Continental
The Future in Motion



# Continental Conveying Solutions

## North America

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 $52.8 billion and currently employs about 233,000 people in 59 countries and markets.



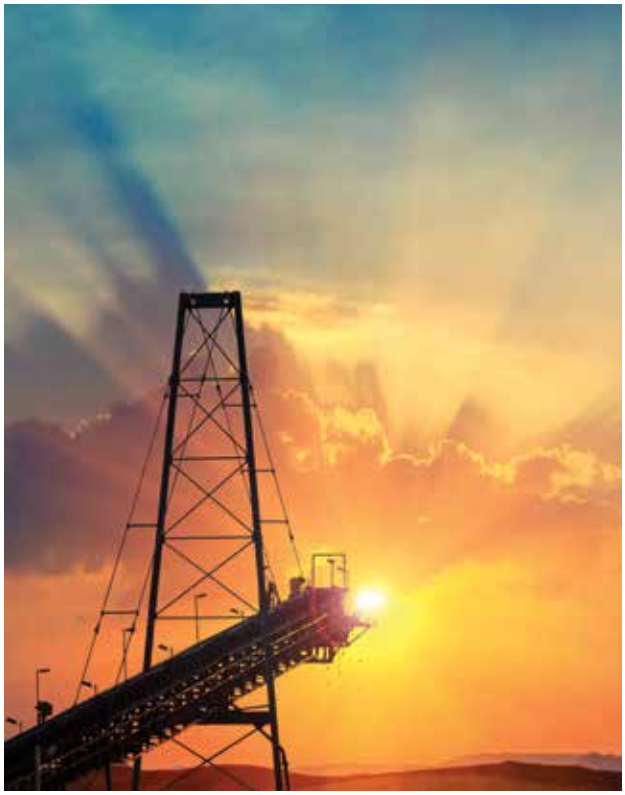
# Quality and the Environment

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 5,000m conveyor belt with a 30,000 ton capacity per hour savings of 8,900 ton CO2 per year can be achieved. The energy saved equals approximately the energy consumption of 6,500 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.

# Table of Contents

# 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

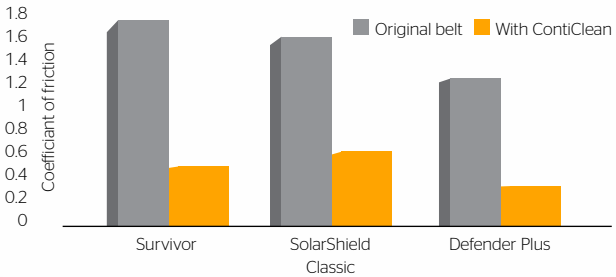
- Reduced Buildup on Idlers
- Improved Housekeeping
- Increased Material Transfer
- Improved Scraper Life
- Increased Belt Life

### 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.

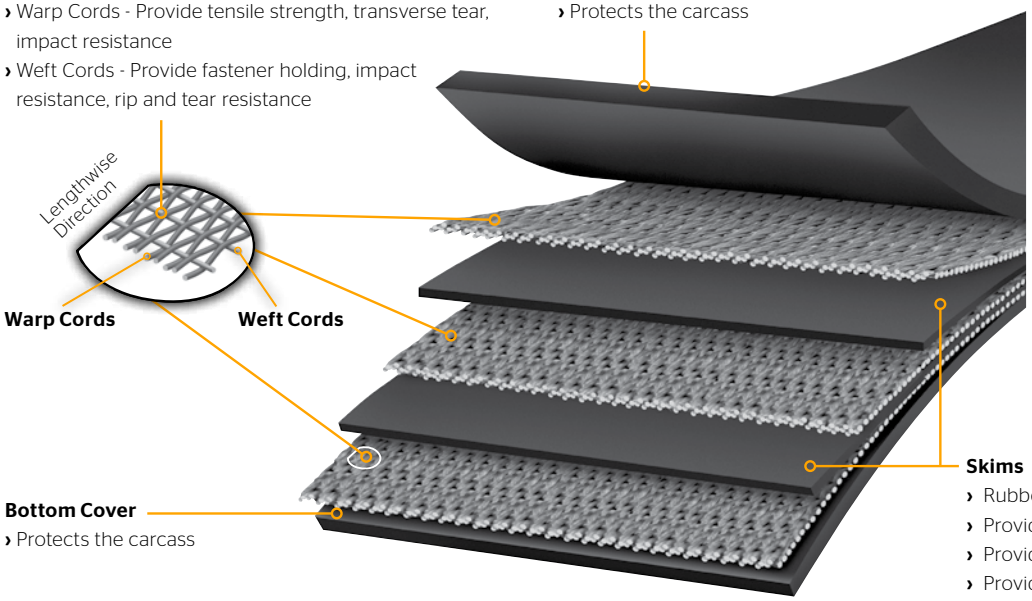
Layers of specially designed fabric plies are sandwiched between rubber skim coats for adhesion and load support. Bottom and top cover compounds are added for maximum protection of the belt carcass. These compounds are comprised of different polymers, fillers and plasticizers and come in a wide variety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

**Fabric Plies**
› Warp Cords - Provide tensile strength, transverse tear, impact resistance
› Weft Cords - Provide fastener holding, impact resistance, rip and tear resistance

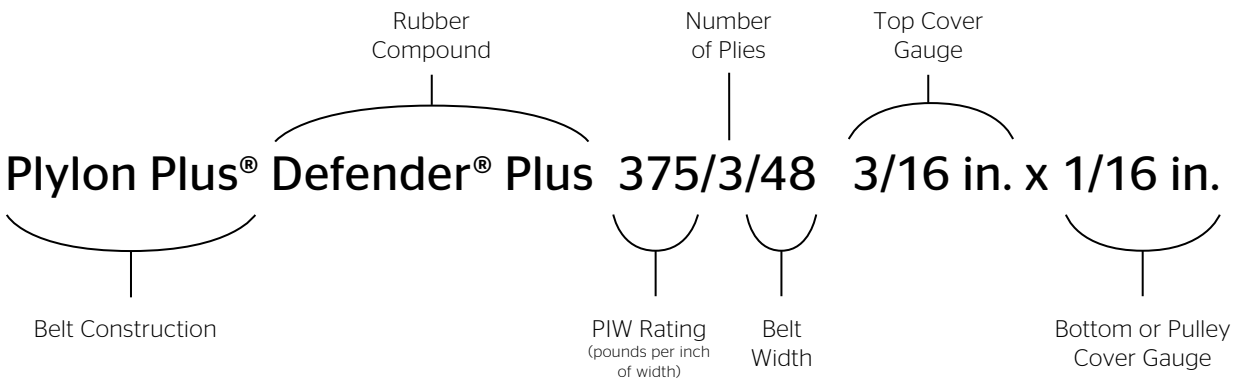
**Top Cover**
› Protects the carcass




**Bottom Cover**
› Protects the carcass

**Skims**
› Rubber between the plies
› Provide adhesion
› Provide load support
› Provide impact resistance

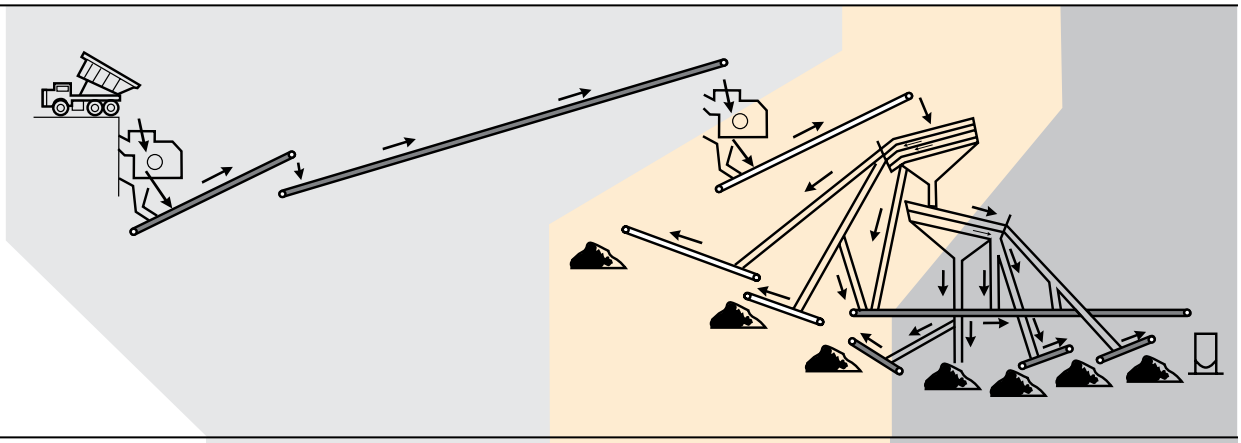
## Belt Nomenclature Example



# Textile Belt Applications

| Industry Markets | Fortress XP™ | CONTI® Titan | Plylon Plus® | ContiFlex® | Spartan® | Wood Sawyer® Plus | Pathfinder® | 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 | 17 | 23 | 33 | 37 | 40 | 48 | 53 | 56 |

## 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™<br>Plylon Plus® | Plylon Plus®<br>CONTI®Titan (Single Ply)<br>ContiFlex® | ContiFlex®<br>Spartan® |
| Typical Material Size | 6 in. and higher | 3 in. to 6 in. | 3 in. and lower |
| Application Description | • High abuse and/or higher tension<br>• Critical belt lines where uptime is a premium | • Moderate abuse and low tension<br>• Typically the wash plant or screening area | • Low abuse<br>• 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 78–84.

# 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

- Aggregate
- Cement
- Coal
- Foundry
- Hard rock
- Pulp and paper
- Steel production
- Wood products

## Applications

- Log debarkers
- Log decks
- Mainlines
- Pit belts
- Primary crushers
- Secondary crushers
- Ship unloaders
- Trash and recycling
- Any high abuse applications

## Cover Compounds

- Monster Hide® Series
- Stacker® Series
- Solar-Shield® Classic

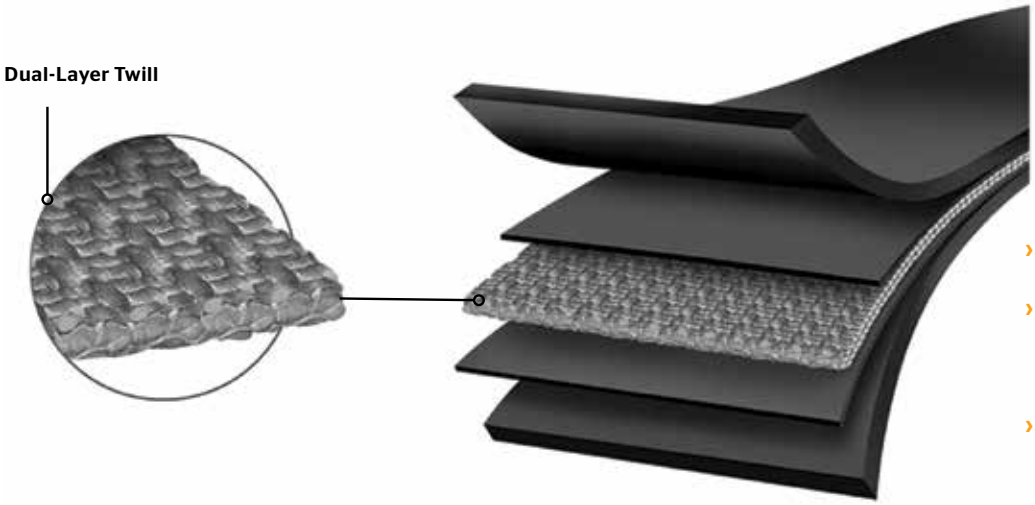
See pages 78–84 for more specific details.

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**

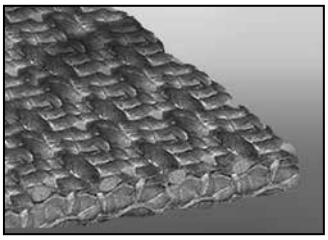


- **Dual-Layer Twill Weave Design.**
- **Fabric technology advancements for improved yarn design and increased yarn strength.**
- **More abuse-resistant fabric design to reduce catastrophic failures.**

**Get a lower cost-per-ton conveyed**

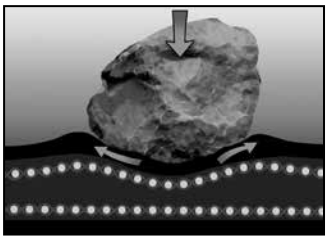
**Tension Range: 330 – 1500 PIW**

# **Fortress XP™** Features and Benefits



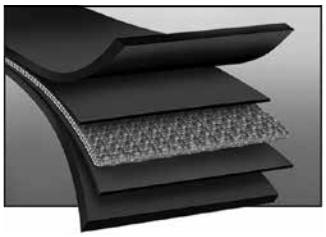
## Innovative fabric weave

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



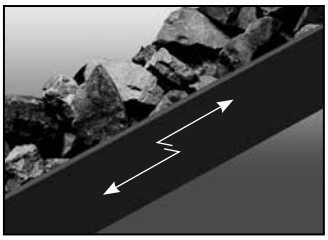
## Exceptional impact resistance

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.



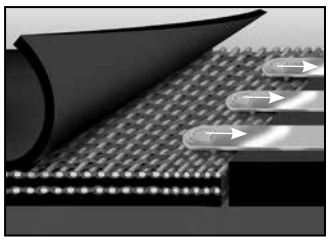
## High transverse tear strength

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.



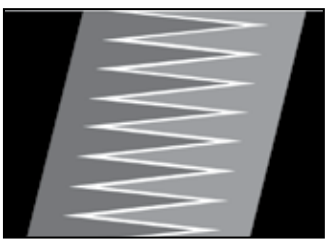
## Superior rip resistance

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

| **Imperial** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Fortress XP™** | **330/1** | **440/1** | **500/1** | **625/1** | **660/2** | **880/2** | **1000/2** | **1250/2** | **1500/2** |
| Number of Plies | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| Fabric Type* | P/N | P/N | P/N | P/N | P/N | P/N | P/N | P/N | P/N |
| Vulcanized & Fastener Rating (PIW) | 330 | 440 | 500 | 625 | 660 | 880 | 1000 | 1250 | 1500 |
| Nominal Carcass Gauge (in.) | 0.130 | 0.151 | 0.164 | 0.181 | 0.280 | 0.329 | 0.357 | 0.389 | 0.447 |
| Nominal Carcass Weight (lb./sq. ft.) | 0.73 | 0.85 | 0.91 | 1.21 | 1.61 | 2.08 | 2.20 | 2.17 | 2.33 |
| Approximate 1/32 in. Cover Weight (lb./sq. ft.) | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 |
| Average Permanent Elongation (%)** | 1.0% | 1.2% | 1.5% | 1.5% | 1.0% | 1.2% | 1.5% | 1.5% | 2.0% |
| Average Elastic Modulus (PIW) | 33,000 | 35,000 | 37,500 | 40,000 | 66,000 | 70,000 | 75,000 | 80,000 | 90,000 |
| Step Length | 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 | BR14 | 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 |
| **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* | P/N | P/N | P/N | P/N | P/N | P/N | P/N | P/N | P/N |
| Belt Rating (kN/m) | 630 | 750 | 850 | 950 | 1200 | 1400 | 1800 | 1950 | 2200 |
| Vulcanized & Fastener Rating (kN/m) | 58 | 77 | 88 | 109 | 116 | 154 | 175 | 219 | 263 |
| Carcass Gauge (mm) | 3.30 | 3.84 | 4.17 | 4.60 | 7.11 | 8.36 | 9.07 | 9.88 | 11.35 |
| Carcass Weight (kg/sq.m) | 3.56 | 4.15 | 4.44 | 5.90 | 7.86 | 10.15 | 10.74 | 10.59 | 11.37 |
| Approximate 1 mm Cover Weight (kg/sq.m) | 1.13 | 1.13 | 1.13 | 1.13 | 1.13 | 1.13 | 1.13 | 1.13 | 1.13 |
| Average Permanent Elongation (%)** | 1.0% | 1.2% | 1.5% | 1.5% | 1.0% | 1.2% | 1.5% | 1.5% | 1.5% |
| Elastic Modulus (kN/m) | 5780 | 6130 | 6570 | 7010 | 11,560 | 12,260 | 13,130 | 14,010 | 15,760 |
| Step Length | 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 |

*P/N = Poly/Nylon **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™ Belt Information

## Fortress XP™ Load Support – Maximum Belt Width Data

| **Imperial (in.)** | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Material Weight** | **0-40 lb./cu. ft.** | | | **41-80 lb./cu. ft.** | | | **81-120 lb./cu. ft.** | | | **Over 120 lb./cu. ft.** | | |
| **Trough Angle** | **20** | **35** | **45** | **20** | **35** | **45** | **20** | **35** | **45** | **20** | **35** | **45** |
| **330/1** | 72 | 66 | 54 | 66 | 54 | 48 | 60 | 48 | 42 | 48 | 42 | 36 |
| **440/1** | 84 | 72 | 60 | 72 | 60 | 54 | 66 | 54 | 48 | 60 | 48 | 42 |
| **500/1** | 84 | 72 | 60 | 72 | 60 | 54 | 66 | 54 | 48 | 60 | 48 | 42 |
| **625/1** | 84 | 72 | 66 | 72 | 66 | 60 | 72 | 60 | 54 | 66 | 54 | 48 |
| **660/2** | 90 | 84 | 84 | 84 | 78 | 72 | 84 | 72 | 66 | 72 | 66 | 54 |
| **880/2** | 96 | 90 | 84 | 90 | 84 | 78 | 90 | 84 | 78 | 84 | 78 | 66 |
| **1000/2** | 102 | 96 | 96 | 96 | 84 | 84 | 96 | 84 | 78 | 84 | 78 | 72 |
| **1250/2** | 108 | 108 | 102 | 102 | 90 | 90 | 102 | 90 | 78 | 90 | 78 | 78 |
| **1500/2** | 108 | 108 | 102 | 102 | 96 | 96 | 102 | 96 | 84 | 90 | 78 | 78 |
| **Metric (mm)** | | | | | | | | | | | | |
| **Material Weight** | **0-640 kg/cu. m** | | | **641-1280 kg/cu. m** | | | **1281-1920 kg/cu. m** | | | **Over 1920 kg/cu. m** | | |
| **Trough Angle** | **20** | **35** | **45** | **20** | **35** | **45** | **20** | **35** | **45** | **20** | **35** | **45** |
| **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 5 ft. (1.5 m) or idler roll gap greater than 1/2 in. (12.7 mm) consult your Sales Representative or Distributor.

# Fortress XP™ Belt Information

## Fortress XP™ Troughability Minimum Belt Width

| Imperial (in.) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Fortress XP™** | | **330/1** | **440/1** | **500/1** | **625/1** | **660/2** | **880/2** | **1000/2** | **1250/2** | **1500/2** |
| Idlers | 20 degree | 18 | 18 | 18 | 18 | 24 | 30 | 30 | 36 | 36 |
| | 35 degree | 24 | 24 | 24 | 24 | 30 | 36 | 36 | 42 | 42 |
| | 45 degree | 24 | 30 | 30 | 30 | 36 | 42 | 42 | 48 | 48 |
| **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 top cover and pulley cover are balanced (i.e., 3/16 in. x 3/16 in. or 4.7mm x 4.7mm) or less than 1/16 in. (1.5mm) differential (i.e., 3/16 in. x 5/32 in. or 4.7mm x 3.9mm), add 6 in. (152mm) to the minimum belt width. 6 in. (152mm) 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 50°F (10°C).

## Fortress XP™ Minimum Pulley Diameters

| Imperial (in.) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Fortress XP™** | **330/1** | **440/1** | **500/1** | **625/1** | **660/2** | **880/2** | **1000/2** | **1250/2** | **1500/2** |
| Over 80% Tension | 18 | 20 | 20 | 22 | 24 | 30 | 36 | 36 | 42 |
| 60% to 80% Tension | 16 | 18 | 18 | 20 | 20 | 24 | 30 | 30 | 36 |
| 40% to 60% Tension | 14 | 16 | 16 | 18 | 18 | 20 | 30 | 30 | 36 |
| Up to 40% Tension | 12 | 14 | 14 | 16 | 16 | 18 | 24 | 24 | 30 |
| Tails and Snubs | 12 | 14 | 14 | 16 | 16 | 18 | 24 | 24 | 30 |
| **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 1/8 in. (3.2mm). The recommended maximum top to bottom cover ratio for one-ply is 2:1 (i.e., is 1/4 in. x 1/8 in. or 4.5 mm x 2.25 mm) and for two-ply is 3:1 (i.e., is 3/8 in. x 1/8 in. or 9 mm x 3 mm). The above tables are based on top cover gauge equal or greater than the bottom (pulley) cover gauge.

# Fortress XP™ Belt Information

## Fortress XP™ Elevator Belt Data

| **Imperial** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Fortress XP™** | **330/1** | **440/1** | **500/1** | **625/1** | **660/2** | **880/2** | **1000/2** | **1250/2** | **1500/2** |
| Number of Plies | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| Fabric Type* | P/N | P/N | P/N | P/N | P/N | P/N | P/N | P/N | P/N |
| Industrial Service Tension Capacity (PIW) | 264 | 350 | 400 | 500 | 525 | 700 | 800 | 1000 | 1200 |
| Recommended Fastener Plate | BR6 | BR6 | BR10 | BR14 | BR14 | BR14 | NR | NR | NR |
| Carcass Gauge (in.) | 0.130 | 0.140 | 0.164 | 0.181 | 0.270 | 0.305 | 0.357 | 0.389 | 0.447 |
| Carcass Weight (lb./sq. ft.) | 0.73 | 0.85 | 0.91 | 1.21 | 1.61 | 1.90 | 1.95 | 2.17 | 2.33 |
| Approximate 1/32 in. Cover Weight (lb./sq. ft.) | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 |
| Elastic Modulus (PIW) | 33,000 | 35,000 | 37,500 | 40,000 | 66,000 | 70,000 | 75,000 | 80,000 | 90,000 |
| **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* | P/N | P/N | P/N | P/N | P/N | P/N | P/N | P/N | P/N |
| Belt Rating (kN/m) | 500 | 600 | 680 | 760 | 960 | 1120 | 1440 | 1560 | 1760 |
| Industrial Service Tension Capacity (kN/m) | 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/sq.m) | 3.6 | 4.2 | 4.4 | 5.9 | 7.9 | 9.3 | 9.5 | 10.6 | 11.4 |
| Approximate 1/32 in. Cover Weight (kg/sq.m) | 1.13 | 1.13 | 1.13 | 1.13 | 1.13 | 1.13 | 1.13 | 1.13 | 1.13 |
| Elastic Modulus (kN/m) | 5780 | 6130 | 6570 | 7010 | 11,560 | 12,260 | 13,130 | 14,010 | 15,760 |

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. *P/N = Poly/Nylon

# Fortress XP™ Belt Information

## Fortress XP™ Maximum Bucket Projection

| **Imperial (in.)** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Fortress XP™** | **330/1** | **440/1** | **500/1** | **625/1** | **660/2** | **880/2** | **1000/2** | **1250/2** | **1500/2** |
| Number of Plies | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| Spaced Industrial Max. Bucket Projection | 7 | 7 | 8 | 9 | 12 | 12 | 12 | 12 | 12 |
| Continuous Industrial Max. Bucket Projection | 6 | 6 | 8 | 9 | 13 | 14 | 15 | 16 | 16 |
| **Metric (mm)** | | | | | | | | | |
| **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 | 180 | 180 | 200 | 230 | 300 | 300 | 300 | 300 | 300 |
| Continuous Industrial Max. Bucket Projection | 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 wrap cords are not crimped during the weaving process, they lay straight (hence the term straight wrap), which provides low elongation for length stability on systems with limited take-ups.

## 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 1500 PIW 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

- Aggregates
- Agricultural
- Bulk Terminals
- Calcined Lime
- Cement
- Chemicals
- Coking
- Conveyors
- Feed
- Fertilizer
- Foundries
- Gypsum

### Applications

- Lubricants
- Oil Sand Mining
- Oily Coke
- Petroleum
- Ports
- Potash
- Power Generation
- Power Saving Opportunities
- Prep Plants
- Steel
- Taconite
- Terminals
- Trona

### Cover Compounds

- Monster Hide® Series
- Stacker® Series
- Solar-Shield® Series
- Gold Series

See pages 78–84 for more specific details.

