



Conveying Solutions

EMEA

Continental Industrial Solutions | EMEA

The first choice for material-driven solutions. We connect, convey and cover with passion for our industries.



WE CONNECT, CONVEY,



ContiTech is one of the world's leading industry specialists. The Continental group sector offers its customers connected, environmentally friendly, safe and convenient industrial and service solutions using a range of materials for off-highway applications, on rails and roads, in the air, under and above the ground, in industrial environments, for the food sector and the furniture industry – far beyond our roots as a manufacturer of rubber products.

We act as **ONE ContiTech** creating high-value solutions to connect, convey and cover customer needs.

- › We **connect** customer and market perspectives to understand our customers' expectations in the best way.
- › We **convey** ideas for improvement in our daily business to limit potential dangers and risks along the product life cycle and commit to their reduction.
- › We **cover** any requirements and standards that we have promised to deliver, without compromises.

Quality is our passion.



AND COVER

The ContiTech group sector is divided into 5 business areas:

- › Industrial Solutions for AMERICAS, EMEA, APAC
- › Original Equipment Solutions
- › Surface Solutions

And we offer premium solutions for a wide range of industries:

- › Aerospace
- › Agriculture & Forestry
- › Commercial Vehicles
- › Construction Business
- › Energy Management
- › Food Chain Processing
- › Home, Garden & Leisure
- › Industrial Safety
- › Material Handling
- › Mining
- › Passenger Cars
- › Printing Technology
- › Railway Transport
- › Recycling, Wastewater & Air Treatment
- › Ship, Port & Ocean
- › Urban Mobility

Continental Industrial 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.





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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 Easyrider, Survivor, Stacker, Stacker Plus and Defender belt qualities.



Original Belt



Belt with ContiClean

ContiClean Benefits

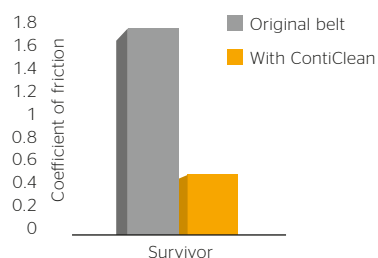
- › Reduced Buildup on Idlers
- › Improved Housekeeping
- › Increased Material Transfer
- › Improved Scraper Life
- › Increased Belt Life

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.

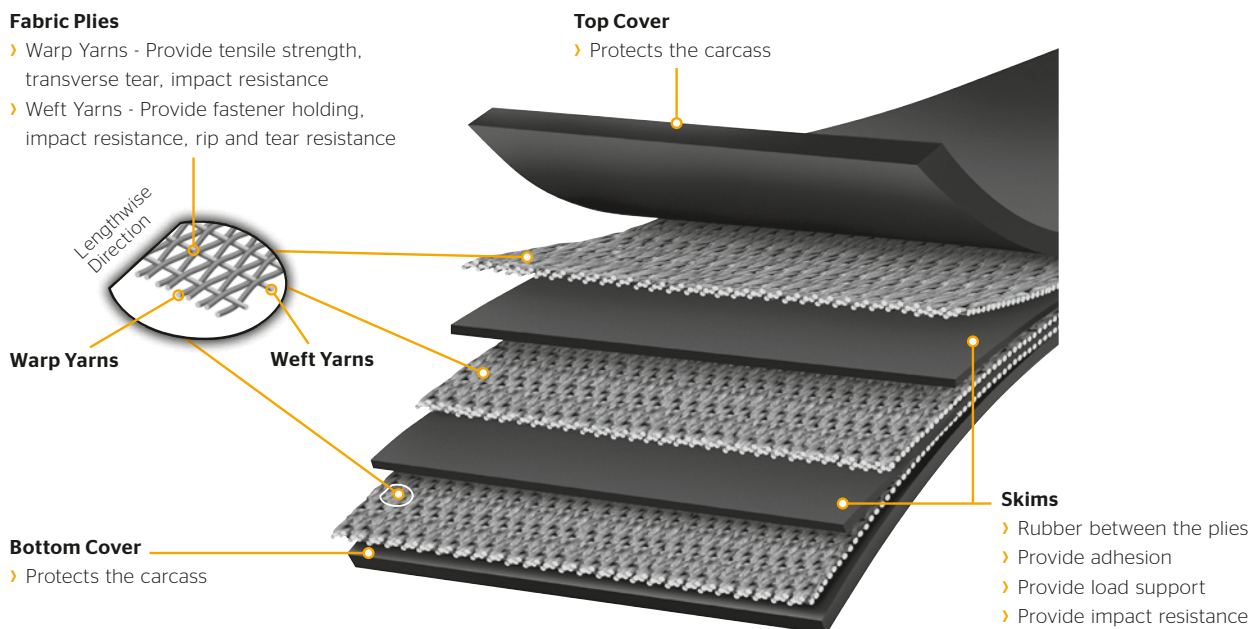
Layers of specially designed fabric plies are sandwiched between rubber skim coats for adhesion and load support. Bottom and top cover compounds are added for maximum protection of the belt carcass. These compounds are comprised of different polymers, fillers and plasticizers and come in a wide variety 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. The type of material used for the warp and the weft yarns as well the weave type can vary and depends on the application needs.

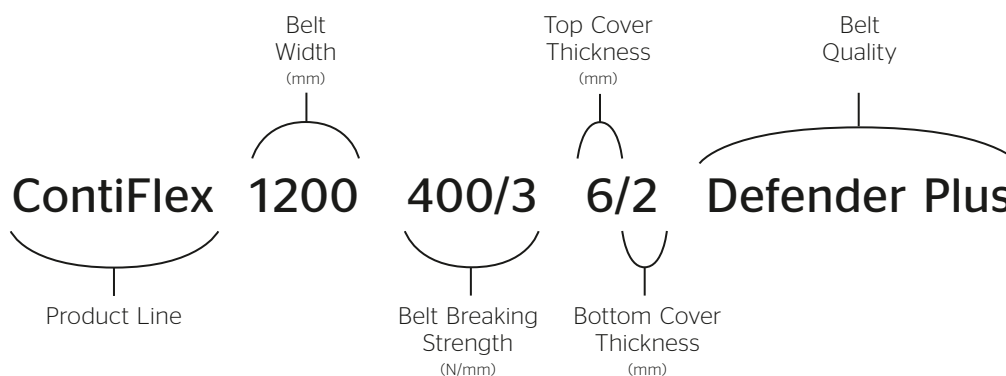
Belt Components

Fabric Plies

- › Warp Yarns - Provide tensile strength, transverse tear, impact resistance
- › Weft Yarns - Provide fastener holding, impact resistance, rip and tear resistance



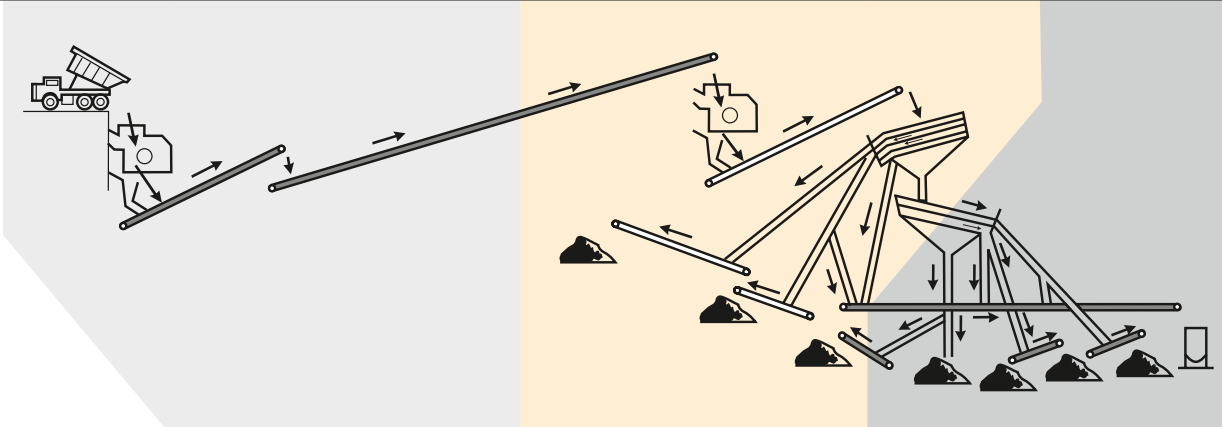
Belt Nomenclature Example



Textile Belt Applications

Industry Markets	Fortress XP	CONTI Titan	ContiFlex	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	12	15	18	22	25

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 CONTI Titan	CONTI Titan (Single Ply) ContiFlex	ContiFlex
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 belt qualities and gauge, please consult pages 45-50.

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.

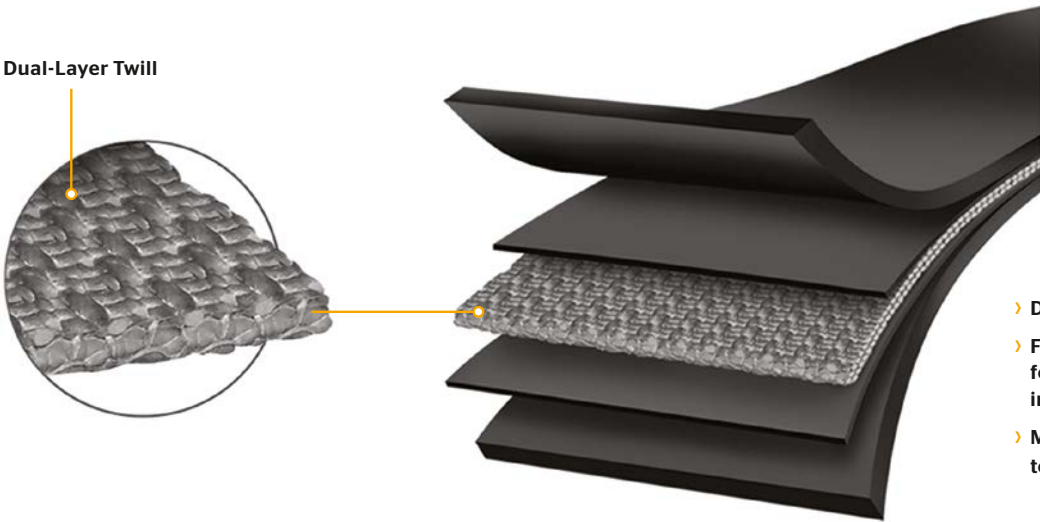


Markets	Applications	Belt Qualities
<ul style="list-style-type: none">› Aggregate› Cement› Coal› Foundry› Hard rock› Pulp and paper› Steel production› Wood products	<ul style="list-style-type: none">› Log debarkers› Log decks› Mainlines› Pit belts› Primary crushers› Secondary crushers› Ship unloaders› Trash and recycling› Any high abuse applications	<ul style="list-style-type: none">› Monster Hide Series› Stacker Series› Solar-Shield Classic <p>See pages 45-50 for more specific details.</p>

See the process diagram for Aggregate, Hard Rock Mining, Sand and Gravel markets on page 11 for alternative belt recommendations.

Fortified with the Power of Fortress Technology Conveyor Belt Components

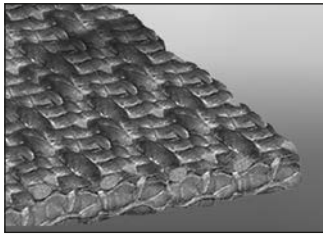
Dual-Layer Twill



- › 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.

