear resistant	-45	60	60
Transoil	GM/Y-P	GM	Resistant to vegetable oils and greases	-20	60	60
Transtherm	TEA-P	TEA	Wear and heat resistant	-35	100	130
	TEB-P	TEB	Wear and heat resistant	-30	120	140
	TEC-P	TEC	Wear and heat resistant	-30	150	170
Transflam	K-P	K	Flame retardant with covers	-35	60	60
	S-P	S	Flame retardant with and without covers	-35	60	60
TransEvo	TransEvo P	TransEvo	Energy saving, low rolling resistance	-35	60	60
	TransEvo-K-P	TransEvo K	Energy saving, low rolling resistance, flame retardant with covers	-35	60	60

TECHNICAL INFORMATION

Transpipe standard range (other strengths and dimensions are available on request):

Nominal pipe diameter	Belt width	NOMINAL BELT STRENGTH			
		Textile belts	Steel cord belts	Metal belts	Aramide belts
mm	mm	N/mm	N/mm	N/mm	N/mm
125	500	250-315			
150	600	250-400	630-1000	500-1000	
200	800	250-500	630-1250	500-1250	630-1000
250	1000	250-630	630-1600	500-1600	630-1250
275	1100	400-1000	800-2800	500-1600	630-1600
300	1200	500-1000	800-2800	500-1600	630-1600
325	1300	630-1250	1000-4000	500-1600	630-2000
350	1400	800-1600	1000-4000	500-1600	630-2500
400	1600	1000-2500	1000-4000	500-1600	630-3150
450	1800	1250-2500	1000-4500		630-3150
500	2000	1250-3150	1000-4500		630-3150
550	2200	1600-3150	1000-4500		630-3150
600	2400	1600-3150	1000-4500		630-3150

QUALITY & RELIABILITY

Transpipe is a tailor-made engineered solution designed specifically to easily fit your conveyor and ensure reliable material transport. It is the result of extensive research and technical know-how, using engineered components specially made to guarantee the highest quality while dealing with different types of material.

To ensure the adequate pipe form rigidity for your conveyor and thus the longest durability, thorough testing is performed according to Sempertrans' own methodology in our in-house laboratories. The Transpipe belt goes through a pipe forming test device and its performance results are analysed as per Sempertrans' own developed software. This meticulous inspection is what makes all the difference in enabling optimal operation.