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** | **Tension Range: 220 – 1500 PIW**

# CONTI® Titan Belt Information

## CONTI® Titan Conveyor Belt Data

| Imperial | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CONTI® Titan** | **220/1** | **330/1** | **440/1** | **550/1** | **660/2** | **800/2** | **1000/2** | **1250/2** | **1500/2** |
| Number of Plies | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| Fabric Type* | P/N/N | P/N/N | P/N/N | P/N/N | P/N/N | P/N/N | P/N/N | P/N/N | P/N/N |
| Vulcanized & Fastener Rating (PIW) | 220 | 330 | 440 | 550 | 660 | 800 | 1000 | 1250 | 1500 |
| Nominal Carcass Gauge (in.) | 0.096 | 0.128 | 0.156 | 0.165 | 0.302 | 0.358 | 0.376 | 0.386 | 0.476 |
| Nominal Carcass Weight (lb./sq. ft.) | 0.38 | 0.49 | 0.71 | 0.80 | 1.20 | 1.80 | 1.90 | 2.00 | 2.20 |
| Approximate 1/32 in. Cover Weight (lb./sq. ft.) | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 |
| Elastic Modulus (PIW) | 32,000 | 44,200 | 45,600 | 54,000 | 52,000 | 58,000 | 69,000 | 83,500 | 91,000 |
| Step Length | Finger Splice | Finger Splice | Finger Splice | Finger Splice | Finger Splice | Finger Splice | Finger Splice | Finger Splice | Finger Splice |
| 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 |
| **Metric** | | | | | | | | | |
| **CONTI® Titan** | **400/1** | **630/1** | **750/1** | **950/1** | **1150/2** | **1400/2** | **1750/2** | **2100/2** | **2600/2** |
| 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 (kN/m) | 400 | 630 | 750 | 950 | 1150 | 1400 | 1750 | 2100 | 2600 |
| Vulcanized & Fastener Rating (kN/m) | 39 | 58 | 77 | 96 | 116 | 140 | 175 | 219 | 263 |
| Nominal Carcass Gauge (mm) | 2.438 | 3.251 | 3.962 | 4.191 | 7.671 | 9.093 | 9.550 | 9.804 | 12.090 |
| Nominal Carcass Weight (kg/sq.m) | 1.86 | 2.39 | 3.47 | 3.91 | 5.86 | 8.79 | 9.28 | 9.76 | 10.74 |
| Approximate 1 mm Cover Weight (kg/sq.m) | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 |
| Elastic Modulus (kN/m) | 5,600 | 7,740 | 7,990 | 9,460 | 9,110 | 10,160 | 12,080 | 14,620 | 15,940 |
| 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. *P/N/N = Poly/Nylon/Nylon and EPP = Polyester/Polyamide/Polyamide.

# CONTI® Titan Belt Information

## CONTI® Titan Load Support – Maximum Belt Width Data

| **Imperial (in.)** | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Material Weight** | **0-40 lb./cu. ft.** | | | **41-80 lb./cu. ft.** | | | **81-120 lb./cu. ft.** | | | **Over 120 lb./cu. ft.** | | |
| **Trough Angle** | **20** | **35** | **45** | **20** | **35** | **45** | **20** | **35** | **45** | **20** | **35** | **45** |
| **220/2** | 60 | 48 | 42 | 48 | 36 | 36 | 42 | 36 | 30 | 36 | 30 | 24 |
| **330/1** | 72 | 66 | 54 | 66 | 54 | 48 | 60 | 48 | 42 | 48 | 42 | 36 |
| **440/1** | 84 | 72 | 60 | 72 | 60 | 54 | 66 | 54 | 48 | 54 | 48 | 42 |
| **550/1** | 84 | 72 | 66 | 72 | 66 | 60 | 72 | 60 | 54 | 60 | 54 | 48 |
| **660/2** | 96 | 96 | 96 | 84 | 84 | 84 | 84 | 72 | 72 | 72 | 72 | 66 |
| **800/2** | 96 | 96 | 96 | 96 | 96 | 96 | 84 | 84 | 84 | 84 | 84 | 72 |
| **1000/2** | 96 | 96 | 96 | 96 | 96 | 96 | 84 | 84 | 84 | 84 | 84 | 72 |
| **1250/2** | 96 | 96 | 96 | 96 | 96 | 96 | 84 | 84 | 84 | 84 | 84 | 72 |
| **1500/2** | 96 | 96 | 96 | 96 | 96 | 96 | 84 | 84 | 84 | 84 | 84 | 72 |
| **Metric (mm)** | | | | | | | | | | | | |
| **Material Weight** | **0-640 kg/cu. m** | | | **641-1280 kg/cu. m** | | | **1281-1920 kg/cu. m** | | | **Over 1920 kg/cu. m** | | |
| **Trough Angle** | **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 |
| **750/1** | 2130 | 1830 | 1520 | 1830 | 1520 | 1370 | 1680 | 1370 | 1220 | 1370 | 1220 | 1070 |
| **950/1** | 2130 | 1830 | 1680 | 1830 | 1680 | 1520 | 1830 | 1520 | 1370 | 1520 | 1370 | 1220 |
| **1150/2** | 2440 | 2440 | 2440 | 2130 | 2130 | 2130 | 2130 | 1830 | 1830 | 1830 | 1830 | 1680 |
| **1400/2** | 2440 | 2440 | 2440 | 2440 | 2440 | 2440 | 2130 | 2130 | 2130 | 2130 | 2130 | 1830 |
| **1750/2** | 2440 | 2440 | 2440 | 2440 | 2440 | 2440 | 2130 | 2130 | 2130 | 2130 | 2130 | 1830 |
| **2100/2** | 2440 | 2440 | 2440 | 2440 | 2440 | 2440 | 2130 | 2130 | 2130 | 2130 | 2130 | 1830 |
| **2600/2** | 2440 | 2440 | 2440 | 2440 | 2440 | 2440 | 2130 | 2130 | 2130 | 2130 | 2130 | 1830 |

On systems with troughing idler spacing greater than 5 ft. (1.5 m) or idler roll gap greater than 1/2 in. (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.

| Imperial (in.) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **CONTI® Titan** | | **220/1** | **330/1** | **440/1** | **550/1** | **660/2** | **800/2** | **1000/2** | **1250/2** | **1500/2** |
| Idlers | 20 degree | 16 | 20 | 24 | 24 | 24 | 30 | 30 | 30 | 30 |
| | 35 degree | 20 | 24 | 30 | 30 | 30 | 36 | 36 | 36 | 36 |
| | 45 degree | 24 | 30 | 36 | 36 | 36 | 42 | 42 | 42 | 42 |
| **Metric (mm)** | | | | | | | | | | |
| **CONTI® Titan** | | **400/1** | **630/1** | **750/1** | **950/1** | **1150/2** | **1400/2** | **1750/2** | **2100/2** | **2600/2** |
| 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 |

6 in. (152 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 50°F (10°C).

## CONTI® Titan Minimum Pulley Diameters

| Imperial (in.) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CONTI® Titan** | **220/1** | **330/1** | **440/1** | **550/1** | **660/2** | **800/2** | **1000/2** | **1250/2** | **1500/2** |
| Over 80% Tension | 16 | 18 | 20 | 20 | 30 | 36 | 36 | 36 | 36 |
| 60% to 80% Tension | 14 | 16 | 18 | 18 | 24 | 24 | 30 | 30 | 30 |
| Up to 60% Tension | 12 | 14 | 16 | 16 | 20 | 20 | 24 | 24 | 24 |
| Tails and Snubs | 12 | 14 | 16 | 16 | 20 | 20 | 24 | 24 | 24 |
| **Metric (mm)** | | | | | | | | | |
| **CONTI® Titan** | **400/1** | **630/1** | **750/1** | **950/1** | **1150/2** | **1400/2** | **1750/2** | **2100/2** | **2600/2** |
| 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 |

# CONTI® Titan Belt Information

## CONTI® Titan Elevator Belt Data

| **Imperial (in.)** | | | | | |
|---|---|---|---|---|---|
| **CONTI® Titan** | **660/2** | **800/2** | **1000/2** | **1250/2** | **1500/2** |
| Number of Plies | 2 | 2 | 2 | 2 | 2 |
| Industrial Service Tension (PIW) | 512 | 620 | 775 | 969 | 1163 |
| Spaced<br>Industrial Max. Bucket Projection | 14 | 15 | 16 | 17 | 18 |
| Continuous<br>Industrial Max. Bucket Projection | 15 | 16 | 18 | 20 | 22 |
| **Metric (mm)** | | | | | |
| **CONTI® Titan** | **1150/2** | **1400/2** | **1750/2** | **2100/2** | **2600/2** |
| Number of Plies | 2 | 2 | 2 | 2 | 2 |
| Industrial Service Tension (kN/m) | 920 | 1120 | 1400 | 1680 | 2080 |
| Spaced<br>Industrial Max. Bucket Projection | 360 | 380 | 410 | 430 | 460 |
| Continuous<br>Industrial Max. Bucket Projection | 380 | 410 | 460 | 510 | 560 |

# CONTI®Alert

## A Visionary Idea in Conveyor Belt Monitoring

**Conti®Alert is the first and only conveyor belt innovation to let you see belt wear in real time. The red bonding layer below the top cover is exposed when it's time to change the belt, creating:**

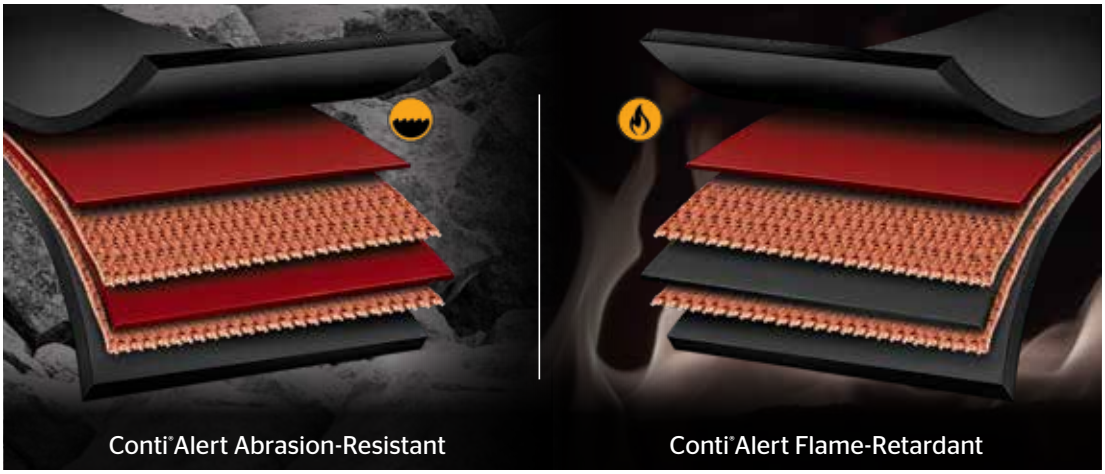
### Cost savings

- Identifying belt wear allows you to get the most out of your current belt
- Knowing when to change your belt helps prevent downtime and increase uptime

### Predictability

- In conjunction with our **Conti®Alert Calculator**, customers can enter their current belt life data and determine how much time is remaining before the carcass is exposed.*

*This is an estimate and may not in fact determine each customer's actual experience.




## CONTI®Alert Information

**Belt Specs**
Plylon Plus® 250/2, 375/3, 500/4 and 600/3 with a minimum 3/16" x 1/16" to a maximum of 3/8" x 1/8" covers

**Abrasion-resistant compound specs**
Defender Plus®, Stacker®, Survivor® and Survivor® Plus

**Flame-retardant compound specs**
Shield FR-2G, Shield FRAR-2G, Shield FRORS-2G, Shield FRUG-2G and Shield FRHT-2G

**CONTI®Alert Availability**
Conti®Alert is available in our abrasion-resistant lineup of Continental Conveyor Belt specs and compounds.

# Plylon Plus® Belts

Plylon 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

- 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

## Applications

- Block plants
- Coal prep plant
- Load out
- Log debarkers
- Log decks
- Mainlines
- Pit belts
- Primary crushers
- Secondary crushers
- Ship unloaders
- Stacker conveyors
- Trash and recycling
- Radial stackers
- Ready mix
- Wash plant

## Cover Compounds

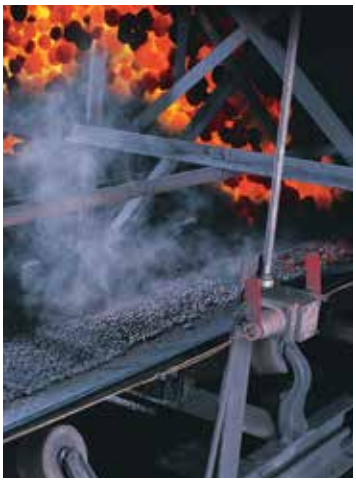
- Defender® Series
- Stacker® Series
- Survivor® Series
- Monster Hide® Series
- Solar-Shield® Series
- Gold Series
- Shield Series
- Shield Flame Series

See pages 78–84 for more specific details.

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** | **Tension Range: 220 – 1800 PIW**

## Plylon Plus® Featuring Solar-Shield®

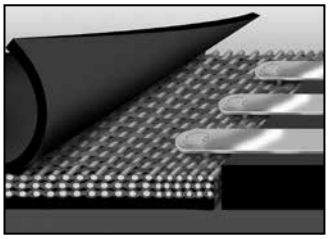


Solar-Shield® belts are part of the Plylon Plus® family. They're offered with polyester/nylon, polyester/polyester and fiberglass fabric reinforcements to deliver high performance in extremely hot material applications.

**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 1,000˚F (538˚C).

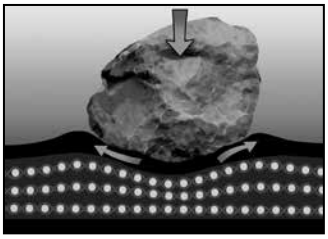
See page 79 for more information on Solar-Shield®.

# Plylon Plus® Features and Benefits



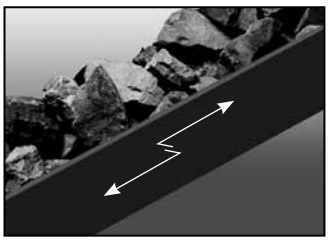
## Excellent fastener holding retention

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.



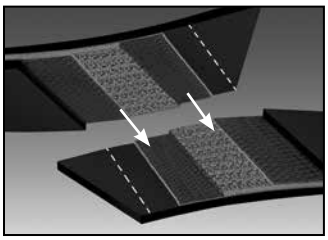
## High ultimate strength

Plylon 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.

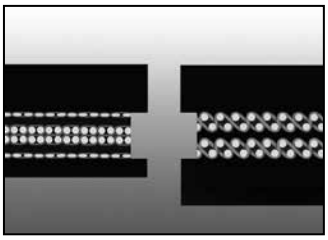
# Plylon Plus® Features and Benefits



## Standard bias step splices

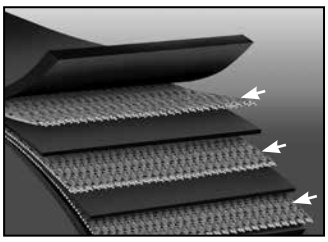
A quick and effective technique, step splices greatly reduce downtime and are recognized throughout the industry as the standard. The vulcanized splice in Plylon Plus® retains 100% of belt tension rating during all running conditions.

See data tables for proper step length on page 26.



## Variety of cover compounds and cover gauges

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

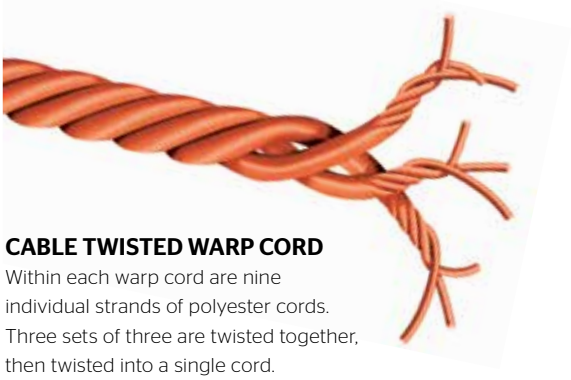


## Variety of fabric carcasses

Choose from a selection of carcasses that provide outstanding strength, adhesion, impact absorption and other properties. These include fabric carcasses from 220 to 1800 PIW.

# Plylon Plus® Features and Benefits

In applications that include crusher, pit, slope and other high-abuse applications, our Plylon Plus® 200, 250 and 450 PIW fabric belts have proven their dependability. The workhorse of our lineup, millions of feet of Plylon Plus® belt are operating worldwide with outstanding success. The key is our unique double-faced 2-1 twill fabric design.



**CABLE TWISTED WARP CORD**

Within each warp cord are nine individual strands of polyester cords. Three sets of three are twisted together, then twisted into a single cord.

*Cord illustrated above is utilized in 200, 250 and 450 PIW fabric constructions

**DOUBLE-FACED 2/1 TWILL WEAVE**

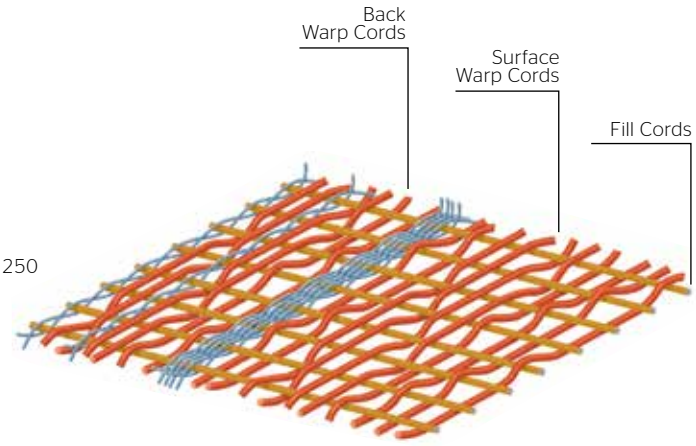
Superior flexibility is ensured by the unique weave pattern of Plylon Plus® 200, 250 and 450 PIW fabrics. As shown, the face warp cords on the top surface of the fabric cross over three fill cords, go under one, over three, under one and so on. Beneath the fabric are back warp cords. They are arranged in the opposite fashion of the face cords—going under three fill cords, over one, under three, etc. Competitive belts place their warp cords over three, under three...which compromises flexibility and promotes edge fray.

Warp Cords (Surface/Back)

Fill Cords

The polyester warp cords of the Plylon Plus® fabric are twisted into sets of individual strands, then fashioned into a cabled cord. Compare the configurations of Plylon Plus® and our competitors', and you'll find that the Plylon Plus® belt provides significantly more flexibility. This enables you to reduce pulley size and costs. And that's just the beginning of the Plylon Plus® belt savings story.

Plylon Plus® 200, 250 and 450 PIW fabric conveyor belts demonstrate superior resistance to tears, rips and impact. They also provide unsurpassed adhesion values, patented anti-stringing and fraying properties.




**Tension Range: 400 – 1800 PIW**

# Plylon Plus® Belt Information

## Plylon Plus® Conveyor Belt Data

*Continued on the next page.*

| Plylon Plus® | 220/2 | 250/2 | 330/3 | 375/3 | 400/2 | 440/4 | 500/4 | 600/3 | 750/3 |
|---|---|---|---|---|---|---|---|---|---|
| Number of Plies | 2 | 2 | 3 | 3 | 2 | 4 | 4 | 3 | 3 |
| Fabric Type* | P/P | P/N | P/P | P/N | P/P | P/P | P/N | P/P | P/P |
| Average Permanent Elongation (%)** | 0.8% | 0.8% | 0.8% | 0.8% | 0.8% | 0.8% | 0.8% | 0.8% | 1.0% |
| Recommended Fastener Plate | 140 | 190 | BR-10 | BR-10 | BR-10 | BR-10 | BR-10 | BR-10 | BR-14 |
| Hinge | R2 | R2 | R2 | R5 | R5 | R5 | R5-1/2 | R5-1/2 | R6 |
| Hinge | U35A | U35A | U35A | U35 | U35 | U35 | U35 | U35 | U37/U37A |
| **Imperial** | | | | | | | | | |
| Vulcanized & Fastener Rating (PIW) | 220 | 250 | 330 | 375 | 400 | 440 | 500 | 600 | 750 |
| Nominal Carcass Gauge (in.) | 0.121 | 0.135 | 0.161 | 0.169 | 0.178 | 0.221 | 0.229 | 0.251 | 0.272 |
| Nominal Carcass Weight (lb./sq. ft.) | 0.76 | 0.85 | 1.06 | 1.07 | 0.97 | 1.39 | 1.45 | 1.44 | 1.61 |
| Approximate 1/32 in. Cover Weight (lb./sq. ft.) | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 |
| Elastic Modulus (PIW) | 23,000 | 30,000 | 34,500 | 45,000 | 44,000 | 46,000 | 60,000 | 66,000 | 67,500 |
| Step Length (in.)*** | 10 | 10 | 10 | 10 | 16 | 10 | 10 | 16 | 18 |
| **Metric** | | | | | | | | | |
| Belt Rating (kN/m) | 390 | 440 | 580 | 660 | 680 | 770 | 880 | 1000 | 1250 |
| Vulcanized & Fastener Rating (kN/m) | 39 | 44 | 58 | 66 | 70 | 77 | 88 | 105 | 131 |
| Nominal Carcass Gauge (mm) | 3.07 | 3.4 | 4.09 | 4.3 | 4.5 | 5.61 | 5.8 | 6.4 | 6.3 |
| Nominal Carcass Weight (kg/sq.m) | 3.7 | 4.2 | 5.2 | 5.2 | 4.7 | 6.8 | 7.1 | 7.0 | 7.3 |
| Approximate 1 mm Cover Weight (kg/sq.m) | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 |
| Average Elastic Modulus (kN/m) | 4030 | 5250 | 6040 | 7880 | 7710 | 8060 | 10,510 | 11,560 | 11,820 |
| Step Length (mm)*** | 250 | 250 | 250 | 250 | 410 | 250 | 250 | 410 | 460 |

Plylon Plus® 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. R-6 fasteners must be installed with stainless steel rivets when belt tensions exceed 800 PIW (140 kN/m) for best results. *P/P = Poly/Poly and P/N = Poly/Nylon **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. ***Consult your Sales Representative for vulcanized splice design for 900/2, 1350/3 and 1800/4 constructions.

# Plylon Plus® Belt Information

## Plylon Plus® Conveyor Belt Data

| Plylon Plus® | 800/4 | 900/2 | 1000/4 | 1000/5 | 1200/6 | 1250/5 | 1350/3 | 1800/4 |
|---|---|---|---|---|---|---|---|---|
| Number of Plies | 4 | 2 | 4 | 5 | 6 | 5 | 3 | 4 |
| Fabric Type* | P/P | P/N | P/P | P/P | P/P | P/P | P/N | P/N |
| Average Permanent Elongation (%)** | 0.8% | 1.5% | 1.0% | 0.8% | 0.8% | 1.0% | 1.5% | 1.5% |
| Recommended Fastener Plate | BR-14 | NR | NR | NR | NR | NR | NR | NR |
| Hinge | R6 | RAR8 | RAR8 | RAR8 | RAR8 | RAR8 | NR | NR |
| Hinge | U37/U37A | U38A | U38A | U38A | U38 | U38 | U38 | U38B |
| **Imperial** | | | | | | | | |
| Vulcanized & Fastener Rating (PIW) | 800 | 900 | 1000 | 1000 | 1200 | 1250 | 1350 | 1800 |
| Nominal Carcass Gauge (in.) | 0.340 | 0.300 | 0.368 | 0.429 | 0.518 | 0.464 | 0.453 | 0.613 |
| Nominal Carcass Weight (lb./sq. ft.) | 1.96 | 1.88 | 2.18 | 2.47 | 2.89 | 2.75 | 2.84 | 3.84 |
| Approximate 1/32 in. Cover Weight (lb./sq. ft.) | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 |
| Elastic Modulus (PIW) | 88,000 | 62,500 | 90,000 | 110,000 | 132,000 | 112,500 | 93,800 | 12,5100 |
| Step Length (in.)*** | 16 | Finger | 18 | 16 | 16 | 18 | Finger | Finger |
| **Metric** | | | | | | | | |
| Belt Rating (kN/m) | 1290 | 1560 | 1580 | 1550 | 1880 | 1940 | 2240 | 2760 |
| Vulcanized & Fastener Rating (kN/m) | 140 | 158 | 175 | 175 | 210 | 219 | 236 | 315 |
| Nominal Carcass Gauge (mm) | 8.6 | 7.6 | 9.3 | 10.9 | 13.2 | 11.79 | 11.5 | 15.6 |
| Nominal Carcass Weight (kg/sq.m) | 9.6 | 9.2 | 10.64 | 12.1 | 14.1 | 13.43 | 13.9 | 18.7 |
| Approximate 1 mm Cover Weight (kg/sq.m) | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 |
| Average Elastic Modulus (kN/m) | 15,410 | 10,950 | 15,760 | 19,260 | 23,120 | 19,700 | 16,430 | 21,910 |
| Step Length (mm)*** | 410 | Finger | 460 | 410 | 410 | 460 | Finger | Finger |

Plylon Plus® 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. R-6 fasteners must be installed with stainless steel rivets when belt tensions exceed 800 PIW (140 kN/m) for best results. *P/P = Poly/Poly and P/N = Poly/Nylon **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. ***Consult your Sales Representative for vulcanized splice design for 900/2, 1350/3 and 1800/4 constructions.

