

Continental 
The Future in Motion

Conveying Solutions



Continental Conveying Solutions

EMEA

www.continental-industry.com



Continental Conveying Solutions

Continental is the most comprehensive, high-performance conveyor belt systems provider in the world.

We offer a wide range of products, services and technologies for mining and industrial applications. Our full-service capabilities include planning and commissioning, technical advice, training, digital monitoring and on-site maintenance for the life of the conveyor operation.

As your global innovation and development partner, we strengthen mining, mineral processing and construction projects around the world. We do this by exceeding your specific needs and requirements. That's because we push the boundaries of what's possible by developing solutions for tomorrow's challenges.

Continental is one of the world's largest developers and providers of innovative rubber and plastic solutions, technologies and services for a wide range of industries including automotive, construction, agriculture, chemicals, petrochemicals and mining. In 2019, Continental generated sales of €44.5 billion and currently employs about 233,000 people in 59 countries and markets.



Quality and the Environment

Continental's corporate philosophy is to act in an environmentally friendly and quality conscious way. It's why we continually work to optimize our products by developing energy-optimized conveyor belts.



Environment

Continental conveyor belts do more than transport materials in large quantities. They do it with higher efficiency, greatly reduced CO2 emissions, and lower energy consumption, all with no negative impact on the environment. In certain circumstances, they can also generate electric power. It's why our belts are wear resistant, offer low-maintenance, are nearly noise-free and require little energy usage. This lowers your overall expense in the long term.

A special rubber compound minimizes rolling resistance, thus lowering energy consumption in the conveying of materials by 30%. CO2 emissions are also significantly reduced. With a 5000m conveyor belt with a 30,000 ton capacity per hour savings of 8900 ton CO2 per year can be achieved. The energy saved equals approximately the energy consumption of 6500 private households per year.

Quality

With our uncompromising quality assurance program, we monitor all stages of the entire process - from the initial inquiry to delivery - in accordance with stringent ISO 9001 guidelines.

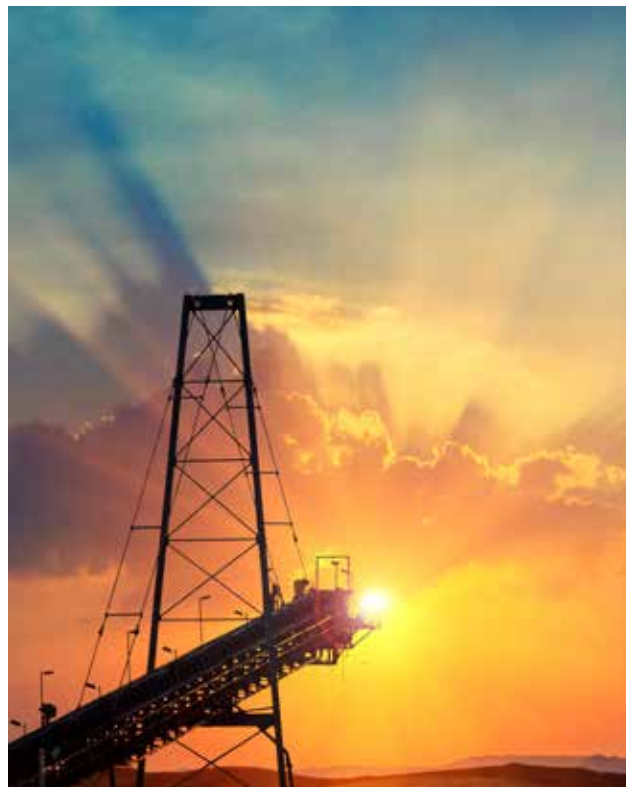


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Featured Solutions



ContiClean – Stop Messing Around

Your Non-Stick Solution

Keeping material from sticking to belts is vital to keeping your operation profitable. Continental ContiClean offers superior material release for everything from coal to iron ore. That helps increase your productivity while reducing operational costs.

ContiClean is available with our Defender Plus, Survivor Series, Stacker, Monster Hide Plus, Gold Plus, Solar-Shield Classic and Solar-Shield Gold compounds.



Original Belt



Belt with ContiClean

ContiClean Benefits

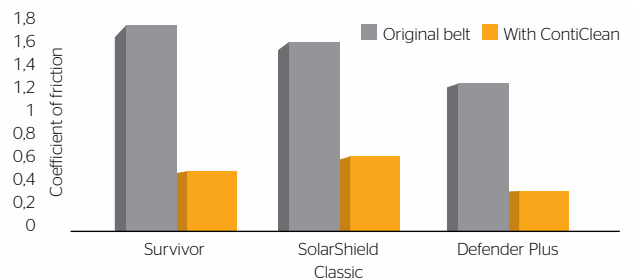
- › Reduced Buildup on Idlers
- › Improved Housekeeping
- › Increased Material Transfer
- › Improved Scraper Life
- › Increased Belt Life

Materials

- › Alumina
- › Cement
- › Coal
- › Gypsum
- › Limestone
- › Potash
- › Salt
- › Sand
- › Silica
- › Tailings

ASTM D 1894-06 Coefficient of Friction

- › Measurement of frictional properties
- › The ratio of the force required to move one surface over another
- › Coefficient of friction is one measure of non-stick capability



Textile Belts



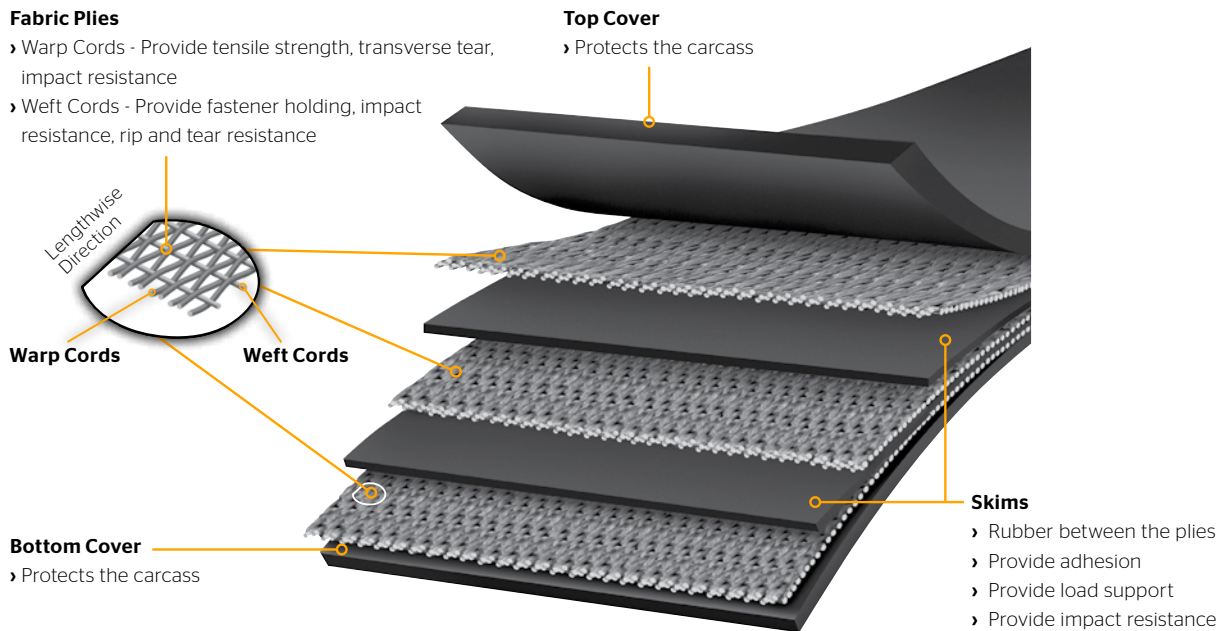
Textile Belt Construction

Continental conveyor belts are designed from the inside out to endure the everyday working abuse of tons of coal, aggregate, wood and hard rock.

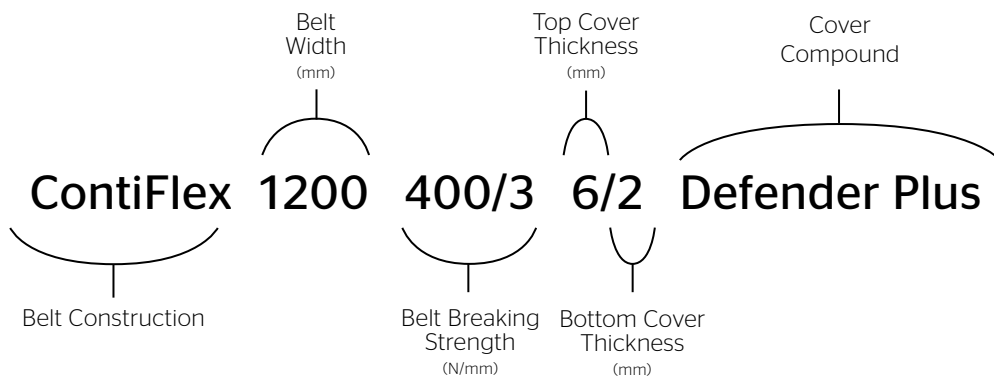
Layers of specially designed fabric plies are sandwiched between rubber skim coats for adhesion and load support. Bottom and top cover compounds are added for maximum protection of the belt carcass. These compounds are comprised of different polymers, fillers and plasticizers and come in a wide variety of cover gauges.

For over 150 years, our breakthrough fabric designs have been tested in some of the toughest conveyor belt applications worldwide. These high-quality belt constructions give you the confidence you need for operating performance.

Belt Components



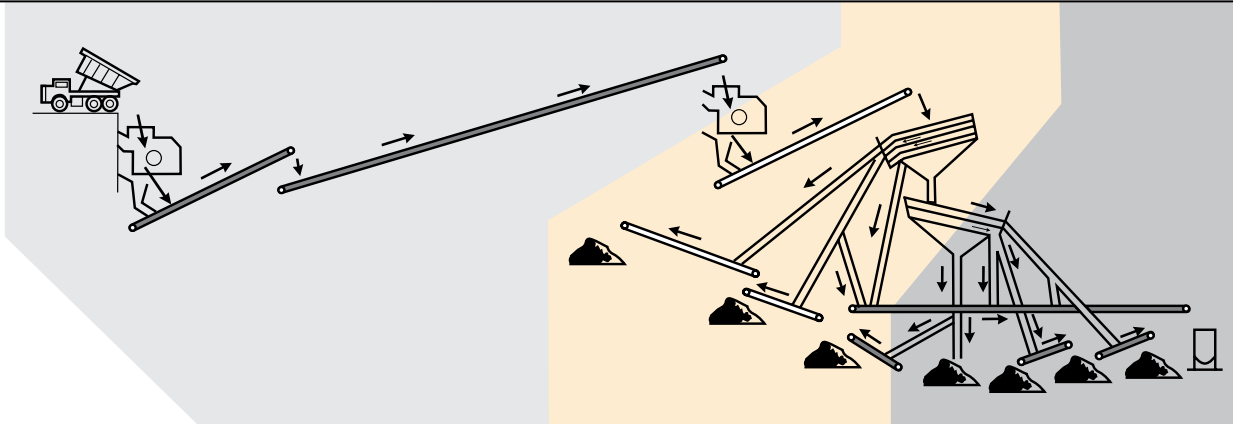
Belt Nomenclature Example



Textile Belt Applications

Industry Markets	Fortress XP	CONTI Titan	ContiFlex Plus	ContiFlex	Spartan	Wood Sawyer Plus	TransConti	TexSteel
Coal and Prep Plants	•	•	•	•				•
Aggregate	•	•	•	•	•		•	•
Cement	•	•	•	•	•		•	•
Bulk Handling Terminal	•	•	•	•	•	•		•
Wood, Pulp and Paper	•	•	•	•		•	•	•
Steel and Foundry	•	•	•	•	•		•	•
Hard Rock Mining	•	•	•	•				•
Grain Handling		•	•	•			•	•
Power Generation			•	•			•	•
Sand and Gravel			•	•	•		•	•
Page Number	10	15	18	18	23	25	31	33

Example of Aggregate, Hard Rock Mining, Sand and Gravel Process



Process	Primary Crusher Mainline, Transfer, Overland, Pit Belt	Secondary Crusher Wash Plant	Stacker, Load Out, Radial Stacker
Continental Conveyor Belt Recommendations	Fortress XP ContiFlex Plus CONTI Titan	ContiFlex Plus CONTI Titan (Single Ply) ContiFlex	ContiFlex Spartan
Typical Material Size	150 mm and higher	75 mm to 150 mm	75 mm and lower
Application Description	<ul style="list-style-type: none"> High abuse and/or higher tension Critical belt lines where uptime is a premium 	<ul style="list-style-type: none"> Moderate abuse and low tension Typically the wash plant or screening area 	<ul style="list-style-type: none"> Low abuse Typically short center-to-center systems that utilize screw take-ups

Typical materials: Limestone, granite, ores, taconite, cement, rock, etc.
 Note: For proper cover compounds and gauge, please consult pages 54-60.

Fortress XP Belts

This rugged, fabric-reinforced conveyor belt withstands high-abuse applications. It is made with a revolutionary Fortress technology weave design, and it holds up to the most demanding applications, delivering up to three times longer life. Fortress XP provides a lower cost-per-ton with unsurpassed system savings.



Markets	Applications	Cover Compounds
<ul style="list-style-type: none"> › Aggregate › Cement › Coal › Foundry › Hard rock › Pulp and paper › Steel production › Wood products 	<ul style="list-style-type: none"> › Log debarkers › Log decks › Mainlines › Pit belts › Primary crushers › Secondary crushers › Ship unloaders › Trash and recycling › Any high abuse applications 	<ul style="list-style-type: none"> › Monster Hide Series › Stacker Series › Solar-Shield Classic <p>See pages 54-60 for more specific details.</p>

See the process diagram for Aggregate, Hard Rock Mining, Sand and Gravel markets on page 9 for alternative belt recommendations.

Fortified with the Power of Fortress Technology Conveyor Belt Components

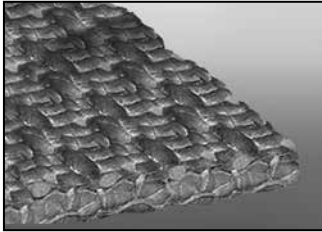
Dual-Layer Twill



- › **Dual-Layer Twill Weave Design.**
- › **Fabric technology advancements for improved yarn design and increased yarn strength.**
- › **More abuse-resistant fabric design to reduce catastrophic failures.**

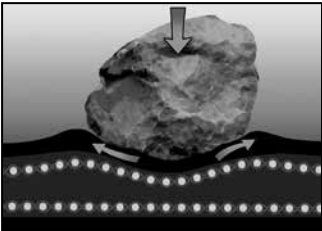
Get a lower cost-per-ton conveyed	Belt Rating: 630 - 2200 N/mm
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Fortress XP Features and Benefits



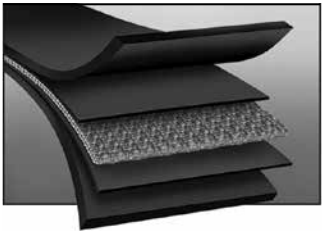
Innovative fabric weave

The new dual-layer twill fabric gives Fortress XP improved load bearing and impact resistance.



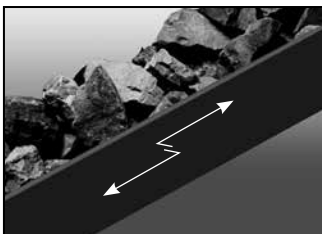
Exceptional impact resistance

Fortress XP has industry-leading impact resistance. Loading point impact damage can be a major cause of belt failure. Design engineers used an enhanced Dynamic Impact Tester to simulate loading impact force and its effects on belting.



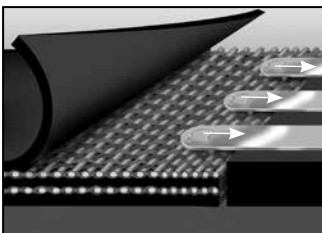
High transverse tear strength

The dual-layer twill fabric design enables high transverse tear strength. This minimizes tears that result from material punctures, as well as edge tears from misaligned belts.



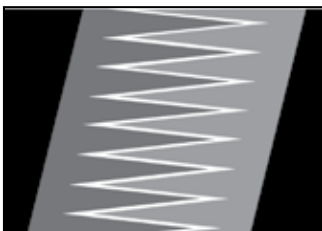
Superior rip resistance

Scrap metal or debris often get "hung up" in the structure of the conveyor, causing equipment damage and slits or cuts in long sections of the belt. Our fabric design helps dislodge and expel foreign objects and confines rips to a small area.



Enhanced mechanical fastener pull-out resistance

Rigorous dynamic and static testing means that Fortress XP belts will provide superior mechanical fastener retention as compared with multi-ply and straight-warp constructions.



Vulcanized finger splice

A full carcass finger vulcanized splice is recommended for Fortress XP belting. This splice method takes advantage of the superior strength properties of the Fortress XP carcass to offer 100% of the rated belt tension.

Fortress XP Belt Information

Fortress XP Conveyor Belt Data

Metric									
Fortress XP	630/1	750/1	850/1	950/1	1200/2	1400/2	1800/2	1950/2	2200/2
Number of Plies	1	1	1	1	2	2	2	2	2
Fabric Type*	EPP	EPP	EPP	EPP	EPP	EPP	EPP	EPP	EPP
Belt Rating (N/mm)	630	750	850	950	1200	1400	1800	1950	2200
Vulcanized & Fastener Rating (N/mm)	58	77	88	109	116	154	175	219	263
Carcass Gauge (mm)	3.3	3.8	4.2	4.6	7.1	8.4	9.1	9.8	11.4
Carcass Weight (kg/m ²)	3.6	4.2	4.4	5.9	7.9	10.2	10.7	10.6	11.4
Approximate 1 mm Cover Weight (kg/m ²)	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17
Average Permanent Elongation (%)**	1.0%	1.2%	1.5%	1.5%	1.0%	1.2%	1.5%	1.5%	1.5%
Elastic Modulus (N/mm)	5780	6130	6570	7010	11560	12260	13130	14010	15760
Splice Type	Finger Splice	Finger Splice	Finger Splice	Finger Splice	Finger Splice	Finger Splice	Finger Splice	Finger Splice	Finger Splice
Recommended Fastener Plate	BR6	BR6	BR10	BR10	BR10	BR14	NR	NR	NR
Hinge	R5	R5	R5-1/2	R5-1/2	R5-1/2	R6	RAR8	RAR8	RAR8
Hinge	U35	U35	U35	U35	U35	U37/U37A	U38A	U38	U38

*EPP = Polyester/Polyamide/Polyamide **Average permanent elongation values at 100% of rated belt tension are based on ISO 9856 test procedure. Consult your Sales Representative or Distributor for elastic and total elongation calculations specific to each system based on Minuteman calculations.