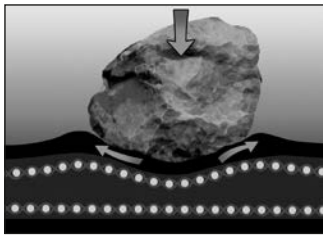
Get a lower cost-per-ton conveyed	Belt Rating: 665 - 1400 N/mm
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Fortress XP Features and Benefits



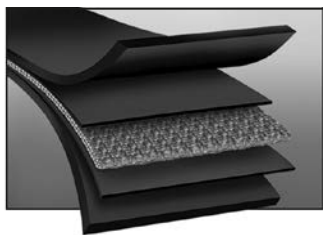
Innovative fabric weave

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



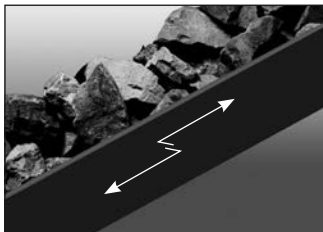
Exceptional impact resistance

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.



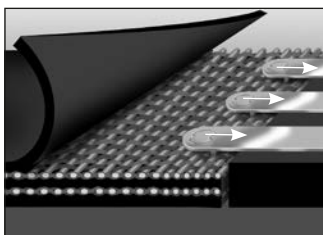
High transverse tear strength

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.



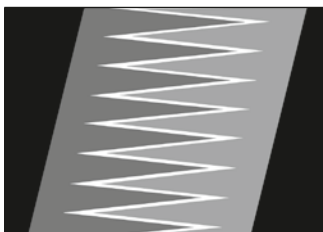
Superior rip resistance

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

Belt Rating	63	80	125	160
Number of plies	1	1	2	2
Fabric weave	Dual layer Twill	Dual layer Twill	Dual layer Twill	Dual layer Twill
Minimum belt strength (N/mm)	665	700	1330	1400
Typical carcass thickness (mm)	3,3	3,6	6,9	7,7
Typical carcass weight (kg/m ²)	2,2	2,5	4,4	5
Approx. 1 mm cover weight (kg/m ²)	1,13	1,13	1,13	1,13
Typical permanent elongation (%)	3,0	3,0	3,0	3,0
Typical belt modulus (kN/m)	5800	6100	11600	12200
Recommended type of vulcanised splice	Finger Splice	Finger Splice	Finger Splice	Finger Splice
Finger splice step length (mm)	550	600	850	1000
Fastener rating (N/mm)	63	80	125	160

The typical values in the table above can vary depending on the manufacturing options. For more precise values and needed calculations specific to each system please consult your Continental representative. 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).

Fortress XP Minimum Pulley Diameters (mm)

Belt Type	63	80	125	160
Pulley Group A (Drive and high tension pulleys)	450	500	800	800
Pulley Group B (Tail and low tension pulleys)	400	450	630	630
Pulley Group C (Snub pulleys < 30 degrees wrap angle)	300	350	500	500

Minimum pulley diameters are determined in accordance to DIN 22101 and can vary depending on the the carcass thickness as well the Pulley load factor. Values provided are based on the typical carcass thickness and a pulley load factor of 60 % - 100 %.

Please contact your Continental representative for more precise calculations.

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) yarns and transverse yarns (fill) are not interwoven and are locked together with binder cords. Since the warp yarns 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 1600 N/mm single ply, 2ply designs are possible. Combined with one of Continental's high-performance covers, CONTI Titan will provide the lowest cost of ownership in demanding applications.

Markets	Applications	Belt Qualities
<div>› Aggregates</div> <div>› Agricultural</div> <div>› Bulk Terminals</div> <div>› Calcined Lime</div> <div>› Cement</div> <div>› Chemicals</div> <div>› Coking</div> <div>› Fertilizer</div> <div>› Foundries</div> <div>› Power Generation Terminals</div>	<div>› Log debarkers</div> <div>› Log decks</div> <div>› Mainlines</div> <div>› Pit belts</div> <div>› Primary crushers</div> <div>› Secondary crushers</div> <div>› Ship unloaders</div> <div>› Trash and recycling</div> <div>› Any high abuse applications</div>	<div>› Monster Hide Series</div> <div>› Stacker Series</div> <div>› Solar-Shield Series</div> <div>› Gold Series</div> <div>See pages 45-50 for more specific details.</div>

See the process diagram for Aggregate, Hard Rock Mining, Sand and Gravel markets on page 11 for alternative belt recommendations.

Get a lower cost-per-ton conveyed

Belt Rating: 400 - 2800 N/mm

CONTI Titan

Belt Information

CONTI Titan Conveyor Belt Data

Belt Rating	400/1	500/1	630/1	800/1	1000/1	1000/2	1250/2	1600/2
Number of plies	1	1	1	1	1	2	2	2
Fabric weave	Straight Warp	Straight Warp	Straight Warp	Straight Warp	Straight Warp	Straight Warp	Straight Warp	Straight Warp
Minimum belt strength (N/mm)	400	500	630	630	1000	1000	1250	1600
Typical carcass thickness* (mm)	2,1	2,3	2,6	2,9	3,5	6	7,7	9,1
Typical carcass weight (kg/m²)	1,4	1,6	1,8	2,2	2,7	5,1	5,9	8,8
Approx. 1 mm cover weight (kg/m²)	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,1
Splice type	Finger	Finger	Finger	Finger	Finger	Finger	Finger	Finger
Finger length for finger splicing (mm)*	500	600	800	1000	1200	1250	1500	2000
Belt Rating	2000/2	2500/2	2800/2					
Number of plies	2	2	2					
Fabric weave	Straight Warp	Straight Warp	Straight Warp					
Minimum belt strength (N/mm)	2000	2500	2800					
Typical carcass thickness* (mm)	9,5	9,8	12,1					
Typical carcass weight (kg/m²)	9,3	9,7	10,7					
Approx. 1 mm cover weight (kg/m²)	1,1	1,1	1,1					
Splice type	Finger	Finger	Finger					
Finger length for finger splicing (mm)*	2400	3000	3400					

* Recommended finger length for finger splicing, considering min. 60 mm finger base-width up to 1250 N/mm, and min. 70 mm above 1250 N/mm nominal belt strength.

The typical values in the table above can vary depending on the manufacturing options and compound selection. For more precise values and needed calculations specific to each system please consult your Continental Representative.

CONTI Titan

Belt Information

CONTI Titan Minimum Pulley Diameters (mm)

Belt Type	400/1	500/1	630/1	800/1	1000/1	1000/2	1250/2
Pulley Group A (Drive and high tension pulleys)	315	315	400	500	500	800	1000
Pulley Group B (Tail and low tension pulleys)	250	250	315	400	400	630	800
Pulley Group C (Snub pulleys < 30 degrees wrap angle)	200	200	250	315	315	500	630

Belt Type	1600/2	2000/2	2500/2	2800/2
Pulley Group A (Drive and high tension pulleys)	1000	1250	1250	1400
Pulley Group B (Tail and low tension pulleys)	800	1000	1000	1250
Pulley Group C (Snub pulleys < 30 degrees wrap angle)	630	800	800	1000

Minimum pulley diameters are determined in accordance to ISO3684 and can vary depending on the the carcass thickness as well the utilization of belt rating. Values provided are based on the typical carcass thickness of CONTI Titan belts and a pulley load factor of 60% - 100%. Please contact your Continental representative for more precise calculations.



ContiFlex Belts

ContiFlex is our 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. Additional impact absorption and outstanding strength achieved with advanced weaving patterns and yarn designs are available under product line ContiFlex Plus.

Markets	Applications	Belt Qualities
<div><div>› Aggregate</div><div>› Baggage handling</div><div>› Bulk handling terminal</div><div>› Cement</div><div>› Coal</div><div>› Crushed stone</div><div>› Foundry</div><div>› Grain</div><div>› Hard rock</div><div>› Package handling</div><div>› Power generation</div><div>› Pulp and paper</div><div>› Sand and gravel</div><div>› Steel production</div><div>› Wood products</div><div>› Trash and recycling</div></div>	<div><div>› Log debarkers</div><div>› Log decks</div><div>› Mainlines</div><div>› Pit belts</div><div>› Primary crushers</div><div>› Secondary crushers</div><div>› Ship unloaders</div><div>› Stacker conveyors</div><div>› Radial stackers</div></div>	<div><div>› Defender Series</div><div>› Stacker Series</div><div>› Survivor Series</div><div>› Monster Hide Series</div><div>› Solar-Shield Series</div><div>› Gold Series</div><div>› Shield Series</div><div>› Shield Flame Series</div></div> <div>See pages 45-50 for more specific details.</div>

See the process diagram for Aggregate, Hard Rock Mining, Sand and Gravel markets on page 11 for alternative belt recommendations.

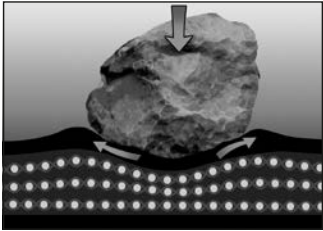
Get a lower cost-per-ton conveyed

Belt Rating: 250 - 3600 N/mm



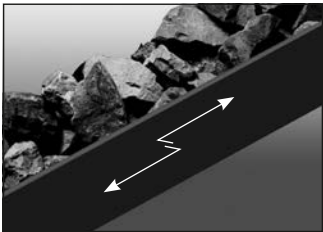
ContiFlex

Features and Benefits



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.



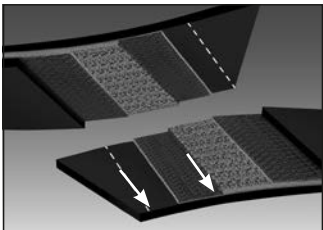
High ultimate strength

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



Reduced stretch

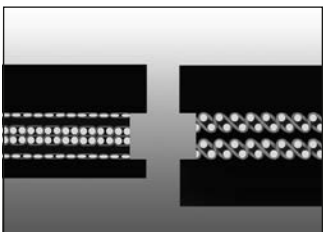
The combination of fabric design and dip process provides lower elasticity and permanent elongation on all specifications. This minimizes take-up concerns and reduces the number of splices at break-in. Contact your local Sales Representative to calculate permanent and elastic elongation requirements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



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 retains high efficiency during all running conditions.

See data tables for proper step length on page 20.



Variety of cover compounds and cover gauges

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

ContiFlex

Belt Information

ContiFlex Conveyor Belt Data

Belt Rating	250/2	315/2	400/2	400/3	500/2	500/3	500/4	630/2	630/3
Number of plies	2	2	2	3	2	3	4	2	3
Fabric weave	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain
Minimum belt strength (N/mm)	250	315	400	400	500	500	500	630	630
Typical carcass thickness (mm)*	1,9	2,0	2,2	2,6	2,8	3,0	3,7	3,2	3,4
Typical carcass weight (kg/m²)*	2,1	2,2	2,4	2,9	3,1	3,3	4,5	3,5	3,7
Approx. 1 mm cover weight (kg/m²)	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,1
Typical belt modulus (N/mm)*	3700	4000	5750	5750	6600	6600	6600	7800	7800
Step length (mm)**	180	180	200	200	200	200	200	250	250
Belt Rating	630/4	800/2	800/3	800/4	800/5	1000/3	1000/4	1000/5	1250/3
Number of plies	4	2	3	4	5	3	4	5	3
Fabric weave	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain
Minimum belt strength (N/mm)	630	800	800	800	800	1000	1000	1000	1250
Typical carcass thickness (mm)*	4,1	3,9	4,2	4,6	5,2	4,7	5,7	5,8	5,9
Typical carcass weight (kg/m²)*	4,5	4,3	4,6	5,1	5,7	5,2	6,3	6,4	6,5
Approx. 1 mm cover weight (kg/m²)	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,1
Typical belt modulus (N/mm)*	7800	9400	9400	9400	9400	11250	11250	11250	13750
Step length (mm)**	200	250	250	250	200	300	250	250	300
Belt Rating	1250/4	1250/5	1600/4	1600/5	2000/5				
Number of plies	4	5	4	5	5				
Fabric weave	Plain	Plain	Plain	Plain	Plain				
Minimum belt strength (N/mm)	1250	1250	1600	1600	2000				
Typical carcass thickness (mm)*	6,4	7,2	8,3	8,1	10,4				
Typical carcass weight (kg/m²)*	7,0	7,9	9,1	8,9	11,4				
Approx. 1 mm cover weight (kg/m²)	1,1	1,1	1,1	1,1	1,1				
Typical belt modulus (N/mm)*	13750	13750	17000	17000	18000				
Step length (mm)**	300	250	300	300	300				

* The typical values in the table above can vary depending on the manufacturing options and compound selections. For more precise values and needed calculations specific to each system please consult your Continental representative.