# Plylon Plus® Belt Information

## Plylon Plus® Load Support – Maximum Belt Width Data

| Imperial (in.) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Material Weight** | **0-40 lb./cu. ft.** | | | **41-80 lb./cu. ft.** | | | **81-120 lb./cu. ft.** | | | **Over 120 lb./cu. ft.** | | |
| **Trough Angle** | **20** | **35** | **45** | **20** | **35** | **45** | **20** | **35** | **45** | **20** | **35** | **45** |
| **220/2** | 48 | 42 | 36 | 48 | 36 | 36 | 42 | 36 | 30 | 36 | 30 | NR |
| **250/2** | 54 | 48 | 48 | 48 | 42 | 36 | 42 | 42 | 30 | 36 | 30 | NR |
| **330/3** | 60 | 54 | 48 | 60 | 48 | 42 | 54 | 48 | 42 | 48 | 42 | 36 |
| **375/3** | 72 | 60 | 60 | 60 | 60 | 48 | 54 | 54 | 48 | 48 | 42 | 36 |
| **400/2** | 60 | 54 | 54 | 54 | 48 | 42 | 48 | 48 | 42 | 42 | 36 | 30 |
| **440/4** | 72 | 60 | 54 | 66 | 60 | 48 | 60 | 54 | 48 | 54 | 48 | 42 |
| **500/4** | 84 | 72 | 72 | 72 | 60 | 54 | 72 | 60 | 54 | 60 | 54 | 48 |
| **600/3** | 84 | 72 | 72 | 72 | 60 | 54 | 72 | 60 | 54 | 60 | 54 | 48 |
| **750/3** | 84 | 72 | 72 | 72 | 60 | 54 | 72 | 60 | 54 | 60 | 54 | 48 |
| **800/4** | 96 | 84 | 84 | 84 | 72 | 72 | 84 | 72 | 60 | 72 | 60 | 54 |
| **900/2** | 78 | 78 | 72 | 72 | 72 | 60 | 72 | 60 | 54 | 60 | 54 | 48 |
| **1000/4** | 96 | 84 | 84 | 84 | 72 | 72 | 84 | 72 | 60 | 72 | 60 | 54 |
| **1000/5** | 108 | 96 | 96 | 96 | 84 | 84 | 96 | 84 | 72 | 84 | 72 | 72 |
| **1200/6** | 116 | 108 | 108 | 108 | 96 | 96 | 108 | 96 | 84 | 96 | 84 | 84 |
| **1250/5** | 116 | 108 | 108 | 108 | 96 | 96 | 108 | 96 | 84 | 96 | 84 | 78 |
| **1350/3** | 96 | 96 | 84 | 96 | 96 | 84 | 96 | 84 | 72 | 96 | 84 | 72 |
| **1800/4** | 118 | 118 | 108 | 118 | 118 | 108 | 108 | 108 | 96 | 108 | 96 | 84 |
| **Metric (mm)** | | | | | | | | | | | | |
| **Material Weight** | **0-640 kg/cu. m** | | | **641-1280 kg/cu. m** | | | **1281-1920 kg/cu. m** | | | **Over 1920 kg/cu. m** | | |
| **Trough Angle** | **20** | **35** | **45** | **20** | **35** | **45** | **20** | **35** | **45** | **20** | **35** | **45** |
| **220/2** | 1220 | 1070 | 910 | 1220 | 910 | 910 | 1070 | 910 | 760 | 910 | 760 | NR |
| **250/2** | 1370 | 1220 | 1220 | 1220 | 1070 | 910 | 1070 | 1070 | 760 | 910 | 760 | NR |
| **330/3** | 1520 | 1370 | 1220 | 1520 | 1220 | 1070 | 1370 | 1220 | 1070 | 1220 | 1070 | 910 |
| **375/3** | 1830 | 1520 | 1520 | 1520 | 1520 | 1220 | 1370 | 1370 | 1220 | 1220 | 1070 | 910 |
| **400/2** | 1520 | 1370 | 1370 | 1370 | 1220 | 1070 | 1220 | 1220 | 1070 | 1070 | 910 | 760 |
| **440/4** | 1830 | 1520 | 1370 | 1680 | 1520 | 1220 | 1520 | 1370 | 1220 | 1370 | 1220 | 1070 |
| **500/4** | 2130 | 1830 | 1830 | 1830 | 1520 | 1370 | 1830 | 1520 | 1370 | 1520 | 1370 | 1220 |
| **600/3** | 2130 | 1830 | 1830 | 1830 | 1520 | 1370 | 1830 | 1520 | 1370 | 1520 | 1370 | 1220 |
| **750/3** | 2130 | 1830 | 1830 | 1830 | 1520 | 1370 | 1830 | 1520 | 1370 | 1520 | 1370 | 1220 |
| **800/4** | 2440 | 2130 | 2130 | 2130 | 1830 | 1830 | 2130 | 1830 | 1520 | 1830 | 1520 | 1370 |
| **900/2** | 1980 | 1980 | 1830 | 1830 | 1830 | 1520 | 1830 | 1520 | 1370 | 1520 | 1370 | 1220 |
| **1000/4** | 2440 | 2130 | 2130 | 2130 | 1830 | 1830 | 2130 | 1830 | 1520 | 1830 | 1520 | 1370 |
| **1000/5** | 2740 | 2440 | 2440 | 2440 | 2130 | 2130 | 2440 | 2130 | 1830 | 2130 | 1830 | 1830 |
| **1200/6** | 2950 | 2740 | 2740 | 2740 | 2440 | 2440 | 2740 | 2440 | 2130 | 2440 | 2130 | 2130 |
| **1250/5** | 2950 | 2740 | 2740 | 2740 | 2440 | 2440 | 2740 | 2440 | 2130 | 2440 | 2130 | 1980 |
| **1350/3** | 2440 | 2440 | 2130 | 2440 | 2440 | 2130 | 2440 | 2130 | 1830 | 2440 | 2130 | 1830 |
| **1800/4** | 3000 | 3000 | 2740 | 3000 | 3000 | 2740 | 2740 | 2740 | 2440 | 2740 | 2440 | 2130 |

On systems with troughing idler spacing greater than 5 ft. (1.5 m) OR idler roll gap greater than 1/2 in. (12.7 mm), consult your Sales Representative or Continental.

# Plylon Plus® Belt Information

## Plylon Plus® Troughability Minimum Belt Width

| Imperial (in.) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Plylon Plus®** | | **220/2** | **250/2** | **330/3** | **375/3** | **400/2** | **440/4** | **500/4** | **600/3** | **750/3** |
| Idlers | 20 degree | 18 | 18 | 18 | 20 | 18 | 24 | 24 | 24 | 24 |
| | 35 degree | 18 | 18 | 24 | 24 | 24 | 30 | 30 | 30 | 30 |
| | 45 degree | 24 | 24 | 30 | 30 | 30 | 36 | 36 | 36 | 36 |
| **Plylon Plus®** | | **800/4** | **900/2** | **1000/4** | **1000/5** | **1200/6** | **1250/5** | **1350/3** | **1800/4** | |
| Idlers | 20 degree | 30 | 24 | 30 | 36 | 42 | 36 | 30 | 36 | |
| | 35 degree | 36 | 30 | 36 | 42 | 48 | 42 | 36 | 42 | |
| | 45 degree | 42 | 36 | 42 | 48 | 54 | 48 | 42 | 48 | |

If top cover and pulley cover are balanced (i.e., 3/16 in. x 3/16 in. or 5mm x 5mm) or less than 1/16 in. (2mm) differential (i.e., 3/16 in. x 5/32 in. or 4mm x 3mm), add 6 in. (150mm) to the minimum belt width. 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 50°F (10°C). The above tables are based on top cover gauge equal or greater than the bottom (pulley) cover gauge.

## Plylon Plus® Troughability Minimum Belt Width

| Metric (mm) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Plylon Plus®** | | **220/2** | **250/2** | **330/3** | **375/3** | **400/2** | **440/4** | **500/4** | **600/3** | **750/3** |
| Idlers | 20 degree | 460 | 460 | 460 | 510 | 460 | 610 | 610 | 610 | 610 |
| | 35 degree | 460 | 460 | 610 | 610 | 610 | 760 | 760 | 760 | 760 |
| | 45 degree | 610 | 610 | 760 | 760 | 760 | 910 | 910 | 910 | 910 |
| **Plylon Plus®** | | **800/4** | **900/2** | **1000/4** | **1000/5** | **1200/6** | **1250/5** | **1350/3** | **1800/4** | |
| Idlers | 20 degree | 760 | 610 | 760 | 910 | 1070 | 910 | 760 | 910 | |
| | 35 degree | 910 | 760 | 910 | 1070 | 1220 | 1070 | 910 | 1070 | |
| | 45 degree | 1070 | 910 | 1070 | 1220 | 1370 | 1220 | 1070 | 1220 | |

If top cover and pulley cover are balanced (i.e., 3/16 in. x 3/16 in. or 5 mm x 5 mm) or less than 1/16 in. (2 mm) differential (i.e., 3/16 in. x 5/32 in. or 4 mm x 3 mm), add 6 in. (150 mm) to the minimum belt width. 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 50°F (10°C). The above tables are based on top cover gauge equal or greater than the bottom (pulley) cover gauge.

# Plylon Plus® Belt Information

## Plylon Plus® Minimum Pulley Diameters

| Imperial (in.) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Plylon Plus®** | **220/2** | **250/2** | **330/3** | **375/3** | **400/2** | **440/4** | **500/4** | **600/3** | **750/3** |
| Over 80% Tension | 16 | 16 | 18 | 18 | 16 | 24 | 24 | 24 | 30 |
| 60% to 80% Tension | 14 | 14 | 16 | 16 | 14 | 20 | 20 | 20 | 24 |
| 40% to 60% Tension | 10 | 12 | 14 | 14 | 12 | 16 | 18 | 18 | 20 |
| Up to 40% Tension | 10 | 12 | 14 | 14 | 10 | 16 | 18 | 16 | 18 |
| Tails and Snubs | 10 | 12 | 14 | 14 | 10 | 16 | 18 | 16 | 18 |
| **Plylon Plus®** | **800/4** | **900/2** | **1000/4** | **1000/5** | **1200/6** | **1250/5** | **1350/3** | **1800/4** | |
| Over 80% Tension | 30 | 30 | 36 | 36 | 42 | 42 | 36 | 42 | |
| 60% to 80% Tension | 24 | 24 | 30 | 30 | 36 | 36 | 30 | 36 | |
| 40% to 60% Tension | 20 | 24 | 24 | 24 | 30 | 30 | 30 | 36 | |
| Up to 40% Tension | 18 | 20 | 20 | 20 | 30 | 24 | 24 | 30 | |
| Tails and Snubs | 18 | 20 | 20 | 20 | 30 | 24 | 24 | 30 | |

Plylon Plus® HT belts (2/900, 3/1350, 4/1800, 1000/2, 1350/3, 1800/4) require a minimum pulley cover gauge of 1/8 in. (3.18 mm) if vulcanized splicing will be used.

## Plylon Plus® Minimum Pulley Diameters

| Metric (mm) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Plylon Plus®** | **220/2** | **250/2** | **330/3** | **375/3** | **400/2** | **440/4** | **500/4** | **600/3** | **750/3** |
| Over 80% Tension | 410 | 410 | 460 | 460 | 410 | 610 | 610 | 610 | 760 |
| 60% to 80% Tension | 360 | 360 | 410 | 410 | 360 | 510 | 510 | 510 | 610 |
| 40% to 60% Tension | 250 | 300 | 300 | 360 | 300 | 410 | 460 | 460 | 510 |
| Up to 40% Tension | 250 | 300 | 300 | 360 | 250 | 410 | 460 | 410 | 460 |
| Tails and Snubs | 250 | 300 | 300 | 360 | 250 | 410 | 460 | 410 | 460 |
| **Plylon Plus®** | **800/4** | **900/2** | **1000/4** | **1000/5** | **1200/6** | **1250/5** | **1350/3** | **1800/4** | |
| Over 80% Tension | 760 | 760 | 910 | 910 | 1070 | 1070 | 910 | 1070 | |
| 60% to 80% Tension | 610 | 610 | 760 | 760 | 910 | 910 | 760 | 910 | |
| 40% to 60% Tension | 510 | 610 | 610 | 610 | 760 | 760 | 760 | 910 | |
| Up to 40% Tension | 460 | 510 | 510 | 510 | 760 | 610 | 610 | 760 | |
| Tails and Snubs | 460 | 510 | 510 | 510 | 760 | 610 | 610 | 760 | |

Plylon Plus® HT belts (2/900, 3/1350, 4/1800, 1000/2, 1350/3, 1800/4) require a minimum pulley cover gauge of 1/8 in. (3.18 mm) if vulcanized splicing will be used.

# Plylon Plus® Belt Information

## Plylon Plus® Elevator Belt Data

| Plylon Plus® | 220/2 | 250/2 | 330/3 | 375/3 | 400/2 | 440/4 | 500/4 | 600/3 | 750/3 |
|---|---|---|---|---|---|---|---|---|---|
| Number of Plies | 2 | 2 | 3 | 3 | 2 | 4 | 4 | 3 | 3 |
| Fabric Type* | P/P | P/N | P/P | P/N | P/P | P/P | P/N | P/P | P/P |
| Recommended Fastener Plate | 140 | 190 | 190 | BR-10 | BR-10 | BR-10 | BR-10 | BR-10 | BR-14 |
| **Imperial** | | | | | | | | | |
| Industry Service Tension Capacity (PIW) | 170 | 195 | 250 | 290 | 310 | 350 | 385 | 465 | 580 |
| Nominal Carcass Gauge (in.) | 0.121 | 0.135 | 0.161 | 0.169 | 0.178 | 0.221 | 0.229 | 0.251 | 0.246 |
| Spaced Industrial Max. Bucket Projection | 6 | 7 | 7 | 8 | 9 | 10 | 11 | 10 | 10 |
| Continuous Industrial Max. Bucket Projection | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 12 |
| **Metric** | | | | | | | | | |
| Industry Service Tension Capacity (kN/m) | 30 | 34 | 44 | 51 | 54 | 61 | 67 | 81 | 102 |
| Nominal Carcass Gauge (mm) | 3.07 | 3.43 | 4.09 | 4.29 | 4.52 | 5.61 | 5.82 | 6.38 | 6.25 |
| Spaced Industrial Max. Bucket Projection | 150 | 180 | 180 | 200 | 230 | 250 | 280 | 250 | 250 |
| Continuous Industrial Max. Bucket Projection | 130 | 150 | 180 | 200 | 230 | 250 | 280 | 300 | 300 |

| Plylon Plus® | 800/4 | 900/2 | 1000/4 | 1000/5 | 1200/6 | 1250/5 | 1350/3 | 1800/4 |
|---|---|---|---|---|---|---|---|---|
| Number of Plies | 4 | 2 | 4 | 5 | 6 | 5 | 3 | 4 |
| Fabric Type* | P/P | P/N | P/P | P/P | P/P | P/P | P/N | P/N |
| Recommended Fastener Plate | BR-14 | NR | NR | NR | NR | NR | NR | NR |
| **Imperial** | | | | | | | | |
| Industry Service Tension Capacity (PIW) | 620 | 700 | 775 | 775 | 930 | 970 | 1050 | 1400 |
| Nominal Carcass Gauge (in.) | 0.34 | 0.3 | 0.337 | 0.429 | 0.518 | 0.427 | 0.453 | 0.613 |
| Spaced Industrial Max. Bucket Projection | 11 | 11 | 12 | 12 | 12 | 12 | 13 | 15 |
| Continuous Industrial Max. Bucket Projection | 14 | 14 | 15 | 16 | 20 | 20 | 22 | 26 |
| **Metric** | | | | | | | | |
| Industry Service Tension Capacity (kN/m) | 109 | 123 | 136 | 136 | 163 | 170 | 184 | 245 |
| Nominal Carcass Gauge (mm) | 8.64 | 7.62 | 8.56 | 10.9 | 13.16 | 10.85 | 11.51 | 15.57 |
| Spaced Industrial Max. Bucket Projection | 280 | 280 | 300 | 300 | 300 | 300 | 330 | 380 |
| Continuous Industrial Max. Bucket Projection | 360 | 360 | 380 | 410 | 510 | 510 | 560 | 660 |

Plylon Plus® 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. Consult your Sales Representative for vulcanized splice design for 900/2, 1350/3 and 1800/4 constructions. *P/P = Poly/Poly and P/N = Poly/Nylon.

# ContiFlex® Belts

Its advanced design 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

- Aggregates
- Agricultural
- Bulk Terminals
- Calcined Lime
- Cement
- Chemicals
- Coking
- Conveyors
- Feed
- Fertilizer
- Foundries
- Gypsum

## Applications

- Lubricants
- Oily Coke
- Overland
- Petroleum
- Ports
- Potash
- Power Generation
- Power Saving Opportunities
- Prep Plants
- Steel
- Taconite
- Terminals
- Trona

## Cover Compounds

- Defender® Series
- Survivor® Series
- Solar-Shield® Series
- Gold Series
- Shield Series

See pages 78–84 for more specific details.

**Get a lower cost-per-ton conveyed**

**Tension Range: 220 – 1000 PIW**

# ContiFlex® Belt Information

## ContiFlex® Conveyor Belt Data

| ContiFlex® | 220/2 | 330/3 | 400/2 | 440/4 | 600/3 | 800/4 | 1000/5 |
|---|---|---|---|---|---|---|---|
| Number of Plies | 2 | 3 | 2 | 4 | 3 | 4 | 5 |
| Fabric Type* | P/N | P/N | P/N | P/N | P/N | P/N | P/N |
| Average Permanent Elongation (%)** | 0.8% | 0.8% | 0.8% | 0.8% | 0.8% | 0.8% | 1.0% |
| Recommended Fastener Plate | 140 | 190 | BR-10 | BR-10 | BR-10 | BR14 | NR |
| Hinge | R2 | R2 | R5 | R5 | R5-1/2 | R6 | RAR8 |
| Hinge | U35A | U35A | U35 | U35 | U35 | U37/U37A | U38A |
| **Imperial** | | | | | | | |
| Vulcanized & Fastener Rating (PIW) | 220 | 330 | 400 | 440 | 600 | 800 | 1000 |
| Nominal Carcass Gauge (in.) | 0.106 | 0.158 | 0.146 | 0.210 | 0.221 | 0.296 | 0.371 |
| Nominal Carcass Weight (lb./sq. ft.) | 0.77 | 1.15 | 1.14 | 1.54 | 1.71 | 2.28 | 2.85 |
| Approximate 1/32 in. Cover Weight (lb./sq. ft.) | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 |
| Average Elastic Modulus (PIW) | 32,000 | 44,200 | 45,600 | 54,000 | 67,600 | 86,200 | 97,000 |
| Step Length (in.) | 10 | 10 | 10 | 10 | 16 | 16 | 16 |
| **Metric** | | | | | | | |
| Belt Rating (kN/m) | 390 | 580 | 700 | 770 | 1050 | 1400 | 1750 |
| Vulcanized & Fastener Rating (kN/m) | 39 | 58 | 70 | 77 | 105 | 140 | 175 |
| Nominal Carcass Gauge (mm) | 2.7 | 4.0 | 3.7 | 5.3 | 5.6 | 7.5 | 9.4 |
| Nominal Carcass Weight (kg/sq.m) | 3.8 | 5.6 | 5.6 | 7.5 | 8.3 | 11.1 | 13.9 |
| Approximate 1 mm Cover Weight (kg/sq.m) | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| Average Elastic Modulus (kN/m) | 5600 | 7740 | 7990 | 9460 | 11,840 | 15,100 | 16,990 |
| Step Length (mm) | 250 | 250 | 250 | 250 | 410 | 410 | 410 |

*P/N = Poly/Nylon **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.

# ContiFlex® Belt Information

## ContiFlex® Load Support – Maximum Belt Width Data

| **Imperial (in.)** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Material Weight** | **0-40 lb./cu. ft.** | | | **41-80 lb./cu. ft.** | | | **81-120 lb./cu. ft.** | | |
| **Trough Angle** | **20** | **35** | **45** | **20** | **35** | **45** | **20** | **35** | **45** |
| **220/2** | 48 | 42 | 36 | 42 | 36 | 36 | 36 | 30 | 24 |
| **330/3** | 60 | 54 | 48 | 60 | 48 | 42 | 48 | 42 | 36 |
| **400/2** | 60 | 54 | 54 | 54 | 48 | 42 | 48 | 48 | 42 |
| **440/4** | 72 | 72 | 60 | 66 | 60 | 54 | 60 | 54 | 36 |
| **600/3** | 84 | 72 | 66 | 72 | 60 | 54 | 66 | 54 | 48 |
| **800/4** | 96 | 84 | 72 | 84 | 72 | 66 | 84 | 72 | 60 |
| **1000/5** | 108 | 96 | 84 | 96 | 84 | 78 | 96 | 84 | 72 |
| **Metric (mm)** | | | | | | | | | |
| **Material Weight** | **0-640 kg/cu. m** | | | **641-1280 kg/cu. m** | | | **1281-1920 kg/cu. m** | | |
| **Trough Angle** | **20** | **35** | **45** | **20** | **35** | **45** | **20** | **35** | **45** |
| **220/2** | 1200 | 1100 | 900 | 1100 | 900 | 900 | 900 | 800 | 600 |
| **330/3** | 1500 | 1400 | 1200 | 1500 | 1200 | 1100 | 1200 | 1100 | 900 |
| **400/2** | 1500 | 1400 | 1400 | 1400 | 1200 | 1100 | 1200 | 1200 | 1100 |
| **440/4** | 1800 | 1800 | 1500 | 1700 | 1500 | 1400 | 1500 | 1500 | 900 |
| **600/3** | 2100 | 1800 | 1700 | 1800 | 1500 | 1400 | 1700 | 1500 | 1200 |
| **800/4** | 2400 | 2100 | 1800 | 2100 | 1800 | 1700 | 2100 | 1800 | 1500 |
| **1000/5** | 2700 | 2400 | 2100 | 2400 | 2100 | 2000 | 2400 | 2100 | 1800 |

On systems with troughing idler spacing greater than 5 ft. (1.5 m) OR idler roll gap greater than 1/2 in. (12.7 mm), consult your Sales Representative or Distributor.

# ContiFlex® Belt Information

## ContiFlex® Troughability Minimum Belt Width

| ContiFlex® | | 220/2 | 330/3 | 400/2 | 440/4 | 600/3 | 800/4 | 1000/5 |
|---|---|---|---|---|---|---|---|---|
| **Imperial (in.)** | | | | | | | | |
| Idlers | 20 degree | 16 | 20 | 20 | 24 | 30 | 30 | 42 |
| | 35 degree | 18 | 24 | 24 | 30 | 36 | 36 | 42 |
| | 45 degree | 24 | 30 | 30 | 36 | 42 | 42 | 48 |
| **Metric (mm)** | | | | | | | | |
| Idlers | 20 degree | 400 | 500 | 500 | 600 | 800 | 800 | 1100 |
| | 35 degree | 500 | 600 | 600 | 800 | 900 | 900 | 1100 |
| | 45 degree | 600 | 800 | 800 | 900 | 1100 | 1100 | 1200 |

6 in. (152 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 500°F (100°C).

## ContiFlex® Minimum Pulley Diameters

| ContiFlex® | 220/2 | 330/3 | 400/2 | 440/4 | 600/3 | 800/4 | 1000/5 |
|---|---|---|---|---|---|---|---|
| **Imperial (in.)** | | | | | | | |
| Over 80% Tension | 16 | 18 | 20 | 24 | 24 | 30 | 36 |
| 60% to 80% Tension | 14 | 16 | 16 | 20 | 20 | 24 | 30 |
| 40% to 60% Tension | 12 | 14 | 14 | 18 | 18 | 20 | 24 |
| Up to 40% Tension | 12 | 14 | 14 | 18 | 16 | 18 | 20 |
| Tails and Snubs | 12 | 14 | 14 | 18 | 16 | 18 | 20 |
| **Metric (mm)** | | | | | | | |
| Over 80% Tension | 400 | 500 | 500 | 600 | 600 | 800 | 900 |
| 60% to 80% Tension | 400 | 400 | 400 | 500 | 500 | 600 | 800 |
| 40% to 60% Tension | 300 | 400 | 400 | 500 | 500 | 500 | 600 |
| Up to 40% Tension | 300 | 400 | 400 | 500 | 400 | 500 | 500 |
| Tails and Snubs | 300 | 400 | 400 | 500 | 400 | 500 | 500 |

# Spartan® Belts

Spartan® features an economical fabric belt construction. Spartan belts are recommended for conveying material 3 inches and less in diameter.

| Markets | Applications | Cover Compounds |
|---|---|---|
| › Aggregate<br>› Package handling<br>› Sand and gravel | › Load Out<br>› Low Abuse<br>› Radial Stacker<br>› Ready Mix<br>› Stacker | › Easyrider®<br>› 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** | **Tension Range: 220 – 600 PIW**

## Spartan® Belt Information

### Spartan® Conveyor Belt Data

| Spartan® | 220/2 | 330/3 | 440/4 | 600/3 |
|---|---|---|---|---|
| Number of Plies | 2 | 3 | 4 | 3 |
| Fabric Type* | P/P | P/P | P/P | P/P |
| Average Permanent Elongation (%)** | 0.8% | 0.8% | 0.8% | 0.8% |
| Recommended Fastener Plate | 140 | 190 | BR-10 | BR-10 |
| Hinge | R2 | R2 | R5 | R5-1/2 |
| Hinge | U35A | U35A | U35 | U35 |
| **Imperial** | | | | |
| Vulcanized & Fastener Rating (PIW) | 220 | 330 | 400 | 600 |
| Carcass Gauge (in.) | 0.084 | 0.140 | 0.197 | 0.191 |
| Carcass Weight (lb./sq. ft.) | 0.53 | 0.83 | 1.13 | 1.36 |
| Approximate 1/32 in. Cover Weight (lb./sq. ft.) | 0.19 | 0.19 | 0.19 | 0.19 |
| Elastic Modulus (PIW) | 26,000 | 39,000 | 52,000 | 56,000 |
| Step Length (in.) | 10 | 10 | 10 | 16 |
| **Metric** | | | | |
| Belt Rating (kN/m) | 390 | 580 | 770 | 1050 |
| Vulcanized & Fastener Rating (kN/m) | 39 | 58 | 77 | 105 |
| Nominal Carcass Gauge (mm) | 1.68 | 2.64 | 3.63 | 6.07 |
| Carcass Weight (kg/sq.m) | 2.6 | 4.1 | 5.5 | 6.6 |
| Approximate 1 mm Cover Weight (kg/sq.m) | 1.17 | 1.17 | 1.17 | 1.17 |
| Elastic Modulus (kN/m) | 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. *P/P = Poly/Poly. **Average permanent elongation values at 100% of rated belt tension are based on ISO 9856 test procedure. Consult your Sales Representative or Distributor for electrical and total elongation calculating.