Fortress XP Load Support - Maximum Belt Width Data

Metric (mm)												
Material Weight	0-640 kg/m ³			641-1280 kg/m ³			1281-1920 kg/m ³			Over 1920 kg/m ³		
	20	35	45	20	35	45	20	35	45	20	35	45
Trough Angle												
630/1	1830	1680	1370	1680	1370	1220	1520	1220	1070	1220	1070	910
750/1	2130	1830	1520	1830	1520	1370	1680	1370	1220	1520	1220	1070
850/1	2130	1830	1520	1830	1520	1370	1680	1370	1220	1520	1220	1070
950/1	2130	1830	1680	1830	1680	1520	1830	1520	1370	1680	1370	1220
1200/2	2290	2130	2130	2130	1980	1830	2130	1830	1680	1830	1680	1370
1400/2	2440	2290	2130	2290	2130	1980	2290	2130	1980	2130	1980	1680
1800/2	2590	2440	2440	2440	2130	2130	2440	2130	1980	2130	1980	1830
1950/2	2740	2740	2590	2590	2290	2290	2590	2290	1980	2290	1980	1980
2200/2	2740	2740	2590	2590	2440	2440	2590	2440	2130	2290	1980	1980

On systems with troughing idler spacing greater than 1.5 m or idler roll gap greater than 12.7 mm consult your Sales Representative or Distributor.

Fortress XP Belt Information

Fortress XP Troughability Minimum Belt Width

Metric (mm)										
Fortress XP		630/1	750/1	850/1	950/1	1200/2	1400/2	1800/2	1950/2	2200/2
Idlers	20 degree	460	460	460	460	610	760	760	910	910
	35 degree	610	610	610	610	760	910	910	1070	1070
	45 degree	610	760	760	760	910	1070	1070	1220	1220

If the top cover and pulley cover are of equal gauge or less than 1,5 mm in differential, to ensure the belt will trough properly, add 152 mm to the minimum recommended belt width. For belts with balanced covers, the minimum recommended width for trough-ability is possible provided the belt is run fully loaded for an extended period which will force the belt down into the systems trough configuration. Consult your Sales Representative. Additional break-in time is required when the belt has been stored prior to installation in ambient temperatures of less than 10°C.

Fortress XP Minimum Pulley Diameters

Metric (mm)										
Fortress XP		630/1	750/1	850/1	950/1	1200/2	1400/2	1800/2	1950/2	2200/2
Over 80% Tension		460	510	510	560	610	760	910	910	1070
60% to 80% Tension		410	460	460	510	510	610	760	760	910
40% to 60% Tension		360	410	410	460	460	510	760	760	910
Up to 40% Tension		300	360	360	410	410	460	610	610	760
Tails and Snubs		300	360	360	410	410	460	610	610	760

The minimum cover for vulcanized splice is 3,2 mm. The recommended maximum top to bottom cover ratio for one-ply is 2:1 (i.e. 4,0/2,0 mm) and for two-ply is 3:1 (i.e. 9,0/3,0 mm). The above data is based on top cover gauge equal to or greater than the bottom (pulley) cover gauge.

Fortress XP Belt Information

Fortress XP Elevator Belt Data

Metric									
Fortress XP	500/1	600/1	680/1	760/1	960/2	1120/2	1440/2	1560/2	1760/2
Number of Plies	1	1	1	1	2	2	2	2	2
Fabric Type*	EP	EP	EP	EP	EP	EP	EP	EP	EP
Belt Rating (N/mm)	500	600	680	760	960	1120	1440	1560	1760
Industrial Service Tension Capacity (N/mm)	46	61	70	88	92	123	140	175	210
Recommended Fastener Plate	BR6	BR6	BR10	BR14	BR14	BR14	NR	NR	NR
Carcass Gauge (mm)	3,3	3,6	4,2	4,6	6,9	7,7	9,1	9,9	11,4
Carcass Weight (kg/m ²)	3,6	4,2	4,4	5,9	7,9	9,3	9,5	10,6	11,4
Approximate 1,0 mm Cover Weight (kg/m ²)	1,17	1,17	1,17	1,17	1,17	1,17	1,17	1,17	1,17
Elastic Modulus (N/mm)	5780	6130	6570	7010	11560	12260	13130	14010	15760

Fortress XP rated belt tension can exceed 100%, with a maximum of 150%, during starting and stopping conditions. Fastener size recommendation may vary due to cover thickness, pulley diameters and system tension. *EP = Polyester/Polyamid

Fortress XP Maximum Bucket Projection

Metric									
Fortress XP	500/1	600/1	680/1	760/1	960/2	1120/2	1440/2	1560/2	1760/2
Number of Plies	1	1	1	1	2	2	2	2	2
Spaced Industrial Max. Bucket Projection (mm)	180	180	200	230	300	300	300	300	300
Continuous Industrial Max. Bucket Projection (mm)	150	150	200	230	330	360	380	410	410

CONTI Titan Belts

A tough belt designed for tough conditions, CONTI Titan is constructed to withstand demanding operating conditions. The unique, highly engineered, straight-warp carcass is designed to maximize resistance to extreme ripping, tearing, gouging and impact stresses.

Unlike conventional multiple plied belts, CONTI Titan is a minimal ply construction. The longitudinal load carrying (warp) cords and transverse cords (fill) are not interwoven and are locked together with binder cords. Since the warp cords are not crimped during the weaving process, they lay straight (hence the term straight warp) which provides low elongation for length stability on systems with limited take-ups. CONTI Titan can be spliced also with mechanical fasteners.

CONTI Titan Features and Benefits

- › High-strength with exceptional dimensional stability
- › Rip and tear resistance that is 2-3 times that of conventional conveyor belting
- › Impact resistance that far exceeds conventional conveyor belting
- › Outstanding puncture resistance
- › Excellent flexibility and load support

CONTI Titan is available in operating tensions up to 2800/2 N/mm in 2-ply design. Combined with one of Continental's high-performance covers, CONTI Titan will provide the lowest cost of ownership in demanding applications.

Markets	Applications	Cover Compounds
<ul style="list-style-type: none"> › Aggregates › Agricultural › Bulk Terminals › Calcined Lime › Cement › Chemicals › Coking › Conveyors › Feed › Fertilizer › Foundries › Gypsum 	<ul style="list-style-type: none"> › Lubricants › Oil Sand Mining › Oily Coke › Petroleum › Ports › Potash › Power Generation › Power Saving Opportunities › Prep Plants › Steel › Taconite › Terminals › Trona 	<ul style="list-style-type: none"> › Monster Hide Series › Stacker Series › Solar-Shield Series › Gold Series <p>See pages 54-60 for more specific details.</p>

See the process diagram for Aggregate, Hard Rock Mining, Sand and Gravel markets on page 9 for alternative belt recommendations

Get a lower cost-per-ton conveyed	Belt Rating: 400 – 2800 N/mm
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CONTI Titan Belt Information

CONTI Titan Conveyor Belt Data

Metric									
CONTI Titan	400/1	630/1	800/1	1000/1	1250/2	1600/2	2000/2	2500/2	2800/2
Number of Plies	1	1	1	1	2	2	2	2	2
Fabric Type*	EPP	EPP	EPP	EPP	EPP	EPP	EPP	EPP	EPP
Belt Rating (N/mm)	400	630	800	1000	1250	1600	2000	2500	2800
Vulcanized & Fastener Rating (kN/m)	40	63	80	100	125	160	200	250	280
Carcass Gauge (mm)	2,4	3,3	3,9	4,2	7,7	9,1	9,5	9,8	12,1
Carcass Weight (kg/m ²)	1,9	2,4	3,5	3,9	5,9	8,8	9,3	9,8	10,7
Approximate 1 mm Cover Weight (kg/m ²)	1,17	1,17	1,17	1,17	1,17	1,17	1,17	1,17	1,17
Elastic Modulus (N/mm)	5600	7740	7990	9460	9110	10160	12080	14620	15940
Splice Type	Finger	Finger	Finger	Finger	Finger	Finger	Finger	Finger	Finger
Recommended Fastener Plate	140	190	BR-10	BR-10	BR14	BR14	NR	NR	NR
Hinge	R2	R2	R5	R5	R5-1/2	R6	RAR8	RAR8	RAR8
Hinge	U35A	U35A	U35	U35	U35	U37/U37A	U38A	U38	U38

Conti Titan rated belt tension can exceed 100%, with a maximum of 150% during starting and stopping conditions. Fastener size recommendation may vary due to cover thickness, pulley diameters and system tension. Consult your Sales Representative or fastener manufacturer. Reinforcement suitable for mechanical fasteners. *EPP = Polyester/Polyamide/Polyamide.

CONTI Titan Load Support - Maximum Belt Width Data

Metric (mm)												
Material Weight	0-640 kg/m ³			641-1280 kg/m ³			1281-1920 kg/m ³			Over 1920 kg/m ³		
	20	35	45	20	35	45	20	35	45	20	35	45
400/1	1520	1220	1070	1220	910	910	1070	910	760	910	760	610
630/1	1830	1680	1370	1680	1370	1220	1520	1220	1070	1220	1070	910
800/1	2130	1830	1520	1830	1520	1370	1680	1370	1220	1370	1220	1070
1000/1	2130	1830	1680	1830	1680	1520	1830	1520	1370	1520	1370	1220
1250/2	2440	2440	2440	2130	2130	2130	2130	1830	1830	1830	1830	1680
1600/2	2440	2440	2440	2440	2440	2440	2130	2130	2130	2130	2130	1830
2000/2	2440	2440	2440	2440	2440	2440	2130	2130	2130	2130	2130	1830
2500/2	2440	2440	2440	2440	2440	2440	2130	2130	2130	2130	2130	1830
2800/2	2440	2440	2440	2440	2440	2440	2130	2130	2130	2130	2130	1830

On systems with troughing idler spacing greater than 1.5 m or idler roll gap greater than 12.7 mm consult your Sales Representative or Distributor.

CONTI® Titan Belt Information

CONTI Titan Troughability Minimum Belt Width

Table based on ISO 703 testing procedure.

Metric (mm)										
CONTI Titan		400/1	630/1	800/1	1000/1	1250/2	1600/2	2000/2	2500/2	2800/2
Idlers	20 degree	410	510	610	610	610	760	760	760	760
	35 degree	510	610	760	760	760	910	910	910	910
	45 degree	610	760	910	910	910	1070	1070	1070	1070

If the top cover and pulley cover are of equal gauge or less than 1,5 mm in differential, to ensure the belt will trough properly, add 152 mm to the minimum recommended belt width. For belts with balanced covers, the minimum recommended width for trough-ability is possible provided the belt is run fully loaded for an extended period which will force the belt down into the systems trough configuration. Consult your Sales Representative. Additional break-in time is required when the belt has been stored prior to installation in ambient temperatures of less than 10°C.

CONTI Titan Minimum Pulley Diameters

Metric (mm)										
CONTI Titan		400/1	630/1	800/1	1000/1	1250/2	1600/2	2000/2	2500/2	2800/2
Over 80% Tension		410	460	510	510	760	910	910	910	910
60% to 80% Tension		360	410	460	460	610	610	760	760	760
Up to 60% Tension		300	360	410	410	510	510	610	610	610
Tails and Snubs		300	360	410	410	510	510	610	610	610

The minimum cover for vulcanized splice is 3,2 mm. The recommended maximum top to bottom cover ratio for one-ply is 2:1 (i.e., 4,0/2,0 mm) and for two-ply is 3:1 (i.e., 9,0/3,0 mm). The above data is based on top cover gauge equal to or greater than the bottom (pulley) cover gauge.

CONTI Titan Elevator Belt Data

Metric					
CONTI Titan	1250/2	1600/2	2000/2	2500/2	2800/2
Number of Plies	2	2	2	2	2
Industrial Service Tension (N/mm)	1000	1280	1600	2000	2240
Spaced Industrial Max. Bucket Projection (mm)	360	380	410	430	460
Continuous Industrial Max. Bucket Projection (mm)	380	410	460	510	560

ContiFlex and ContiFlex Plus Belts

ContiFlex Plus is our premium all-purpose fabric conveyor belt construction that can be used in a variety of industries and applications with most of our exclusive Continental rubber cover compounds.

Markets	Applications	Cover Compounds
<ul style="list-style-type: none"> › Aggregate › Baggage handling › Bulk handling terminal › Cement › Coal › Crushed stone › Foundry › Grain › Hard rock › Package handling › Power generation › Pulp and paper › Sand and gravel › Steel production › Wood products 	<ul style="list-style-type: none"> › Coal prep plant › Log debarkers › Log decks › Mainlines › Pit belts › Primary crushers › Secondary crushers › Ship unloaders › Stacker conveyors › Trash and recycling › Block plants › Load out › Radial stackers › Ready mix › Wash plant 	<ul style="list-style-type: none"> › Defender Series › Stacker Series › Survivor Series › Monster Hide Series › Solar-Shield Series › Gold Series › Shield Series › Shield Flame Series <p>See pages 54-60 for more specific details.</p>

See the process diagram for Aggregate, Hard Rock Mining, Sand and Gravel markets on page 9 for alternative belt recommendations.

Get a lower cost-per-ton conveyed	Belt Rating: 315 - 2000 N/mm
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ContiFlex Plus Featuring Solar-Shield



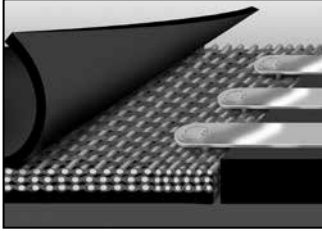
Solar-Shield belts are part of the ContiFlex Plus family. They're offered with polyester/nylon, polyester/polyester and fiberglass fabric reinforcements to deliver high performance in extremely hot material applications.

Solar-Shield Extreme compound with fiberglass reinforcement

The fiberglass option offers the highest degree of burn-through resistance of any current available fabric reinforcement - resisting "hot shots" burn-through up to 538°C.

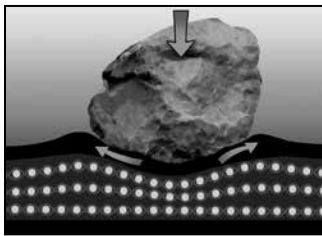
See page 57 for more information on Solar-Shield.

ContiFlex Plus Features and Benefits



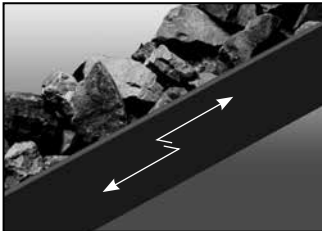
Excellent fastener holding retention

High strength fill cords enhance mechanical fastener holding ability and resist fastener pull-out for reliable performance and increased uptime.



Excellent rip, tear and impact resistance

Specially designed crimped warp cords straighten on impact and then recover their original shape. This enables the fabric to absorb greater impact loads and resist tearing for long-lasting durability and a lower cost-per-ton conveyed.



High ultimate strength

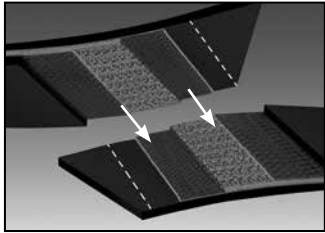
ContiFlex Plus withstands severe tension spikes at start up, retains mechanical fasteners and withstands continuous flexing around pulleys. This higher ultimate strength makes a critical difference in abusive operating conditions.



Reduced stretch

The combination of fabric design and dip process provides lower elasticity and permanent elongation on all specifications. This minimizes take-up concerns and reduces the number of splices at break-in. Contact your local Sales Representative to calculate permanent and elastic elongation requirements for your specific systems.

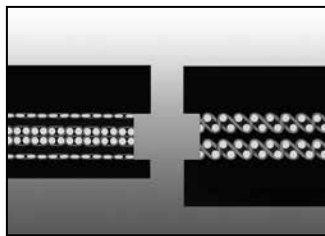
ContiFlex Plus Features and Benefits



Standard bias step splices

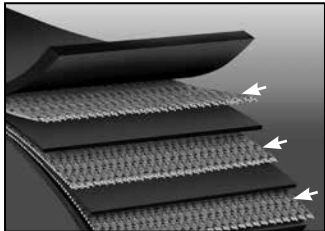
A quick and effective technique, step splices greatly reduce downtime and are recognized throughout the industry as the standard. The vulcanized splice in ContiFlex Plus retains 100% of belt tension rating during all running conditions.

See data tables for proper step length on page 21.



Variety of cover compounds and cover gauges

Protect your product with the proper compound and cover gauge for the application. ContiFlex Plus has the flexibility to customize a belt to your application.



Variety of fabric carcasses

Choose from a selection of carcasses that provide outstanding strength, adhesion, impact absorption and other properties. This includes tension range from 315 to 2000 N/mm.

ContiFlex Plus Belt Information

ContiFlex and ContiFlex Plus Conveyor Belt Data

Metric											
Belt Rating	315/2	400/2	400/3	500/2	500/3	630/2	630/3	630/4	800/2	800/3	800/4
Number of Plies	2	2	3	2	3	2	3	4	2	3	4
Fabric Type*	EP	EP	EP	EP	EP	EP	EP	EP	EP	EP	EP
Average Permanent Elongation (%)**	0,7%	0,8%	0,8%	1,0%	0,7%	1,2%	0,8%	0,7%	1,3%	1,0%	0,8%
Belt Rating (N/mm)	315	400	400	500	500	630	630	630	800	800	800
Vulcanized & Fastener Rating (N/mm)	31,5	40	40	50	50	63	63	63	80	80	80
Nominal Carcass Gauge (mm)	1,9	2,3	2,9	2,9	3,0	3,3	3,6	4,1	4,0	4,5	4,9
Nominal Carcass Weight (kg/m ²)	2,5	2,8	3,4	3,0	3,6	4,1	4,1	4,7	4,6	4,4	5,4
Approximate 1 mm Cover Weight (kg/m ²)	1,17	1,17	1,17	1,17	1,17	1,17	1,17	1,17	1,17	1,17	1,17
Elastic Modulus (N/mm)	4000	5750	6000	6600	6600	7800	7800	7800	9400	9400	9400
Step Length (mm)***	180	200	200	200	200	250	250	200	250	250	250
Belt Rating	800/5	1000/3	1000/4	1000/5	1250/3	1250/4	1250/5	1600/4	1600/5	2000/5	
Number of Plies	5	3	4	5	3	4	5	4	5	5	
Fabric Type*	EP	EP	EP	EP	EP	EP	EP	EP	EP	EP	
Average Permanent Elongation (%)**	0,7%	1,2%	1,0%	0,8%	1,3%	1,2%	1,0%	1,3%	1,2%	1,3%	
Belt Rating (N/mm)	800	1000	1000	1000	1250	1250	1250	1600	1600	2000	
Vulcanized & Fastener Rating (N/mm)	80	100	100	100	125	125	125	160	160	200	
Nominal Carcass Gauge (mm)	5,2	5,1	6,1	6,2	6,2	7,0	7,7	8,5	8,8	10,7	
Nominal Carcass Weight (kg/m ²)	5,9	6,1	5,8	6,7	6,8	8,0	7,2	9,0	10,0	11,2	
Approximate 1 mm Cover Weight (kg/m ²)	1,17	1,17	1,17	1,17	1,17	1,17	1,17	1,17	1,17	1,17	
Elastic Modulus (N/mm)	9400	11250	11250	11250	13750	13750	13750	17000	17000	18000	
Step Length (mm)***	200	300	250	250	300	300	250	300	300	300	

ContiFlex Plus and ContiFlex rated belt tension can exceed 100%, with a maximum of 150%, during starting and stopping conditions. Consult your sales representative or fastener manufacturer for fastener recommendations. *EP = Polyester/Polyamide **Average permanent elongation values at 100% of rated belt tension are based on ISO 9856 test procedure. Consult your sales representative or distributor for elastic and total elongation calculations. ***Step length for conventional bias step splice. For other types of splices such as finger or overlap contact your sales representative or distributor.