** Step length for conventional bias step splice. For other types of splices such as finger or overlap contact your Continental representative.

ContiFlex

Belt Information

ContiFlex Minimum Pulley Diameters (mm)

Belt Type	250/2	315/2	400/2	400/3	500/2	500/3	500/4	630/2	630/3	630/4	800/2	800/3
Pulley Group A (Drive and high tension pulleys)	250	250	250	400	315	400	500	400	500	500	500	500
Pulley Group B (Tail and low tension pulleys)	200	200	200	315	250	315	400	315	400	400	400	400
Pulley Group C (Snub pulleys < 30 degrees wrap angle)	160	160	160	250	200	250	315	250	315	315	315	315

Belt Type	800/4	800/5	1000/3	1000/4	1000/5	1250/3	1250/4	1250/5	1600/4	1600/5	2000/5
Pulley Group A (Drive and high tension pulleys)	630	630	630	800	800	800	800	1000	1000	1000	1250
Pulley Group B (Tail and low tension pulleys)	500	500	500	630	630	630	630	800	800	800	1000
Pulley Group C (Snub pulleys < 30 degrees wrap angle)	400	400	400	500	500	500	500	630	630	630	800

Minimum pulley diameters are determined in accordance to DIN 22101 and can vary depending on the carcass thickness as well the Pulley load factor. Values provided are based on the typical carcass thickness of ContiFlex belts and a pulley load factor of 60%-100%. Please contact your Continental representative for more precise calculations.



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

Belt Qualities

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

See pages 45-50 for more specific details.

Get a lower cost-per-ton conveyed

Belt Rating: 250 - 800 N/mm



TransConti

Belt Information

TransConti Conveyor Belt Data

Belt Rating	TC 25/2	TC 25/2	TC 32/2	TC 40/3	TC 40/3	TC 40/3	TC 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
Min. breaking strength (N/mm)	250	250	320	400	400	400	500
Typical belt thickness (mm)*	7,1	8,0	8,0	7,6	8,7	10,7	9,5
Typical belt weight (kg/m²)*	8,3	9,5	9,5	8,7	9,9	12,2	11,1
Available compound	Defender	Defender	Defender	Defender Gold Classic	Defender Gold Classic Solar-Shield Gold Solar-Shield Classic Solar-Shield Extreme	Defender	Defender

Belt Rating	TC 50/3	TC 50/4	TC 50/4	TC 63/4	TC 63/4	TC 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
Min. breaking strength (N/mm)	500	500	500	630	630	800
Typical belt thickness (mm)*	11,6	9,7	10,7	12,2	15,3	12,7
Typical belt weight (kg/m²)*	12,4	11,1	12,3	14,4	17,8	14,9
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.

* Typical Belt weight and typical Belt thickness can vary depending on selected compound.

TransConti

Belt Information

TransConti Minimum Pulley Diameters (mm)

Belt Type	TC 25/2	TC 32/2	TC 40/3	TC 50/3	TC 50/4	TC 63/4	TC 80/4
Pulley Group A (Drive and high tension pulleys)	315	315	400	500	500	630	630
Pulley Group B (Tail and low tension pulleys)	250	250	315	400	400	500	500
Pulley Group C (Snub pulleys < 30 degrees wrap angle)	200	200	250	315	315	400	400

Minimum pulley diameters are determined in accordance to DIN 22101 and can vary depending on the the carcass thickness as well the Pulley load factor. Values provided are based on the typical carcass thickness and a pulley load factor of 60 %-100 %. Please contact your Continental representative for more precise calculations.



TexSteel Belts

TexSteel Will Take You There

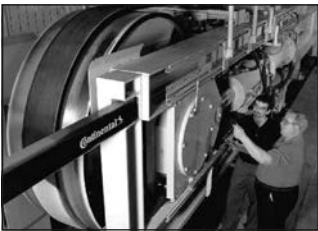
Its advanced design incorporating aramid carcass is engineered for exceptionally dependable service in demanding applications. Aggregate and industrial operations have learned to expect this from Continental, the leader in bulk material handling conveyor belting.

Markets	Applications	Belt Qualities
<div><ul style="list-style-type: none">› Aggregates› Cement› Coal› Hard Rock› Power Generation› Steel Production</div>	<div><ul style="list-style-type: none">› Mainlines› Overland Belts› Ship Loader› Any High Abuse Applications</div>	<div><ul style="list-style-type: none">› Defender Series› Stacker Series› Survivor Series› Eco Series› Solar-Shield Series› Gold Series› Shield Series</div> <div>See pages 45-50 for more specific details.</div>

Get a lower cost-per-ton conveyed

Belt Rating: 630 – 1800 N/mm

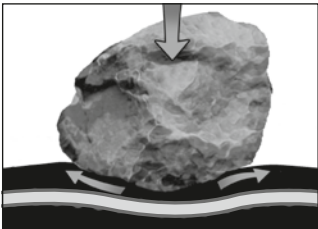
TexSteel Features and Benefits



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 make TexSteel the natural choice when available take-up space is limited. This allows for installation of lower cost take-up systems.



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

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

TexSteel

Belt Information

TexSteel Conveyor Belt Data

Belt Rating	630/1	800/1	1000/1	1250/1	1400/1	1600/1	1800/1
Number of plies	1	1	1	1	1	1	1
Fabric weave	Straight Warp	Straight Warp	Straight Warp	Straight Warp	Straight Warp	Straight Warp	Straight Warp
Minimum belt strength (N/mm)	630	800	1000	1250	1400	1600	1800
Typical carcass thickness (mm)*	1,8	2,4	2,4	2,8	2,8	3,1	3,3
Typical carcass weight (kg/m²)*	2,1	2,3	2,3	2,5	2,7	3,2	3,5
Approx. 1 mm cover weight (kg/m²)	1,1	1,1	1,1	1,1	1,1	1,1	1,1
Typical belt modulus (N/mm)*	15750	20000	25000	31250	35000	40000	45000
Finger length (mm)**	800	1000	1250	1500	1700	2000	2200

* The typical values in the table above can vary depending on the manufacturing options and compound selections.

For more precise values and needed calculations specific to each system please consult your Continental representative.

** Recommended finger length for finger splicing, considering min. 60 mm finger base-width up to 1250 N/mm; and min. 70 mm finger base-width above 1250 N/mm nominal belt strength.

TexSteel Minimum Pulley Diameters (mm)

Belt Type	630/1	800/1	1000/1	1250/1	1400/1	1600/1	1800/1
Pulley Group A (Drive and high tension pulleys)	500	500	500	630	800	1000	1000
Pulley Group B (Tail and low tension pulleys)	400	400	400	500	630	800	800
Pulley Group C (Snub pulleys < 30 degrees wrap angle)	315	400	400	400	500	630	630

Minimum pulley diameters are determined in accordance to DIN 22101 and can vary depending on the the carcass thickness as well the Pulley load factor.

Values provided are based on the typical carcass thickness of TexSteel belts and a pulley load factor of 60%-100%.

Please contact your Continental representative for more precise calculations.

Steelcord Belts



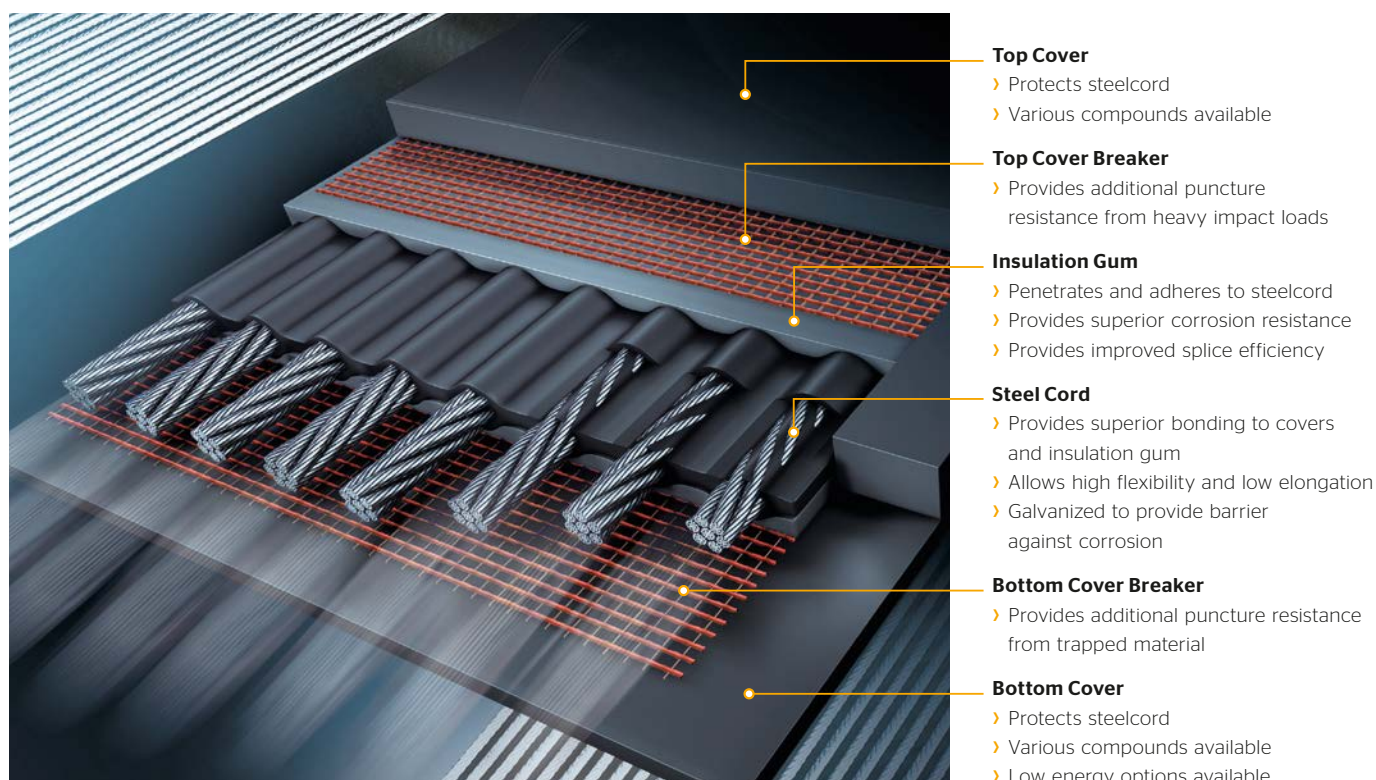
Steelcord Belt Construction

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

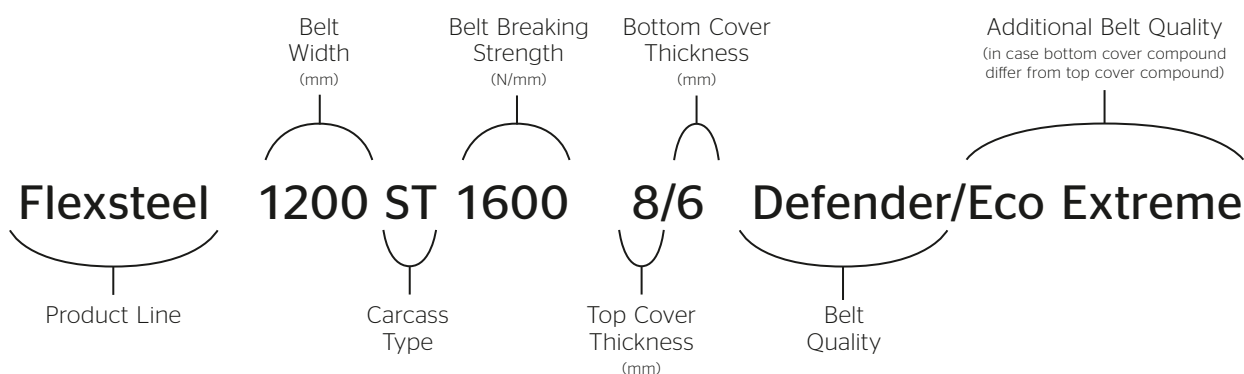
Our steelcord belts are built tough from the inside out to stand up to the rigors of any industrial or mining operation. Our insulation gum encapsulates each steelcord filament to reduce internal friction. It also provides enhanced adhesion

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



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 pulley covers.