# Spartan® Belt Information

## Spartan® Load Support – Maximum Belt Width Data

| **Imperial (in.)** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Material Weight** | **0-40 lb./cu. ft.** | | | **41-80 lb./cu. ft.** | | | **81-120 lb./cu. ft.** | | |
| **Trough Angle** | **20** | **35** | **45** | **20** | **35** | **45** | **20** | **35** | **45** |
| **220/2** | 42 | 36 | 30 | 36 | 30 | 24 | 30 | 24 | 18 |
| **330/3** | 48 | 42 | 36 | 48 | 36 | 30 | 42 | 36 | 30 |
| **400/2** | 54 | 48 | 42 | 54 | 48 | 36 | 48 | 42 | 36 |
| **600/3** | 72 | 60 | 60 | 66 | 60 | 54 | 60 | 54 | 48 |
| **Metric (mm)** | | | | | | | | | |
| **Material Weight** | **0-640 kg/cu. m** | | | **641-1280 kg/cu. m** | | | **1281-1920 kg/cu. m** | | |
| **Trough Angle** | **20** | **35** | **45** | **20** | **35** | **45** | **20** | **35** | **45** |
| **220/2** | 1070 | 910 | 760 | 910 | 760 | 610 | 760 | 610 | 460 |
| **330/3** | 1220 | 1070 | 910 | 1220 | 910 | 760 | 1070 | 910 | 760 |
| **400/2** | 1370 | 1220 | 1070 | 1370 | 1220 | 910 | 1220 | 1070 | 910 |
| **600/3** | 1830 | 1520 | 1520 | 1680 | 1520 | 1370 | 1520 | 1370 | 1220 |

On systems with troughing idler spacing greater than 5 ft. (1.5 m) OR idler roll gap greater than 1/2 in. (12.7 mm), consult your Sales Representative or Continental.

## Spartan® Troughability Minimum Belt Width

Table based on ISO 703 testing procedure.

| **Spartan®** | | **220/2** | **330/3** | **440/4** | **600/3** |
|---|---|---|---|---|---|
| **Imperial (in.)** | | | | | |
| Idlers | 20 degree | 14 | 16 | 20 | 24 |
| | 35 degree | 16 | 20 | 24 | 30 |
| | 45 degree | 20 | 24 | 30 | 36 |
| **Metric (mm)** | | | | | |
| 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., 3/16 in. x 3/16 in. or 5 mm x 5 mm) or less than 1/16 in. (2 mm) differential (i.e., 3/16 in. x 5/32 in. or 4 mm x 3 mm), add 6 in. (150 mm) to the minimum belt width. 6 in. (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 50°F (10°C). The above tables are based on top cover gauge equal or greater than the bottom (pulley) cover gauge.

# Spartan® Belt Information

## Spartan® Minimum Pulley Diameters

| Spartan® | 220/2 | 330/3 | 440/4 | 600/3 |
|---|---|---|---|---|
| **Imperial (in.)** | | | | |
| Over 80% Tension | 14 | 16 | 20 | 24 |
| 60% to 80% Tension | 12 | 14 | 18 | 20 |
| 40% to 60% Tension | 8 | 10 | 14 | 18 |
| Up to 40% Tension | 8 | 10 | 14 | 16 |
| Tails and Snubs | 8 | 10 | 14 | 16 |
| **Metric (mm)** | | | | |
| 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 78–84 for more specific details.

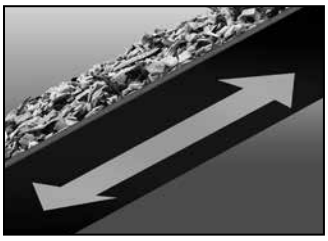
See the guide and process diagram for Wood Product Applications on page 45.

**Get a lower cost-per-ton conveyed**

**Tension Range: 220 – 800 PIW**

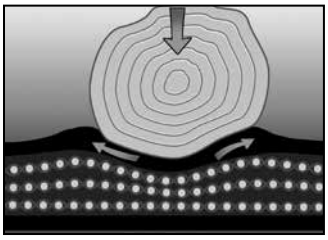
# Wood Sawyer® and Wood Sawyer® Plus

## Features and Benefits



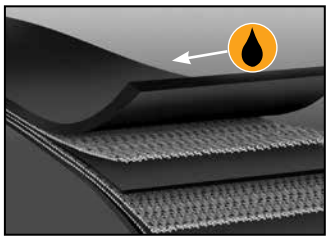
### High ultimate strength

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.



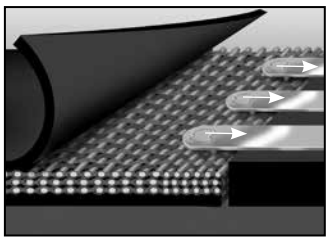
### Superior abuse resistance

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.



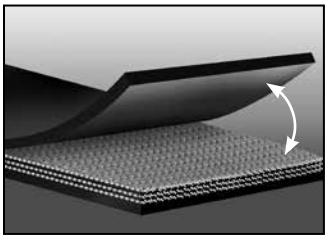
### Superior Gold Plus cover compound

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 fastner 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

| **Imperial** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **WS 220/2** | **WS Plus 250/2** | **WS 330/3** | **WS Plus 375/3** | **WS Plus 400/2** | **WS 440/4** | **WS Plus 500/4** | **WS Plus 600/3** | **WS Plus 750/3** | **WS Plus 800/4** |
| Number of Plies | 2 | 2 | 3 | 3 | 2 | 4 | 4 | 3 | 3 | 4 |
| Fabric Type* | P/P | P/N | P/P | P/N | P/P | P/P | P/N | P/P | P/P | P/P |
| Average Permanent Elongation (%)** | 0.80% | 0.80% | 0.80% | 0.80% | 0.80% | 0.80% | 0.80% | 0.80% | 1.00% | 0.80% |
| Recommended Fastener Plate | 140 | 190 | 190 | BR-10 | BR-10 | BR-10 | BR-10 | BR-10 | BR-14 | BR-14 |
| Hinge | R2 | R2 | R2 | R5 | R5 | R5 | R5-1/2 | R5-1/2 | R6 | R6 |
| Hinge | U35A | U35A | U35A | U35 | U35 | U35 | U35 | U35 | U37/37A | U37/U37A |
| Vulcanized & Fastener Rating (PIW) | 220 | 250 | 330 | 375 | 400 | 440 | 500 | 600 | 750 | 800 |
| Nominal Carcass Gauge (in.) | 0.125 | 0.135 | 0.161 | 0.169 | 0.178 | 0.225 | 0.229 | 0.251 | 0.272 | 0.340 |
| Nominal Carcass Weight (lb./sq. ft.) | 0.79 | 0.85 | 1.05 | 1.07 | 0.98 | 1.43 | 1.45 | 1.44 | 1.61 | 1.93 |
| Approximate 1/32 in. Cover Weight (lb./sq. ft.) | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 |
| Elastic Modulus (PIW) | 23,000 | 30,000 | 34,500 | 45,000 | 44,000 | 46,000 | 60,000 | 66,000 | 67,500 | 88,000 |
| Step Length (in.)*** | 10 | 10 | 10 | 10 | 16 | 10 | 10 | 16 | 18 | 16 |
| **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 (kN/m) | 400 | 440 | 600 | 660 | 700 | 800 | 850 | 1000 | 1250 | 1250 |
| Vulcanized & Fastener Rating (kN/m) † | 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/sq.m) | 3.9 | 4.2 | 5.1 | 5.2 | 4.8 | 7 | 7.1 | 7 | 7.86 | 9.4 |
| Approximate 1 mm Cover Weight (kg/sq.m) | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 |
| Average Elastic Modulus (kN/m) | 4030 | 5250 | 6040 | 7880 | 7710 | 8060 | 10,510 | 11,560 | 9,840 | 15,410 |
| Step Length (mm)*** | 250 | 250 | 250 | 250 | 410 | 250 | 250 | 410 | 460 | 410 |

**† Belt Rating is based on actual ultimate tensile. Vulcanized and fastner rating is based on operating tension in PIW converted to kN/m.**

Wood Sawyer® Plus 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. R-6 fasteners must be installed with stainless steel rivets when belt tensions exceed 800 PIW for best results. *P/P = Poly/Poly and P/N = Poly/Nylon. **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. ***Consult your Sales Representative for vulcanized splice design for 900/2, 1350/3 and 1800/4 constructions.

# Wood Sawyer® and Wood Sawyer® Plus

## Belt Information

### Wood Sawyer® and Wood Sawyer Plus® Load Support – Maximum Belt Width Data

| **Imperial (in.)** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Material Weight** | **0-40 lb./cu. ft.** | | | **41-80 lb./cu. ft.** | | | **81-120 lb./cu. ft.** | | |
| **Trough Angle** | **20** | **35** | **45** | **20** | **35** | **45** | **20** | **35** | **45** |
| **220/2** | 48 | 42 | 36 | 48 | 36 | 36 | 42 | 36 | 30 |
| **250/2** | 54 | 48 | 48 | 48 | 42 | 36 | 42 | 42 | 30 |
| **330/3** | 60 | 54 | 48 | 60 | 48 | 42 | 54 | 48 | 42 |
| **375/3** | 72 | 60 | 60 | 60 | 60 | 48 | 54 | 54 | 48 |
| **400/2** | 60 | 54 | 54 | 54 | 48 | 42 | 48 | 48 | 42 |
| **440/4** | 72 | 60 | 54 | 66 | 60 | 48 | 60 | 54 | 48 |
| **500/4** | 84 | 72 | 72 | 72 | 60 | 54 | 72 | 60 | 54 |
| **600/3** | 84 | 72 | 72 | 72 | 60 | 54 | 72 | 60 | 54 |
| **750/3** | 84 | 72 | 72 | 72 | 60 | 54 | 72 | 60 | 54 |
| **800/4** | 96 | 84 | 84 | 84 | 72 | 72 | 84 | 72 | 60 |
| **Metric (mm)** | | | | | | | | | |
| **Material Weight** | **0-640 kg/cu. m** | | | **641-1280 kg/cu. m** | | | **1281-1920 kg/cu. m** | | |
| **Trough Angle** | **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 5 ft. (1.5 m) OR idler roll gap greater than 1/2 in. (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.

| Imperial (in.) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | WS 220/2 | WS Plus 250/2 | WS 330/3 | WS Plus 375/3 | WS Plus 400/2 | WS 440/4 | WS Plus 500/4 | WS Plus 600/3 | WS Plus 750/3 | WS Plus 800/4 |
| Idlers | 20 degree | 18 | 18 | 18 | 20 | 18 | 24 | 24 | 24 | 24 | 30 |
| | 35 degree | 18 | 18 | 24 | 24 | 24 | 30 | 30 | 30 | 30 | 36 |
| | 45 degree | 24 | 24 | 30 | 30 | 30 | 36 | 36 | 36 | 36 | 42 |
| **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., 3/16 in. x 3/16 in. or 5 mm x 5 mm) or less than 1/16 in. (2 mm) differential (i.e., 3/16 in. x 5/32 in. or 4 mm x 3 mm), add 6 in. (150 mm) to the minimum belt width. 6 in. (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 50°F (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

| Imperial (in.) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | WS 220/2 | WS Plus 250/2 | WS 330/3 | WS Plus 375/3 | WS Plus 400/2 | WS 440/4 | WS Plus 500/4 | WS Plus 600/3 | WS Plus 750/3 | WS Plus 800/4 |
| Over 80% Tension | 16 | 16 | 18 | 18 | 16 | 24 | 24 | 24 | 30 | 30 |
| 60% to 80% Tension | 14 | 14 | 16 | 16 | 14 | 20 | 20 | 20 | 24 | 24 |
| 40% to 60% Tension | 10 | 12 | 12 | 14 | 12 | 16 | 18 | 18 | 20 | 20 |
| Up to 40% Tension | 10 | 12 | 12 | 14 | 10 | 16 | 18 | 16 | 18 | 18 |
| Tails and Snubs | 10 | 12 | 12 | 14 | 10 | 16 | 18 | 16 | 18 | 18 |
| **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., 3/16 in. x 3/16 in. or 5 mm x 5 mm) or less than 1/16 in. (2 mm) differential (i.e., 3/16 in. x 5/32 in. or 4 mm x 3 mm), add 6 in. (150 mm) to the minimum belt width. 6 in. (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 50°F (10°C). The above tables are based on top cover gauge equal or greater than the bottom (pulley) cover gauge.

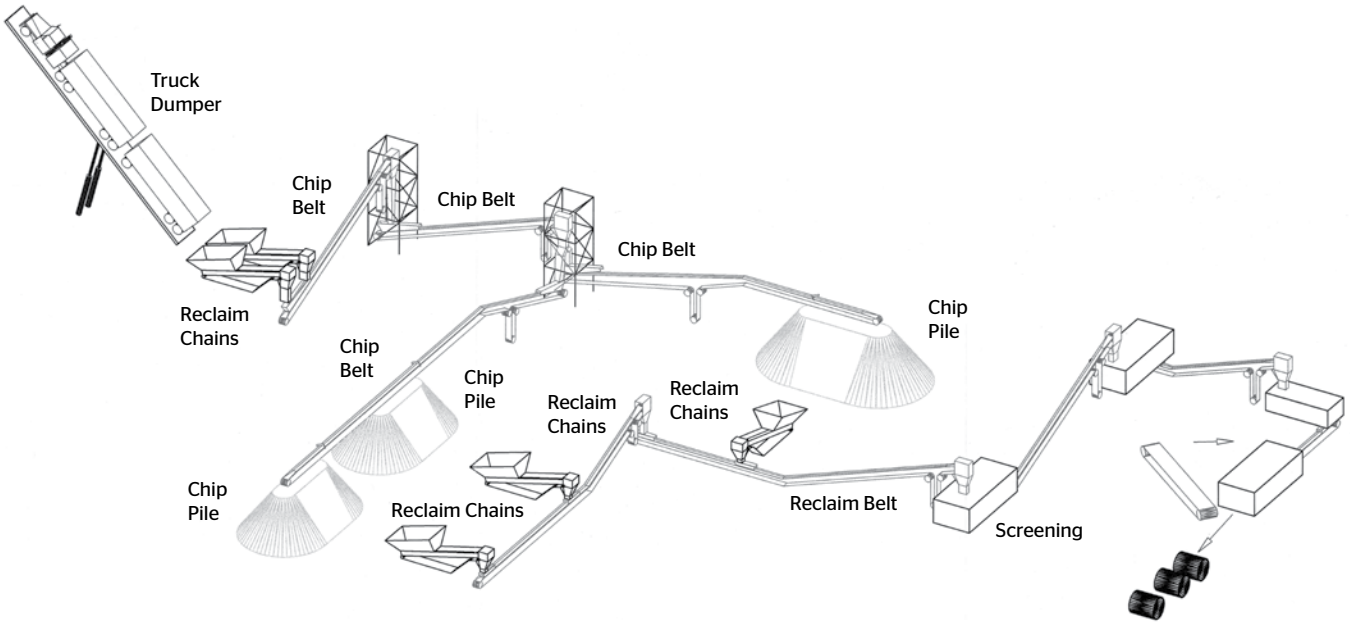
# Wood Product Applications

| Service Required | Product Options | Special Service Construction | Top Cover Options* | Application Requirements |
|---|---|---|---|---|
| › **Log Decks**<br>› **Debarkers**<br>› **Log Sorters**<br>› **Chipper Infeed** | Fortress XP™<br>Wood Sawyer® Plus | 660/2<br>600/3 Poly/Poly Heavy Skims | Monster Hide® Plus<br>Stacker® Plus<br>Defender® Plus | Severe Impact<br>Cut and Gouge<br>Low Coefficient of Friction<br>Sliderback Pulley Cover |
| › **Wood Chips and Bark Belts**<br>› **Hog Fuel** | Wood Sawyer® Plus<br>Wood Sawyer® | 125 PIW Poly/Nylon Plain Weave<br>110 PIW Poly/Poly | Gold Plus<br>Gold Classic<br>Defender® Plus | Terpene and Oil<br>Cleated Belts for High Incline Service |
| › **Chipper Belts**<br>› **Saw Cut-Offs**<br>› **Sawdust Belts**<br>› **Saw Dry-Hogs**<br>› **Pulp Belts**<br>› **Broke Belts** | Fortress XP™<br>Wood Sawyer® Plus<br>Wood Sawyer® | Bare Back and Friction Back Belt Styles (All Products)<br>125 PIW Poly/Nylon Plain Weave<br>110 PIW Poly/Poly Plain Weave | Gold Plus<br>Gold Classic<br>Defender® Plus | Extensive Range of Widths<br>Small Pulleys<br>Bare or Friction Surface Bottom Typical |
| › **Veneer Belts**<br>› **Tray Belts** | Wood Sawyer® | 220 and 330 Poly/Poly Tan Slowdown<br>220/2 and 330/3 Poly/Poly Tray | Gold Plus<br>Gold Classic<br>Defender® Plus | Terpene and Oil<br>Severe Abrasion |

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

# Wood Product Facilities

## Typical Pulp and Paper Facility




## ContiRoll Conveyor Belts for Roll Transport

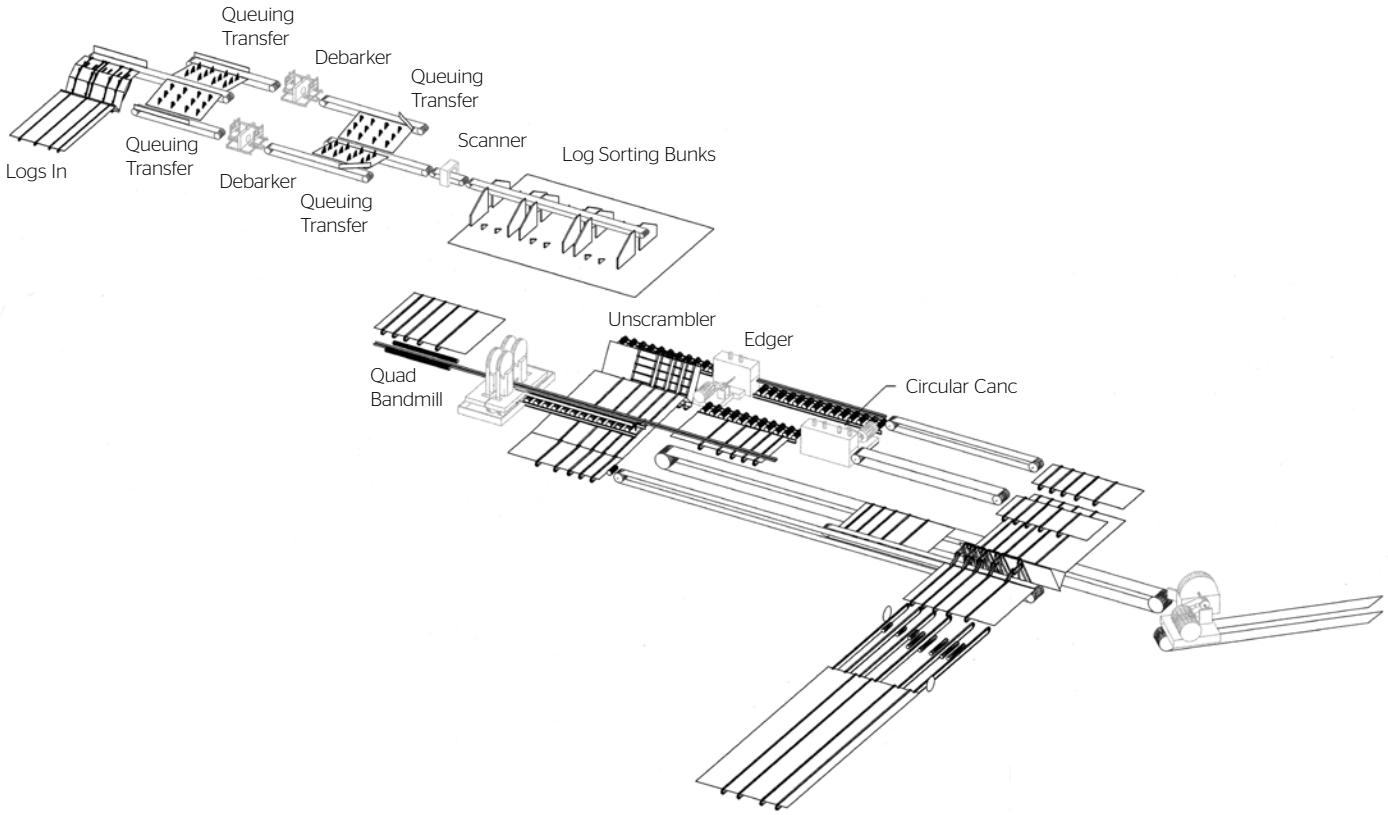
**ContiRoll T**

**ContiRoll U**

Designed for paper mills, these profiled paper roll belts withstand the rigors of heavy-duty use. They are available with profiles to prevent the rolls from moving while reducing black rubber stains. Continental produces these belts with fabric or steelcord carcasses.

See page 93 for more technical information on ContiRoll profiles.

# Typical Sawmill Facility



# Pathfinder® Plus Belts

Continental Pathfinder® Plus is a reinforced belt designed to stand up to the unique operating conditions of grain handling facilities. Pathfinder® Plus' exceptionally low electrical resistance and superior oil resistance properties provide excellent operational safety and long life.

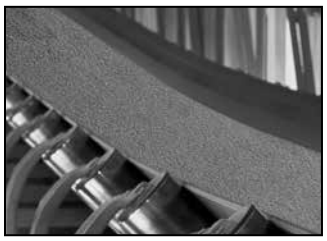
| Markets | Applications | Cover Compounds |
|---|---|---|
| › Agriculture<br>› Bulk Handling Terminals<br>› Grain | › Grain Elevator<br>› Grain Storage<br>› Grain Transfer | › Pathfinder® Arctic<br>› Pathfinder® Supreme<br>› Pathfinder® CSA*<br>(*Meets Canadian specifications.) |

See pages 78–84 for more specific details.

**Get a lower cost-per-ton conveyed**

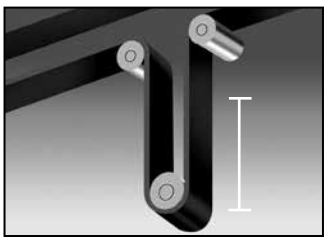
**Tension Range: 250 – 1250 PIW**

## Pathfinder® Plus Features and Benefits



### High ultimate strength

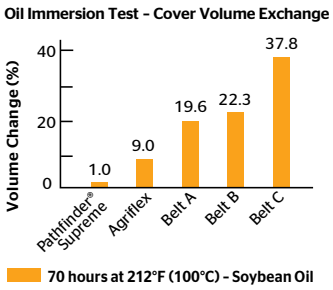
Pathfinder® Plus is designed to withstand harsh operating conditions. The tensile force required to break a 48 in. Pathfinder 375 PIW belt is 180,000 pounds.



### Low belt elongation

Low belt elongation increases productivity and minimizes downtime spent re-splicing grain belting. Permanent elongation averages 0.8% at 100% of rated operating tension.

# **Pathfinder® Plus** Features and Benefits




## Oil-resistant covers

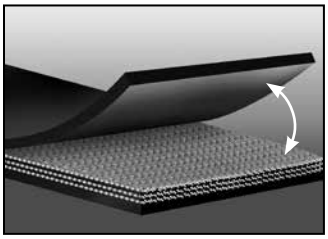
Pathfinder® Supreme covers provide superior oil resistance to the potentially damaging effects of crushed and whole soybeans, oily grains and mineral oil dust suppressant sprays.

## Static conductive, low electrical resistance, flame resistance

Pathfinder® Plus belts exceed federal OSHA and ISO standards at the time of manufacture and offer an exceptionally low electrical resistance of one megohm or less, far below the federal OSHA and ISO standard of 300 megohms. Internal testing ensures that belts meet or exceed the U.S. MSHA/ARPM 30 CFR 18.65 requirement for flame resistance.

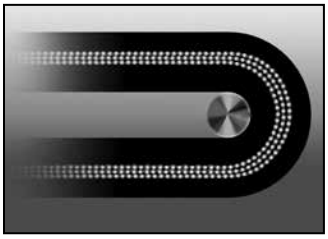
## Excellent bolt holding capabilities

High-strength fill cords provide excellent resistance to bolt pull-out. Excellent bolt holding ability enables the Pathfinder® Plus carcass to securely hold the buckets in elevator leg service.