ContiFlex Plus Belt Information

ContiFlex and ContiFlex Plus Minimum Pulley Diameters

Metric											
Belt Rating	315/2	400/2	400/3	500/2	500/3	630/2	630/3	630/4	800/2	800/3	800/4
Drive Location	200	250	400	315	400	400	500	500	500	500	630
Belt Rating	800/5	1000/3	1000/4	1000/5	1250/3	1250/4	1250/5	1600/4	1600/5	2000/5	
Drive Location	630	630	800	800	800	800	1000	1000	1000	1250	

ContiFlex Plus HT belts (→) require a minimum pulley cover gauge of 3 mm if vulcanized splicing will be used.

Spartan Belts

Spartan features an economical fabric belt construction. Spartan belts are recommended for conveying material 75 mm and less in diameter.

Markets	Applications	Cover Compounds
<ul style="list-style-type: none"> › Aggregate › Package handling › Sand and gravel 	<ul style="list-style-type: none"> › Load Out › Low Abuse › Radial Stacker › Ready Mix › Stacker 	<ul style="list-style-type: none"> › Easyrider › Defender

See the process diagram for Aggregate, Hard Rock Mining, Sand and Gravel markets on page 9 for alternative belt recommendations.

Get a lower cost-per-ton conveyed	Belt Rating: 315 - 1000 N/mm
--	-------------------------------------

Spartan Belt Information

Spartan Conveyor Belt Data

Metric	315/2	500/3	630/4	1000/3
Spartan				
Number of Plies	2	3	4	3
Fabric Type*	EE	EE	EE	EE
Average Permanent Elongation (%)**	0,8%	0,8%	0,8%	0,8%
Belt Rating (N/mm)	390	580	770	1050
Vulcanized & Fastener Rating (N/mm)	39	58	77	105
Nominal Carcass Gauge (mm)	1,7	2,6	3,6	6,1
Carcass Weight (kg/m ²)	2,6	4,1	5,5	6,6
Approximate 1 mm Cover Weight (kg/m ²)	1,17	1,17	1,17	1,17
Elastic Modulus (N/mm)	4550	6830	9110	9810
Step Length (mm)	250	250	250	410

Spartan rated belt tension can exceed 100%, with a maximum of 150%, during starting and stopping conditions. Fastener size recommendation may vary due to cover thickness, pulley diameters and system tension. Consult your Sales Representative or fastener manufacturer. *EE = Polyester/Polyester **Average permanent elongation values at 100% of rated belt tension are based on ISO 9856 test procedure. Consult your Sales Representative or Distributor for elastic and total elongation calculating.

Spartan Belt Information

Spartan Load Support - Maximum Belt Width Data

Metric (mm)									
Material Weight	0-640 kg/m ³			641-1280 kg/m ³			1281-1920 kg/m ³		
Trough Angle	20	35	45	20	35	45	20	35	45
315/2	1070	910	760	910	760	610	760	610	460
500/3	1220	1070	910	1220	910	760	1070	910	760
630/4	1370	1220	1070	1370	1220	910	1220	1070	910
1000/3	1830	1520	1520	1680	1520	1370	1520	1370	1220

On systems with troughing idler spacing greater than 1,5 m OR idler roll gap greater than 12,7 mm consult your Sales Representative or Continental.

Spartan Troughability Minimum Belt Width

Table based on ISO 703 testing procedure.

Metric (mm)					
Spartan		315/2	500/3	630/4	1000/3
Idlers	20 degree	360	410	610	610
	35 degree	410	510	760	760
	45 degree	510	610	910	910

If top cover and pulley cover are balanced (i.e., 5,0/5,0 mm) or less than 2,0 mm differential (i.e., 4,0/3,0 mm), add 150 mm to the minimum belt width. 150 mm narrower widths are possible if the belt is broken in for an extended period of time fully loaded. Consult your Sales Representative. Additional break-in time is required when the belt has been stored prior to installation in ambient temperatures of less than 10°C. The above tables are based on top cover gauge equal or greater than the bottom (pulley) cover gauge.

Spartan Minimum Pulley Diameters

Metric (mm)				
Spartan	315/2	500/3	630/4	1000/3
Over 80% Tension	360	410	510	610
60% to 80% Tension	300	360	460	510
40% to 60% Tension	200	250	360	460
Up to 40% Tension	200	250	360	410
Tails and Snubs	200	250	360	410

Wood Sawyer and Wood Sawyer Plus Belts

Increase efficiency and decrease downtime by installing Continental Wood Sawyer and Wood Sawyer Plus conveyor belts. Their outstanding service life results in a lower cost-per-ton for the wood industry. In the long run, that means carving out a better bottom line.



Markets

- › Pulp and paper
- › Wood

Applications

- › Broke Belt
- › Chipper Infeed
- › Log Debarkers
- › Log Deck
- › Log Sorter
- › Planer Belt
- › Pulp Belt
- › Sander Belt
- › Sawmills
- › Tray Belt
- › Any Other Application Requiring Moderate Oil Resistance

Cover Compounds

- › Stacker Series
- › Monster Hide Series
- › Gold Series

See pages 54-60 for more specific details.

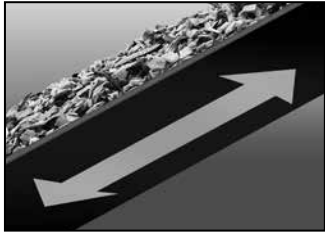
See the guide and process diagram for Wood Product Applications on page 29.

Get a lower cost-per-ton conveyed

Belt Rating: 400 - 1250 N/mm

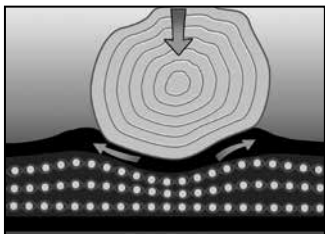
Wood Sawyer and Wood Sawyer Plus

Features and Benefits



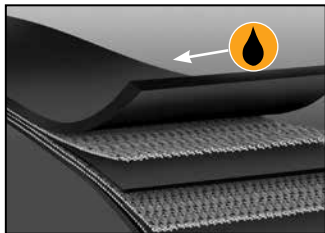
High ultimate strength

Wood Sawyer Plus belts withstand severe tension spikes at start-up, retain mechanical fasteners longer and withstand continuous flexing around pulleys. This higher ultimate strength makes a critical difference in abusive operating conditions.



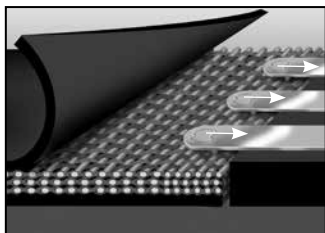
Superior abuse resistance

High strength crimped cords allow the fabric to absorb greater impact loads and resist tearing when stretched over objects trapped between the belts and the pulleys.



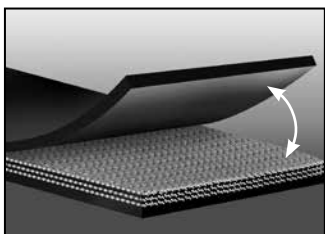
Superior Gold Plus cover compound

Gold Plus is recognized as the wood product industry's premium choice for moderate terpene resistance. Its abrasion-resistant properties make it the best value for handling wood chips.



Excellent fastener holding

Innovative fill cord design minimizes belt tracking problems and reduces damage due to misalignment. High strength cords in the fill direction work together to resist fastener pull-out.



Excellent adhesion values

Superior adhesion protects against premature belt failure due to heavy impact, abuse, trapped material and edge damage.

Wood Sawyer and Wood Sawyer Plus

Belt Information

Wood Sawyer and Wood Sawyer Plus Conveyor Belt Data

Metric										
	WS 400/2	WS Plus 440/2	WS 600/3	WS Plus 660/3	WS Plus 700/2	WS 800/4	WS Plus 850/4	WS Plus 1000/3	WS Plus 1250/3	WS Plus 1250/4
Number of Plies	2	2	3	3	2	4	4	3	3	4
Belt Rating (N/mm)	400	440	600	660	700	800	850	1000	1250	1250
Vulcanized & Fastener Rating (N/mm)*	40	44	60	66	70	80	85	100	125	129
Nominal Carcass Gauge (mm)	3,2	3,4	4,1	4,3	4,5	5,7	5,8	6,4	6,9	8,6
Nominal Carcass Weight (kg/m ²)	3,9	4,2	5,1	5,2	4,8	7,0	7,1	7,0	7,9	9,4
Approximate 1 mm Cover Weight (kg/m ²)	1,17	1,17	1,17	1,17	1,17	1,17	1,17	1,17	1,17	1,17
Average Elastic Modulus (N/mm)	4030	5250	6040	7880	7710	8060	10510	11560	9840	15410
Step Length (mm)	250	250	250	250	410	250	250	410	460	410

*Belt Rating is based on actual ultimate tensile. Vulcanized and fastener rating is based on operating tension in PIW converted to N/mm.

Wood Sawyer Plus rated belt tension can exceed 100%, with a maximum of 150%, during starting and stopping conditions.

Wood Sawyer and Wood Sawyer Plus Load Support - Maximum Belt Width Data

Metric (mm)									
Material Weight	0-640 kg/m ³			641-1280 kg/m ³			1281-1920 kg/m ³		
	20	35	45	20	35	45	20	35	45
400/2	1220	1070	910	1220	910	910	1070	910	760
440/2	1370	1220	1220	1220	1070	910	1070	1070	760
600/3	1520	1370	1220	1520	1220	1070	1370	1220	1070
660/3	1830	1520	1520	1520	1520	1220	1370	1370	1220
700/2	1520	1370	1370	1370	1220	1070	1220	1220	1070
800/4	1830	1520	1370	1680	1520	1220	1520	1370	1220
850/4	2130	1830	1830	1830	1520	1370	1830	1520	1370
1000/3	2130	1830	1830	1830	1520	1370	1830	1520	1370
1250/3	2130	1830	1830	1830	1520	1370	1830	1520	1370
1250/4	2440	2130	2130	2130	1830	1830	2130	1830	1520

On systems with troughing idler spacing greater than 1.5 m OR idler roll gap greater than 12.7 mm consult Sales Representative or Continental.

Wood Sawyer and Wood Sawyer Plus

Belt Information

Wood Sawyer and Wood Sawyer Plus Troughability Minimum Belt Width

Table based on ISO 703 testing procedure.

Metric (mm)		WS 400/2	WS Plus 440/2	WS 600/3	WS Plus 660/3	WS Plus 700/2	WS 800/4	WS Plus 850/4	WS Plus 1000/3	WS Plus 1250/3	WS Plus 1250/4
Idlers	20 degree	460	460	460	510	460	610	610	610	610	760
	35 degree	460	460	610	610	610	760	760	760	760	910
	45 degree	610	610	760	760	760	910	910	910	910	1070

If top cover and pulley cover are balanced (i.e., 5,0/5,0 mm) or less than 2,0 mm differential (i.e., 4,0/3,0 mm), add 150 mm to the minimum belt width. 150 mm narrower widths are possible if the belt is broken in for an extended period of time fully loaded. Consult your Sales Representative. Additional break-in time is required when the belt has been stored prior to installation in ambient temperatures of less than 10°C. The above tables are based on top cover gauge equal or greater than the bottom (pulley) cover gauge.

Wood Sawyer and Wood Sawyer Plus Minimum Pulley Diameters

Metric (mm)		WS 400/2	WS Plus 440/2	WS 600/3	WS Plus 660/3	WS Plus 700/2	WS 800/4	WS Plus 850/4	WS Plus 1000/3	WS Plus 1250/3	WS Plus 1250/4
Over 80% Tension		410	410	460	460	410	610	610	610	760	760
60% to 80% Tension		360	360	410	410	360	510	510	510	610	610
40% to 60% Tension		250	300	300	360	300	410	460	460	510	510
Up to 40% Tension		250	300	300	360	250	410	460	410	460	460
Tails and Snubs		250	300	300	360	250	410	460	410	460	460

If top cover and pulley cover are balanced (i.e., 5,0/5,0 mm) or less than 2,0 mm differential (i.e., 4,0/3,0 mm), add 150 mm to the minimum belt width. 150 mm narrower widths are possible if the belt is broken in for an extended period of time fully loaded. Consult your Sales Representative. Additional break-in time is required when the belt has been stored prior to installation in ambient temperatures of less than 10°C. The above tables are based on top cover gauge equal or greater than the bottom (pulley) cover gauge.

Wood Product Applications

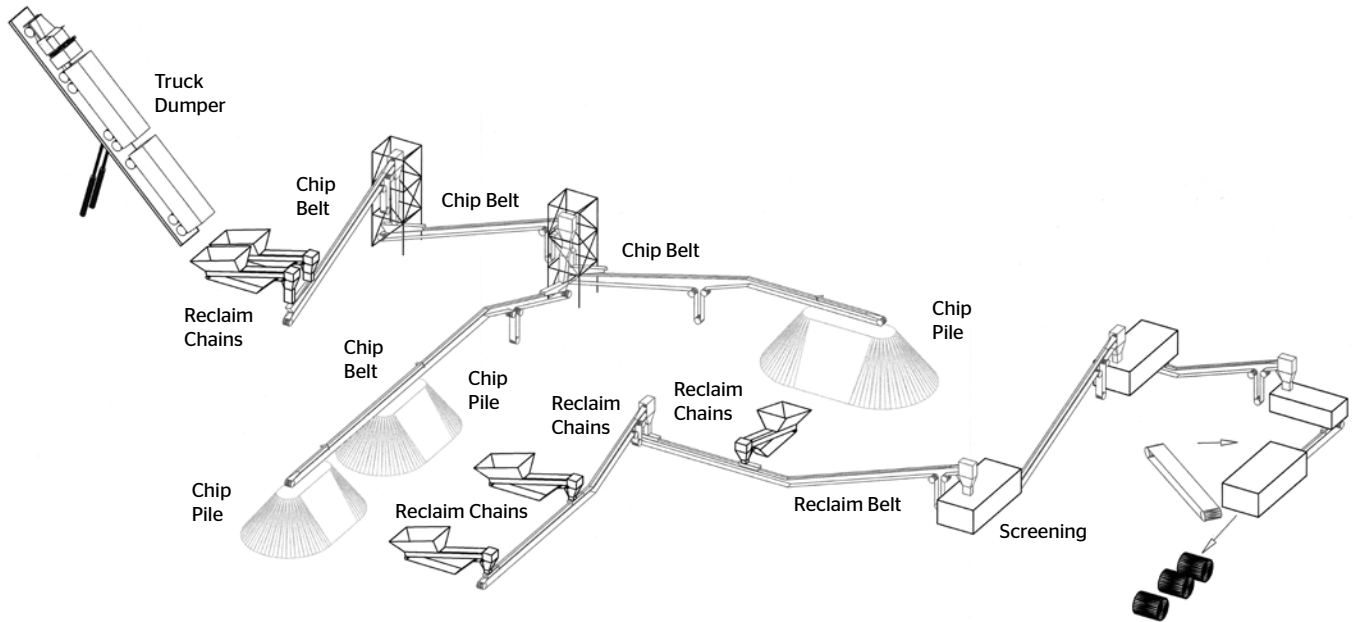
Service Required	Product Options	Top Cover Options*	Application Requirements
<ul style="list-style-type: none"> › Log Decks › Debarkers › Log Sorters › Chipper Infeed 	Fortress XP Wood Sawyer Plus CONTI Titan	Monster Hide Plus Stacker Plus Defender Plus	Severe Impact Cut and Gouge Low Coefficient of Friction Sliderback Pulley Cover**
<ul style="list-style-type: none"> › Wood Chips and Bark Belts › Hog Fuel 	Wood Sawyer Plus Wood Sawyer ContiFlex	Gold Plus Gold Classic Defender Plus	Terpene and Oil Cleated Belts for High Incline Service
<ul style="list-style-type: none"> › Chipper Belts › Saw Cut-Offs › Sawdust Belts › Saw Dry-Hogs › Pulp Belts › Broke Belts 	Fortress XP Wood Sawyer Plus Wood Sawyer ContiFlex	Gold Plus Gold Classic Defender Plus	Extensive Range of Widths Small Pulleys Bare or Friction Surface Bottom Typical
<ul style="list-style-type: none"> › Veneer Belts › Tray Belts 	Wood Sawyer ContiFlex	Gold Plus Gold Classic Defender Plus	Terpene and Oil Severe Abrasion

*Top cover options are relative to amount of terpene in the wood type.

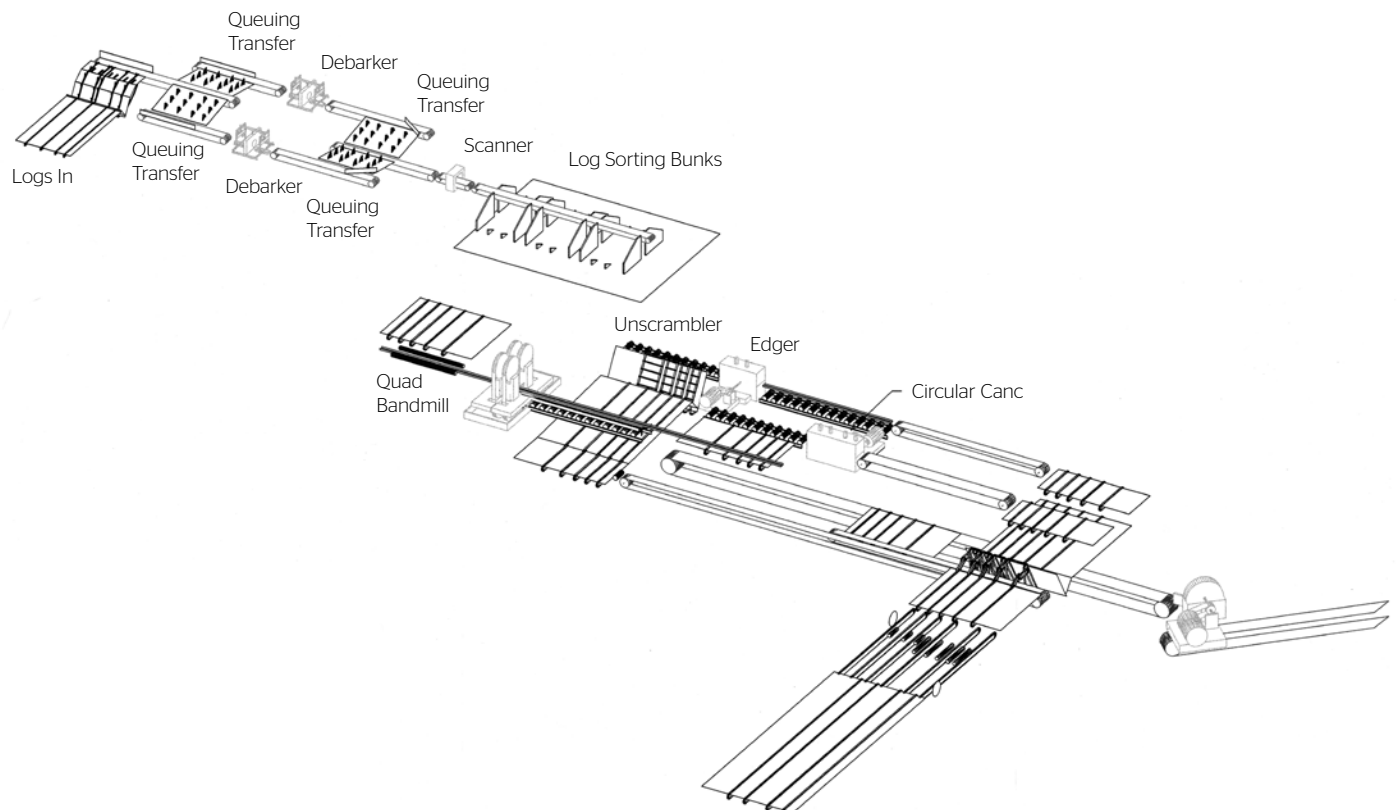
**Sliderback compound is not recommended for variable speed drive systems.