Markets	Applications	Belt Qualities
<div><div>›</div>Aggregates</div> <div><div>›</div>Cement</div> <div><div>›</div>Coal</div> <div><div>›</div>Hard Rock</div> <div><div>›</div>Power Generation</div> <div><div>›</div>Steel Production</div>	<div><div>›</div>Mainlines</div> <div><div>›</div>Overland Belts</div> <div><div>›</div>Pit Belts</div> <div><div>›</div>Ship Loader</div> <div><div>›</div>Slope Belts</div> <div><div>›</div>Any High Abuse Applications</div>	<div><div>›</div>Defender and Defender Plus</div> <div><div>›</div>Stacker and Stacker Plus</div> <div><div>›</div>Survivor and Survivor Plus</div> <div><div>›</div>Monster Hide and Monster Hide Plus</div> <div><div>›</div>Other Compounds Available on Request</div>
		See pages 45-50 for more specific details.

Get a lower cost-per-ton conveyed

Belt Rating: 500 – 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 is extremely low. 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



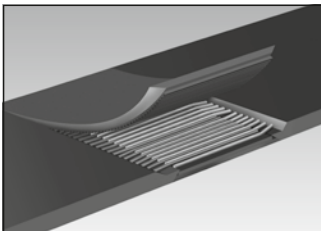
Lower cost-per-ton

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.



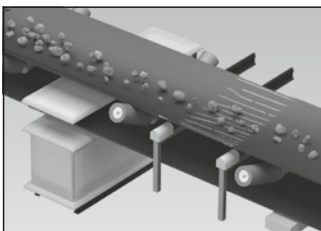
Eco series pulley covers

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

Tension Rating	ST 500	ST 630	ST 800	ST 1000	ST 1250	ST 1600	ST 2000	ST 2500
Minimum belt breaking strength (N/m)	500	630	800	1000	1250	1600	2000	2500
Typical belt modulus (N/mm)*	36000	45360	58000	72000	90000	115000	144000	180000
Cover gauge examples (top and pulley side) (mm)	6 / 4	6 / 4	6 / 4	6 / 4	7 / 5	7 / 5	8 / 6	8 / 6
Typical steel cord diameter (mm)*	2,8	2,8	3,6	3,6	4,4	5,0	5,0	6,7
Typical belt thickness (mm)*	12,8	12,8	13,6	13,6	16,4	17,0	19,0	20,7
Typical belt mass (kg/m²)*	16,7	16,8	17,3	18,1	22,0	23,7	27,2	31,4
Typical carcass weight (kg/m²)*	6,4	6,5	7,0	7,8	9,6	11,3	12,8	17,0
Tension Rating	ST 3150	ST 3500	ST 4000	ST 4500				
Minimum belt breaking strength (N/m)	3150	3500	4000	4500				
Typical belt modulus (N/mm)*	227000	252000	288000	324000				
Cover gauge examples (top and pulley side) (mm)	10 / 8	10 / 8	12 / 10	12 / 10				
Typical steel cord diameter (mm)*	7,6	8,2	8,8	9,3				
Typical belt thickness (mm)*	25,6	26,2	26,8	31,3				
Typical belt mass (kg/m²)*	38,6	42,0	48,0	49,6				
Typical carcass weight (kg/m²)*	20,1	23,5	25,3	26,9				

* The typical values in the table above can vary depending on the manufacturing options and compound selections. For more precise values and needed calculations specific to each system please consult your Continental Representative.

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	Applications	Belt Qualities
<ul style="list-style-type: none">› Hard Rock Mining› Other Extreme Material Handling Applications	<ul style="list-style-type: none">› Mining Overland Belts› Slope Belts› High Abuse Applications› Mainlines	<ul style="list-style-type: none">› Stacker and Stacker Plus› Survivor and Survivor Plus› Monster Hide and Monster Hide Plus› Other Compounds Available on Request <p>See pages 45-50 for more specific details.</p>

Get a lower cost-per-ton conveyed

Belt Rating: 5000 - 10000 N/mm



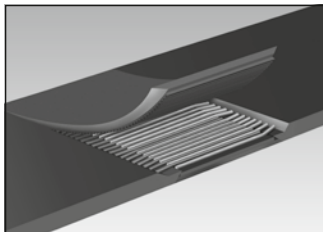
Phoenix Phenocord

Features and Benefits



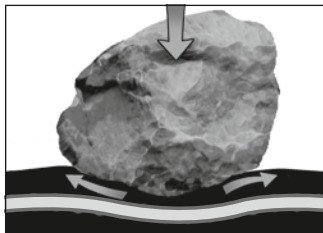
The world's strongest belts

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



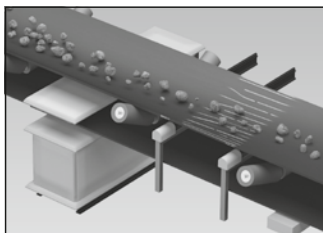
Life-long splices

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.



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

Tension Rating	ST 5000	ST 5400	ST 6000	ST 6500	ST 7000	ST 7500	ST 8000	ST 8500
Minimum belt breaking strength (N/m)	5000	5400	6000	6500	7000	7500	8000	8500
Typical belt modulus (N/mm)*	360000	389000	432000	468000	504000	540000	576000	612000
Cover gauge examples (top and pulley side) (mm)	12 / 10	12 / 10	12 / 10	12 / 10	14 / 10	14 / 10	14 / 12	14 / 12
Typical steel cord diameter (mm)*	10,4	10,7	11,3	12,2	12,2	13,2	14,2	14,2
Typical belt thickness (mm)*	32,4	32,7	33,3	34,2	36,2	37,2	40,2	40,2
Typical belt mass (kg/m²)*	53,2	55,3	58,5	60,1	64,2	68,0	71,8	73,5
Typical carcass weight (kg/m²)*	30,5	32,7	35,9	37,4	39,5	43,3	45,1	46,8

Tension Rating	ST 9000	ST 9500	ST 10000
Minimum belt breaking strength (N/m)	9000	9500	10000
Typical belt modulus (N/mm)*	648000	684000	720000
Cover gauge examples (top and pulley side) (mm)	14 / 12	14 / 12	14 / 12
Typical steel cord diameter (mm)*	14,2	14,2	14,2
Typical belt thickness (mm)*	40,2	40,2	40,2
Typical belt mass (kg/m²)*	75,3	77,0	78,9
Typical carcass weight (kg/m²)*	48,5	50,2	52,2

* The typical values in the table above can vary depending on the manufacturing options and compound selections. For more precise values and needed calculations specific to each system please consult your Continental Representative.

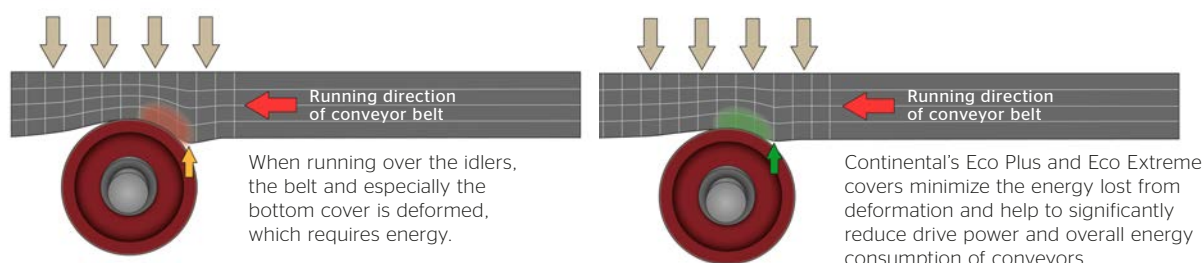
Additional Steel Cord designs and specifications are available upon request.



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.



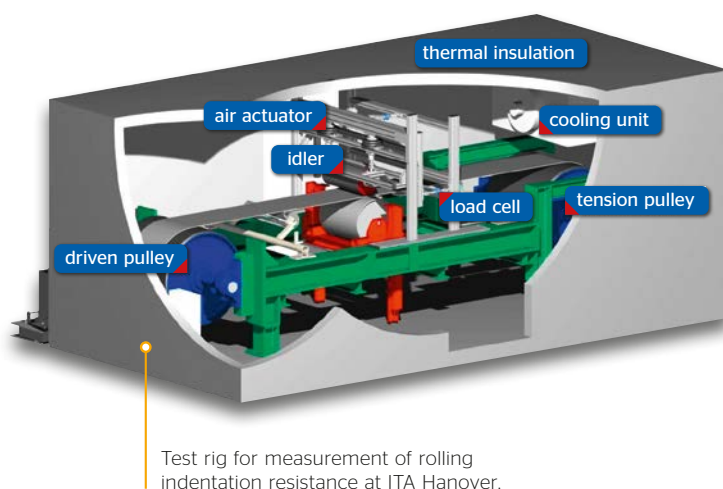
Systems that use our Eco series pulley compound covers may reduce power consumption up to 15 %. Our Eco Extreme compound may reduce energy consumption up to 30%*. Operating cost savings that you'll realize year after year.

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.



With Eco Extreme there is reduced indentation energy loss.