## Excellent adhesion values

Oil-resistant skim coats, combined with our fabric treatment process, provide excellent adhesion values. Vulcanized splice life is maximized, and edge damaging due to contact with conveyor structure is minimized.



## Flexible crimped warp fabric design

Crimped warp design allows the outer ply to lengthen around small pulleys without interfering with the integrity of the warp cords. This flexibility contributes to longer splice life.

# **Pathfinder® Plus** Belt Information

## Pathfinder® Plus Conveyor Belt Data

| Pathfinder® Plus | 250/2 | 375/3 | 400/2 | 500/4 | 600/3 | 750/3 | 800/4 | 1000/4 | 1000/5 | 1200/6 | 1250/5 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Plies | 2 | 3 | 2 | 4 | 3 | 3 | 4 | 4 | 5 | 6 | 5 |
| Fabric Type* | P/N | P/N | P/P | P/N | P/P | P/P | P/P | P/P | P/P | P/P | P/P |
| Average Permanent Elongation (%)** | 0.80% | 0.80% | 0.80% | 0.80% | 0.80% | 1.00% | 0.80% | 1.00% | 0.80% | 0.80% | 1.00% |
| Recommended Fastener Plate | 190 | BR-10 | BR-10 | BR-10 | BR-10 | BR-14 | BR-14 | NR | NR | NR | NR |
| Hinge | R2 | R5 | R5 | R5-1/2 | R5-1/2 | R6 | R6 | RAR8 | RAR8 | RAR8 | RAR8 |
| Hinge | U35A | U35 | U35 | U35 | U35 | U37/U37A | U37/U37A | U38A | U38A | U38 | U38 |
| **Imperial** | | | | | | | | | | | |
| Vulcanized & Fastener Rating (PIW) | 250 | 375 | 400 | 500 | 600 | 750 | 800 | 1000 | 1000 | 1200 | 1250 |
| Elevator Rating (PIW) | 225 | 340 | 360 | 450 | 540 | 650 | 740 | 910 | 910 | 1090 | 1130 |
| Maximum Bucket Projection (in.) | 7 | 9 | 9 | 11 | 11 | 11 | 12 | 13 | 13 | 13 | 13 |
| Nominal Carcass Gauge (in.) | 0.135 | 0.178 | 0.18 | 0.229 | 0.251 | 0.272 | 0.34 | 0.368 | 0.421 | 0.502 | 0.464 |
| Nominal Carcass Weight (lb./sq. ft.) | 0.89 | 1.16 | 1.08 | 1.48 | 1.49 | 1.65 | 2.02 | 2.23 | 2.55 | 3.09 | 3.23 |
| Approximate 1/32 in. Cover Weight (lb./sq. ft.) | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 |
| Elastic Modulus (PIW) | 30,000 | 45,000 | 44,000 | 60,000 | 66,000 | 67,500 | 88,000 | 74,000 | 110,000 | 132,000 | 112,500 |
| Step Length (in.) | 10 | 10 | 16 | 10 | 16 | 18 | 16 | 18 | 16 | 16 | 18 |
| **Metric** | | | | | | | | | | | |
| Belt Rating (kN/m) | 440 | 660 | 680 | 880 | 1000 | 1250 | 1290 | 1580 | 1550 | 1880 | 1940 |
| Vulcanized & Fastener Rating (kN/m) † | 44 | 66 | 70 | 88 | 105 | 131 | 140 | 175 | 175 | 210 | 219 |
| Elevator Rating (kN/m) | 39 | 60 | 63 | 79 | 95 | 114 | 130 | 159 | 159 | 191 | 198 |
| Maximum Bucket Projection (mm) | 178 | 229 | 229 | 279 | 279 | 279 | 305 | 330 | 330 | 330 | 330 |
| Nominal Carcass Gauge (mm) | 3.4 | 4.5 | 4.6 | 5.8 | 6.4 | 6 | 8.6 | 8.3 | 10.7 | 12.8 | 10.2 |
| Nominal Carcass Weight (kg/sq.m) | 4.3 | 5.7 | 5.3 | 7.2 | 7.3 | 7.2 | 9.9 | 9.9 | 12.5 | 15.1 | 12.5 |
| Approximate 1 mm Cover Weight (kg/sq.m) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Average Elastic Modulus (kN/m) | 5250 | 7880 | 7710 | 10,510 | 11,560 | 11,820 | 15,410 | 15,760 | 19,260 | 23,120 | 19,700 |
| Step Length (mm) | 250 | 250 | 410 | 250 | 410 | 460 | 410 | 460 | 410 | 410 | 460 |

**† Belt Rating is based on actual ultimate tensile. Vulcanized and fastner rating is based on operating tension in PIW converted to kN/m.**

Pathfinder® Plus 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. *P/N = Poly/Nylon and P/P = Poly/Poly. **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 calculators.

# **Pathfinder® Plus** Belt Information

## Pathfinder® Plus Load Support – Maximum Belt Width Data

| Type of Idler | In-Line | | | Offset Equal | | | Offset LC Roll | | |
|---|---|---|---|---|---|---|---|---|---|
| **Idler Angle** | **20** | **35** | **45** | **20** | **35** | **45** | **20** | **35** | **45** |
| **Imperial (in.)** | | | | | | | | | |
| **250/2** | 48 | 42 | 36 | 66 | 54 | 48 | 72 | 60 | 54 |
| **375/3** | 60 | 60 | 48 | 72 | 66 | 60 | 78 | 72 | 66 |
| **400/2** | 54 | 48 | 42 | 66 | 60 | 54 | 72 | 66 | 60 |
| **500/4** | 72 | 66 | 60 | 84 | 78 | 72 | 84 | 84 | 78 |
| **600/3** | 72 | 60 | 54 | 84 | 72 | 60 | 90 | 78 | 66 |
| **750/3** | 72 | 60 | 54 | 84 | 72 | 60 | 90 | 78 | 66 |
| **800/4** | 84 | 72 | 72 | 96 | 84 | 84 | 102 | 90 | 90 |
| **1000/4** | 84 | 72 | 72 | 96 | 84 | 84 | 102 | 90 | 90 |
| **1000/5** | 96 | 84 | 84 | 102 | 90 | 90 | 108 | 96 | 96 |
| **1200/6** | 96 | 84 | 84 | 102 | 90 | 90 | 108 | 96 | 96 |
| **1250/5** | 96 | 84 | 84 | 102 | 90 | 90 | 108 | 96 | 96 |
| **Metric (mm)** | | | | | | | | | |
| **250/2** | 1200 | 1100 | 900 | 1700 | 1400 | 1200 | 1800 | 1500 | 1400 |
| **375/3** | 1500 | 1500 | 1200 | 1800 | 1700 | 1500 | 2000 | 1800 | 1700 |
| **400/2** | 1400 | 1200 | 1100 | 1700 | 1500 | 1400 | 1800 | 1700 | 1500 |
| **500/4** | 1800 | 1500 | 1400 | 2100 | 1800 | 1500 | 2300 | 2000 | 1700 |
| **600/3** | 1800 | 1500 | 1400 | 2100 | 1800 | 1500 | 2300 | 2000 | 1700 |
| **750/3** | 1800 | 1500 | 1400 | 2100 | 1800 | 1500 | 2300 | 2000 | 1700 |
| **800/4** | 2100 | 1800 | 1800 | 2400 | 2100 | 2100 | 2600 | 2300 | 2300 |
| **1000/4** | 2100 | 1800 | 1800 | 2400 | 2100 | 2100 | 2600 | 2300 | 2300 |
| **1000/5** | 2400 | 2100 | 2100 | 2600 | 2300 | 2300 | 2700 | 2400 | 2400 |
| **1200/6** | 2400 | 2100 | 2100 | 2600 | 2300 | 2300 | 2700 | 2400 | 2400 |
| **1250/5** | 2400 | 2100 | 2100 | 2600 | 2300 | 2300 | 2400 | 2400 | 2400 |

On systems with troughing idler spacing greater than 5 ft. (1.5 m) OR idler roll gap greater than 1/2 in. (12.7 mm), consult your Sales Representative.

# Pathfinder® Plus Belt Information

## Pathfinder® Plus Troughability Minimum Belt Width

| Pathfinder® Plus | | 250/2 | 375/3 | 400/2 | 500/4 | 600/3 | 750/3 | 800/4 | 1000/4 | 1000/5 | 1200/6 | 1250/5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Imperial (in.)** | | | | | | | | | | | | |
| Idlers | 20 degree | 18 | 20 | 18 | 24 | 24 | 24 | 30 | 30 | 36 | 42 | 36 |
| | 35 degree | 18 | 24 | 24 | 30 | 30 | 30 | 36 | 36 | 42 | 48 | 42 |
| | 45 degree | 24 | 30 | 30 | 36 | 36 | 36 | 42 | 42 | 48 | 54 | 48 |
| **Metric (mm)** | | | | | | | | | | | | |
| Idlers | 20 degree | 500 | 500 | 500 | 600 | 600 | 600 | 800 | 800 | 900 | 1100 | 900 |
| | 35 degree | 500 | 600 | 600 | 800 | 800 | 800 | 900 | 900 | 1100 | 1200 | 1100 |
| | 45 degree | 600 | 800 | 800 | 900 | 900 | 900 | 1100 | 1100 | 1200 | 1400 | 1200 |

6 in. (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 50°F (10°C).

## Pathfinder® Plus Minimum Pulley Diameters

| Pathfinder® Plus | 250/2 | 375/3 | 400/2 | 500/4 | 600/3 | 750/3 | 800/4 | 1000/4 | 1000/5 | 1200/6 | 1250/5 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Imperial (in.)** | | | | | | | | | | | |
| Over 80% Tension | 18 | 20 | 18 | 30 | 24 | 30 | 30 | 36 | 36 | 42 | 42 |
| 60% to 80% Tension | 16 | 18 | 16 | 24 | 20 | 24 | 24 | 30 | 30 | 36 | 36 |
| 40% to 60% Tension | 14 | 16 | 14 | 20 | 18 | 20 | 20 | 24 | 24 | 30 | 30 |
| Up to 40% Tension | 12 | 16 | 12 | 20 | 16 | 18 | 18 | 20 | 20 | 30 | 24 |
| Tails and Snubs | 12 | 16 | 12 | 20 | 16 | 18 | 18 | 20 | 20 | 30 | 24 |
| **Metric (mm)** | | | | | | | | | | | |
| Over 80% Tension | 500 | 500 | 500 | 800 | 600 | 800 | 800 | 900 | 900 | 1100 | 1100 |
| 60% to 80% Tension | 400 | 500 | 400 | 600 | 500 | 600 | 600 | 800 | 800 | 900 | 900 |
| 40% to 60% Tension | 400 | 400 | 400 | 500 | 500 | 500 | 500 | 600 | 600 | 800 | 800 |
| Up to 40% Tension | 300 | 400 | 300 | 500 | 400 | 500 | 500 | 500 | 500 | 800 | 600 |
| Tails and Snubs | 300 | 400 | 300 | 500 | 400 | 500 | 500 | 500 | 500 | 800 | 600 |

# TransConti Belts

Continental TransConti belts are manufactured using a unique production process that 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 78–84 for more specific details.

**Get a lower cost-per-ton conveyed**

**Tension Range: 140 – 450 PIW**

# **TransConti** Belt Information

## TransConti Conveyor Belt Data

| **Imperial** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **TransConti** | **25/2** | **25/2** | **32/2** | **40/3** | **40/3** | **40/3** | **50/3** |
| Cover Thickness (in.) | 0.110 x 0.060 | 0.160 x 0.080 | 0.160 x 0.080 | 0.110 x 0.060 | 0.160 x 0.080 | 0.240 x 0.080 | 0.200 x 0.060 |
| Number of Plies | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| Breaking Strength (PIW) | 1427 | 1427 | 1827 | 2284 | 2284 | 2284 | 2855 |
| Operational Strength (PIW) | 143 | 143 | 183 | 228 | 228 | 228 | 286 |
| Rec. Min. Drive Pulley Diameter (in.)* | 10 | 10 | 10 | 12 | 12 | 12 | 16 |
| Rec. Min. Deflection Pulley Diameter (in.)* | 8 | 8 | 8 | 10 | 10 | 10 | 12 |
| Approx. Belt Thickness (in.) | 0.276 | 0.315 | 0.311 | 0.295 | 0.334 | 0.413 | 0.374 |
| Approx. Belt Weight (lb./sq. ft.) | 1.74 | 1.95 | 1.95 | 1.84 | 2.12 | 2.56 | 2.40 |
| Available Compound | Defender® | Defender® | Defender® | Defender® Gold Classic | Defender® Gold Classic Gold Extreme Solar-Shield® Classic Solar-Shield® Extreme | Defender® | Defender® |
| **Metric** | | | | | | | |
| Cover Thickness (mm) | 3 x 1.5 | 4 x 2 | 4 x 2 | 3 x 1.5 | 4 x 2 | 6 x 2 | 5 x 1.5 |
| Number of Plies | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| Breaking Strength (kN/m) | 250 | 250 | 320 | 400 | 400 | 400 | 500 |
| Rec. Min. Drive Pulley Diameter (mm)* | 250 | 250 | 250 | 315 | 315 | 315 | 400 |
| Rec. Min. Deflection Pulley Diamete (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/sq. m) | 8.5 | 9.5 | 9.5 | 9.0 | 10.3 | 12.5 | 460 |
| Available Compound | Defender® | Defender® | Defender® | Defender® Gold Classic | Defender® Gold Classic Gold Extreme Solar-Shield® Classic Solar-Shield® Extreme | 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 82.7 in. (2100 mm) and cut to the widths according to customer wish. *Smaller pulleys possible at lower belt tension.

# **TransConti** Belt Information

## TransConti Conveyor Belt Data

| **Imperial** | | | | | | |
|---|---|---|---|---|---|---|
| **TransConti** | **50/3** | **50/4** | **50/4** | **63/4** | **63/4** | **80/4** |
| Cover Thickness (in.) | 0.240 x 0.080 | 0.160 x 0.080 | 0.200 x 0.080 | 0.240 x 0.080 | 0.310 x 0.120 | 0.240 x 0.080 |
| Number of Plies | 3 | 4 | 4 | 4 | 4 | 4 |
| Breaking Strength (PIW) | 2855 | 2855 | 2855 | 3597 | 3597 | 4568 |
| Operational Strength (PIW) | 286 | 286 | 286 | 360 | 360 | 457 |
| Rec. Min. Drive Pulley Diameter (in.)* | 16 | 16 | 16 | 20 | 20 | 24 |
| Rec. Min. Deflection Pulley Diameter (in.)* | 12 | 12 | 12 | 16 | 16 | 16 |
| Approx. Belt Thickness (in.) | 0.433 | 0.374 | 0.413 | 0.484 | 0.602 | 0.492 |
| Approx. Belt Weight (lb./sq. ft.) | 2.54 | 2.36 | 2.54 | 2.97 | 3.67 | 3.07 |
| Available Compound | Solar-Shield® Extreme | Defender® | Defender® | Defender® | Defender® | Defender® |
| **Metric** | | | | | | |
| Cover Thickness (mm) | 6 x 2 | 4 x 2 | 5 x 2 | 6 x 2 | 8 x 3 | 6 x 2 |
| Number of Plies | 3 | 4 | 4 | 4 | 4 | 4 |
| Breaking Strength (kN/m) | 500 | 500 | 500 | 630 | 630 | 800 |
| Rec. Min. Drive Pulley Diameter (mm)* | 400 | 400 | 400 | 500 | 500 | 600 |
| Rec. Min. Deflection Pulley Diamete (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/sq. m ) | 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 82.7 in. (2100 mm) and cut to the widths according to customer wish. *Smaller pulleys possible at lower belt tension.

# TexSteel® Belts

## TexSteel® Will Take You There

Its advanced design 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

- Aggregates
- Cement
- Coal
- Hard Rock
- Power Generation
- Steel Production

### Applications

- Mainlines
- Overland Belts
- Ship Loader
- Any High Abuse Applications

### Cover Compounds

- Defender® Series
- Stacker® Series
- Survivor® Series
- Eco Series
- Solar-Shield® Series
- Gold Series
- Shield Series

See pages 78–84 for more specific details.

**Get a lower cost-per-ton conveyed** | **Tension Range: 360 – 1800 PIW**

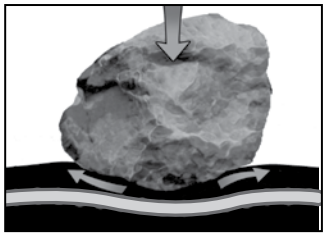
## TexSteel® Features and Benefits

### 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.



### 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.

### Lightweight

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

# TexSteel® Belt Information

## TexSteel® Conveyor Belt Data

| Imperial | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **TexSteel®** | **360/1** | **570/1** | **715/1** | **800/1** | **915/1** | **1030/1** | **1140/1** | **1430/1** | **1800/1** |
| Number of Plies | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Fabric Type* | A/N/N | A/N/N | A/N/N | A/N/N | A/N/N | A/N/N | A/N/N | A/N/N | A/N/N |
| Average Permanent Elongation (%)** | 0.3% | 0.3% | 0.3% | 0.3% | 0.3% | 0.3% | 0.3% | 0.3% | 0.3% |
| Recommended Fastener Plate | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| Vulcanized & Fastener Rating (PIW) | 360 | 570 | 715 | 800 | 915 | 1030 | 1140 | 1430 | 1800 |
| Nominal Carcass Gauge (in.) | 0.070 | 0.092 | 0.109 | 0.112 | 0.115 | 0.131 | 0.134 | 0.153 | 0.156 |
| Nominal Carcass Weight (lb./sq. ft.) | 0.42 | 0.48 | 0.52 | 0.55 | 0.61 | 0.71 | 0.73 | 0.80 | 0.86 |
| Approximate 1/32 in. Cover Weight (lb./sq. ft.) | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 |
| Elastic Modulus (PIW) | 90,000 | 142,500 | 178,750 | 200,000 | 228,750 | 257,500 | 285,000 | 357,500 | 450,000 |
| Finger Length (in.)*** | 25 | 40 | 50 | 55 | 63 | 71 | 79 | 98 | 124 |
| **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* | A/N/N | A/N/N | A/N/N | A/N/N | A/N/N | A/N/N | A/N/N | A/N/N | A/N/N |
| Average Permanent Elongation (%)** | 0.3% | 0.3% | 0.3% | 0.3% | 0.3% | 0.3% | 0.3% | 0.3% | 0.3% |
| Recommended Fastener Plate | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| Belt Rating (kN/m) | 630 | 1000 | 1250 | 1400 | 1600 | 1800 | 2000 | 2500 | 3150 |
| Vulcanized & Fastener Rating (kN/m) | 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/sq.m) | 2.1 | 2.3 | 2.5 | 2.7 | 3.0 | 3.5 | 3.6 | 3.9 | 4.2 |
| Approximate 1 mm Cover Weight (kg/sq.m) | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 |
| Elastic Modulus (kN/m) | 15,760 | 24,960 | 31,300 | 35,030 | 40,060 | 45,100 | 49,910 | 62,610 | 78,810 |
| Finger Length (mm)*** | 640 | 1020 | 1270 | 1400 | 1600 | 1800 | 2010 | 2490 | 3150 |

The minimum cover for vulcanized splice is 1/8 in. (3.2 mm). The recommended maximum top to bottom cover ratio for one-ply is 2:1 (i.e., is 1/4 in. x 1/8 in. or 4.5 mm x 2.25 mm). The above tables are based on top cover gauge equal or greater than the bottom (pulley) cover gauge. *A/N/N = Aramid/Nylon/Nylon. 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® Belt Information

## TexSteel® Load Support – Maximum Belt Width Data

| **Imperial (in.)** | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Material Weight** | **0-40 lb./cu. ft.** | | | **41-80 lb./cu. ft.** | | | **81-120 lb./cu. ft.** | | | **Over 120 lb./cu. ft.** | | |
| **Trough Angle** | **20** | **35** | **45** | **20** | **35** | **45** | **20** | **35** | **45** | **20** | **35** | **45** |
| **360/1** | 54 | 48 | 42 | 54 | 48 | 42 | 54 | 48 | 42 | 48 | 42 | 42 |
| **570/1** | 54 | 48 | 42 | 54 | 48 | 42 | 54 | 48 | 42 | 48 | 42 | 42 |
| **715/1** | 54 | 48 | 42 | 54 | 48 | 42 | 54 | 48 | 42 | 48 | 42 | 42 |
| **800/1** | 60 | 54 | 48 | 60 | 54 | 48 | 48 | 42 | 42 | 48 | 42 | 42 |
| **915/1** | 60 | 54 | 48 | 60 | 54 | 48 | 48 | 42 | 42 | 48 | 42 | 42 |
| **1030/1** | 72 | 72 | 60 | 72 | 72 | 60 | 60 | 54 | 48 | 54 | 48 | 42 |
| **1140/1** | 72 | 72 | 60 | 72 | 72 | 60 | 60 | 54 | 48 | 54 | 48 | 42 |
| **1430/1** | 84 | 84 | 84 | 84 | 84 | 84 | 84 | 84 | 72 | 72 | 60 | 60 |
| **1800/1** | 84 | 84 | 84 | 84 | 84 | 84 | 84 | 84 | 72 | 72 | 60 | 60 |
| **Metric (mm)** | | | | | | | | | | | | |
| **Material Weight** | **0-640 kg/cu. m** | | | **641-1280 kg/cu. m** | | | **1281-1920 kg/cu. m** | | | **Over 1920 kg/cu. m** | | |
| **Trough Angle** | **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 5 ft. (1.5 m) OR idler roll gap greater than 1/2 in. (12.7 mm) consult your Sales Representative.

# TexSteel® Belt Information

## TexSteel® Troughability Minimum Belt Width

| Imperial (in.) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **TexSteel®** | | **360/1** | **570/1** | **715/1** | **800/1** | **915/1** | **1030/1** | **1140/1** | **1430/1** | **1800/1** |
| Idlers | 20 degree | 18 | 20 | 18 | 24 | 24 | 24 | 30 | 24 | 30 |
| | 35 degree | 18 | 24 | 24 | 30 | 30 | 30 | 36 | 30 | 36 |
| | 45 degree | 24 | 30 | 30 | 36 | 36 | 36 | 42 | 36 | 42 |
| **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., 3/16 in. x 3/16 in. or 4.7 mm x 4.7 mm) or less than 1/16 in. (1.5 mm) differential (i.e., 3/16 in. x 5/32 in. or 4.7 mm x 3.9 mm), add 6 in. (152mm) to the minimum belt width. 6 in. (152 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 50°F (10°C). ***The above table is based on top cover gauge equal or greater than the bottom (pulley) cover gauge.

## TexSteel® Minimum Pulley Diameters

| Imperial (in.) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **TexSteel®** | **360/1** | **570/1** | **715/1** | **800/1** | **915/1** | **1030/1** | **1140/1** | **1430/1** | **1800/1** |
| Over 80% Tension | 18 | 20 | 24 | 30 | 36 | 36 | 36 | 42 | 42 |
| 60% to 80% Tension | 16 | 18 | 20 | 24 | 30 | 30 | 30 | 36 | 36 |
| 40% to 60% Tension | 14 | 16 | 18 | 20 | 30 | 30 | 30 | 36 | 36 |
| Up to 40% Tension | 12 | 14 | 16 | 18 | 24 | 24 | 24 | 30 | 30 |
| Tails and Snubs | 12 | 14 | 16 | 18 | 24 | 24 | 24 | 30 | 30 |
| **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

Phoenix Phoenocord® and Continental Flexsteel® 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 steelcord. These compounds are available in a wide variety of rubber types and gauges.

## Belt Components

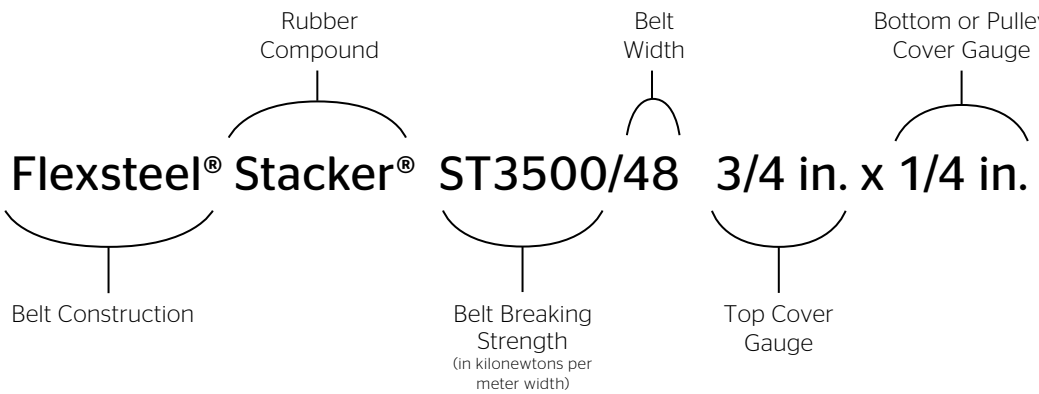
**Top Cover**
- Protects steelcord
- Various compounds available

**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**
- Protects steelcord
- Various compounds available
- Low energy options available

## Belt Nomenclature Example



# Phoenix Phoenocord® and Flexsteel® Belts

## Technologically Superior Products

Every Phoenix Phoenocord® and Flexsteel® 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

**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 ST 5000 up to ST 10000.

**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 5,000 N/mm.

# 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 10,000 N/mm and a width of 3,200 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 78–84 for more specific details.