Wood Product Facilities

Typical Pulp and Paper Facility



Typical Sawmill Facility



TransConti Belts

Continental TransConti belts are manufactured using a unique production process which ensures outstanding properties. The Continental “DoBa” production process is not sequential, but is a continuous production process that leads to several advantages:

- › Homogeneous belt finish (enables better belt cleaning)
- › Uniform belt properties due to continuous cure process
- › Exceptional belt tracking

Applications

- › Construction Industry
- › Foundries
- › Wood Industry
- › Recycling Industry
- › Cement Industry
- › Potash and Salt Mining
- › Gravel

Cover Compounds

- › Defender
- › Gold Classic and Gold Plus
- › Solar-Shield and Solar-Shield Plus

See pages 54-60 for more specific details.

Get a lower cost-per-ton conveyed

Belt Rating: 250 - 800 N/mm

TransConti Belt Information

TransConti Conveyor Belt Data

Metric							
TransConti	25/2	25/2	32/2	40/3	40/3	40/3	50/3
Cover Thickness (mm)	3/1,5	4/2	4/2	3/1,5	4/2	6/2	5/1,5
Number of Plies	2	2	2	3	3	3	3
Breaking Strength (N/mm)	250	250	320	400	400	400	500
Rec. Min. Drive Pulley Diameter (mm)*	250	250	250	315	315	315	400
Rec. Min. Deflection Pulley Diameter (mm)*	200	200	200	250	250	250	315
Approx. Belt Thickness (mm)	7,0	8,0	7,9	7,5	8,5	10,5	9,5
Approx. Belt Weight (kg/m ²)**	8,5	9,5	9,5	9,0	10,3	12,5	11,7
Available Compound	Defender	Defender	Defender	Defender Gold Classic	Defender Gold Classic Gold Extreme Solar-Shield Classic Solar-Shield Extreme	Defender	Defender

TransConti	50/3	50/4	50/4	63/4	63/4	80/4
Cover Thickness (mm)	6/2	4/2	5/2	6/2	8/3	6/2
Number of Plies	3	4	4	4	4	4
Breaking Strength (N/mm)	500	500	500	630	630	800
Rec. Min. Drive Pulley Diameter (mm)*	400	400	400	500	500	600
Rec. Min. Deflection Pulley Diameter (mm)*	315	315	315	400	400	400
Approx. Belt Thickness (mm)	11,0	9,5	10,5	12,3	15,3	12,5
Approx. Belt Weight (kg/m ²)**	12,4	11,5	12,4	14,5	17,9	15,0
Available Compound	Solar-Shield Extreme	Defender	Defender	Defender	Defender	Defender

Continental TransConti belts come with pre-defined designs, most of them available on stock, so that shortest delivery time can be realized. Belts are produced in widths up to 2100 mm and cut to the widths according to customer wish. *Smaller pulleys possible at lower belt tension. **Average belt weight; weight can vary depending on selected compound.

TexSteel Belts

TexSteel Will Take You There

Its advanced design incorporating aramid carcass is engineered for exceptionally dependable service in demanding applications. Aggregate and industrial operations have learned to expect this from Continental, the leader in bulk material handling conveyor belting.

Markets	Applications	Cover Compounds
<ul style="list-style-type: none"> › Aggregates › Cement › Coal › Hard Rock › Power Generation › Steel Production 	<ul style="list-style-type: none"> › Mainlines › Overland Belts › Ship Loader › Any High Abuse Applications 	<ul style="list-style-type: none"> › Defender Series › Stacker Series › Survivor Series › Eco Series › Solar-Shield Series › Gold Series › Shield Series

See pages 54-60 for more specific details.

Get a lower cost-per-ton conveyed	Belt Rating: 630 - 3150 N/mm
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TexSteel Features and Benefits



High-tension capabilities

TexSteel's superior strength capability allows for the conveyance of higher belt tension in a single-ply reinforcement.

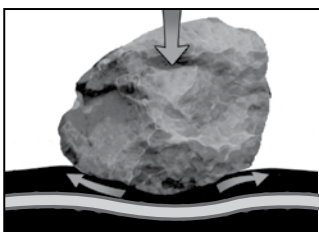


Limited take-up travel

TexSteel's low elongation characteristics (0.3%) make TexSteel the natural choice when available take-up space is limited. This allows for installation of lower cost take-up systems.

Lightweight

TexSteel's high-strength, yet lightweight, construction reduces energy consumption.



High-abuse resistance

In conjunction with Continental's high abuse-resistant compounds, TexSteel offers greater rip, tear and impact resistance versus conventional multi-ply constructions.

TexSteel Belt Information

TexSteel Conveyor Belt Data

Metric									
TexSteel	630/1	1000/1	1250/1	1400/1	1600/1	1800/1	2000/1	2500/1	3150/1
Number of Plies	1	1	1	1	1	1	1	1	1
Fabric Type*	DPP	DPP	DPP	DPP	DPP	DPP	DPP	DPP	DPP
Average Permanent Elongation (%)**	0,3%	0,3%	0,3%	0,3%	0,3%	0,3%	0,3%	0,3%	0,3%
Belt Rating (N/mm)	630	1000	1250	1400	1600	1800	2000	2500	3150
Vulcanized & Fastener Rating (N/mm)	63	100	125	140	160	180	200	250	315
Nominal Carcass Gauge (mm)	1,8	2,3	2,8	2,8	2,9	3,3	3,4	3,9	4,0
Nominal Carcass Weight (kg/m ²)	2,1	2,3	2,5	2,7	3,0	3,5	3,6	3,9	4,2
Approximate 1 mm Cover Weight (kg/m ²)	1,17	1,17	1,17	1,17	1,17	1,17	1,17	1,17	1,17
Elastic Modulus (N/mm)	15760	24960	31300	35030	40060	45100	49910	62610	78810
Finger Length (mm)***	640	1020	1270	1400	1600	1800	2010	2490	3150

The minimum cover for vulcanized splice is 3.2 mm. The recommended maximum top to bottom cover ratio for one-ply is 2:1 (i.e., 6,0/3,0 mm). The above tables are based on top cover gauge equal or greater than the bottom (pulley) cover gauge. *DPP = Aramid/Polyamide/Polyamide. Mechanical fasteners not recommended except for temporary emergency situations. Consult your Sales Representative for further recommendations. **Average permanent elongation values at 100% of rated belt tension are based on ISO 9856 test procedure. Consult your Sales Representative or Distributor for elastic and total elongation calculations. ***All TexSteel vulcanized splices are finger type.

TexSteel Load Support - Maximum Belt Width Data

Metric (mm)												
Material Weight	0-640 kg/m ³			641-1280 kg/m ³			1281-1920 kg/m ³			Over 1920 kg/m ³		
	20	35	45	20	35	45	20	35	45	20	35	45
630/1	1370	1220	1070	1370	1220	1070	1370	1220	1070	1220	1070	NR
1000/1	1370	1220	1070	1370	1220	1070	1370	1220	1070	1220	1070	1070
1250/1	1370	1220	1070	1370	1220	1070	1370	1220	1070	1220	1070	1070
1400/1	1520	1370	1220	1520	1370	1220	1220	1070	1070	1220	1070	1070
1600/1	1520	1370	1220	1520	1370	1220	1220	1070	1070	1220	1070	1070
1800/1	1830	1830	1520	1830	1830	1520	1520	1370	1220	1370	1220	1070
2000/1	1830	1830	1520	1830	1830	1520	1520	1370	1220	1370	1220	1070
2500/1	2130	2130	2130	2130	2130	2130	2130	2130	1830	1830	1520	1520
3150/1	2130	2130	2130	2130	2130	2130	2130	2130	1830	1830	1520	1520

On systems with troughing idler spacing greater than 1.5 m OR idler roll gap greater than 12.7 mm consult your Sales Representative.

TexSteel Belt Information

TexSteel Troughability Minimum Belt Width

Metric (mm)										
TexSteel		630/1	1000/1	1250/1	1400/1	1600/1	1800/1	2000/1	2500/1	3150/1
Idlers	20 degree	460	510	460	610	610	610	760	610	760
	35 degree	460	610	610	760	760	760	910	760	910
	45 degree	610	760	760	910	910	910	1070	910	1070

If top cover and pulley cover are balanced (i.e., 5.0/5.0 mm) or less than 1.5 mm differential (i.e., 5.0/4.0 mm), add 150 mm to the minimum belt width. 150 mm narrower widths are possible if the belt is broken in for an extended period of time fully loaded. Consult your Sales Representative. Additional break-in time is required when the belt has been stored prior to installation in ambient temperatures of less than 10°C. The above table is based on top cover gauge equal or greater than the bottom (pulley) cover gauge.

TexSteel Minimum Pulley Diameters

Metric (mm)										
TexSteel		630/1	1000/1	1250/1	1400/1	1600/1	1800/1	2000/1	2500/1	3150/1
Over 80% Tension		460	510	610	760	910	910	910	1070	1070
60% to 80% Tension		410	460	510	610	760	760	760	910	910
40% to 60% Tension		360	410	460	510	760	760	760	910	910
Up to 40% Tension		300	360	410	460	610	610	610	760	760
Tails and Snubs		300	360	410	460	610	610	610	760	760

Steelcord Belts

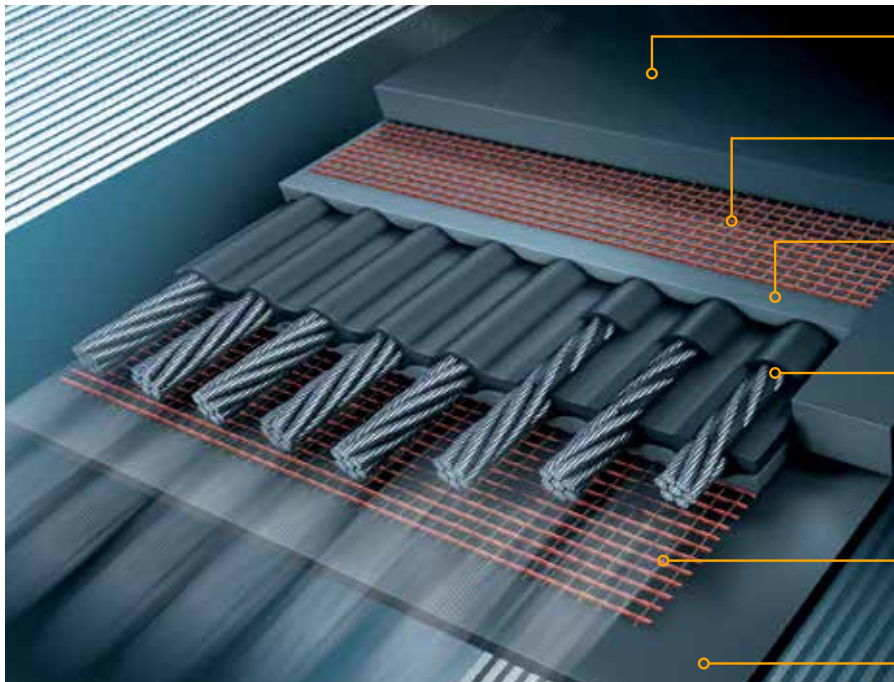


Steelcord Belt Construction

Continental Flexsteel and Phoenix Phoenocord are custom designed to provide superior protection in the world's harshest environments.

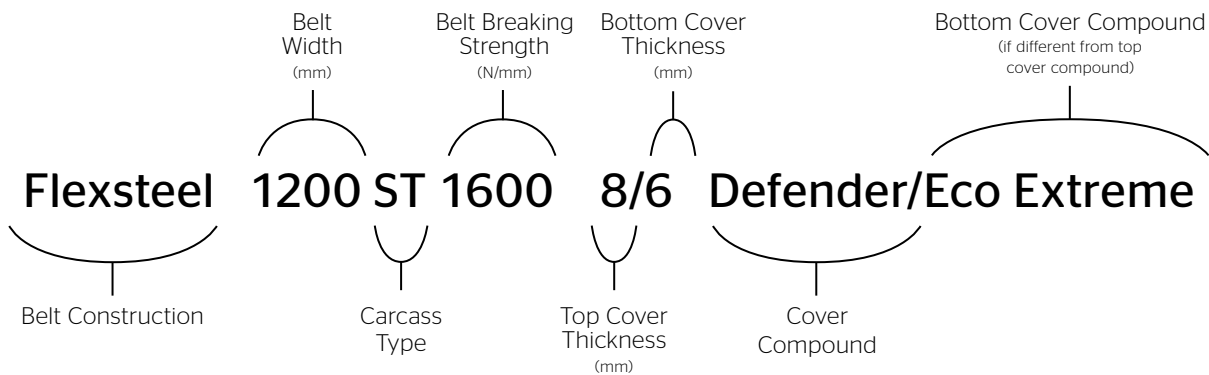
Our steelcord belts are built tough from the inside out to stand up to the rigors of any industrial or mining operation. Our insulation gum encapsulates each steelcord filament to reduce internal friction. It also provides enhanced adhesion to the cover. The advanced cover compounds provide maximum protection to the steelcord. These compounds are available in a wide variety of rubber types and gauges.

Belt Components



- Top Cover**
 - › Protects steelcord
 - › Various compounds available
- Top Cover Breaker**
 - › Provides additional puncture resistance from heavy impact loads
- Insulation Gum**
 - › Penetrates and adheres to steelcord
 - › Provides superior corrosion resistance
 - › Provides improved splice efficiency
- Steel Cord**
 - › Provides superior bonding to covers and insulation gum
 - › Allows high flexibility and low elongation
 - › Galvanized to provide barrier against corrosion
- Bottom Cover Breaker**
 - › Provides additional puncture resistance from trapped material
- Bottom Cover**
 - › Protects steelcord
 - › Various compounds available
 - › Low energy options available

Belt Nomenclature Example



Flexsteel and Phoenix Phoenocord Belts

Technologically Superior Products

Every Flexsteel and Phoenix Phoenocord belt features state-of-the-art technology. But we don't stop there. We continually push the boundaries of design to bring you superior products that deliver even better performance.

Three Reasons Why We Outperform The Competition:

Zinc galvanized steel cord

They provide high flexibility, low elongation and efficient and high-strength splice designs. The galvanized zinc coating creates a bonding agent between the cord and insulation gum, providing a crucial barrier against corrosion.

Insulation gum (core rubber)

Our superior insulation gum bonding rubber penetrates and adheres to the steel cords. This results in excellent adhesions, corrosion resistance and splice efficiencies.

Outer rubber covers

Advanced cover compounds protect the steel cords from abusive environmental conveying conditions. They withstand abrasion, jagged cutting and gouging, high impact, sub-zero temperatures, moderate heat, the hardening effects of ozone attack and fire propagation.

Built for the Harshest Environments

Flexsteel - Superior Strength for Heavy Mining Operations

From short stacker applications to long overland conveyors, Flexsteel belts feature advanced technology to handle the most demanding and abusive conveyor applications. Featuring outstanding impact resistance and reduced internal friction, they deliver maximum performance while providing a lower cost-per-ton of material. Plus, our Preform splice kits save time during installation. Strength rating up to 5000 N/mm.

Phoenix Phoenocord - World's Strongest Belts

Phoenix Phoenocord features extreme durability and reliable performance, making it ideal for tough mining conditions. Its high dynamic efficiency, corrosion resistance and low elongation make it the belt of choice in above and below ground use. Offering high capacity, these belts are rated from 5000 to 10000 N/mm.

Flexsteel Belt

Flexsteel belts are designed for the most demanding and abusive conveyor applications. Our state-of-the-art technology and superior design delivers maximum performance for your operation. And it does it at a lower cost-per-ton when combined with our Eco series energy savings low rolling resistant pulleys.

Markets

- › Aggregate
- › Cement
- › Coal
- › Hard rock
- › Power Generation
- › Steel Production

Applications

- › Mainlines
- › Overland Belts
- › Pit Belts
- › Ship Loaders
- › Slope Belts
- › Any High Abuse Applications

Cover Compounds

- › Defender and Defender Plus
- › Stacker and Stacker Plus
- › Survivor and Survivor Plus
- › Monster Hide and Monster Hide Plus
- › Other Compounds Available on Request

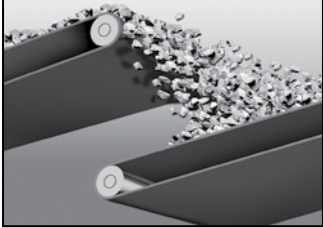
See pages 54-60 for more specific details.

Get a lower cost-per-ton conveyed

Belt Rating: 800 - 4500 N/mm

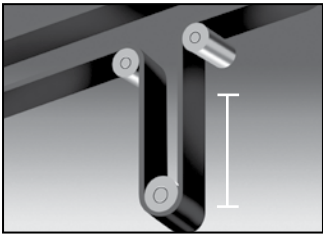


Flexsteel Features and Benefits



Fewer transfer points

Flexsteel's high-tension capabilities allow for extremely long centers, exceptionally high lifts and multiple horizontal curves. This lets designers reduce the number of transfer points, minimizing a major source of maintenance headaches and downtime.



Limited take-up travel

Flexsteel's permanent elongation averages 0,07% at rated tension. This means using lower cost take-up systems on many applications, making Flexsteel ideal for long overland and short stacker/reclaiming systems.



Superior troughing characteristics

Because Flexsteel belts are not transverse direction interwoven, they offer superior troughability. Even on steep angle idlers, Flexsteel belts will trough perfectly to handle full load capacity.



Exceptional belt training

Flexsteel belts are built in a "uniplane" construction. The cords are laid in precisely the same plane with the tension carefully controlled and equalized under cure. This lets Flexsteel run straight and true because the cords are laid with an alternating left- and right-hand twist. This ensures that the belt is in constant contact with idlers and enhances its ability to run straight.

Flexsteel Features and Benefits



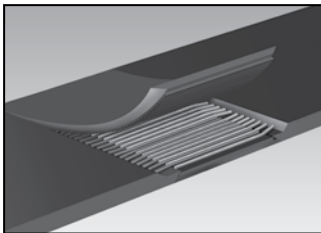
Lower cost-per-ton

Fewer conveyors and splices, shorter take-ups and reduced belt inventory means significant cost savings right up front. Longer belt life, life-long splices, excellent belt training and reduced downtime saves you even more down the road. Plus, overland conveyors are typically more efficient than trucks or rail. It all adds up to a lower cost-per-ton of material conveyed and makes a major improvement to your bottom line.



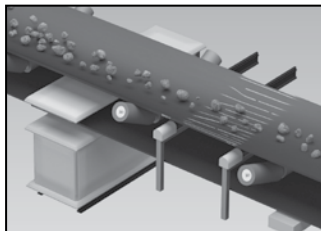
Eco series pulley covers

Our Eco series special viscoelastic pulley covers deliver energy savings and reduce greenhouse gas emissions. This makes them the global climate sustainability choice for any operation.