Preform Splice Technology

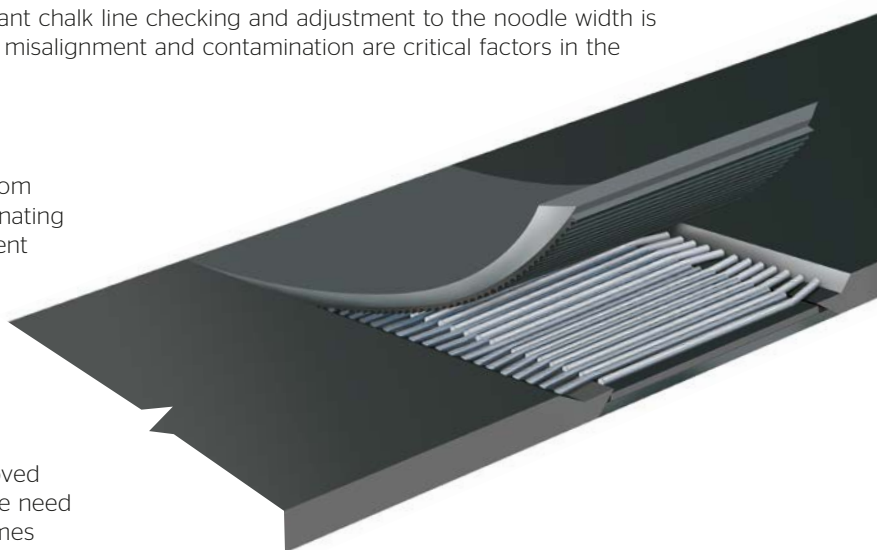
Improves Splice Strength and Saves Time

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

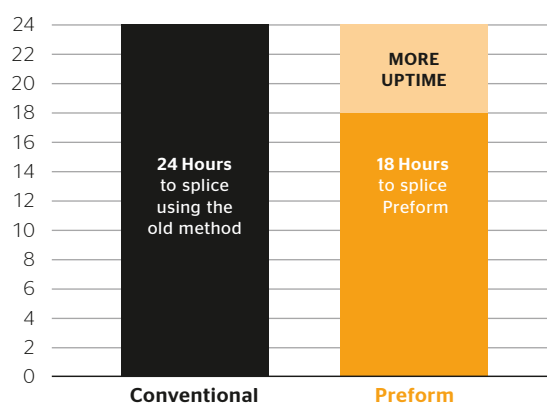
Testing on the 2-Pulley Dynamic splice tester at our Technical Center shows the results of two identical belts, one spliced using Preform and one spliced using conventional splicing methods. This one test shows the Preform splice to withstand 33 % more load cycles, for a theoretical 33 % longer service 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.





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.

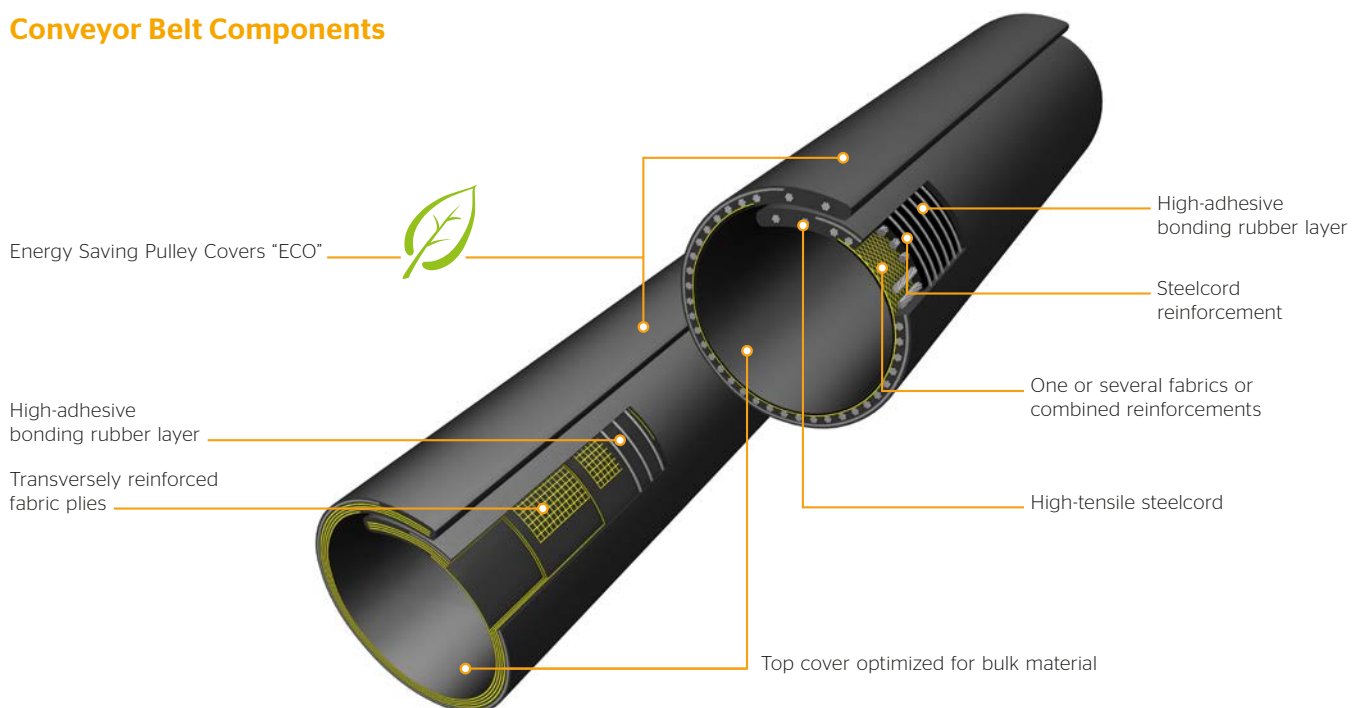
Keeping it clean

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

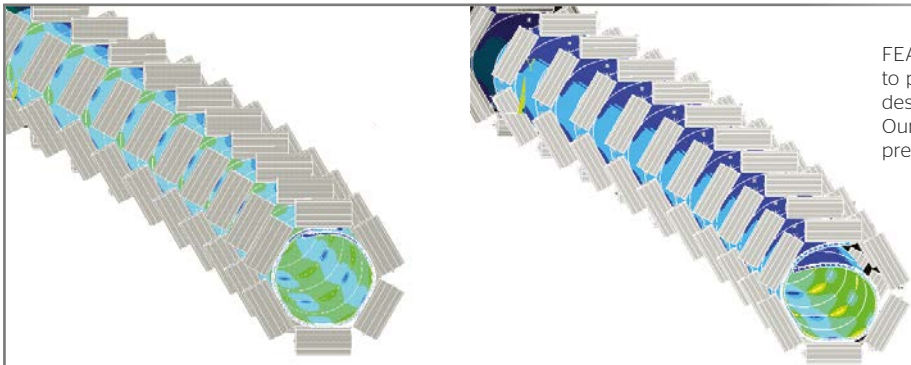
Developed using Finite Element Analysis (FEA) modeling to meet the demands of modern pipe conveyor systems, ContiPipe is engineered to give you more. Comprehensive research, including dynamic belt testing to validate the FEA, allowed us to create a belt that can withstand the stresses of a long haul, 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.

Testing methods and FEA modeling is dependent on the actual belt design.

ContiPipe and MegaPipe Sizes

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

*external pipe diameter
Pipe diameter may vary according to actual conveying task/belt design.
Contact your Sales Representative for additional sizes.

MegaPipe Conveyor Belts

Next Level Pipe Conveying

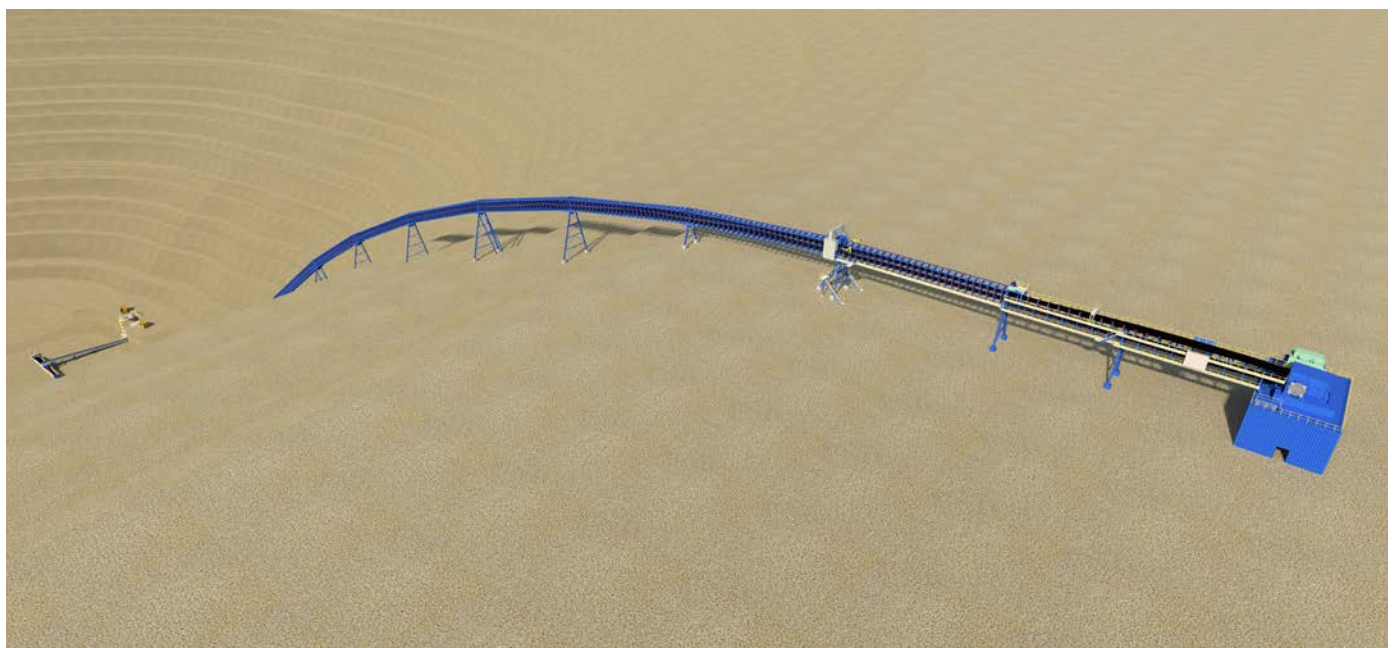
Our MegaPipe breaks the limits in many ways. It combines the advantages of our ContiPipe Series with pipe diameters bigger than 700 mm. And when it comes to high angle conveying, MegaPipe makes it possible to create systems with angles of incline up to 34 degrees. With a maximum capacity of up to 9500 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 ≤ 34
- › 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 Drives

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!



Belt Qualities



Cover Compounds and Belt Qualities

Protecting Your Investment with Continental Cover Compounds

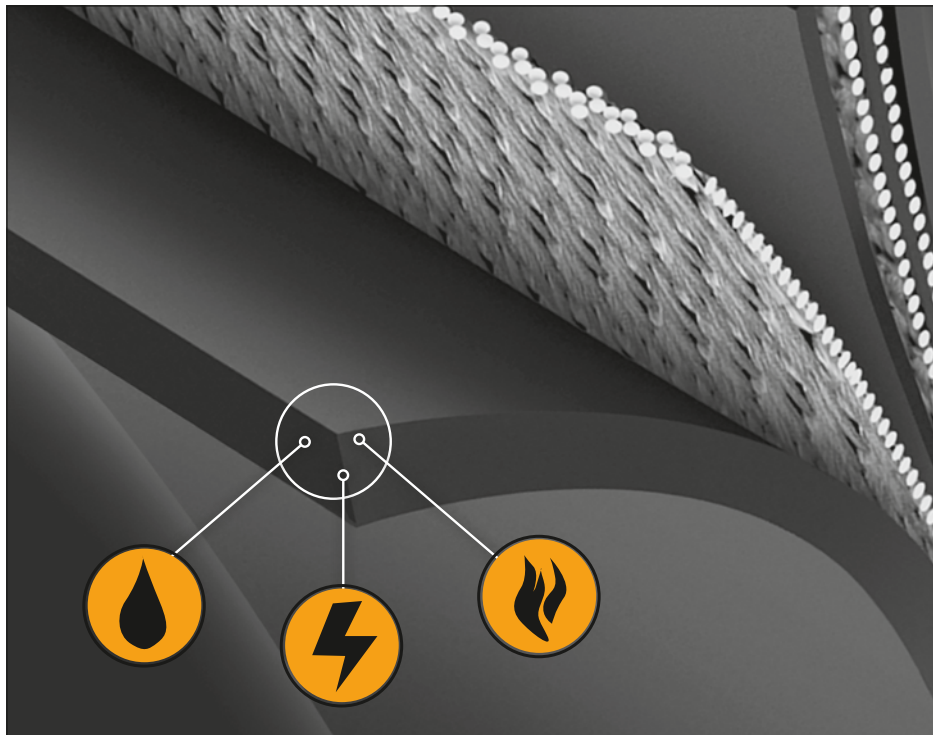
Continental cover compounds provide the ultimate protection for your belt carcass so that you realize a lower cost-per-ton conveyed and your system requires less maintenance.