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

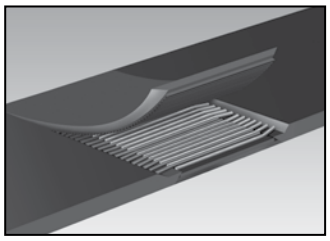
**Get a lower cost-per-ton conveyed**

**Tension Range: ST5000 – ST10000**

# **Phoenix Phoenocord®** Features and Benefits

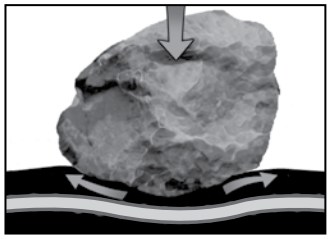
## The world's strongest belts

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



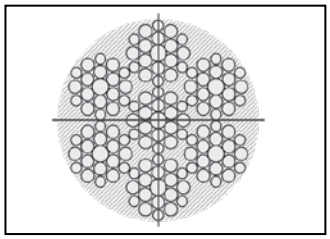
## Life-long splices

Independent testing proves that our splicing methods outperform industry standards.



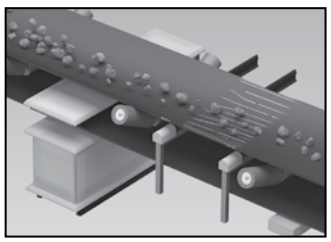
## Highest impact resistance

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

| Tension Rating | ST 5000 | ST 5400 | ST 6000 | ST 6500 | ST 7000 | ST 7500 | ST 8000 | ST 8500 | ST 9000 | ST 9500 | ST 10000 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Imperial** | | | | | | | | | | | |
| Operating Tension (PIW) | 4281 | 4623 | 5137 | 5565 | 5993 | 6421 | 6849 | 7277 | 7705 | 8133 | 8561 |
| Minimum Ultimate Tension (PIW) | 28552 | 30836 | 34263 | 37118 | 39973 | 42828 | 45683 | 48539 | 51394 | 54249 | 57104 |
| Belt Modulus (PIW) | 2055000 | 2219000 | 2466000 | 2671000 | 2877000 | 3082000 | 3288000 | 3493000 | 3699000 | 3904000 | 4109000 |
| Cover Gauge Examples (Top & Pulley Side) (in.) | 0.500 x 0.375 | 0.500 x 0.375 | 0.500 x 0.375 | 0.500 x 0.375 | 0.625 x 0.375 | 0.625 x 0.375 | 0.625 x 0.500 | 0.625 x 0.500 | 0.625 x 0.500 | 0.625 x 0.500 | 0.625 x 0.500 |
| Cable Diameter (Nominal) (in.) | 0.433 | 0.433 | 0.488 | 0.488 | 0.488 | 0.520 | 0.555 | 0.555 | 0.555 | 0.555 | 0.555 |
| Belt Thickness (in.) | 1.308 | 1.308 | 1.363 | 1.363 | 1.488 | 1.520 | 1.680 | 1.680 | 1.680 | 1.680 | 1.680 |
| Specific Belt Mass (lb./sq. ft.) | 13.9 | 14.3 | 15.2 | 15.6 | 16.6 | 17.3 | 18.0 | 18.4 | 18.8 | 19.2 | 19.6 |
| Carcass Weight (lb./sq.ft.) | 9.3 | 9.7 | 10.6 | 11.0 | 11.5 | 12.2 | 12.5 | 12.9 | 13.3 | 13.7 | 14.1 |
| **Metric** | | | | | | | | | | | |
| Operating Tension (kN/m) | 750 | 810 | 900 | 975 | 1049 | 1124 | 1199 | 1274 | 1349 | 1424 | 1499 |
| Minimum Ultimate Tension (kN/m) | 5000 | 5400 | 6000 | 6500 | 7000 | 7500 | 8000 | 8500 | 9000 | 9500 | 10000 |
| Belt Modulus (kN/m) | 360000 | 389000 | 432000 | 468000 | 504000 | 540000 | 576000 | 612000 | 648000 | 684000 | 720000 |
| Cover Gauge Examples (Top & Pulley Side) (mm) | 12 x 10 | 12 x 10 | 12 x 10 | 12 x 10 | 14 x 10 | 14 x 10 | 14 x 12 | 14 x 12 | 14 x 12 | 14 x 12 | 14 x 12 |
| Cable Diameter (Nominal) (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/sq. m) | 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/sq. m) | 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. Operating tensions are based on a 6.67:1 safety factor. For differing cover thicknesses consider: Weight of cover per 1/32" thickness: 0.184 lb/sq.ft./ weight of cover per 1 mm thickness: 1.10 kg/m².

# Flexsteel® Belts

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

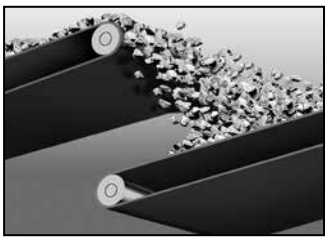
See pages 78–84 for more specific details.

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**

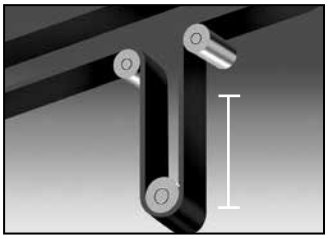
**Tension Range: ST800 – ST4500**

# 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 .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.

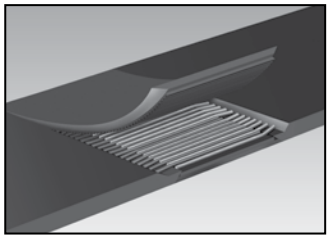
# **Flexsteel**® Features and Benefits

## 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 down-time 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.

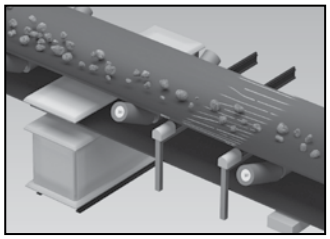
## Eco series pulley covers

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

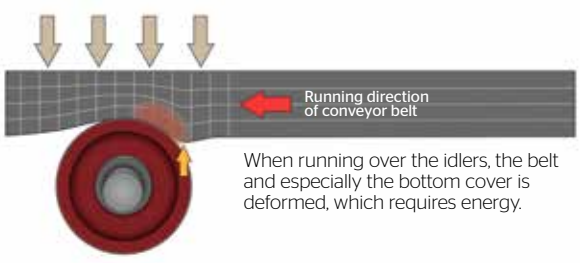
| Tension Rating | ST 800 | ST 1000 | ST 1250 | ST 1600 | ST 2000 | ST 2500 | ST 3150 | ST 3500 | ST 4000 | ST 4500 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Imperial** | | | | | | | | | | |
| Operating Tension (PIW) | 685 | 856 | 1070 | 1370 | 1712 | 2140 | 2697 | 2996 | 3424 | 3852 |
| Minimum Ultimate Tension (PIW) | 4568 | 5710 | 7138 | 9136 | 11420 | 14275 | 17987 | 19985 | 22840 | 25695 |
| Belt Modulus (PIW) | 329000 | 411000 | 514000 | 658000 | 822000 | 1027000 | 1294000 | 1438000 | 1644000 | 1849000 |
| Cover Gauge Examples (Top & Pulley Side) (in.) | 0.250 x 0.156 | 0.250 x 0.156 | 0.375 x 0.156 | 0.375 x 0.156 | 0.375 x 0.156 | 0.375 x 0.250 | 0.500 x 0.250 | 0.500 x 0.250 | 0.500 x 0.375 | 0.500 x 0.375 |
| Cable Diameter (Nominal) (in.) | 0.142 | 0.142 | 0.173 | 0.197 | 0.197 | 0.264 | 0.299 | 0.323 | 0.346 | 0.366 |
| Belt Thickness (in.) | 0.548 | 0.548 | 0.704 | 0.728 | 0.728 | 0.889 | 1.049 | 1.073 | 1.221 | 1.241 |
| Specific Belt Mass (lb./sq. ft.) | 3.7 | 4.0 | 5.0 | 5.3 | 5.8 | 6.7 | 8.3 | 8.8 | 9.3 | 10.4 |
| Carcass Weight (lb./sq.ft.) | 1.6 | 1.9 | 2.2 | 2.5 | 3.0 | 3.4 | 4.3 | 4.8 | 4.6 | 5.7 |
| **Metric** | | | | | | | | | | |
| Operating Tension (kN/m) | 120 | 150 | 187 | 240 | 300 | 375 | 472 | 525 | 600 | 675 |
| Minimum Ultimate Tension (kN/m) | 800 | 1000 | 1250 | 1600 | 2000 | 2500 | 3150 | 3500 | 4000 | 4500 |
| Belt Modulus (kN/m) | 58000 | 72000 | 90000 | 115000 | 144000 | 180000 | 227000 | 252000 | 288000 | 324000 |
| Cover Gauge Examples (Top & Pulley Side) (mm) | 6 x 4 | 6 x 4 | 7 x 5 | 7 x 5 | 8 x 6 | 8 x 6 | 10 x 8 | 10 x 8 | 12 x 10 | 12 x 10 |
| Cable Diameter (Nominal) (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/sq. m) | 18.2 | 19.7 | 24.5 | 26.0 | 28.3 | 32.8 | 40.4 | 42.9 | 45.4 | 50.6 |
| Carcass Weight (kg/sq. m) | 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. Operating tensions are based on a 6.67:1 safety factor. For differing cover thicknesses consider: Weight of cover per 1/32" thickness: 0.184 lb/sq.ft./ weight of cover per 1 mm thickness: 1.10 kg/m².

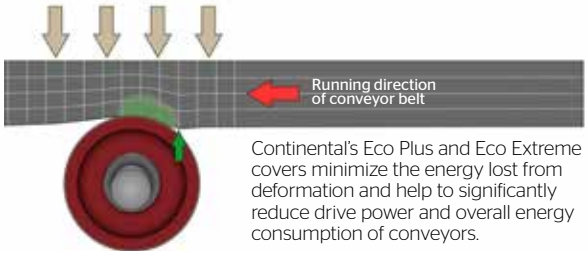
# Eco Series Pulley Covers

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.




When running over the idlers, the belt and especially the bottom cover is deformed, which requires energy.



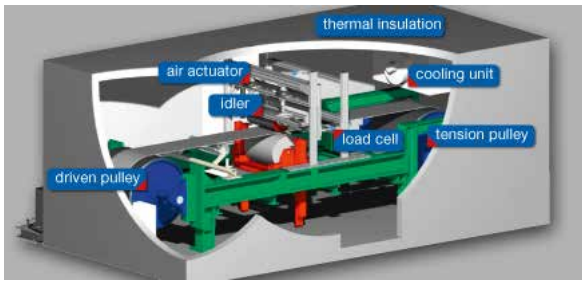

Continental's Eco Plus and Eco Extreme covers minimize the energy lost from deformation and help to significantly reduce drive power and overall energy consumption of conveyors.

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 $3.0 million or more depending on your operation.

**Energy savings based on reference conveyor. C–C Distance: 3500 m. Mass Flow: 6000 t/h. Two driven pulleys at the head end, one driven 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.




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

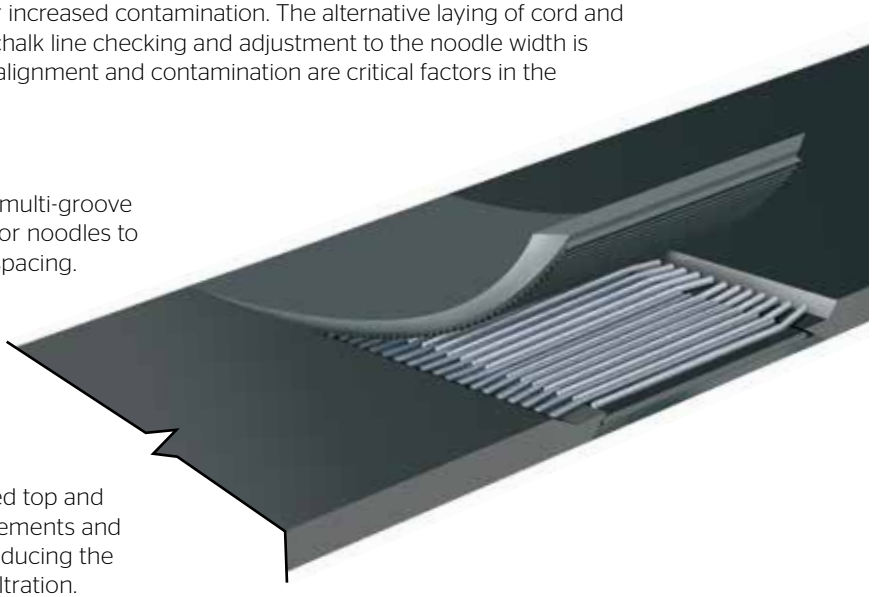
# Preform™ Splice Technology

## 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.

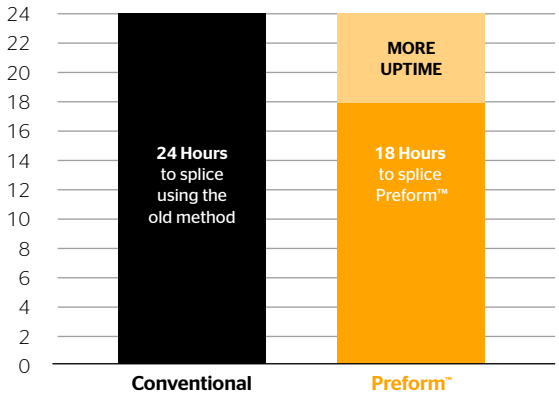


**Preform™ Splice Method**
Preform™ splices utilize preformed, multi-grooved top and bottom cover panels, eliminating the need for cements and noodles. Cement drying times are eliminated, reducing the possibility of splice contamination from dust infiltration. Cord laying time is significantly reduced 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.

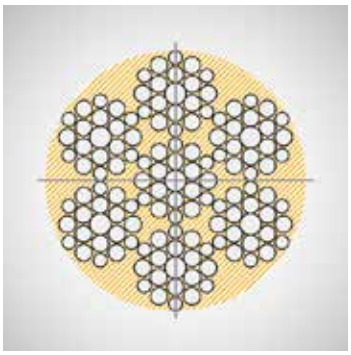
**Less Downtime**
Preform™ splices are 25% faster.



# Sybercord Technology

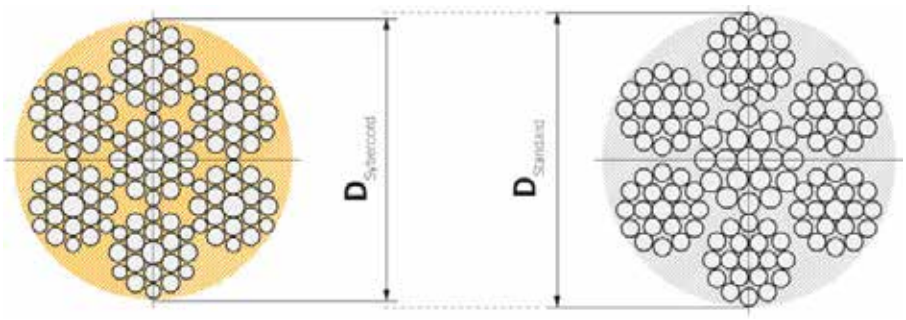
## THE NEXT GENERATION OF STEEL CORD BELTING

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.

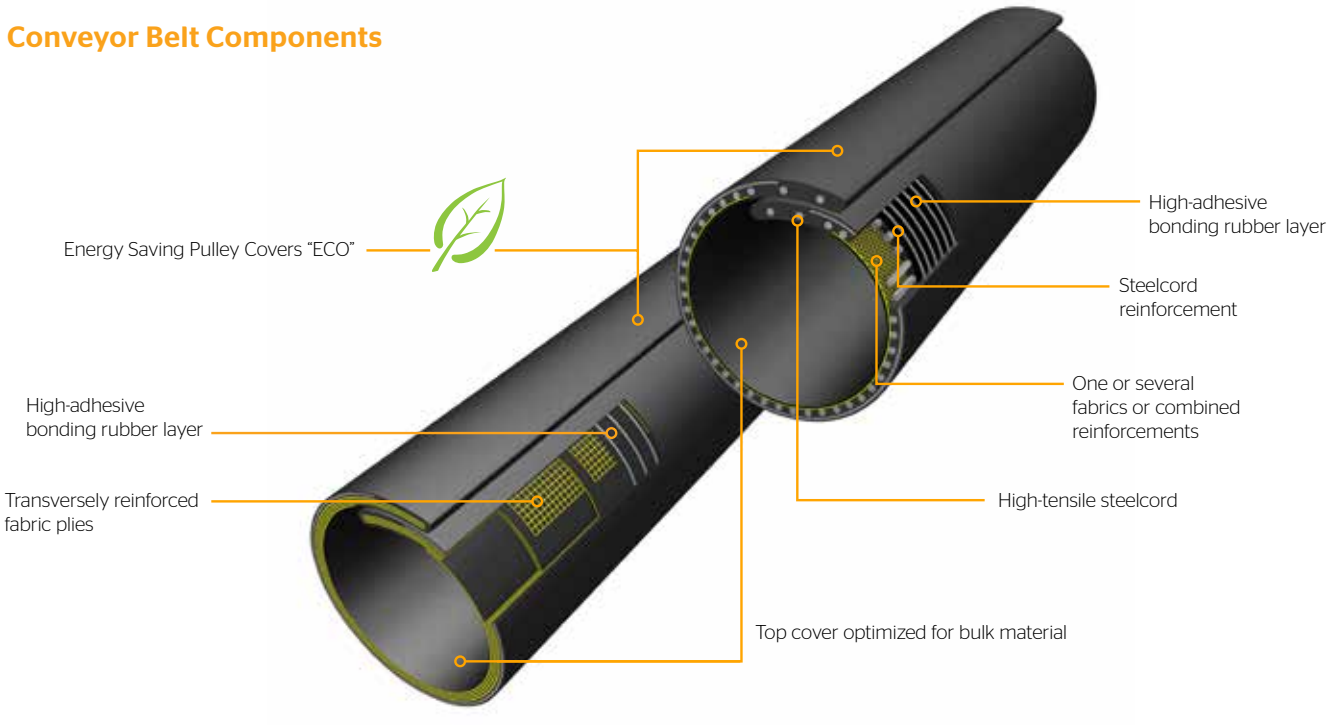
## Keeping it clean

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

## Conveyor Belt Components



# ContiPipe™ Belt Information

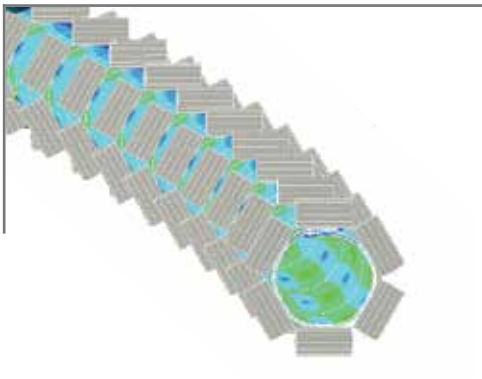
## Engineered to work a long way

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.

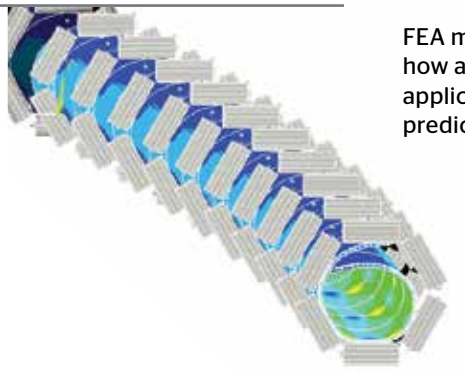
- Superb long-term transverse stiffness
- Excellent overlap seal
- Reduced buckling and minimized seam rotation in curves

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

| Diameter | | Belt Width | | Type | |
|---|---|---|---|---|---|
| in. | mm | in. | mm | Fabric | Steel |
| 5.9 | 150 | 23.6 | 600 | • | |
| 7.9 | 200 | 30.7 | 780 | • | |
| 9.8 | 250 | 39.4 | 1000 | • | |
| 11.8 | 300 | 43.3 | 1100 | • | • |
| 13.8 | 350 | 51.2 | 1300 | • | • |
| 15.7 | 400 | 63 | 1600 | • | • |
| 19.7 | 500 | 74.8 | 1900 | • | • |
| 23.6 | 600 | 88.6 | 2250 | • | |
| ≥ 27.6 | ≥ 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 50 degrees. With a maximum capacity of up to 9,500 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.

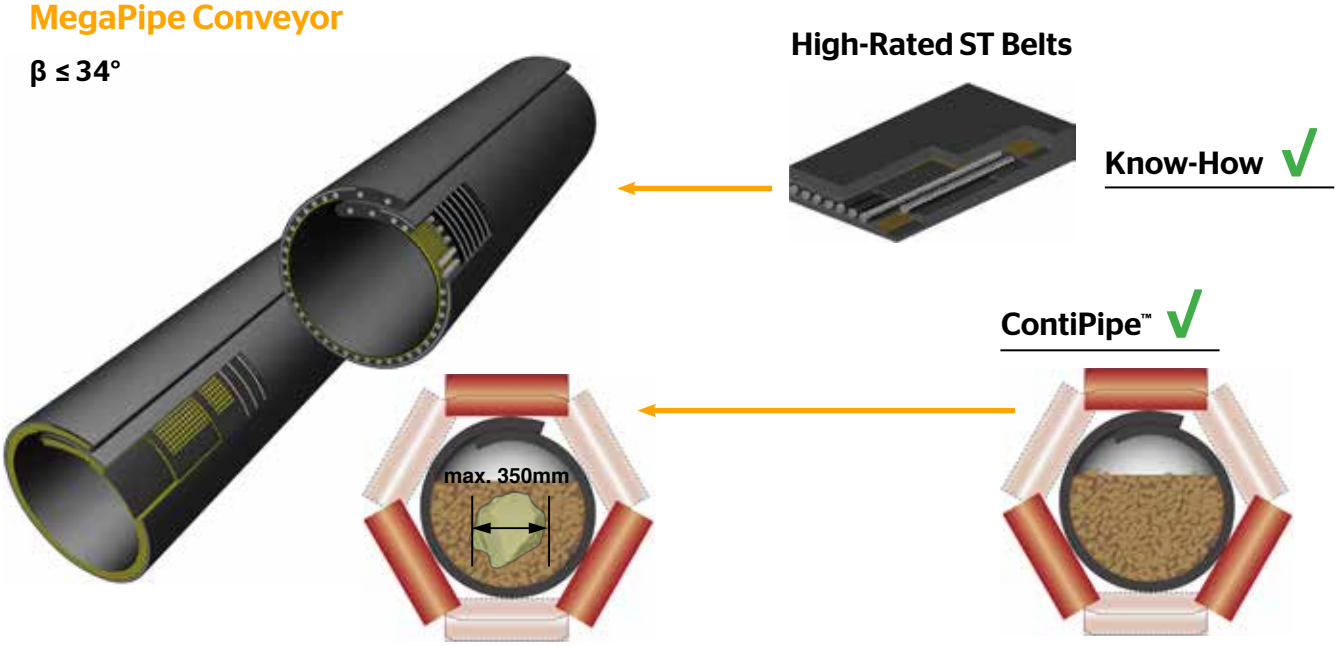
### Technical Information

- 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 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!

### MegaPipe Conveyor



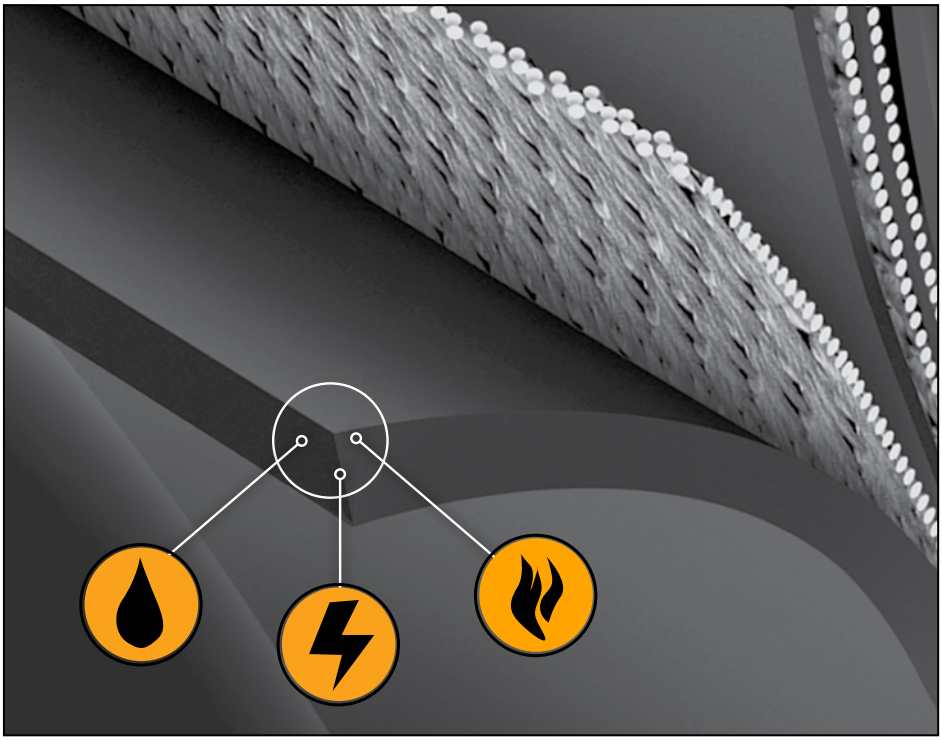
# Cover Compounds

# 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 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Applications | | | | | | | | | | | | | | |
| Survivor® Plus | | | | ■ | ■ | | ■ | | ■ | | ■ | | | | ■ |
| Survivor® | | | | ■ | ■ | | ■ | | ■ | | ■ | ■ | | | ■ |
| Stacker® | | | | ■ | ■ | | ■ | | ■ | | ■ | | | | ■ |
| Stacker® Plus | | | | ■ | ■ | | ■ | | ■ | | ■ | | | | ■ |
| Defender® | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | ■ | ■ | ■ | ■ | ■ |
| Defender® Plus | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | ■ | ■ | ■ | ■ | ■ |
| Easyrider™ | | | | ■ | | | | ■ | | | | | ■ | | |
| 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® Classic | | | | | ■ | | ■ | | | | | | | | ■ |
| Eco Plus & Eco Extreme | | | | | | | | | | | | | | | ■ |

# Standard Compounds

**Alumina – HOT**
Specifically designed compound intended for usage at alumina facilities where alumina material temperatures range up to 400°F.