Preform splice technology

Preform splices mean greater cost savings for your operations by improving splice efficiency, reducing splice time and delivering better performance.



Belt monitoring systems

Continental Conveyor Belt Monitoring systems generate an overall picture of conveyor belt health. Our reliable belt monitoring tools can easily be adjusted to accommodate the typical changes that occur over the life of a conveyor belt. Easy to interpret belt condition reports are objectively generated by Continental's monitoring software.

Flexsteel Belt Information

Flexsteel Standard Specifications

Metric										
Tension Rating	ST 800	ST 1000	ST 1250	ST 1600	ST 2000	ST 2500	ST 3150	ST 3500	ST 4000	ST 4500
Minimum Ultimate Tension (N/mm)	800	1000	1250	1600	2000	2500	3150	3500	4000	4500
Belt Modulus (N/mm)	58000	72000	90000	115000	144000	180000	227000	252000	288000	324000
Cover Gauge Examples (Top & Pulley Side) (mm)	6/4	6/4	7/5	7/5	8/6	8/6	10/8	10/8	12/10	12/10
Cable Diameter (mm)	3,6	3,6	4,4	5,0	5,0	6,7	7,6	8,2	8,8	9,3
Belt Thickness (mm)	13,6	13,6	16,4	17,0	19,0	20,7	25,6	26,2	26,8	31,3
Specific Belt Mass (kg/m ²)	18,2	19,7	24,5	26,0	28,3	32,8	40,4	42,9	45,4	50,6
Carcass Weight (kg/m ²)	7,9	9,4	12,1	13,6	13,9	18,4	21,9	24,4	26,9	27,9

Tension ratings are available in addition to those shown above. Other cable diameters may be substituted according to individual requirements. For differing cover thicknesses consider: Weight of cover per 1 mm thickness: 1,10 kg/m².

Additional Steel Cord designs and specifications are available upon request.

Phoenix Phoenocord Belts

Phoenix Phoenocord was the world’s first steel-reinforced belt for the material handling industry. Since then, we’ve continually advanced its technology to handle the most challenging mining and material handling applications.

Designed for Extreme Environments

Phoenix Phoenocord conveyor belts are available up to a breaking strength of 10000 N/mm and a width of 3200 mm. Belts can be manufactured in lengths weighing up to an incredible 60 metric tons. With decades of experience and outstanding research and development, Phoenix Phoenocord belts have been proven to handle the most extreme conveyor belt applications.

Markets

- › Hard Rock Mining
- › Other Extreme Material Handling Applications

Applications

- › Mining Overland Belts
- › Slope Belts
- › High-Abuse Applications
- › Mainlines

Cover Compounds

- › Stacker and Stacker Plus
- › Survivor and Survivor Plus
- › Monster Hide and Monster Hide Plus
- › Other Compounds Available on Request

See pages 54-60 for more specific details.

Get a lower cost-per-ton conveyed

Belt Rating: 5000 - 10000 N/mm

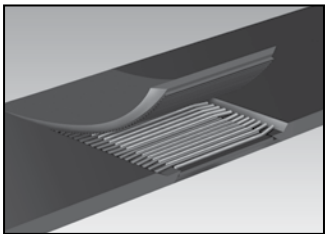


Phoenix Phoenocord Features and Benefits



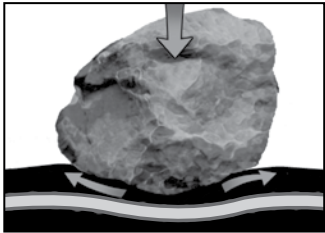
The world's strongest belts

Phoenix Phoenocord belts are proven to be stronger and more durable than any other in even the most extreme working environments.



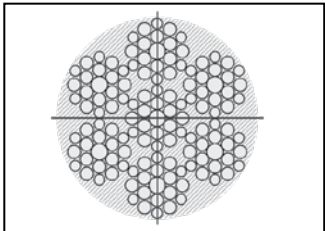
Life-long splices

Independent testing proves that our splicing methods outperform industry standards.



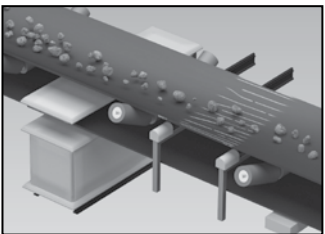
Highest impact resistance

Our advanced cover compounds and insulation gum's superior adhesion provide the impact and tear resistance your applications demand.



Sybercord Technology

Using a proprietary construction, Sybercord delivers the same breaking strength cable at smaller diameters. This results in lower belt weights, smaller pulley diameter requirements and the potential to simplify splices. Sybercord technology provides optimal corrosion resistance and a more flexible cable design, thus achieving a higher dynamic splice efficiency allowing the end user more cost savings options.



Belt Monitoring Systems

Our systems generate an overall picture of conveyor belt health. Our reliable belt monitoring tools can easily be adjusted to accommodate the typical changes that occur over the life of a conveyor belt. Easy to interpret belt condition reports are generated by Continental's monitoring software.

Phoenix Phoenocord Belt Information

Phoenix Phoenocord Standard Specifications

Metric											
Tension Rating	ST 5000	ST 5400	ST 6000	ST 6500	ST 7000	ST 7500	ST 8000	ST 8500	ST 9000	ST 9500	ST 10000
Minimum Ultimate Tension (N/mm)	5000	5400	6000	6500	7000	7500	8000	8500	9000	9500	10000
Belt Modulus (N/mm)	360000	389000	432000	468000	504000	540000	576000	612000	648000	684000	720000
Cover Gauge Examples (Top & Pulley Side) (mm)	12/10	12/10	12/10	12/10	14/10	14/10	14/12	14/12	14/12	14/12	14/12
Cable Diameter (mm)	11,0	11,0	12,4	12,4	12,4	13,2	14,1	14,1	14,1	14,1	14,1
Belt Thickness (mm)	33,0	33,0	34,4	34,4	36,4	37,2	40,1	40,1	40,1	40,1	40,1
Specific Belt Mass (kg/m ²)	68,1	70,0	74,4	76,4	81,0	84,4	87,7	89,6	91,6	93,6	95,6
Carcass Weight (kg/m ²)	45,3	47,3	51,7	53,7	56,2	59,6	60,8	62,8	64,8	66,8	68,8

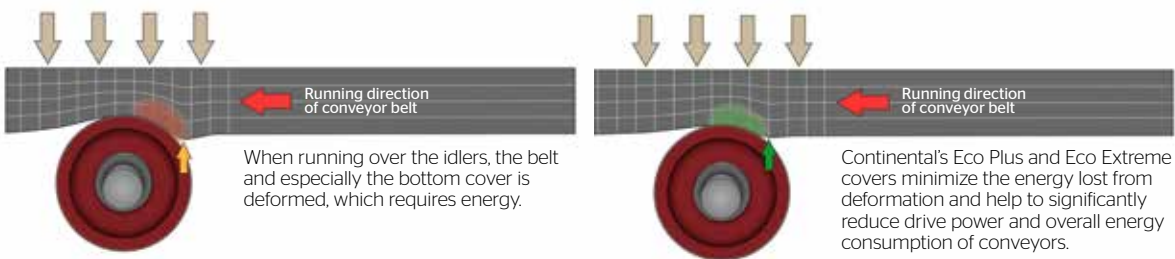
Tension ratings are available in addition to those shown above. Other cable diameters may be substituted according to individual requirements. For differing cover thicknesses consider: Weight of cover per 1 mm thickness: 1,10 kg/m².

Additional Steel Cord designs and specifications are available upon request.

Eco Series Pulley Covers

Our innovative Eco Series Pulley Covers are our latest innovation that greatly improve conveyor efficiency. They reduce the power required to operate high-performance systems. Just as some tires provide lower rolling resistance depending upon their construction and compounds, a conveyor belt can also be designed to provide lower resistance as it rolls over the support idlers.

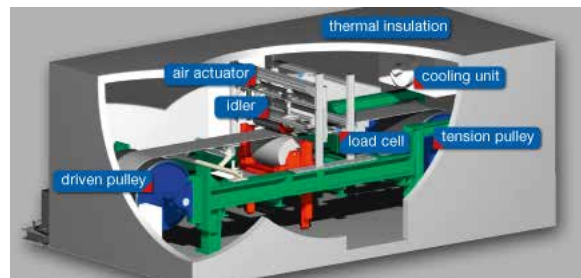
We've thoroughly studied the power required to operate a typical conveyor belt. As the belt passes over an idler, the pulley cover rubber passes through a compression/rebound cycle that absorbs power. On long center horizontal conveyors, the rolling resistance power loss due to the indentation effect can reach 61% of the total system power.



Systems that use our Eco series pulley compound covers will reduce power consumption by at least 15%. Our Eco Extreme compound will reduce energy consumption by at least 30%*. Operating cost savings that you'll realize year after year

For example, if your energy costs are €1 million per year, a potential 30% savings with Eco Extreme represents a savings of €300,000 compared to other compounds. Over 10 years, this can add up to a savings of €3 million or more depending on your operation.

**Energy savings based on reference conveyor. C-C Distance: 3500 m. Mass Flow: 6000 t/h. Two drive pulleys at the head end, one drive pulley at the tail end. Belt in the range of 1600 mm ST 1600 8:6.*



Test rig for measurement of rolling indentation resistance at ITA Hanover.

Preform Splice Technology

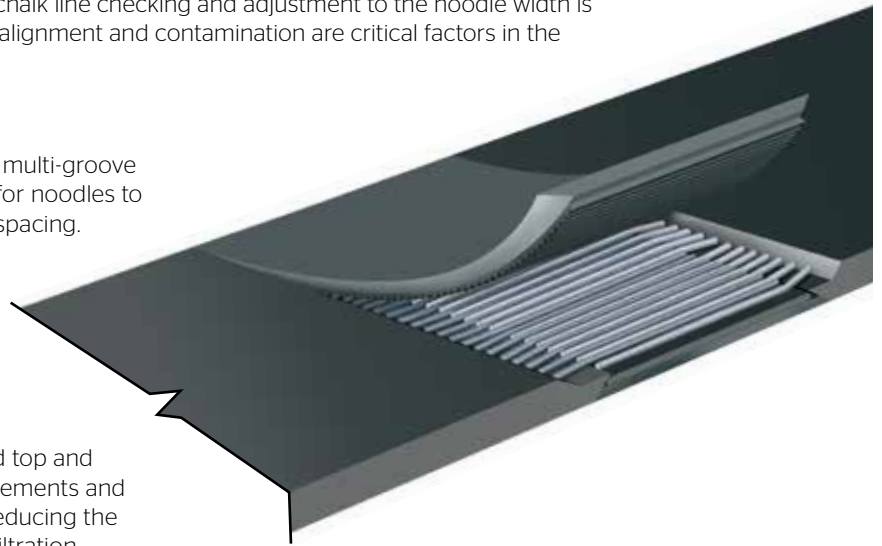
Improves Splice Strength and Saves Time

Significant technical advancements have been made in steelcord belt splicing in the past several years. Our Preform splices provide improved splice efficiency, along with reduced splice time and better performance. This means more dollars in your pocket.

Conventional splice methods involve the use of cements and rubber noodles. Cement drying time extends the overall splicing time, while providing the opportunity for increased contamination. The alternative laying of cord and noodle further extends splice time, as constant chalk line checking and adjustment to the noodle width is necessary to maintain cord alignment. Cord misalignment and contamination are critical factors in the resultant splice performance.

Preform Panel

This illustration shows how the top and bottom multi-groove panels encase each cord, eliminating the need for noodles to ensure cord alignment and uniformly accurate spacing.



Preform Splice Method

Preform splices utilize preformed, multi-grooved top and bottom cover panels, eliminating the need for cements and noodles. Cement drying times are eliminated, reducing the possibility of splice contamination from dust infiltration. Cord laying time is significantly reduced and the correct cord spacing and alignment is virtually guaranteed. The result is a stronger splice, with improved performance and life.

Improved Performance

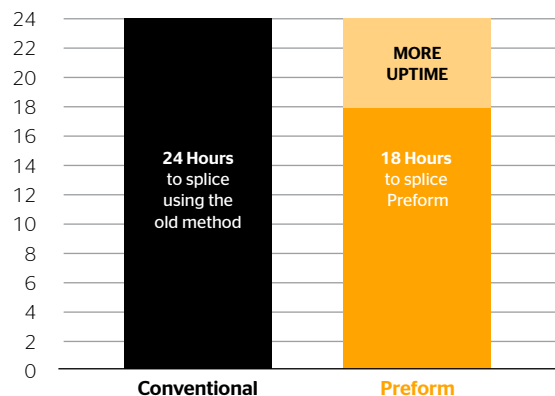
Testing on the 2-Pulley Dynamic splice tester at our Technical Center shows the results of two identical belts, one spliced using Preform and one spliced using conventional splicing methods. This one test shows the Preform splice to withstand 33% more load cycles, for a theoretical 33% longer service life, than the conventional splice. Static pull splice strength tests conducted at an independent laboratory showed the Preform splice to be at least 10% stronger than a conventional splice.

Savings

Savings of 16% to 25% were achieved based on actual field measurements by comparing one splice technique versus the other on the same belt at the same time. Reduced splicing time means more uptime and increased productivity.

Less Downtime

Preform splices are 25% faster.

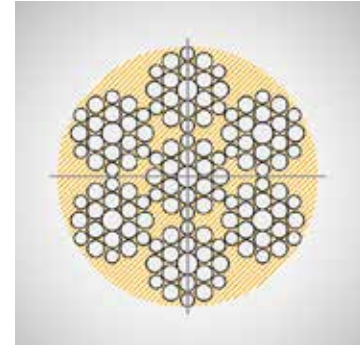


Sybercord Technology

The Next Generation of Steel Cord Belting



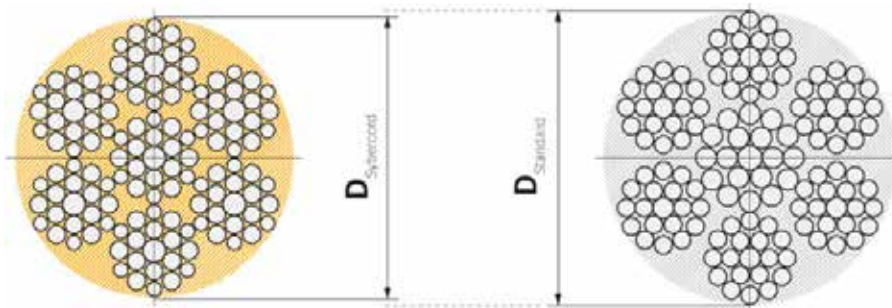
Our special Sybercord cord design is unmatched when it comes to high performance. We utilize the highest manufacturing and quality standards in the industry and combine it with our advanced splicing technology. This allows us to optimize Sybercord's steel cord design, construction, materials and processing technologies.



7x19 Sybercord Construction: Compact cord construction, completely filled with rubber.

Sybercord Construction

Open Cord Construction



Advantages

- › Higher dynamic belt and splice efficiency
- › Less complex splice with fewer stages
- › Potential for reduced pulley diameters
- › Improved corrosion protection lowers maintenance costs
- › Lighter belt weight reduces energy consumption

Applications

- › Transportation of all types of material

Product Range

- › Available for ST3500 up to ST10000

Pipe Conveyor Belts



ContiPipe Conveyor Belts

A well-rounded solution for securing materials over the long haul.

Designed to outperform conventional pipe conveyor belts

Most pipe conveyor belt is using technology more than 20 years old. This can lead to numerous conveying issues, including fatigue-induced collapse of the pipe shape, opening of the overlap seal and downward rotation of the overlap seal. The unique patent-pending reinforcement of ContiPipe provides enhanced transverse stiffness, which allows greater resistance to collapse, excellent seal closure and resistance to downward rotation—regardless of the path the belt must travel.

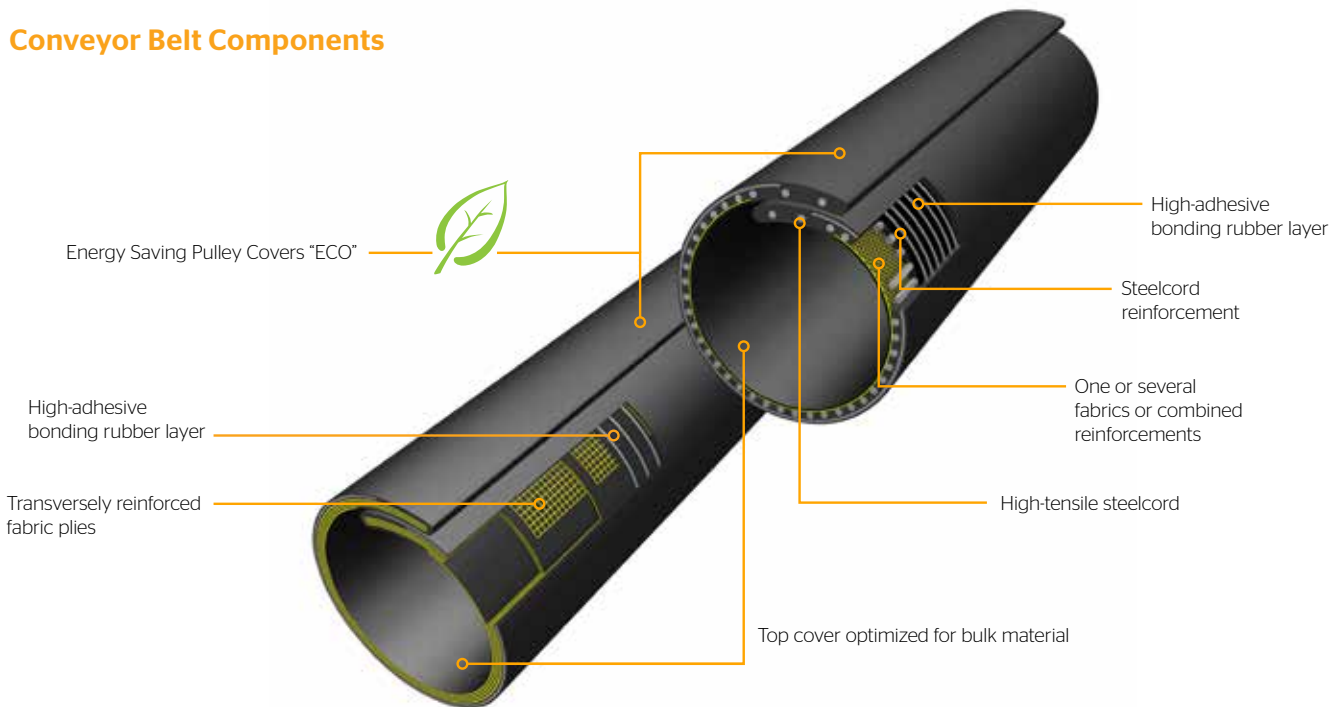
Keeping it clean

Because of its closed belt design, ContiPipe provides dust-free transport of materials, keeping finer materials within the belt and not lost to the air. Meanwhile, the transported materials are protected from damaging external elements like wind and rain.