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.

At the end belt quality consists of optimal combination of cover compound, skim rubber and carcass. Different belt qualities have been developed for usage in wide range of applications. Keep in mind that completely different belt quality is needed when handling oily, abrasive or hot materials.



Belt Qualities and Applications

Belt Qualities	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 XVF															
Monster Hide Plus															
Gold Extreme															
Gold Plus															
Gold Classic															
Solar-Shield Gold															
Solar-Shield Extreme															
Solar-Shield Plus															
Solar-Shield Classic															
Eco Plus & Eco Extreme															

Standard Belt Qualities

Defender and Defender Plus

Belts 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 15 % reduction in energy consumption compared to standard compounds with Eco Extreme version providing as much as 30 % reduction in energy consumption.

Shield

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

For flame resistant belts, the conveyor belt market still refers to 'K' and 'S' although current flame resistant testing and classification is described in the European Standard EN12882. Continental's description still incorporates letters 'K' and 'S' in the Shield family however following EN12882 requirements for testing under Class 2A for Shield K (old 'K') and under Class 2B for Shield S (old 'S').

For the former V and VT belts used in the past for underground applications, Continental suggests the review of fire resistant requirements together with our technical department in order to identify the proper belt class alternative as per EN 12882 or EN 14973 norms.

Easyrider

Belts designed to provide good abrasion resistance and very good flex life.

Monster Hide, Monster Hide XVF 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 belts protect from the effects of terpene in wood chips, oil grains, and petroleum oils. Gold oil belts 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 125 °C, oxidation and the effect of corrosive atmospheres.

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

When an exceptional range of belts for hot materials transportation with superior heat resistance against hardening and cracking is required. Solar-Shield belts are designed to carry hot material at intermittent temperatures from 150 °C with Classic, up to 400 °C using Extreme and retain their superior heat-resistant qualities.

Stacker and Stacker Plus

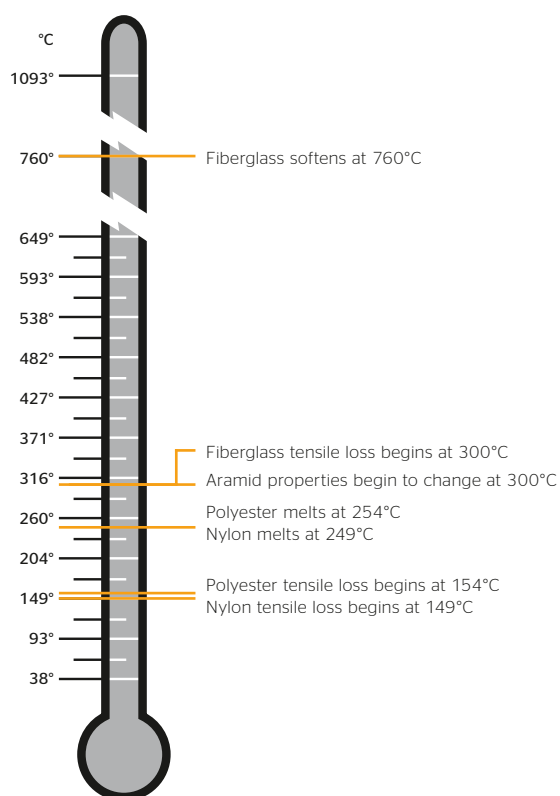
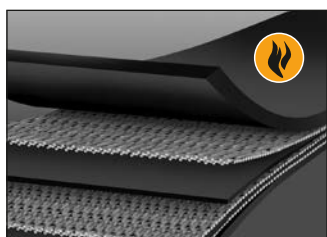
Premium belts designed for excellent resistance to cutting, gouging and abrasion.

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 Belt Quality

Solar-Shield series of heat resistant belt qualities offer high performance in extremely hot material applications. Solar-Shield belt qualities 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.



Solar-Shield Classic

A belt quality formulated for excellent heat and abrasion resistance up to 150°C.

Solar-Shield Plus

A belt quality 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 belt quality 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.

*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.

Belt Qualities

Belt Quality	International standards	Low temp.	High temp.	Abrasion resistance	Cut and gouge resistance	Oil resistance	Flame resistance	Static conductive (ISO 284)	Typical hardness* ISO 48-4 (Shore A)	Min. tensile strength DIN 53504 (MPa)	Min. elongation at break DIN 53504 (%)	Max. abrasion loss ISO 4649 Method A (mm ²)
Abrasion Resistant												
Survivor Plus	-	-50°C	70°C	Ultimate	Good	No	No	Yes	60	16,0	450	40
Survivor	SANS A	-50°C	70°C	Extreme	Very Good	No	No	Yes	60	18,0	400	65
Stacker	DIN W, ISO D	-50°C	70°C	Superior	Excellent	No	No	Yes	60	18,0	400	90
Defender Plus	-	-40°C	70°C	Excellent	Very Good	No	No	Yes	60	17,2	450	115
Defender	DIN Y	-40°C	70°C	Very Good	Very Good	No	No	Yes	60	20,0	450	150
Easyrider	ISO L	-35°C	70°C	Good	Good	No	No	Yes	60	15,0	400	175
Cut and Gouge Resistant												
Monster Hide Plus	-	-40°C	70°C	Excellent	Ultimate	No	No	Yes	68	23,0	450	100
Monster Hide XVF	ISO-H	-40°C	70°C	Excellent	Extreme	No	No	Yes	62	24	480	110
Monster Hide	-	-40°C	70°C	Good	Extreme	No	No	Yes	68	16,0	600	155
Stacker Plus	DIN X, ISO H, SANS M	-40°C	70°C	Very Good	Superior	No	No	Yes	60	25,0	450	120
Stacker	DIN W, ISO D	-50°C	70°C	Superior	Excellent	No	No	Yes	60	18,0	400	90
Defender Plus	-	-40°C	70°C	Excellent	Very Good	No	No	Yes	60	17,2	450	115
Flame Resistant												
Shield YK	EN 12882-2A	-35°C	60°C	Very Good	-	No	Yes	Yes	65	20,0	400	150
Shield YS	EN 12882-2B	-20°C	60°C	Very Good	-	No	Yes	Yes	65	20,0	400	150
Shield Type F	SANS F	-40°C	70°C	Good	-	No	Yes	Yes	80	14,0	400	180
Shield FRS TX	EN 12882 Category 1, 2A, 2B, 3A, 3B, 4A, 4B, 5A***	-15°C	70°C	Good	-	Fair	Yes	Yes	65	15,0	350	200

Notes

* Typical Hardness value can vary depending on the manufacturing options.

** The values refer to peak temperature of lumpy materials conveyed. The 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.

*** Safety category of Shield FRS and Shield UTS belts depends on the final belt design.

C&G classification is based on Continental's Know How as well internal tests developed to simulate field conditions.

The values of minimum tensile strength and minimum elongation at break apply to covers with thickness > 2.0 mm.

For smaller than 2.0 mm thicknesses these values might be reduced.

Belt Qualities

Belt Quality	International standards	Low temp.	High temp.	Abrasion resistance	Cut and gouge resistance	Oil resistance	Flame resistance	Static conductive (ISO 284)	Typical hardness* ISO 48-4 (Shore A)	Min. tensile strength DIN 53504 (MPa)	Min. elongation at break DIN 53504 (%)	Max. abrasion loss ISO 4649 Method A (mm ³)
Flame Resistant Underground												
Shield UTS TX	EN 14973 class A,B2***	-15°C	70°C	Good	-	Fair	Yes	Yes	65	15,0	350	200
Shield UTS ST	EN 14973 class A,B2***	-30°C	60°C	Good	-	Fair	Yes	Yes	67	17,0	400	200
Flame and Oil Resistant												
Shield KG	EN 12882-2A	-20°C	70°C	Good	-	Fair	Yes	Yes	65	15,0	350	200
Shield SG	EN 12882-2B	-20°C	70°C	Good	-	Fair	Yes	Yes	65	15,0	350	200
Shield Oil SG	EN 12882-2B	-20°C	100°C	Fair	-	Superior	Yes	Yes	68	15,0	350	280
Gold Oil Resistant												
Solar-Shield Gold	ISO 4195 Class I	-20°C	125°C**	Good	-	Superior	No	Yes	58	18,0	500	200
Gold Extreme	-	-20°C	100°C	Good	-	Superior	No	Yes	60	12,0	400	200
Gold Plus	-	-20°C	70°C	Good	-	Very Good	No	Yes	60	15,0	400	160
Gold Classic	-	-20°C	70°C	Very Good	-	Good	No	Yes	63	16,0	400	150
Solar Shield Heat Resistant												
Solar-Shield Extreme	ISO 4195 Class III	-40°C	400°C**	Very Good	-	No	No	No	65	20,0	450	120
Solar-Shield Plus	ISO 4195 Class III	-40°C	200°C**	Very Good	-	No	No	Yes	60	10,0	400	150
Solar-Shield Classic	ISO 4195 Class II	-40°C	150°C**	Very Good	-	No	No	Yes	58	20,0	400	130
Low Rolling Resistant												
Eco Extreme	-	-50°C	65°C	Excellent	-	No	No	Yes	63	17,0	350	95
Eco Plus	-	-50°C	65°C	Superior	-	No	No	Yes	62	17,0	400	90

Notes

* Typical Hardness value can vary depending on the manufacturing options.

** The values refer to peak temperature of lumpy materials conveyed. The 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.

*** Safety category of Shield FRS and Shield UTS belts depends on the final belt design.

C&G classification is based on Continental's Know How as well internal tests developed to simulate field conditions.

The values of minimum tensile strength and minimum elongation at break apply to covers with thickness > 2.0 mm.

For smaller than 2.0 mm thicknesses these values might be reduced.