**Arctic Gold and Arctic Gold Plus**
Excellent mineral oil and abrasion resistance combined with improved low temperature properties.

**Defender® and Defender® Plus**
DIN Y and ARPM Grade I rubber compounds designed to provide very good abrasion resistance, good gouge resistance and excellent flex life.

**Eco Series**
Low rolling resistance compounds designed to reduce energy loss through indentation of the pulley cover. This occurs through contact with conveyor idlers. With hundreds of kilometers of belt in operation benefitting from Eco Plus, which provides up to 15% reduction in energy consumption and Eco Extreme providing as much as a 30% reduction when compared to standard compounds.

**Shield FR-2G, Shield FRAR-2G & Shield FRHT-2G**
Flame resistant series of compounds designed especially for aboveground prep plants, power plants and non-coal underground mining applications that require ASTM D378-13.2 (old MSHA CFR 30 part 18) flame test standard. For applications requiring moderate heat resistance up to 250°F, FRHT-2G is available.

**Shield ARMA Plus & Shield ARMA Tough**
Designed for the underground coal mining market, it meets the MSHA CFR part 14 (B.E.L.T.) flame standard. Shield ARMA compounds are ozone resistant and offer great abrasion resistance for the most demanding applications, including slope belts.

**Shield FRORS-2G**
Resistance to oil and static conductive, this compound is designed for oily coal or coke materials in areas with fire dangers. FRORS-2G meets ASTM D378-13.2 (old MSHA CFR 30 part 18) flame test standard.

**Shield FRAR-CSA C and Shield FR-CSA C**
Fire-retardant anti-static belting is certified by the Canadian Department of Energy, Mines and Resources, Ottawa to CAN/CSA M422M87, Type C, for below surface use as well as other mining operations. FRAR-CSA C offers approximately 40% better abrasion resistance than FR-CSA C compound.

**Easyrider™**
(DIN Z and ISO L) rubber compound designed to provide abrasion resistance and very good flex life.

**Monster Hide,® Monster Hide® Plus and Monster Hide® MORS**
The ultimate in cut and gouge protection. Designed to absorb impacts from large rock with sharp edges. Monster Hide® MORS resists the effect of cover cuts and chunking associated with localized heavy impact and is MOR-resistant to cover swell associated with terpene oil.

**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.

**Pathfinder® Supreme, Pathfinder® Arctic and Pathfinder® CSA**
Flame retardant compounds designed especially for the grain industry where oily grains and controlled mineral or vegetable oil dust suppressive spray come in contact with the belt. Pathfinder Arctic for low temperature requirements to -40°F (-40°C).

**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 350°F (180°C), oxidation and the effects of corrosive atmospheres.

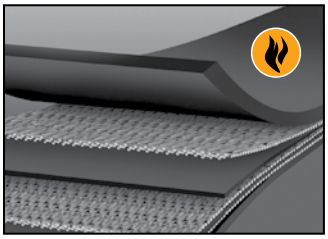
**Solar-Shield® Classic, Solar-Shield® Plus, Solar-Shield® Extreme and Solar-Shield® Ultimate**
An exceptional range of hot material compounds when superior heat resistance against hardening and cracking is required. Solar-Shield® compounds are designed to carry hot material at intermittent temperatures from 350°F (180°C) with Classic, up to 750˚F (400°C) using Extreme and over 750°F (400°C) using Ultimate and retain its superior heat-resistant qualities.

**Stacker® (DIN W, ARPM Grade I)**
**Stacker® Plus (ARPM Grade I, ISO H, DIN X, ASM, SANS M)**
Premium compounds designed for excellent resistance to cutting, gouging and abrasion.

**Survivor® (ARPM Grade I, AS-A, SANS A)**
**Survivor® Plus (ARPM Grade I)**
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.

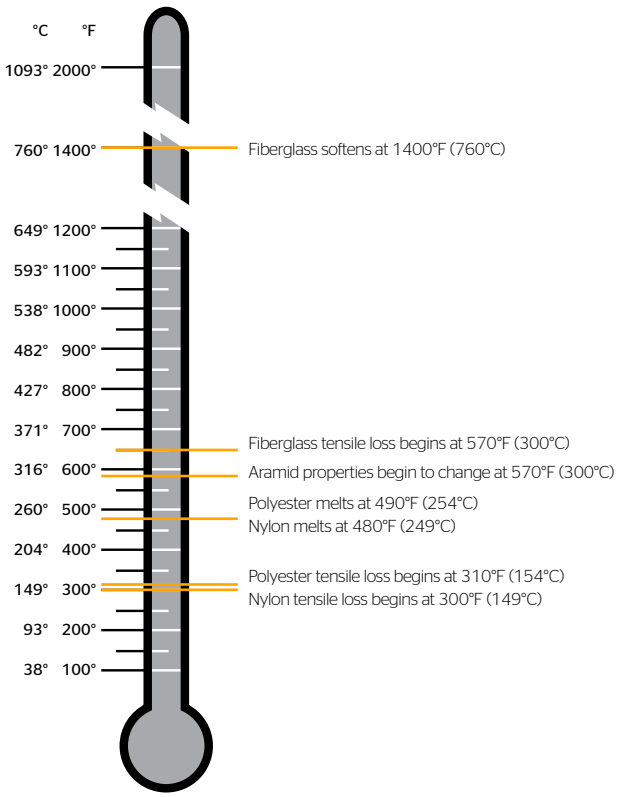
# Solar-Shield® Heat Resistant Compounds

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.



## Solar-Shield® carcass with fiberglass 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 350°F (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 400°F (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 750°F (400°C). Improved heat resistance means longer belt life.

**Solar-Shield® Ultimate** Compounded for the ultimate protection in high temperature applications above 750°F (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 D2240A Shore A Hardness | Tensile (psi) | Elongation (%) | DIN Abrasion ($mm^3$) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Abrasion Compounds** | | | | | | | | | | | | |
| **Survivor® Plus** | ARPM Grade I | -55°F (-50°C) | 150°F (70°C) | Extreme | Good | No | No | Yes | 60 | 2850 | 585 | 25 |
| **Survivor®** | ARPM Grade I | -55°F (-50°C) | 150°F (70°C) | Ultimate | Very Good | No | No | Yes | 59 | 2850 | 585 | 40 |
| **Stacker®** | ARPM Grade I, DIN W, AS Grade N & E | -55°F (-50°C) | 150°F (70°C) | Superior | Excellent | No | No | Yes | 60 | 2950 | 570 | 70 |
| **Defender® Plus** | ARPM Grade I, DIN Z, AS Grade E | -40°F (-40°C) | 212°F (100°C) | Excellent | Very Good | No | No | Yes | 60 | 2800 | 560 | 90 |
| **Defender®** | DIN Y | -40°F (-40°C) | 150°F (70°C) | Very Good | Very Good | No | No | Yes | 60 | 2900 | 400 | 130 |
| **Easyrider™** | ARPM Grade II, DIN Z, ISO L | -30°F (-34°C) | 150°F (70°C) | Good | Good | No | No | Yes | 60 | 2300 | 510 | 145 |
| **Cut & Gouge Compounds** | | | | | | | | | | | | |
| **Monster Hide® Plus** | Not Relevant | -40°F (-40°C) | 150°F (70°C) | Excellent | Extreme | No | No | Yes | 68 | 3625 | 500 | 90 |
| **Monster Hide®** | Not Relevant | -40°F (-40°C) | 150°F (70°C) | Good | Ultimate | No | No | Yes | 72 | 2650 | 680 | 140 |
| **Stacker® Plus** | ARPM Grade I, ISO H, DIN X, ASM, SANS M | -40°F (-40°C) | 150°F (70°C) | Very Good | Superior | No | No | Yes | 60 | 3625 | 500 | 105 |
| **Stacker®** | ARPM Grade I, DIN W, AS Grade N & E | -55°F (-50°C) | 150°F (70°C) | Superior | Excellent | No | No | Yes | 60 | 2950 | 570 | 70 |
| **Defender® Plus** | ARPM Grade I, DIN Z, AS Grade E | -40°F (-40°C) | 212°F (100°C) | Excellent | Very Good | No | No | Yes | 60 | 2800 | 560 | 90 |
| **ContiFlex Compounds** | | | | | | | | | | | | |
| **Sentry** | ARPM Grade II | -40°F (-40°C) | 200°F (90°C) | Good | Good | No | No | Yes | 60 | 2190 | 450 | 160 |
| **Sentry Plus** | ARPM Grade I | -40°F (-40°C) | 200°F (90°C) | Very Good | Very Good | No | No | Yes | 60 | 3365 | 450 | 120 |
| **Coaline** | ARPM Grade II, ASTM D378 | -40°F (-40°C) | 180°F (80°C) | Good | Good | No | ASTM D378 13.2 | Yes | 65 | 2170 | 400 | 150 |
| **Coaline Plus** | ARPM Grade I, ASTM D378 | -40°F (-40°C) | 180°F (80°C) | Very Good | Very Good | No | ASTM D378 13.2 | Yes | 65 | 2900 | 500 | 110 |
| **Flame Compounds** | | | | | | | | | | | | |
| **Shield FR-2G** | ARPM Grade II, ASTM D378, AS Grade E | -40°F (-40°C) | 212°F (100°C) | Good | Good | No | ASTM D378 13.2 Part 18 | Yes | 57 | 2500 | 540 | 140 |
| **Shield FR-CSA-C** | CSA-C, AS Grade E | -40°F (-40°C) | 160°F (65°C) | Fair | Fair | No | CAN CSA-C M422 | Yes | 60 | 2000 | 400 | 260 |

# 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 D2240A Shore A Hardness | Tensile (psi) | Elongation (%) | DIN Abrasion ($mm^3$) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Flame and Abrasion Compounds** | | | | | | | | | | | | |
| **Shield FRAR-2G** | ARPM Grade I, ASTM D378, AS Grade E | -40°F (-40°C) | 150°F (65°C) | Excellent | Good | No | ASTM D378 13.2 Part 18 | Yes | 58 | 2550 | 540 | 85 |
| **Shield FRAR-CSA-C** | ARPM Grade I, CSA-C, AS Grade E | -40°F (-40°C) | 160°F (65°C) | Good | Fair | No | CAN CSA-C M422 | Yes | 60 | 2550 | 540 | 85 |
| **Flame Underground Compounds** | | | | | | | | | | | | |
| **Shield FRUG-2G** | ASTM D378, DIN Z, AS Grade E | -40°F (-40°C) | 150°F (65°C) | Good | Good | No | ASTM D378 13.2 Part 18 | Yes | 60 | 1900 | 490 | 230 |
| **Shield ARMA Tough** | ASTM D378 | -30°F (-34°C) | 150°F (65°C) | Very Good | Good | No | ASTM D378 13.2 Part 14 | Yes | 60 | 2300 | 470 | 130 |
| **Shield ARMA Plus** | ASTM D378 | -30°F (-34°C) | 150°F (65°C) | Good | Good | No | ASTM D378 13.2 Part 14 | No | 60 | 2100 | 450 | 180 |
| **Flame and Petroleum Oil Compounds** | | | | | | | | | | | | |
| **Shield FRORS-2G** | ASTM D378, DIN Z, AS Grade E | -40°F (-40°C) | 212°F (100°C) | Good | Good | Good | ASTM D378 13.2 Part 18 | Yes | 57 | 1900 | 410 | 245 |
| **Flame and Vegetable Oil Compounds** | | | | | | | | | | | | |
| **Conti AgriFlex** | ASTM D378 | -30°F (-34°C) | 150°F (65°C) | Fair | Fair | Very Good | ASTM D378 13.2 Part 18 | Yes | 60 | 1800 | 560 | 330 |
| **Pathfinder® Supreme** | ASTM D378 | -30°F (-34°C) | 225°F (107°C) | Fair | Fair | Very Good | ASTM D378 13.2 Part 18 | Yes | 60 | 1800 | 580 | 330 |
| **Pathfinder® Arctic** | ASTM D378 | -40°F (-40°C) | 225°F (107°C) | Fair | Fair | Very Good | ASTM D378 13.2 Part 18 | Yes | 60 | 1800 | 450 | 330 |
| **Pathfinder® CSA** | CAN CSA-C | -40°F (-40°C) | 225°F (107°C) | Fair | Fair | Very Good | CAN CSA-C M422 | Yes | 65 | 2000 | 550 | 250 |
| **Flame and Heat Compounds** | | | | | | | | | | | | |
| **Shield FRHT-2G** | ARPM Grade II, ASTM D378, DIN Z, AS Grade E | -40°F (-40°C) | 250°F (120°C) | Fair | Good | No | ASTM D378 13.2 Part 18 | Yes | 60 | 2500 | 500 | 175 |
| **Gold Oil Compounds** | | | | | | | | | | | | |
| **Gold Classic** | Good Oil Resistance | -15°F (-25°C) | 150°F (70°C) | Fair | Good | Good | No | Yes | 65 | 1355 | 320 | 215 |
| **Gold Plus** | Better Oil Resistance | -20°F (-30°C) | 150°F (70°C) | Fair | Good | Very Good | No | Yes | 62 | 1700 | 330 | 200 |
| **Gold Extreme** | Best Oil Resistance | -15°F (-25°C) | 150°F (70°C) | Good | Fair | Excellent | No | No | 60 | 2600 | 600 | 150 |
| **Gold Arctic** | Low Temperature | -40°F (-40°C) | 120°F (50°C) | Excellent | Good | Very Good | No | Yes | 60 | 2350 | 450 | 90 |
| **Gold Arctic Plus** | Extreme Low Temperature | -65°F (-55°C) | 120°F (50°C) | Excellent | Excellent | Excellent | No | Yes | 60 | 2200 | 500 | 80 |
| **Solar-Shield®** | High Temperature | -15°F (-25°C) | 300°F (150°C) | Good | Fair | Fair | No | No | 61 | 2800 | 610 | 145 |

# 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 D2240A Shore A Hardness | Tensile (psi) | Elongation (%) | DIN Abrasion ($mm^3$) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Solar-Shield® Heat Compounds** | | | | | | | | | | | | |
| **Solar-Shield® Ultimate** | ISO Class III | -40°F (-40°C) | >750°F (>400°C) | Good | Fair | No | No | N/A | 75 | 2900 | 500 | 120 |
| **Solar-Shield® Extreme** | ARPM Grade II, ISO Class III, AS Grade E | -40°F (-40°C) | 750°F (400°C) | Good | Fair | No | No | Yes | 73 | 2300 | 680 | 130 |
| **Solar-Shield® TS** | ISO Class III | -40°F (-40°C) | 400°F (205°C) | Good | Fair | No | No | Yes | 60 | 2100 | 510 | 130 |
| **Alumina HOT** | ARPM Grade II, ISO Class III, AS Grade E | -40°F (-40°C) | 400°F (205°C) | Fair | Fair | No | No | Yes | 73 | 2300 | 640 | 155 |
| **Solar-Shield® Classic** | ARPM Grade I, ISO Class II, AS Grade E & N Class II | -40°F (-40°C) | 350°F (180°C) | Very Good | Very Good | No | No | Yes | 57 | 2900 | 550 | 110 |
| **DFPL** | ARPM Grade I, AS Grade E & N | -40°F (-40°C) | 212°F (100°C) | Excellent | Excellent | No | No | Yes | 60 | 2800 | 560 | 90 |
| **Special Service Compounds** | | | | | | | | | | | | |
| **Eco Plus** | Low Rolling Resistance | -40°F (-40°C) | 150°F (65°C) | Excellent | Good | No | No | Yes | 62 | 2900 | 400 | 70 |
| **Eco Extreme** | Super Low Rolling Resistance | -40°F (-40°C) | 150°F (65°C) | Excellent | Good | No | No | Yes | 65 | 2780 | 350 | 65 |
| **Sliderback** | Wood Products | -30°F (-35°C) | 158°F (70°C) | Fair | Fair | No | No | No | 80 | 1400 | 400 | 260 |
| **Tan Slow Down** | Wood Products | -35°F (-37°C) | 158°F (70°C) | Good | Very Good | No | No | No | 40 | 2030 | 600 | 188 |
| **Chem-X** | Potash Industry | -15°F (-25°C) | 300°F (150°C) | Fair | Very Good | Yes | No | Yes | 60 | 2580 | 700 | 350 |
| **HTLTORS** | Potash Industry | -40°F (-40°C) | 300°F (150°C) | Good | Good | Yes | No | Yes | 60 | 2300 | 500 | 180 |
| **White Compounds** | | | | | | | | | | | | |
| **Defender® Plus White** | ARPM Grade I, DIN Z, AS Grade E | -40°F (-40°C) | 212°F (100°C) | Excellent | Very Good | No | No | No | 65 | 2800 | 550 | 90 |
| **Solar-Shield® Classic White** | ARPM Grade II, DIN Z, AS Grade E | -40°F (-40°C) | 350°F (177°C) | Very Good | Very Good | No | No | No | 59 | 2500 | 500 | 110 |

# Cleated Belts

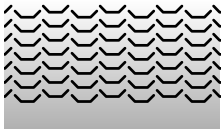
# Cleated Belts

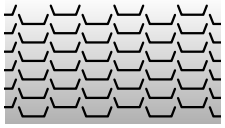
Continental is dedicated to equipping your operation for the most grueling conveying applications. Whether you are dealing with steep inclines or simply need extra support to move material, we offer a wide range of U- and V-shaped cleated belts. Continental cleated belts are ideal for conveying materials 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.

## Profile Options


Wave Grip


Wave Grip Plus


Bucket Grip


Bucket Grip II

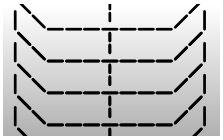

Signal


Backbone

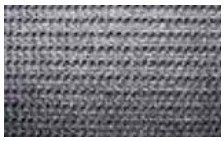

Backbone Plus

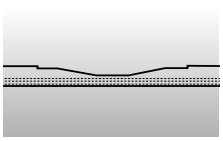

Flux

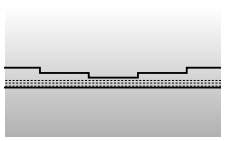

Ultra Shift

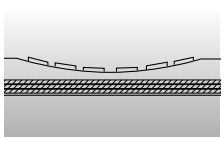

Ultra Shift II


Master Grip


Quadgrip


ContiRoll U


ContiRoll T


ContiRoll U Profile

### P/P Belt Construction

| 2 Plies | 3 Plies | 4 Plies |
|---|---|---|
| 160 PIW - 220 PIW | 240 PIW - 330 PIW | 320 PIW - 440 PIW |

### P/N Belt Construction

| 2 Plies | 3 Plies | 4 Plies |
|---|---|---|
| 180 PIW - 500 PIW | 270 PIW - 600 PIW | 360 PIW - 720 PIW |

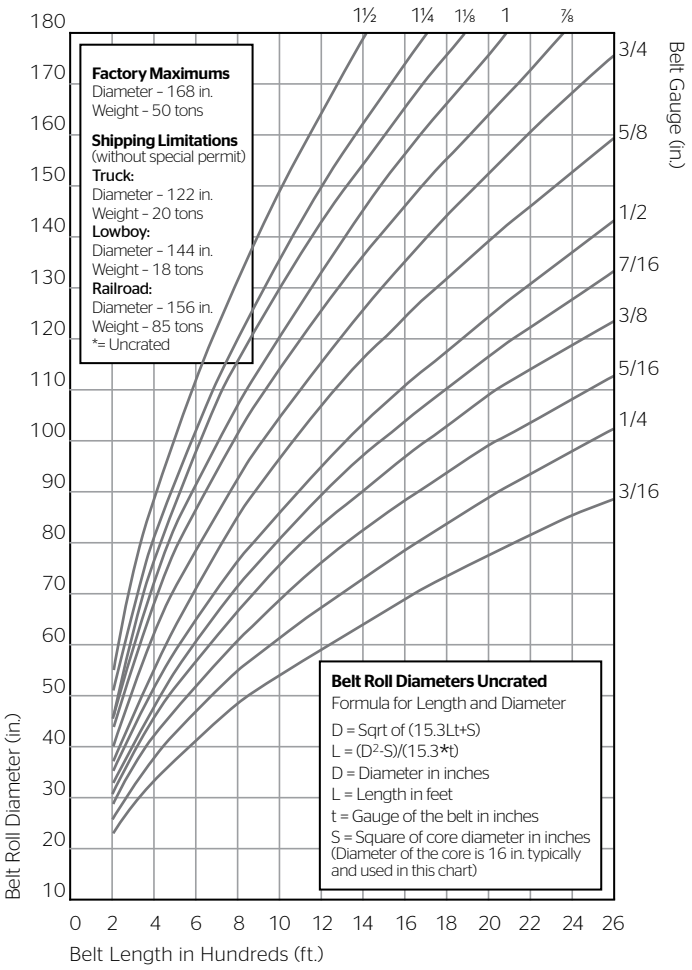
### Cleated Belt Compounds

| Defender® Series | Gold Series | Shield Series |
|---|---|---|

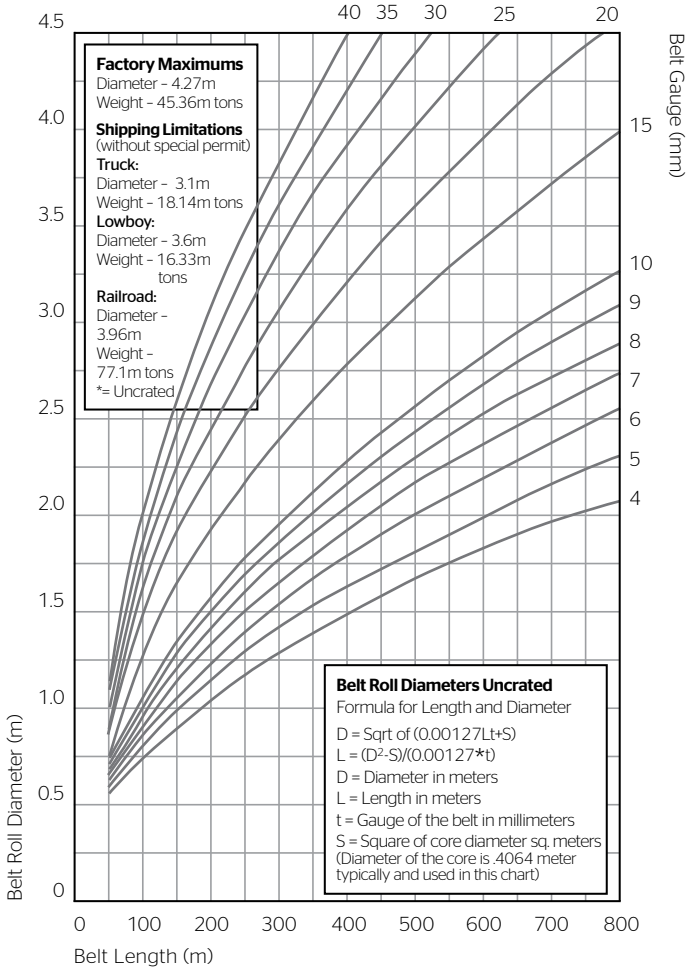
# Cleated Belts

## Belt Roll Diameters

### Imperial Belt Roll Diameters

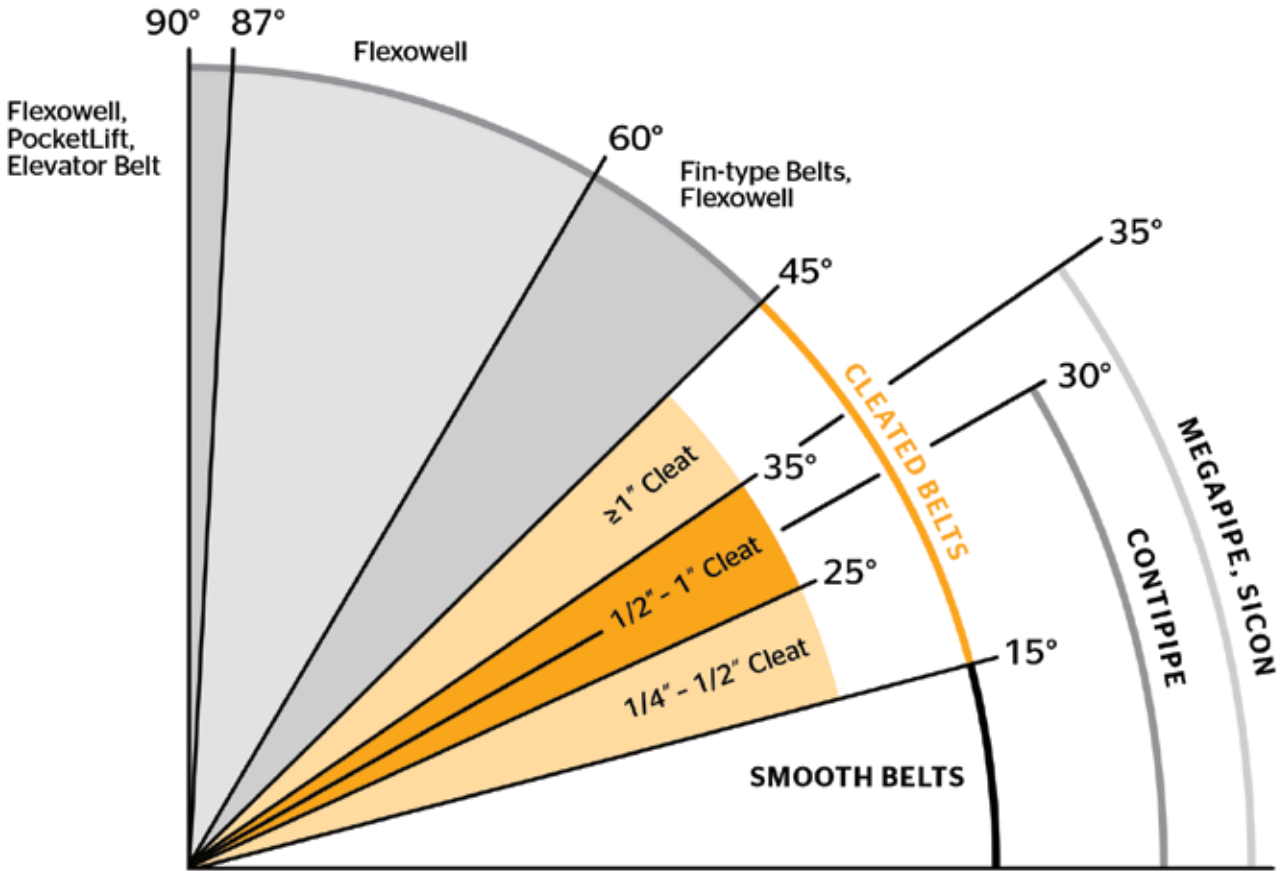



### Metric Belt Roll Diameters



# Cleated Belts

## Angles of Inclination



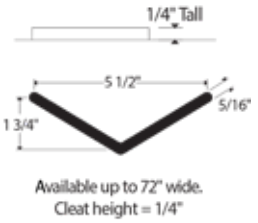

Actual incline increases over a flat belt may vary by type of material being conveyed and loading conditions.