Typical Applications

-
- | | | |
|-----------------------|------------------|--------------|
| › Copper | › Pulp and Paper | › Fertilizer |
| › Coal (Power Plants) | › Limestone | › Glass |
| › Rock | › Iron Ore | › Steel |
| › Gypsum | › Fly Ash | › Wood Chips |
| › Cement | › Wet Ash | |
-

Conveyor Belt Components



ContiPipe Belt Information

Engineered to work a long way

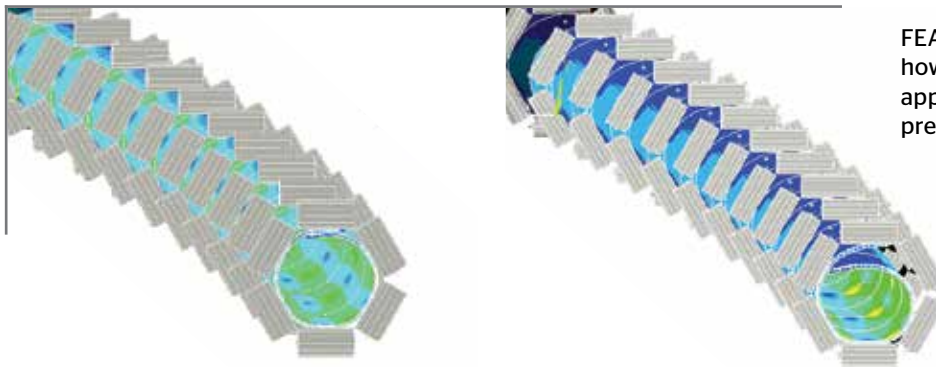
Developed using Finite Element Analysis (FEA) modeling to meet the demands of modern pipe conveyor systems, ContiPipe is engineered to give you more. Comprehensive research, including dynamic belt testing to validate the FEA, allowed us to create a belt that can withstand the stresses of a long haul, especially around tight curves. Plus, it is built with unique characteristics that allow ContiPipe to keep its shape.

- › Superb long-term transverse stiffness
- › Excellent overlap seal
- › Reduced buckling and minimized seam rotation in curves

The FEA modeling provides the basis to design a belt to meet the demanding requirements of pipe conveyor systems. This results in longer life compared to conventional pipe belts and a lower cost-per-ton conveyed.

ContiPipe

Standard Pipe Conveyor Belt



FEA modeling gives us the ability to predict how a specific belt design will perform in application. Our modeling can accurately predict pipe belt rotation in curves.

ContiPipe and MegaPipe Sizes

Metric (mm)			
Diameter	Belt Width	Type	
		Fabric	Steel
150	600	•	
200	780	•	
250	1000	•	
300	1100	•	•
350	1300	•	•
400	1600	•	•
500	1900	•	•
600	2250	•	•
≥ 700 (MegaPipe)			

*Contact your Sales Representative for additional sizes.

MegaPipe Conveyor Belts

Next Level Pipe Conveying

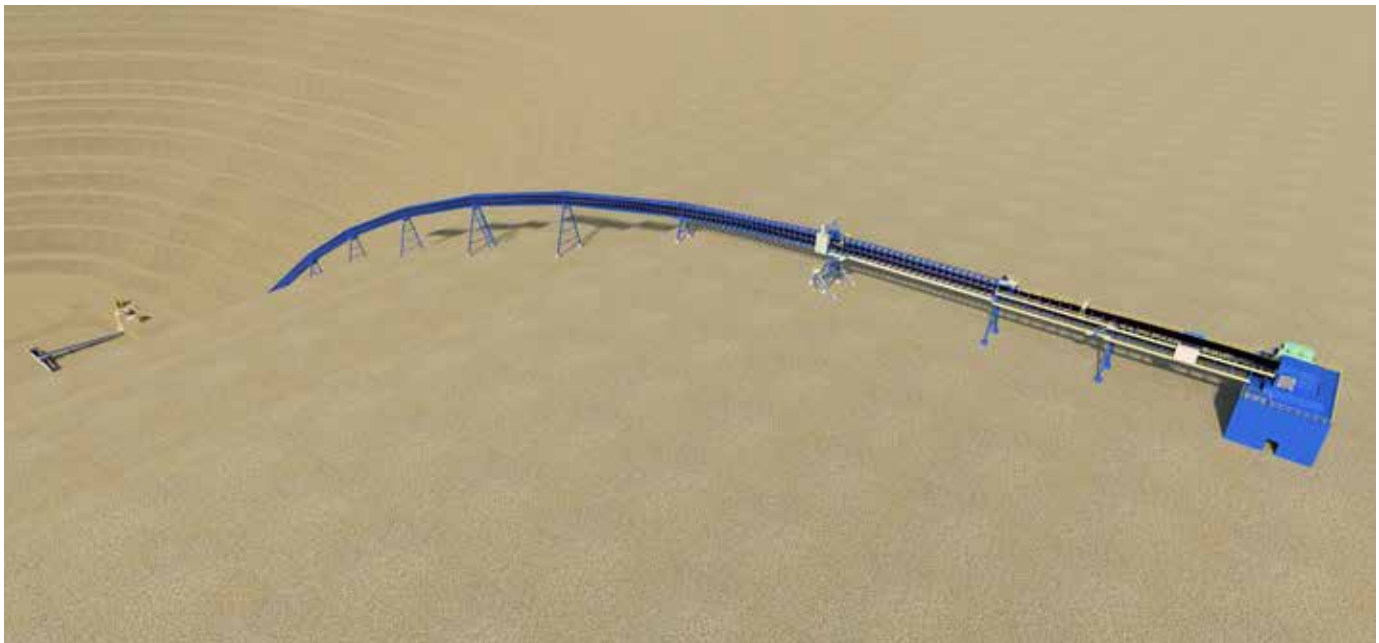
Our MegaPipe breaks the limits in many ways. It combines the advantages of our ContiPipe Series with pipe diameters bigger than 700 mm. And when it comes to high angle conveying, MegaPipe makes it possible to create systems with angles of incline up to 34 degrees. With a maximum capacity of up to 9500 m³/h at conveying speeds of up to 6,5 m/s, MegaPipe transports bulk materials with a maximum grain size of up to 350 mm directly from the primary crusher.

Technical Information

- › Conveyance over mine slopes with inclinations $\leq 34^\circ$
- › Mine depths of up to 700 m and mass flows of 5000 t/h and even more!
- › Nominal belt breaking strength of up to 9500 N/mm
- › Outer pipe diameter of up to 900 mm (belt width 3200 mm)
- › Primary crushed material with lump sizes up to 350 mm
- › Conveyor belts with steelcord and fabric carcasses
- › Cost and Energy Efficient Siemens DirectDrives

Features and Benefits

- › No need for a secondary crusher
- › Rapid return of investment
- › Significantly reduced mining truck fleet and CO₂-footprint
- › Closed-trough transport = environmentally friendly & safe!



Cover Compounds

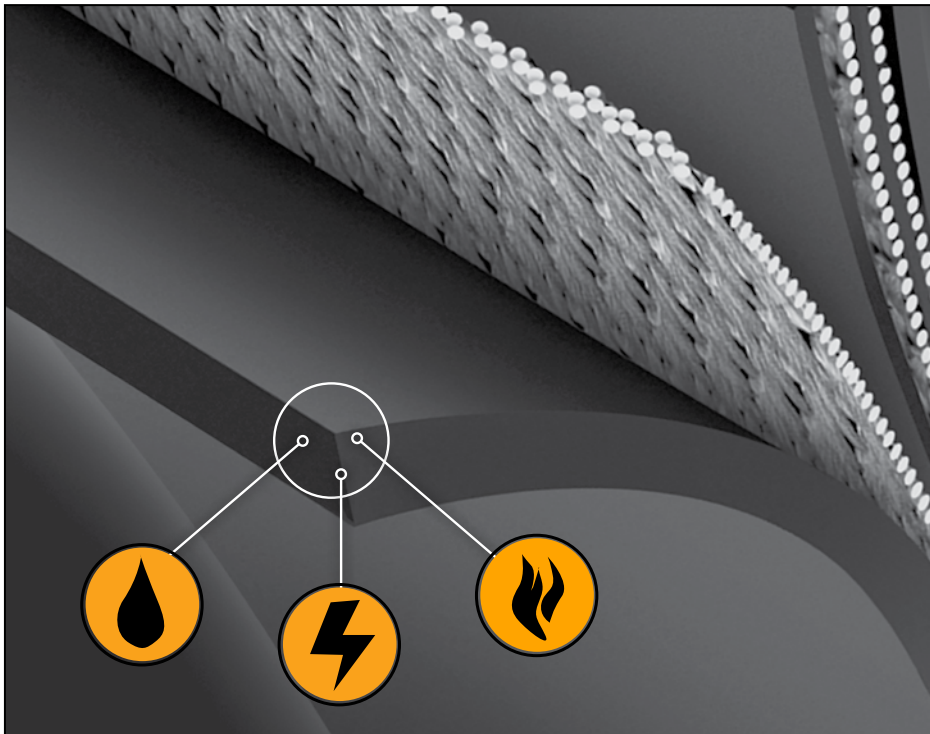


Cover Compounds

Protecting Your Investment with Continental Cover Compounds

Continental cover compounds provide the ultimate protection for your belt carcass so that you realize a lower cost-per-ton conveyed and your system requires less maintenance. Our innovative, thermoset-formulated compounds provide protection and performance in even the toughest applications. Utilizing our compounding expertise, we offer a wide variety of cover compounds to meet your specific application requirement.

Our manufacturing process is vertically integrated and unique to the conveyor belt industry. Backed by extensive research and testing facilities, we have cover compounds to meet your rigorous requirements. We own mixing facilities that provide raw materials used in making our cover compounds, giving us more control over the quality of the product every step of the way.



Cover Compounds and Applications

Compounds	Applications														
	Underground Mining	Underground Mining Non-Coal	Coal - Prep Plants	Aggregate	Cement	Wood - Pulp & Paper	Steel or Foundry	Package Handling	Hard Rock Mining	Grain Handling	Bulk Handling Terminal	Power Generation	Sand & Gravel	Recycling	Overland Transportation
Survivor Plus				■	■		■		■		■				■
Survivor				■	■		■		■		■	■			■
Stacker (W)				■	■		■		■		■				■
Stacker Plus (X)				■	■		■		■		■				■
Defender (Y)			■	■	■	■	■	■	■		■	■	■	■	■
Defender Plus			■	■	■	■	■	■	■		■	■	■	■	■
Easyrider (Z)				■				■					■		
Shield Group	■	■	■			■	■			■	■	■			
Monster Hide				■					■						
Monster Hide Plus				■					■						
Gold Extreme											■			■	
Gold Plus						■					■			■	
Gold Classic						■					■			■	
Arctic Gold						■					■			■	
Solar-Shield Gold					■	■					■			■	
Solar-Shield Ultimate					■		■								
Solar-Shield Extreme					■		■								
Solar-Shield Plus					■		■								■
Solar-Shield Classic					■		■								■
Eco Plus & Eco Extreme															■

Standard Compounds

Arctic Gold

Excellent mineral oil and abrasion resistance combined with improved low temperature properties

Defender (Y) and Defender Plus

Rubber compounds designed to provide very good abrasion resistance, good gouge resistance and excellent flex life.

Eco Series

A low rolling resistance family of compounds for the pulley cover side only which is designed to reduce the energy cost by minimizing indentation energy loss to idlers. Proven with hundreds of kilometers of belt in operation, the Eco Plus compound can provide up to 30% reduction in energy consumption compared to standard compounds with Eco Extreme version providing as much as 30% reduction in energy consumption.

Shield

Group of compounds for use in applications where a different level of flame resistance is needed, from most demanding underground coal mine to wide line of aboveground applications. Beside passing different flame resistant testing methods compounds in Shield group can also include additional characteristics, for example resistance to oil and heat.

Easyrider (Z)

Rubber compound designed to provide good abrasion resistance and very good flex life.

Monster Hide and Monster Hide Plus

The ultimate in cut and gouge protection. Designed to absorb impacts from large rock with sharp edges.

Gold Classic, Gold Plus and Gold Extreme

Gold series compounds protect from the effects of terpene in wood chips, oil grains, and petroleum oils. Gold oil compounds offer good abrasion resistance and great value for handling moderately oily material where fire resistance is not required.

Solar-Shield Gold

An oil-resistant compound formulated for applications demanding higher resistance to heat, oil and abrasion. It is resistant to temperatures up to 180°C, oxidation and the effect of corrosive atmospheres.

Solar-Shield Classic, Solar-Shield Plus, Solar-Shield Extreme and Solar-Shield Ultimate

When an exceptional range of hot material compounds with superior heat resistance against hardening and cracking is required. Solar-Shield compounds are designed to carry hot material at intermittent temperatures from 180°C with Classic, up to 400°C using Extreme and over 400°C using Ultimate and retain their superior heat-resistant qualities.

Stacker (W) and Stacker Plus (X)

Premium compounds designed for excellent resistance to cutting, gouging and abrasion.

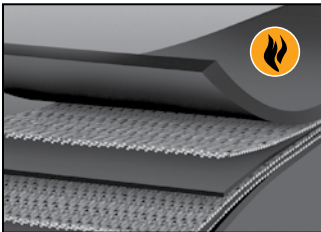
Survivor and Survivor Plus

Designed for superior abrasion resistance. Ideal for high-speed, small diameter crushed stone, trap rock, ore, copper, taconite and other abrasive applications where performance matters.

Solar-Shield Heat Resistant Compounds

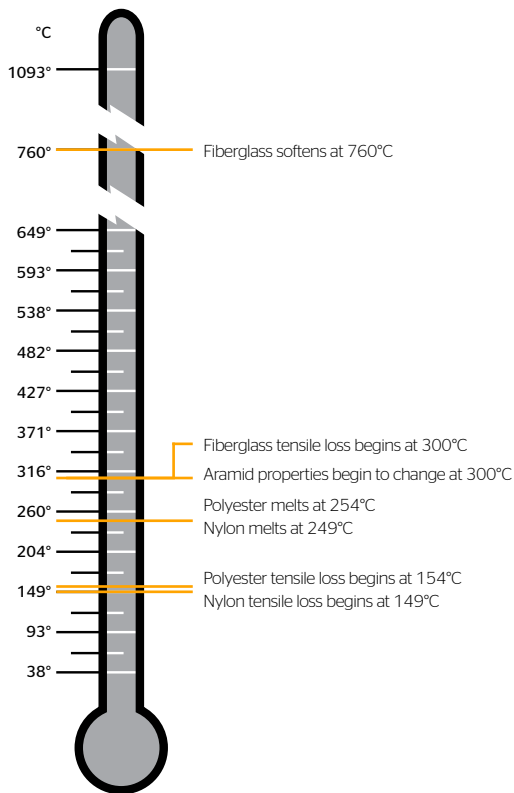


Solar-Shield series of heat resistant compounds offer high performance in extremely hot material applications. Solar-Shield compounds maintain their physical properties through continuous exposure. This ability to resist the effects of continuous exposure to elevated temperatures results in longer belt life leading to better customer results.



Fiberglass carcass reinforcement

The fiberglass fabric option offers the highest degree of burn-through resistance of any currently available fabric reinforcement.



Solar-Shield Classic

A compound formulated for excellent heat and abrasion resistance up to 180°C.

Solar-Shield Plus

A compound designed to retain flexibility while conveying materials with higher temperatures. Resists cover cracks and carcass delamination when intermittently exposed to loads up to 200°C for longer life and reduced operating costs.

Solar-Shield Extreme

An exceptional hot material compound with superior heat resistance against hardening and cracking. Designed to handle hot material loads intermittently up to 400°C. Improved heat resistance means longer belt life.

Solar-Shield Ultimate

Compounded for the ultimate protection in high temperature applications above 400°C. Improved heat resistance extends belt life 2-3 times beyond other heat belt solutions for reduced belt replacement costs and improved business results.

*The maximum allowable temperatures are influenced by the type and form of material, the time influence and the construction of the installation. In closed systems (e.g. elevator belt, pipe conveyor) the permissible temperature drops accordingly. Temperatures of the conveyed materials can be higher, depending on the size of the material pieces and on the operating conditions.

Cover Compounds

Compound	International Standards	Low Temp.	High Temp. (Lumpy Material)	Abrasion Resistance	Cut & Gouge Resistance	Oil Resistance	Flame Resistance	ISO 284 Static Conductive	ASTM Shore A	Min. Tensile (MPa)	Min. Elongation (%)	Max. DIN Abrasion (mm ²)
Abrasion Compounds												
Survivor Plus	Not Applicable	-50°C	65°C	Extreme	Good	No	No	Yes	60	18,0	450	40
Survivor	SANS A	-50°C	65°C	Ultimate	Very Good	No	No	Yes	59	18,0	400	65
Stacker	DIN W, ISO D	-50°C	65°C	Superior	Excellent	No	No	Yes	60	18,0	400	90
Defender Plus	Not Applicable	-40°C	100°C	Excellent	Very Good	No	No	Yes	60	17,2	450	115
Defender	DIN Y, SANS C	-40°C	65°C	Very Good	Very Good	No	No	Yes	60	20,0	450	150
Easyrider	DIN Z, ISO L	-34°C	65°C	Good	Good	No	No	Yes	60	15,0	400	175
Cut & Gouge Compounds												
Monster Hide Plus	Not Applicable	-40°C	65°C	Excellent	Extreme	No	No	Yes	68	25,0	450	90
Monster Hide	Not Applicable	-40°C	65°C	Good	Ultimate	No	No	Yes	72	24,0	480	110
Stacker Plus	DIN X, ISO H, SANS M	-40°C	65°C	Very Good	Superior	No	No	Yes	60	25,0	450	120
Stacker	DIN W, ISO D	-50°C	65°C	Superior	Excellent	No	No	Yes	60	18,0	400	90
Defender Plus	Not Applicable	-40°C	100°C	Excellent	Very Good	No	No	Yes	60	17,2	450	115
Flame Compounds												
Shield YK	DIN K, DIN Y, EN 12882 2A	-35°C	60°C	Very Good	Very Good	No	Yes	Yes	60	20,0	400	150
Shield YS	DIN S, DIN Y, EN 12882 2B	-20°C	60°C	Very Good	Very Good	No	Yes	Yes	60	20,0	400	150
Shield Type F	SANS 1173, SANS 1366	-40°C	70°C	Very Good	Good	No	Yes	Yes	75	14,5	530	167
Shield VT	DIN 22109/VT	-15°C	70°C	Good	Good	Fair	Yes	Yes	65	15,0	350	200
Shield FRS	EN 12881 2A, 2B, 3A, 3B, 4A, 4B, 5A	-15°C	70°C	Good	Good	Fair	Yes	Yes	65	15,0	350	200

DIN abrasion values are measured using the non-rotating head test method.