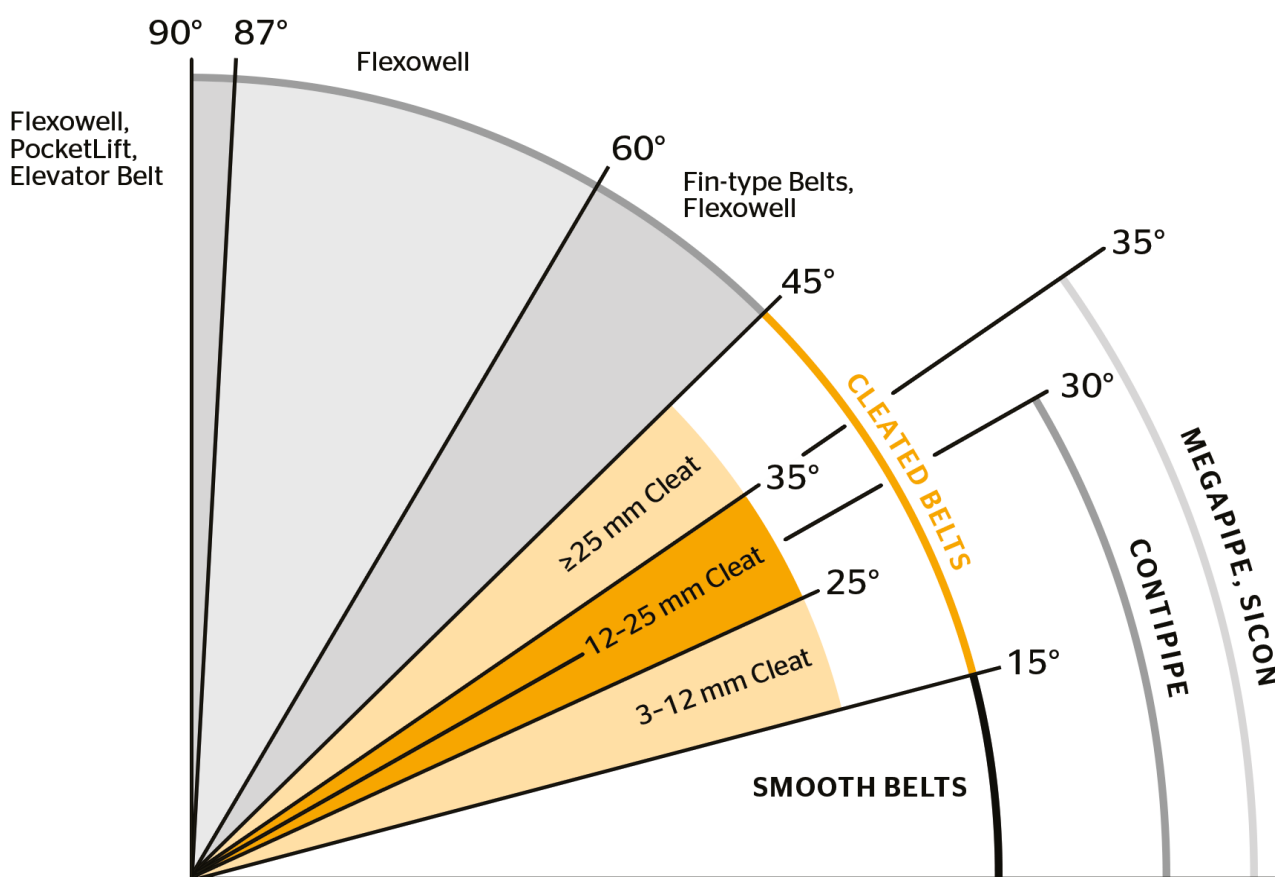
Cleated Belts



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-, V-shaped and straight 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.

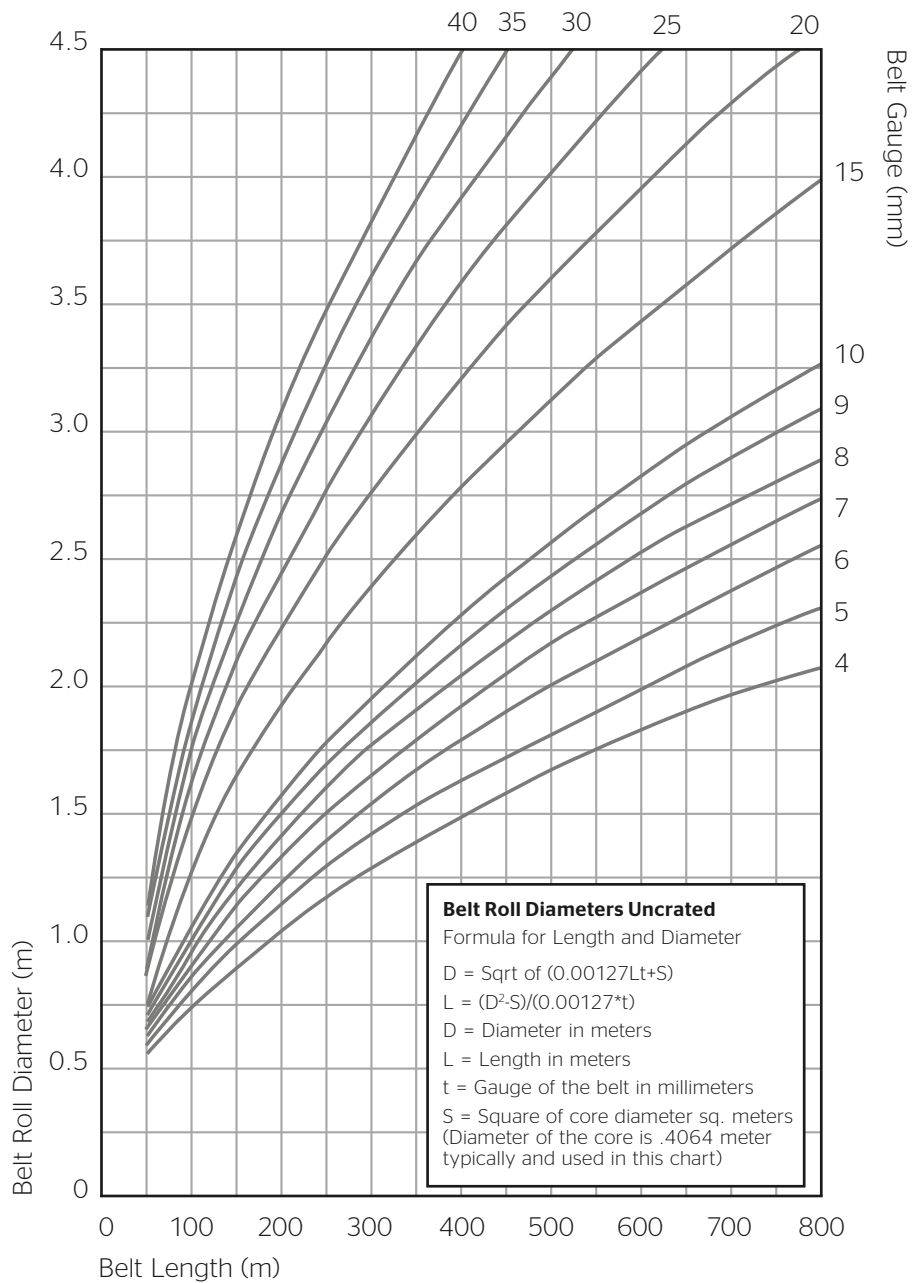
Angles of Inclination



Actual incline increases over a flat belt may vary by type of material being conveyed and loading conditions.
Cleat height is depending on desired inclination angle and particle size of conveyed material(s).

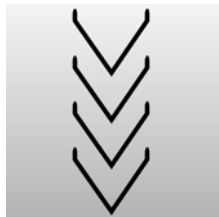
Belt Roll Diameters

Metric Belt Roll Diameters

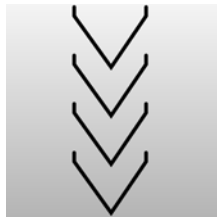


Cleated Belts

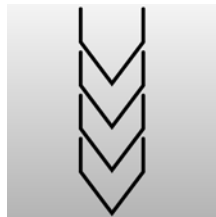
Profile Options



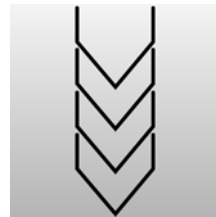
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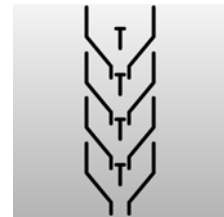
502-310-10



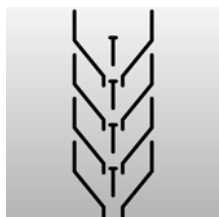
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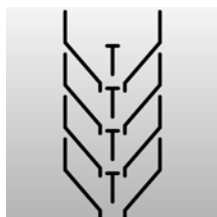
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511-420-20



512-550-25



513-760-25



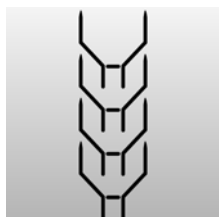
514-450-32



515-600-32



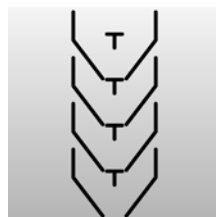
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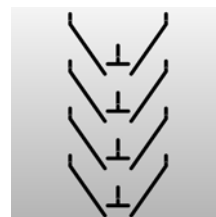
521-460-35



525-1080-50



LE-570-35



MD-420-20



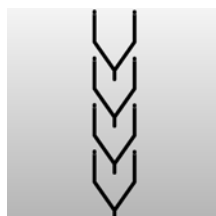
MD-450-35



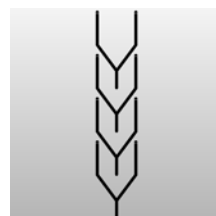
MD-550-20



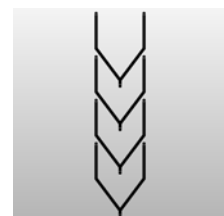
MD-610-25



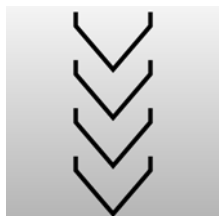
SA-230-15



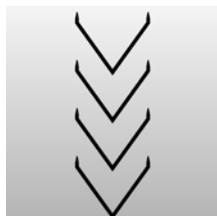
SA-310-15



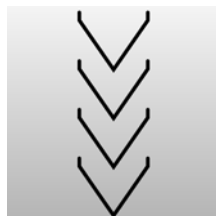
SA-420-15



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

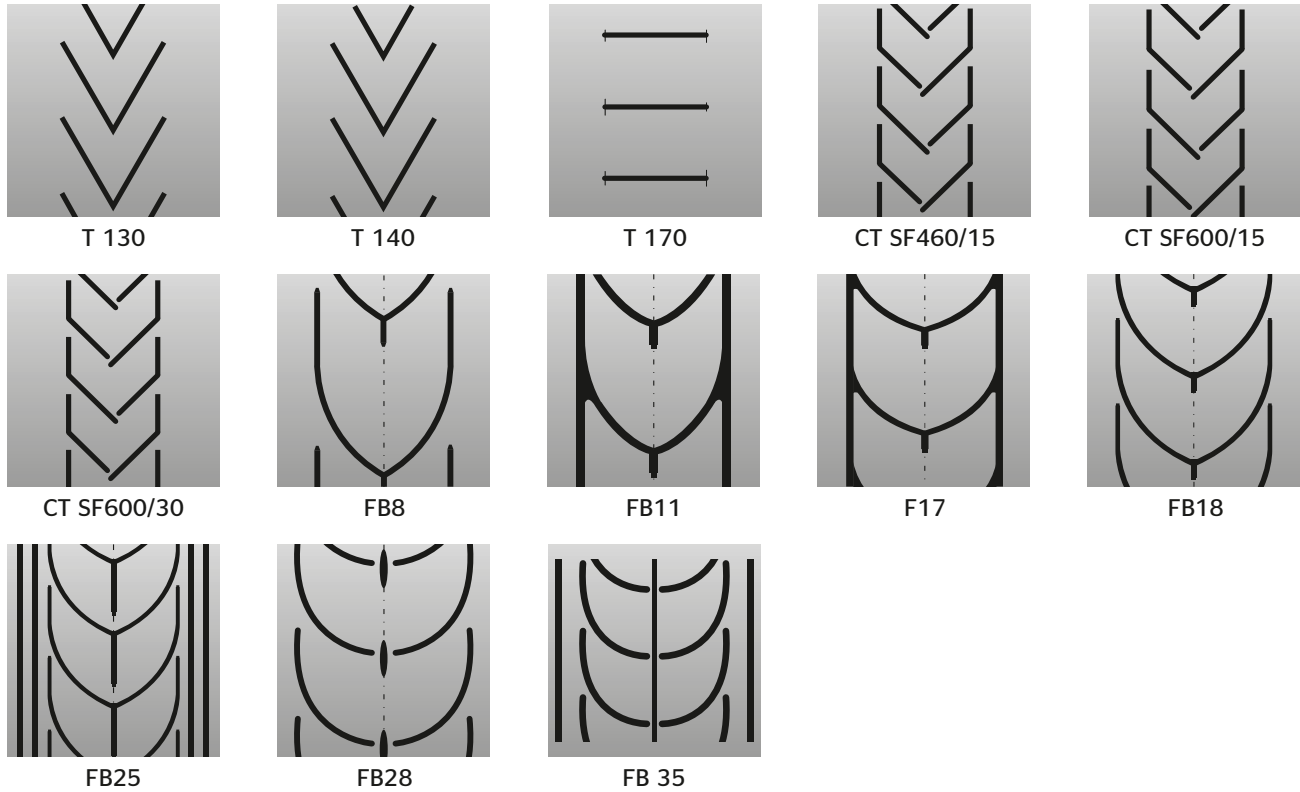
Profile Information

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

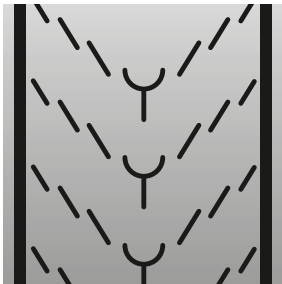


Profile Information

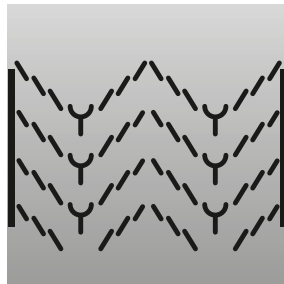
Cleat	Cleat Height	Cleat Width (Top/Bottom)	Profile Width	Pitch	Belt Width
	mm	mm	mm	mm	mm
T 130	15	18	355	200	355-600
T 140	15	18	550	300	550-850
T 170	70	7/25	600/800	250	360-800
CT SF460/15	15	8/14,5	460	300	460-900
CT SF600/15	15	8/14,5	600	300	600-900
CT SF600/30	30	11/25	600	300	650-850
FB 8	15	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



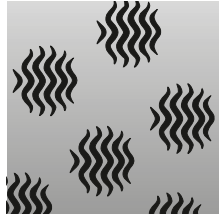
SF1290/15 - SF2460/15

Profile Information

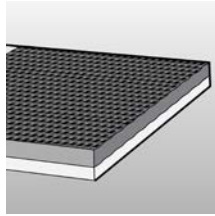
Cleat	Cleat Height	Cleat Width (Top/Bottom)	Profile Width	Pitch	Belt Width
	mm	mm	mm	mm	mm
SF 290/15	15	12/16 8/12	290	190	400
SF 390/15			390		500
SF 360/15			360		600
SF 540/15			540		650
SF 560/15			560		700
SF 690/15			690		800
SF 860/15			860		1000
SF 890/15			890		1000
SF 1140/15			1140		1200
SF 1290/15	15	12/16 8/12	1290	190	1400
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

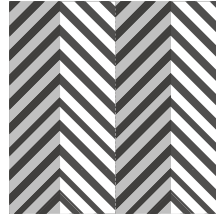
Profile Options



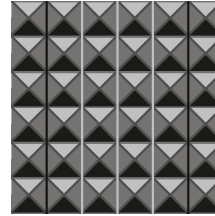
Fun Skier



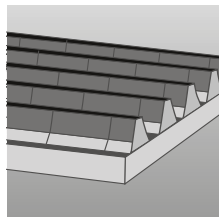
Rough Top



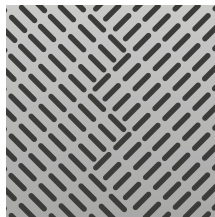
Herringbone



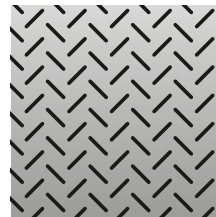
Pyramide



Ripro



Ro-Knop

Ripa X3
Ripa X8

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
Ripa X8	7,5	10 x 88	365-1415	500-1600

For man-riding applications (e.g. fun skier belts), regional safety requirements might be applicable. Please inform your Continental representative for safety requirements relevant to the belt selection.

Cleated Belts

Profile Options

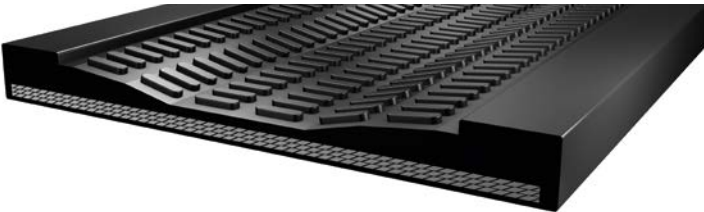
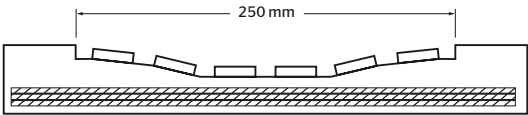


ContiRoll Belt Profiles

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.

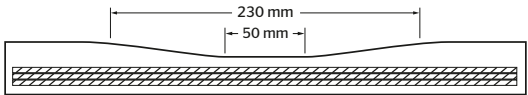
ContiRoll U Profile

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



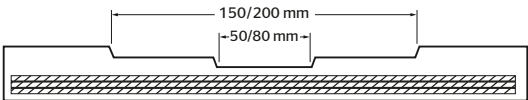
ContiRoll U

Profile Width	230 mm
Belt Width	300 - 400 mm
Additional Information	Molded edges



ContiRoll T

Profile Width	150/200 mm
Belt Width	300 - 400 mm
Additional Information	Molded edges



Belt Services

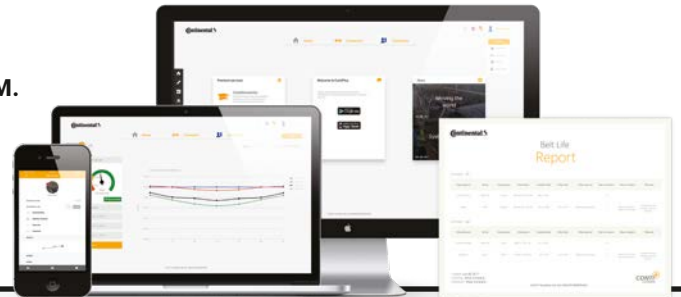


Conveyor Belt Diagnostic Technologies

Continental Conveyor Belt Monitoring Systems capture data about the 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.

- › High-performance 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.

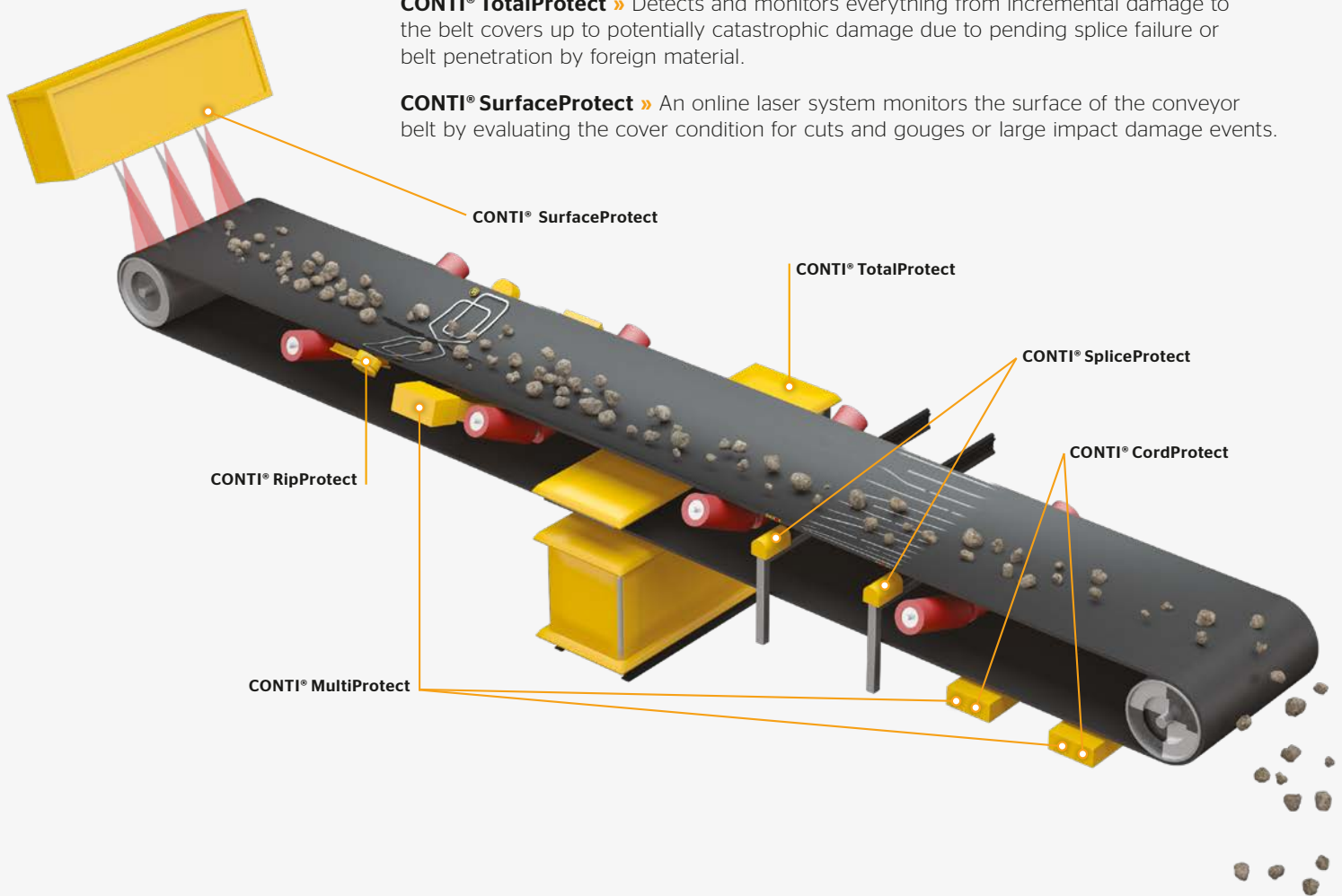
CONTI® MultiProtect » Permanent magnetic system monitors equally spaced embedded magnetized rip inserts. The flat array can additionally monitor for steel cord damage and splice integrity.

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 belt joints 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 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.



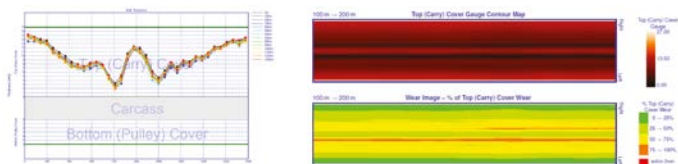


CONTI® Inspect Systems

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 an inspection report about the scanned and evaluated belt cover condition using variable defect thresholds.



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).



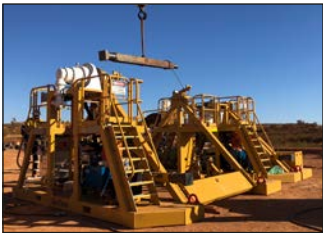
Conveyor Emergency Call-Outs

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.



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 Monster Hide, Monster Hide XVF and Monster Hide 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 ISO 4649 - Method A (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

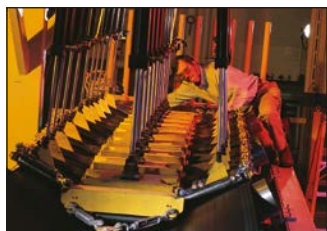


Dynamic Splice Tester

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 600 kN

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 2500 kN Tester

Megapulser

We test full belts and splices dynamically and statically.

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



Laboratory Scale Gallery Tester **Fire Resistance/Self Extinguishing Test**

Used for underground mining development, etc.

Tests: EN12881-1 Method D



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.

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[www.continental-industry.com/
contact-forms/general-contact-form](http://www.continental-industry.com/contact-forms/general-contact-form)



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