Cover Compounds

Compound	International Standards	Low Temp.	High Temp. (Lumpy Material)	Abrasion Resistance	Cut & Gouge Resistance	Oil Resistance	Flame Resistance	ISO 284 Static Conductive	ASTM Shore A	Min. Tensile (MPa)	Min. Elongation (%)	Max. DIN Abrasion (mm ³)
Flame Underground Compounds												
Shield V	DIN 22109/V	-15°C	80°C	Very Good	Good	Fair	Yes	Yes	64	19,0	450	160
Shield UTS	EN 14973 A, B1, B2	-15°C	80°C	Very Good	Good	Fair	Yes	Yes	64	19,0	450	160
Flame and Oil Resistant Compounds												
Shield KG	DIN K, EN 12882 2A	-20°C	70°C	Good	Good	Fair	Yes	Yes	63	15,0	350	200
Shield SG	DIN S, EN 12882 2B	-20°C	70°C	Good	Good	Fair	Yes	Yes	63	15,0	350	200
Shield Oil SG	DIN S, EN 12882 2B	-15°C	120°C	Fair	Fair	Superior	Yes	Yes	68	16,0	400	250
Gold Oil Compounds												
Gold Classic	Good Oil	-25°C	70°C	Good	Good	Good	No	Yes	60	16,0	400	150
Gold Plus	Better Oil	-25°C	70°C	Good	Good	Very Good	No	Yes	62	15,0	400	160
Gold Extreme	Best Oil	-25°C	100°C	Good	Good	Superior	No	Yes	58	12,0	450	200
Gold Arctic	Low Temperature	-40°C	60°C	Excellent	Good	Very Good	No	Yes	60	12,0	375	115
Solar-Shield Heat Compounds												
Solar-Shield Ultimate	Class III	-40°C	>400°C	Very Good	Fair	No	No	N/A	70	20,0	500	120
Solar-Shield Extreme	Class III	-40°C	400°C	Very Good	Fair	No	No	Yes	60	21,0	450	120
Solar-Shield Plus	Class III	-40°C	205°C	Good	Fair	No	No	Yes	60	10,0	400	150
Solar-Shield Classic	Class II	-40°C	180°C	Very Good	Very Good	No	No	Yes	60	20,0	400	130
Solar-Shield Gold	High Temperature/Oil	-25°C	180°C	Good	Fair	Superior	No	Yes	58	20,0	500	200

DIN abrasion values are measured using the non-rotating head test method.

Cover Compounds

Compound	International Standards	Low Temp.	High Temp. (Lumpy Material)	Abrasion Resistance	Cut & Gouge Resistance	Oil Resistance	Flame Resistance	ISO 284 Static Conductive	ASTM Shore A	Min. Tensile (MPa)	Min. Elongation (%)	Max. DIN Abrasion (mm ²)
Special Service Compounds												
Eco Plus	Low Rolling Resistance	-50°C	65°C	Good	Good	No	No	Yes	62	17,0	400	90
Eco Extreme	Super Low Rolling Resistance	-50°C	65°C	Good	Good	No	No	Yes	63	17,0	350	95
White Compounds												
Defender Plus White	Not Applicable	-40°C	100°C	Excellent	Very Good	No	No	No	65	17,0	400	125
Solar-Shield Classic White	Not Applicable	-40°C	177°C	Very Good	Very Good	No	No	No	59	13,8	400	150

DIN abrasion values are measured using the non-rotating head test method.

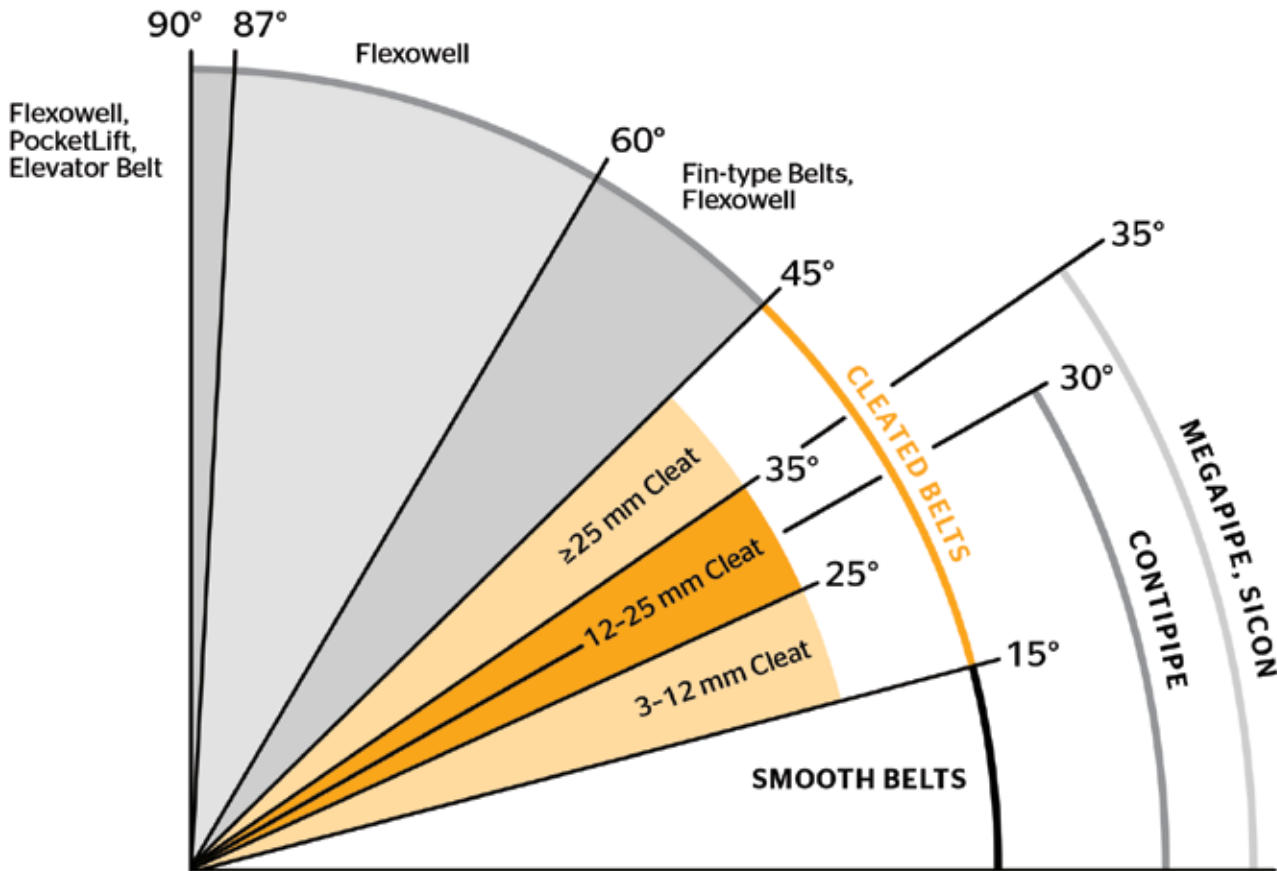
Cleated Belts



Cleated Belts

Continental is dedicated to equipping your operation for the most grueling conveying applications. Whether you are dealing with steep inclines or simply need extra support to move material, we offer a wide range of U- and V-shaped cleated belts. Continental cleated belts are ideal for conveying materials such as stone, sand, gravel, various wood products and a multitude of recycling products by taking advantage of the many custom profiles and cleat designs that are available. No matter how demanding your job is, get it done more efficiently with Continental.

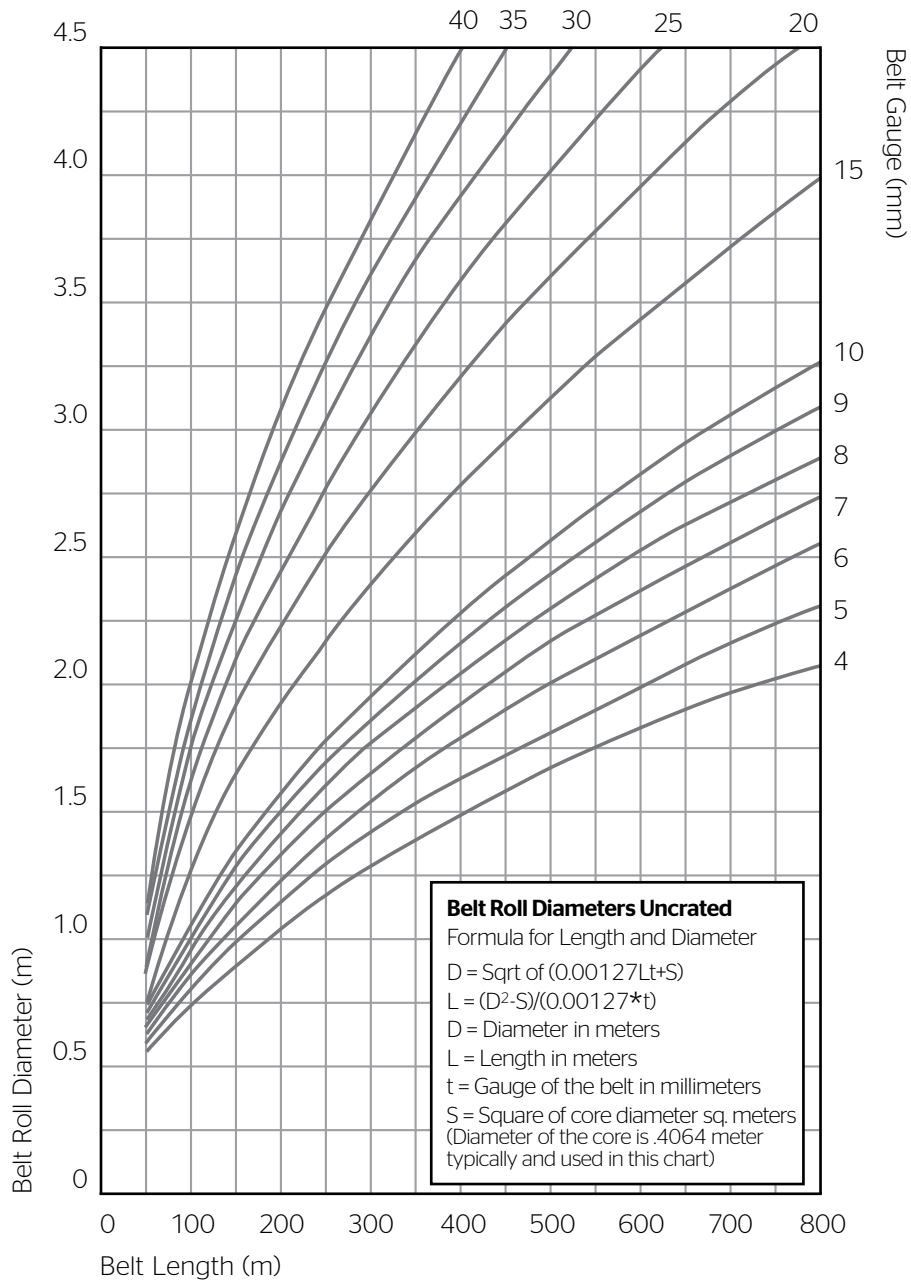
Angles of Inclination



Actual incline increases over a flat belt may vary by type of material being conveyed and loading conditions.

Belt Roll Diameters

Metric Belt Roll Diameters

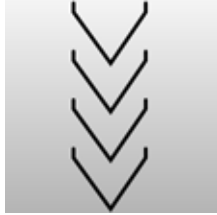


Cleated Belts

Profile Options



501-245-13



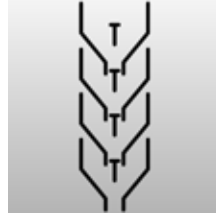
502-310-10



503-390-13



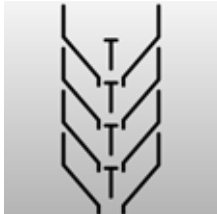
504-550-15



511-420-20



512-550-25



513-760-25



514-450-32



515-600-32



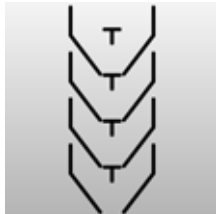
516-730-32



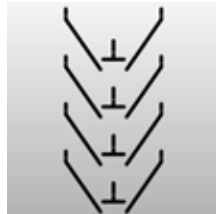
521-460-35



525-1080-50



LE-570-35



MD-420-20



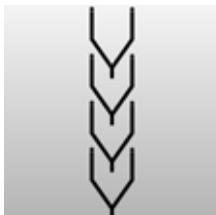
MD-450-35



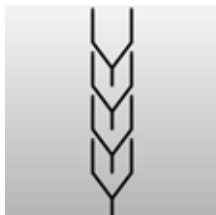
MD-550-20



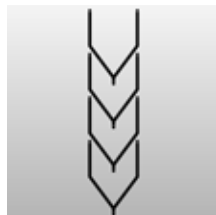
MD-610-25



SA-230-15



SA-310-15



SA-420-15



SB-250-12



SB-310-15



SB-370-15



SB-470-15



SC-600-15



SD-780-15

Profile Information continued on the next page.

Cleated Belts

Profile Options

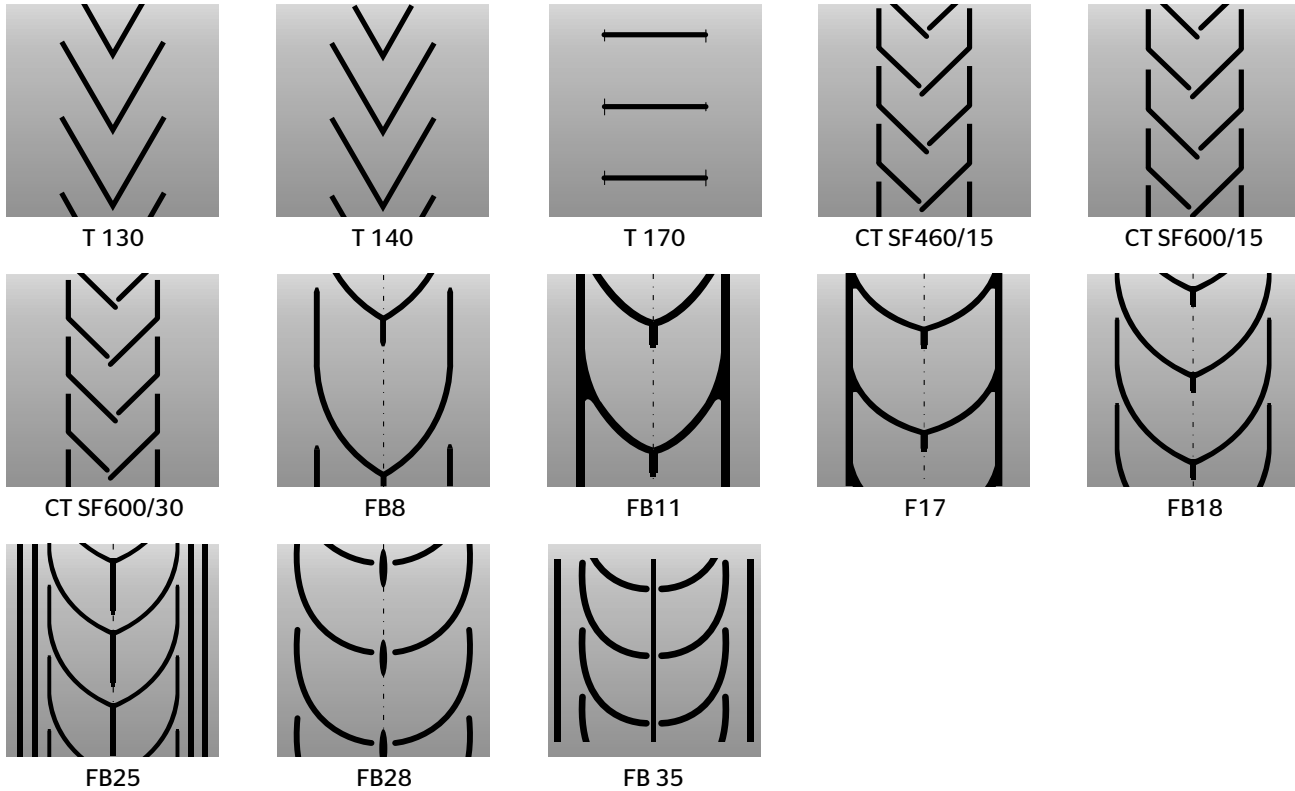
Profile Information

Cleat	Cleat Height	Cleat Width (Top/Bottom)	Profile Width	Pitch	Belt Width*
	mm	mm	mm	mm	mm
501/245/13	13	8/13	245	150	350-500
502/310/10	10	7/14	310	200	350-600
503/390/13	13	8.5/13	390	250	450-650
504/550/15	15	7/13	550	297	600-800
511/420/20	20	10/15	420	275	450-700
512/550/25	25	10/20	550	300	600-800
513/760/25	25	11/20	760	333	800-1000
514/450/32	32	10/25	450	250	500-750
515/600/32	32	10/15	600	330	650-850
516/730/32	32	10/25	730	350	750-1000
521/460/35	35	10/22	460	300	500-750
525/1080/50	50	10/32	1080	250	1200-1250
LE 570/35	35	10/23	570	320	650-850
MD 420/20	20	9,5/15	420	200	500-700
MD 550/20	20	9/18	550	250	600-850
MD 610/25	25	10/20	610	250	700-850
MD 450/35	35	10/23	450	250	500-750
SA 230/15	15	7/15	230	250	350-500
SA 310/15	15	7/15	310	330	400-600
SA 420/15	15	7/17	420	370	500-700
SB 250/12	12	8/16	250	150	350-550
SB 310/15	15	5/13	310	200	400-600
SB 370/15	15	5/13	370	250	450-650
SB 470/15	15	5/13	470	250	550-800
SC 600/15	15	7/14	600	333	650-850
SD 780/15	15	7/17	780	170	850-1100

*Please consult Continental in case wider belt width is needed.

Cleated Belts

Profile Options

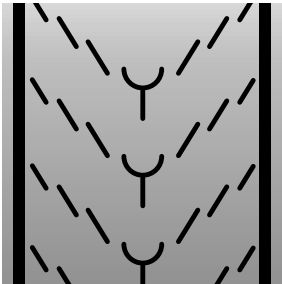


Profile Information

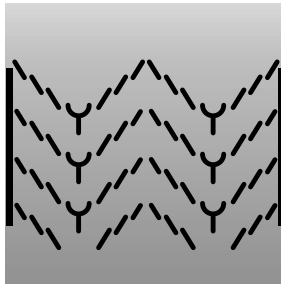
Cleat	Cleat Height	Cleat Width (Top/Bottom)	Profile Width	Pitch	Belt Width
	mm	mm	mm	mm	mm
T 130	15	18	355	200	355-600
T 140	15	18	550	300	550-850
T 170	70	7/25	600/800	250	360-800
CT SF460/15	15	8/14,5	460	300	460-900
CT SF600/15	15	8/14,5	600	300	600-900
CT SF600/30	30	11/25	600	300	650-850
FB 8	15	12/20	300	333	350-500
FB 11	15	12/20	390	333	400-650
FB 17	15	12/20	490	333	500-650
FB 18	15	12/20	600	333	650-1000
FB 25	20	19/30	920/1100/1305	500	920-1455
FB 28	35	13/23	500	250	500-810
FB 35	35	13/23	730/970	333	750-1050

Cleated Belts

Profile Options



SF290/15 - SF1140/15



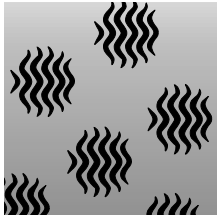
SF1290/15 - SF2460/15

Profile Information

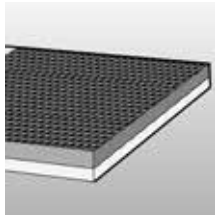
Cleat	Cleat Height	Cleat Width (Top/Bottom)	Profile Width	Pitch	Belt Width
	mm	mm	mm	mm	mm
SF 290/15	15	12/16 8/12	290	190	400
SF 390/15			390		500
SF 360/15			360		600
SF 540/15			540		650
SF 560/15			560		700
SF 690/15			690		800
SF 860/15			860		1000
SF 890/15			890		1000
SF 1140/15			1140		1200
SF 1290/15			15		12/16 8/12
SF 1460/15	1460	1600			
SF 1690/15	1690	1800			
SF 1860/15	1860	2000			
SF 2060/15	2060	2200			
SF 2290/15	2290	2400			
SF 2460/15	2460	2600			

Cleated Belts

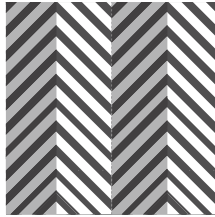
Profile Options



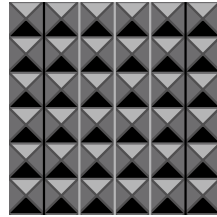
Fun Skier



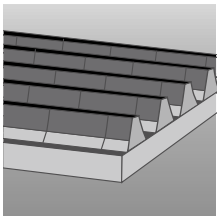
Rough Top



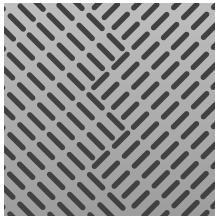
Herringbone



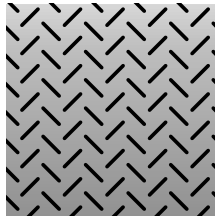
Pyramide



Ripro



Ro-Knop



Ripa X3

Profile Information

Cleat	Cleat Height	Cleat Size (Width x Length)	Profile Width	Belt Width
	mm	mm	mm	mm
Fun Skier	4	50 x 50	332-900	350-1000
Rough Top	1	Impression top	full belt width	500-1400
Herringbone	1	3 x 25	full belt width	500-1080
Pyramide	1,9	5,25 x 5,25	full belt width	500-1230
Ripro	5	3 x full belt width	full belt width	500-1000
Ro-Knop	3	10 x 50	650-1000	800-1200
Ripa X3	3	10 x 88	365-1415	500-1600

Cleated Belts

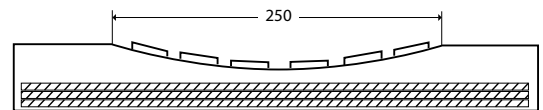
Profile Options

ContiRoll Belt Profiles

ContiRoll Profiles are special conveyor belts used for conveying paper rolls in paper mills. Additional profiles on the belt provide stable transport of the roll and reduces potential relative movement between belt and paper roll. ContiRoll belts can be produced with fabric or steel carcasses.

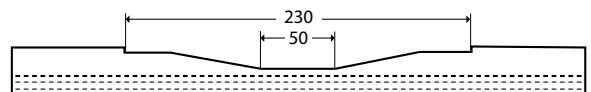
ContiRoll U Profile

Profile Width	250 mm
Belt Width	300 - 400 mm
Additional Information	Molded edges



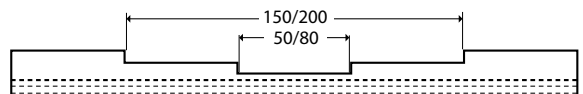
ContiRoll U

Profile Width	230 mm
Belt Width	300 - 500 mm
Additional Information	Molded edges



ContiRoll T

Profile Width	150/200 mm
Belt Width	300 - 500 mm
Additional Information	Molded edges



Belt Services



Conveyor Belt Diagnostic Technologies

Continental Conveyor Belt Monitoring Systems generate an overall picture of conveyor belt health. Our reliable belt monitoring tools can easily be adjusted to accommodate the typical changes that occur over the life of a conveyor belt. Easy to interpret belt condition reports are objectively generated by Continental's monitoring software.

THE RIGHT MONITORING SYSTEM FOR EVERY CONVEYOR SYSTEM.

- › Best-in-class sensor technology
- › Reliability and high-quality data output
- › User-friendly graphical interfaces



CONTI® Protect Systems

CONTI® CordProtect » Permanent magnetic system monitors magnetized steel cord reinforced conveyor belts for cord damages and tracks changes in the splice structure.

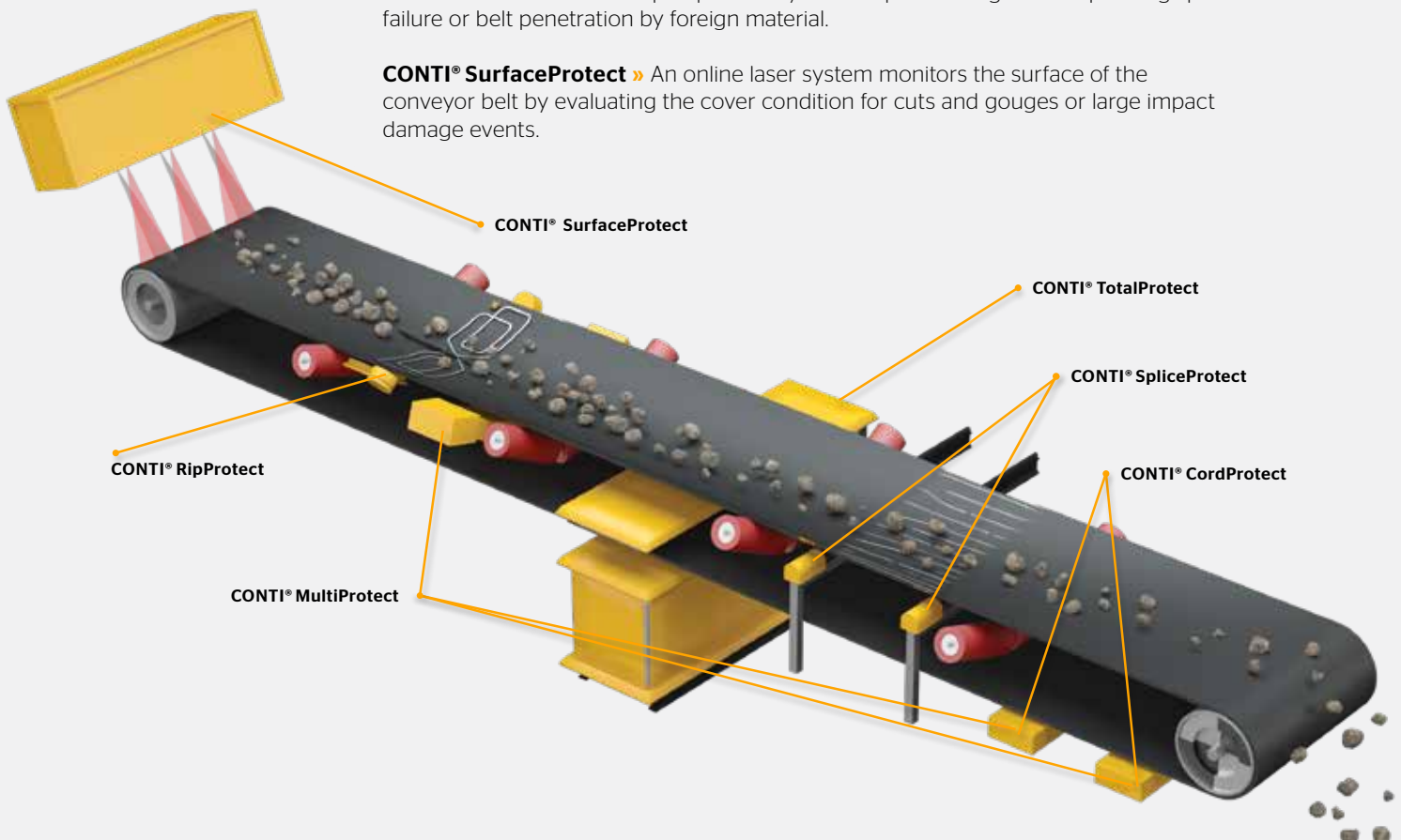
CONTI® MultiProtect » Permanent magnetic system monitors equally spaced embedded magnetized rip inserts. The flat array can monitor for steel cord damage and splice integrity.

CONTI® RipProtect » Permanent radio frequency system detects and minimizes longitudinal conveyor belt rips by monitoring the condition of a series of embedded inductive sensor loops.

CONTI® SpliceProtect » Stationary system monitors the elongation of high-tension steel cord conveyor belts to avoid splice failure by measuring the distance between unique magnetic markers embedded in each splice.

CONTI® TotalProtect » Detects and monitors everything from incremental damage to the belt surface covers up to potentially catastrophic damage due to pending splice failure or belt penetration by foreign material.

CONTI® SurfaceProtect » An online laser system monitors the surface of the conveyor belt by evaluating the cover condition for cuts and gouges or large impact damage events.



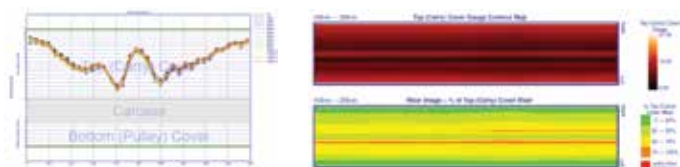


CONTI® Inspect Systems

CONTI® CordInspect » Continental technicians come to your operation and conduct a cord and splice integrity scan. Then they deliver a detailed report to help keep you running efficiently.

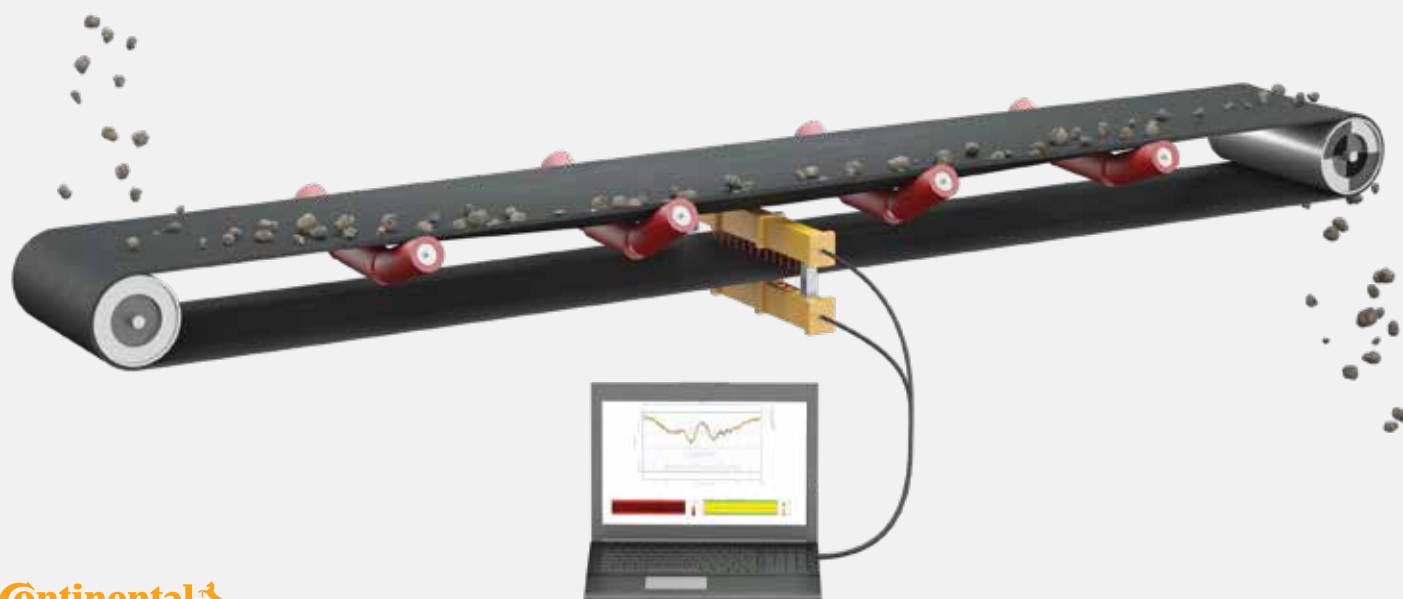
CONTI® WearInspect » Laser-based sensors measure overall-gauge (OAG). It displays a cross-sectional cover scan summary, segment gauge and percent wear data, as well as wear positions and identified magnitude in an easy-to-understand PDF report.

CONTI® SurfaceInspect » Mobile inspection system utilizes continuous belt scanning to measure the cover surface topography of the belt. Scanning can be performed at full belt speed. We then provide a compilation of digital 3D belt surface mapping and evaluate the cover surface condition using variable defect thresholds and cover surface damage.



COMPREHENSIVE REPORTING

Reports provided by CONTI® Inspect Systems are easy to understand and provide detailed damage or risk information, helping you extend belt life.





Conveying Solutions

Service Materials, Tools and Equipment



Continental Conveyor System Services

Delivering a Complete Range of Productivity Solutions

Continental offers your operation world class support with a comprehensive range of splicing, maintenance and installation services. Our experienced teams deliver solutions that help extend the life of key conveyor components and reduce wear so you can minimize downtime and maximize productivity.



Belt Installation and Replacement

From smaller short-center conveyors to more complex large overland and incline system applications, Continental field services have experience with installing and replacing conveyor belts of all sizes. Customized belt handling equipment combined with experienced personnel and field-tested procedures have safely and efficiently delivered many installation projects across the globe.



Belt Splicing

The method of conveyor belt splicing is fundamental in ensuring both the longevity of the conveyor belt and that it performs with optimum safety and efficiency. Continental is a global leader in the development of belt splicing technology and is committed to ongoing improvements and innovation within the field.

Continental service teams are experts in hot vulcanized types of Steel Cord Splicing, Textile Reinforced Splicing and Solid Woven Splicing. Other options include cold vulcanizing or mechanical fasteners.



Conveyor Maintenance and Repair

Supported by a fleet of modern purpose-built equipment and skilled technicians, Continental offers a wide range of belt and conveyor related maintenance services including: Belt Repairs, Belt Cleaner Supply Maintenance and Installation, Conveyor Pulley Overhauls and Change-out, Skirt system installation and maintenance, Conveyor Idler Supply and Installation, Impact bed Supply and Installation, General mechanical and rubber work, Belt mapping and reconditioning.



Maintenance Contracts

We support our customers under long-term contract agreements to successfully maintain conveying systems and bulk material handling assets. Leveraging our global resources and local knowledge, Continental is able to offer a range of maintenance services that can assist in reducing maintenance costs and increasing plant productivity including: Plant and asset management, predictive maintenance management (integrated with CONTI Monitoring Systems, Asset Rationalization, Planning and Scheduling, Maintenance Procedure Development).

Continental Conveyor System Services



Conveyor Emergency Call-Outs

Strategically placed service branches provide emergency support when problems arise. No matter the size of the issue, our team of technicians, engineers and specialists are available to help get your conveyor running and keep your plant operating.



Conveyor Inspections and Audits

Continental offers a diverse range of inspection and audit services utilizing the latest technologies to assist in the inspection of most conveyor related components, such as conveyor belt, belt cleaners, pulleys (lagging and bearings) rollers and idlers, mechanical components and guarding, structures, and electrical systems. Some examples include: Whole conveyor inspections, Individual asset type inspections, Transportable and mobile plant audits, Conveyor monitoring equipment inspections Endless Belt length measurement and reporting (in-site measurement), Conveyor belt cover thickness measurement and reporting and Belt splice QA inspection / report.



Belt Refurbishment

Continental has more than 30 years of experience and knowledge in the process of conveyor belt regeneration. Due to the possibility of multiple usage of support parts (carcass) of conveyor belts, and achieving significant material savings, conveyor belt regeneration presents an excellent benefit. We are providing complete regeneration consulting service.

Judging by basic parameters, regenerated conveyor belts are the same as the new conveyor belts. Based on their quality, new rubber covers and protective edges coated on the existing carcass correspond to all requirements of standards for production of conveyor belts. Approximately 80% of all belts can be regenerated.



Equipment Hire

Continental maintains a fleet of specialized belt handling equipment. This equipment is specifically designed for the safe and effective movement of heavy weight conveyor belt and includes: Belt Winders, Belt Pullers, Belt Turning and Guiding Systems, Cable Winches, Heavy Clamp Systems, Braked Let-off Stands, Vulcanizers and Belt Flaking Systems.

Additional Information



Research and Development

Investing In Research and In You

Every day, our ongoing worldwide commitment to conveyor belt research pays off for our customers.

Our Global Innovation Centers

Continental’s Research and Development team creates new products, cutting-edge technologies and improved quality assurance measures in the world’s most advanced facilities. It’s why we can bring unique products to market faster. We’re also able to deliver conveyor belts that continue to provide the industry’s lowest cost-per-ton capabilities. Our dedication to research and development helps increase your efficiency and decrease your downtime.



We Put Every Belt Through Extreme Tests



Cut and Gouge Tester

Pendulum Test for Extreme Cut and Gouge Covers

Continental developed a cut and gouge tester that’s used to design industry leading compounds like MonsterHide and MonsterHide Plus that resist the damaging effects of impact, cut and gouge.

A **low cut length and high cut force** has best resistance to cut and gouge.
 A **long cut length and low cut force** has least resistance to cut and gouge.

Tests: Internally developed test standards.



DIN Abrasion Tester

Helps Our Belts Last Longer

All of our cover compounds are tested and reported per DIN 53516 non-rotating head test. This testing allows us to develop compounds like Survivor, Stacker, Survivor Plus and Defender Plus – all with superior wear resistance for longer belt life.

Tests: DIN 53516, ISO 4649

Research and Development



Dynamic Splice Tester

Proving Our Belts and Splices Work for Your Next Generation Designs

Our dynamic splice tester is one of two machines in the world capable of proving splice efficiencies 50% or greater on belt tensions up to ST10000.

Tests: DIN 22110/3; internally developed test standards.



Load Support Tester

Pushing Technology to Test Real Life Situations

A belt's ability to span the idler junction is critical to its success. That is why we developed this advanced testing system, which simulates idler angles from 20° to 60°, tests idler gaps from 10 mm to 25 mm and measures the amount of sag a belt experiences.

Tests: Internally developed test standards.



Six-Pulley Splice Tester

Developing Stronger Splices and Higher Tension Fabric

This dynamic splice test assists in developing high-tension fabric belts and stronger splices for future market requirements. It provides improved technical information and greatly reduces product development cycles.

Tests: DIN 22110/2.



Tensile Testers up to 600kN

Increasing Your Uptime by Reducing Rips and Tears

How often is your conveyor down due to rips and tears? Our machines develop stronger belts and cords with some of the industry's best rip, tear and fastener pullout properties.

Tests: ASTM 378-12, 16 & 18; ISO 283, 505 & 1120; AS 13334.3 & .8; DIN 22102-2.6, 22110-6.1; internally developed test standards.



Universal 2500kN Tester

Megapulser

We test full belts and splices dynamically and statically.

Tests: DIN 22110/3; internally developed test standards.

Research and Development



Laboratory Scale Gallery Tester Fire Resistance/Self Extinguishing Test

Used for underground mining development, etc.

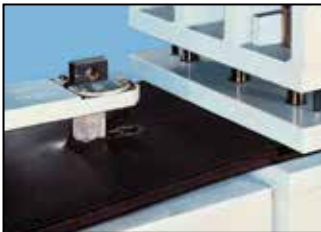
Tests: EN12881-1 Method D



MSHA Flame Tester Fire Resistance/Self Extinguishing Test

Used for underground mining development and other applications.

Tests: 30 CFR Part 14



Slit Resistance Tester

Comparable tests between belt constructions with and without breakers.

Tests: Internally developed test standards.



Impact Resistance Tester

Comparable tests between belt constructions with and without breakers.

Tests: Internally developed test standards.

Conveying Solutions

Contact

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Your local contact

www.continental-industry.com/contact-forms/general-contact-form