# Cleated Belts

## Profile Options

## Wave Grip

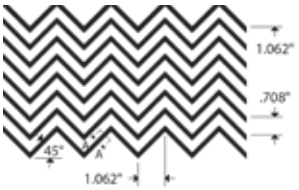
Wave Grip is a continuous cleat pattern. The cleats are 6" in width on 6" centers and 1/4" in height. Wave Grip is the most common cleated belt pattern.

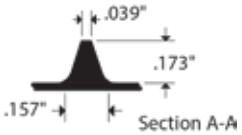




| Cleat Height | 1/4 in. | | | | | |
|---|---|---|---|---|---|---|
| Available Belt Widths | 42 in. | 48 in. | 54 in. | 60 in. | 66 in. | 72 in. |
| Available Pattern Widths | Continuous | | | | | |

## Wave Grip Plus

Wave Grip Plus is a unique continuous chevron pattern that allows for quiet transition with little vibration. Suitable for a wide variety of products. Quite popular in the package handling industry.

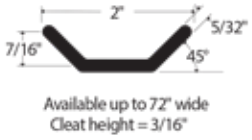



| Cleat Height | 1/8 in. | | | | |
|---|---|---|---|---|---|
| Available Belt Widths | 36 in. | 42 in. | 48 in. | 54 in. | 60 in. |
| Available Pattern Widths | Continuous | | | | |

## Bucket Grip

Bucket Grip cleats are 3/16" in height, 2" wide with 1" spacing between cleats. Bucket Grip is excellent for conveying fine bulk materials. Excellent for bulk material. Full width slit-able construction.

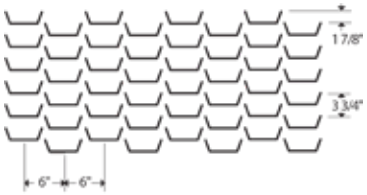

| Cleat Height | 3/16 in. | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Available Belt Widths | 30 in. | 36 in. | 42 in. | 48 in. | 54 in. | 60 in. | 66 in. | 72 in. |
| Available Pattern Widths | Continuous | | | | | | | |

# Cleated Belts

Profile Options

## Bucket Grip II

Bucket Grip II features a repeating cleat 1/4" in height x 3/8" in width and is fully slit-able.

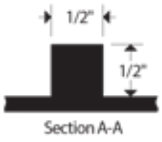


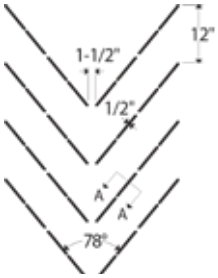


| Cleat Height | 1/4 in. | | | |
|---|---|---|---|---|
| Available Belt Widths | 42 in. | 48 in. | 54 in. | 60 in. |
| Available Pattern Widths | Continuous | | | |

## Signal

Signal offers good load carrying capability with cleats that are 1/2" high x 1/2" in depth. The angle between side cleats is 78°, which helps steer the load centrally on the belt. Suitable for larger material size.

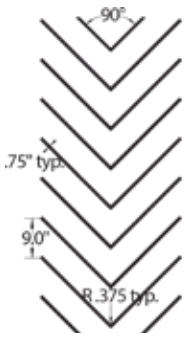


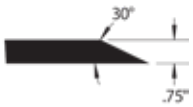



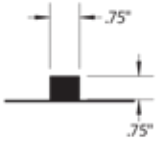

| Cleat Height | 1/2 in. | | | | | | |
|---|---|---|---|---|---|---|---|
| Available Belt Widths | 24 in. | 30 in. | 36 in. | 42 in. | 48 in. | 54 in. | 60 in. |
| Available Pattern Widths | 18 in. | 24 in. | 30 in. | 36 in. | 42 in. | 48 in. | 54 in. |

## Backbone

Backbone is perfect to move bulk material up an incline. A smooth and quiet return are provided by this extraordinary pattern. Backbone is 3/4" high x 3/4" deep cleat with a 30° bevel. Cleat angle side to side is 90 degrees. Suitable for bulky material on incline.




| Cleat Height | 3/4 in. | | | | |
|---|---|---|---|---|---|
| Available Belt Widths | 24 in. | 30 in. | 36 in. | 42 in. | 48 in. |
| Available Pattern Widths | 24 in. | 24 in. | 30 in. | 36 in. | 42 in. |
| Available Pattern Widths | - | 30 in. | 36 in. | 42 in. | 48 in. |

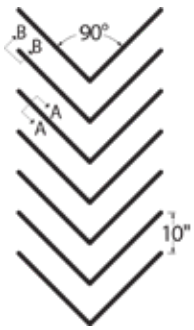
# Cleated Belts

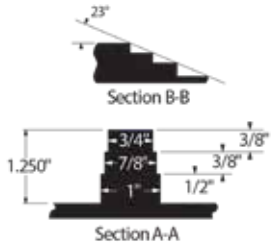
Profile Options

## Backbone Plus

Backbone Plus is a unique stepped cleat design 1 1/4" in height on a 23° angle with the side-by-side cleat at 90 degrees. Cleats are spaced 9" apart to allow product to settle on steep inclines. Overlapping cleats and beveled cleat end provide quiet return.

| Cleat Height | 1 ¼ in. | | | | |
|---|---|---|---|---|---|
| Available Belt Widths | 24 in. | 30 in. | 36 in. | 42 in. | 48 in. |
| Available Pattern Widths | 24 in. | 30 in. | 36 in. | 36 in. | 36 in. |

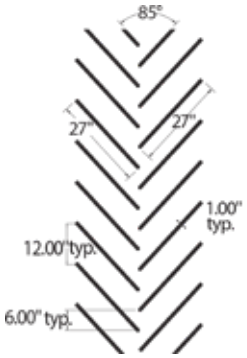


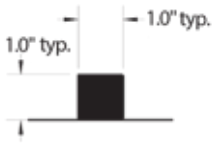




## Flux

Flux staggered chevron pattern allows water and small material to roll back through 6" gap. Cleats are 1" in height x 1" in width at 85° angle and 12" spacing. Full 1" x 1" pattern helps carry large particle sizes up steep inclines. Great where water flow is essential.

| Cleat Height | 1 in. | | | |
|---|---|---|---|---|
| Available Belt Widths | 30 in. | 36 in. | 42 in. | 48 in. |
| Available Pattern Widths | 24 in. | 24 in. | 36 in. | 36 in. |
| Available Pattern Widths | - | 36 in. | - | - |

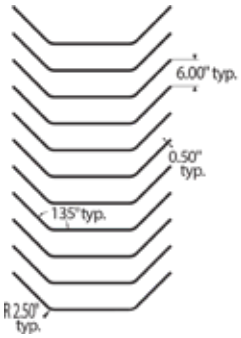


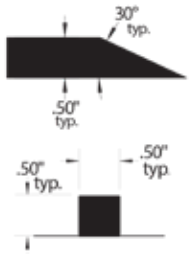




## Ultra Shift

Ultra Shift is a large bucket pattern with cleats 1/2" in height and 1/2" wide on a 30° bevel with cleats at 6" intervals. Design enhances smooth transition with minimal vibration.

| Cleat Height | 1/2 in. | | | |
|---|---|---|---|---|
| Available Belt Widths | 30 in. | 36 in. | 42 in. | 48 in. |
| Available Pattern Widths | 24 in. | 30 in. | 36 in. | 36 in. |
| Available Pattern Widths | 30 in. | 36 in. | - | - |



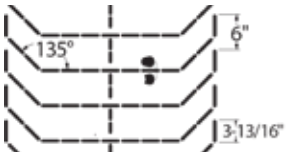



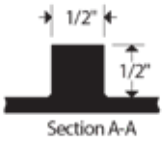
# Cleated Belts

Profile Options

## Ultra Shift II

Ultra Shift II has similar cleat dimensions as Ultra Shift. However, Ultra Shift II's inward slant of the cleats helps to keep product centrally located on the belt.

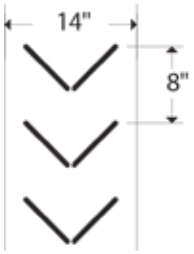


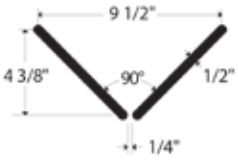




| Cleat Height | 1/2 in. | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Available Belt Widths | 24 in. | 30 in. | 36 in. | 42 in. | 48 in. | 54 in. | 60 in. | 72 in. |
| Available Pattern Widths | 18 in. | 18 in. | 18 in. | 18 in. | 18 in. | 42 in. | 42 in. | 42 in. |
| Available Pattern Widths | 24 in. | 24 in. | 24 in. | 24 in. | 24 in. | 48 in. | 48 in. | 48 in. |
| Available Pattern Widths | - | 30 in. | 30 in. | 30 in. | 30 in. | - | - | - |
| Available Pattern Widths | - | - | 36 in. | 36 in. | 36 in. | - | - | - |
| Available Pattern Widths | - | - | - | 42 in. | 42 in. | - | - | - |
| Available Pattern Widths | - | - | - | - | 48 in. | - | - | - |

## Master Grip

Suitable for aggregate, sand and gravel applications. Common use is stone flinger belt.

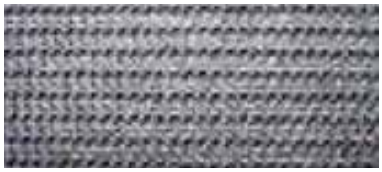



| Cleat Height | 3/8 in. | |
|---|---|---|
| Available Belt Widths | 14 in. | 14 in. |
| Available Pattern Widths | 8 in. | 10 in |

## Quadgrip

Quadgrip's impression top surfaces are 1/8" (3 mm) in height and are ideal for transporting a wide variety of products from packaging to lumber yards. Available in Black, Blue and Tan.



| Cleat Height | 1/8 in. | | |
|---|---|---|---|
| Available Belt Widths | 60 in. | 66 in. | 72 in. |
| Available Pattern Widths | Continuous | | |

# Cleated Belts

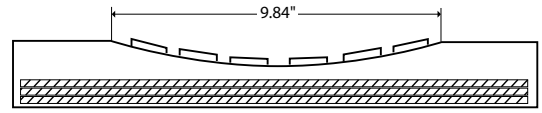
Profile Options

## 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 U and ContiRoll T can be produced with P/N or steel carcass.

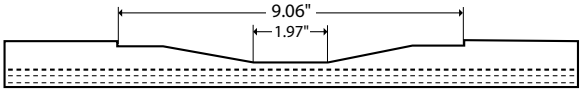
### ContiRoll U Profile

| | | |
|---|---|---|
| **Profile Width** | 9.84 in. | 250 mm |
| **Belt Width** | 11.81 - 15.75 in. | 300 - 400 mm |
| **Additional Information** | Molded edges | |



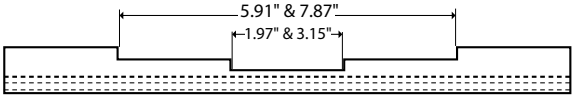

### ContiRoll U

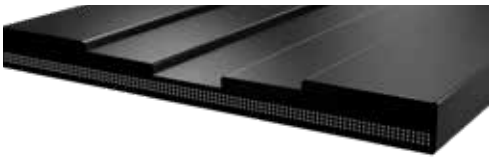
| | | |
|---|---|---|
| **Profile Width** | 9.06 in. | 230 mm |
| **Belt Width** | 11.81 - 19.69 in. | 300 - 500 mm |
| **Additional Information** | Molded edges | |




### ContiRoll T

| | | |
|---|---|---|
| **Profile Width** | 5.91 & 7.87 in. | 150/200 mm |
| **Belt Width** | 11.81 - 19.69 in. | 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 steelcord reinforced conveyor belts for cord damages and tracks changes in the splice structure.

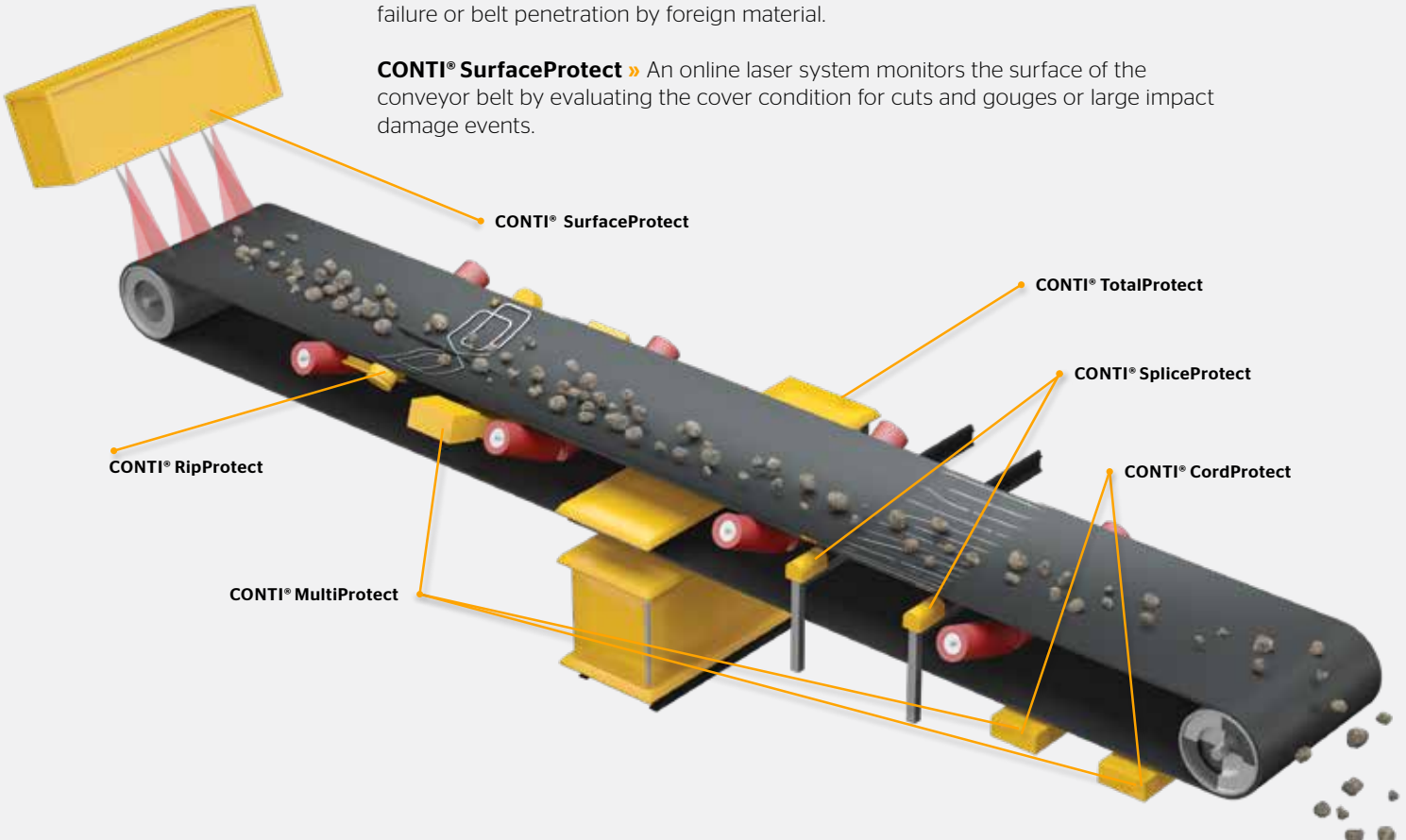
**CONTI® MultiProtect »** Permanent magnetic system monitors equally spaced embedded magnetized rip inserts. The flat array can monitor for steelcord damage and splice integrity.

**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 steelcord 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.

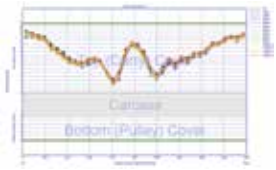


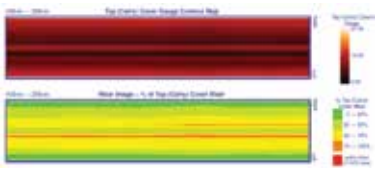
## CONTI® Inspect Systems

**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.

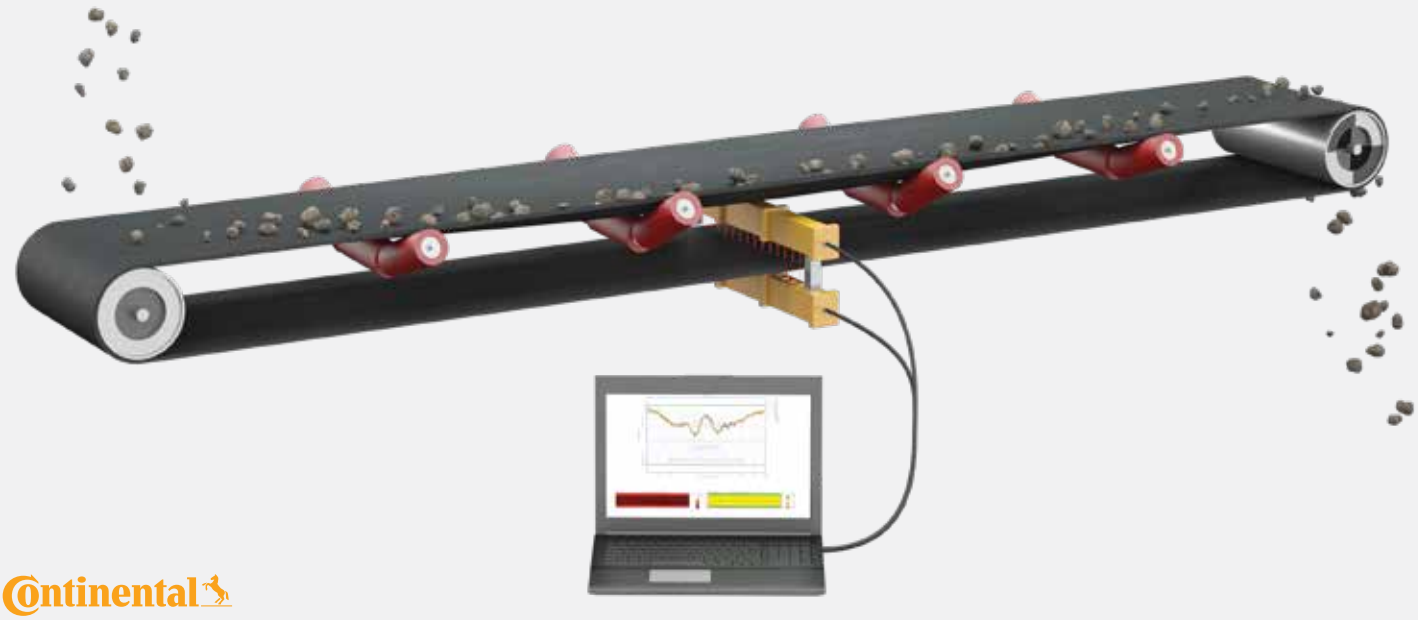
**CONTI® SurfaceInspect »** Mobile inspection system utilizes continuous belt scanning to measure the cover surface topography of the belt. Scanning can be performed at full belt speed. We then provide a compilation of digital 3D belt surface mapping and evaluate the cover surface condition using variable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



# Continental Belt 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.

## Quality Service From a Team You Can Trust

### Field Splicing and Installation

- Pipe belt installation
- Steelcord splicing
- On-site repairs/reconditioning
- Belt refurbishing
- Fabric belt vulcanizing
- Conveyor belt installation and tracking
- Conveyor belt slitting
- Troubleshooting and inspection
- On-site pulley re-lagging
- Bucket elevators
- 24/7 support
- Training
- Mechanical services
- Laser alignment

### Fabric and Steel Capabilities

- Trucks: Ranging from Pickup Trucks to Tractor Trailers
- Vulcanizers: Ranging from 24" to 96" Belt Widths
- Belt winders: Ranging from 48" to 118" Belt Widths

## Vulcanizing Services

### General Conveyor Splicing

- Lap Splicing – Installation/Repair
- Finger Splicing – Installation/Repair
- Cable Splicing – Installation/Repair
- Cold Bond Splicing – Installation/Repair

### Emergency Repair

- Mechanical Splicing: Install screw and rivet hinge splices
- Mechanical Fasteners: Install clips/locking plates, super screw
- Cold Bond: Temporary seal/protection
- Vulcanized: Porta patching, edge repair

### Pulley Lagging

- Smooth: Field and shop replacement ½" to 1"
- Diamond: Field and shop replacement ½" to 1"
- Ceramic Tile: Field and shop replacement 5/8" to 1"
- Emergency Lagging Repair: Temporary field repairs ½" to 1"

# Mechanical Services

## General Maintenance

- Belt Cleaner Service: Installation/Maintenance
- Wear Component Service: Skirting, idlers, plows, liner
- Welding: Component repair, air arc, buildup
- Underground Structure: Setup/Relocation, Terminal groups, drives

## Millwright Services

- Predictive Maintenance: Inspections, vibe analysis, alignment
- Bearing Specialists: Installation, reliability, defect analysis
- Custom Fabrication: Chute work, equipment, doors solutions
- Fluid Power: System design, filtration, maintenance

## Equipment Rebuild and Refurbish

- Pulley Rebuilds: Bearings, shafts, locks, lagging, drums
- Structure: Take ups, drop cars, conveyor frames, terminal groups
- Crushers: Picks, teeth, segments, hammers, screens, bearings

# Splice Materials

### The Best Materials for Superior Splices

Our splice materials include the base belt, top cover rubber, inside rubber including noodles, pulley cover rubber, breaker, solvent, cement and release paper. It's important that these materials be properly stored to achieve maximum shelf life.

# Specialized Services

### Pipe Belt Install/Repair/Changeout

Any belt installation or changeout is a huge undertaking. We highly recommend that a site visit be made to determine exactly what will be required. Even two identical conveyor systems can have different rigging requirements because of what may be beside them or behind them.

# Additional Information

# Advanced Service Tools

Continental is backed by the most experienced conveyor belt professionals in the business. Their expertise and access to advanced service tools are your assurance of the highest quality support and product value.

## Minuteman®

Minuteman® is the automated belt selection and design system utilized by technical managers and distributors. Typically used with systems under 5,000 ft. (1524m) center-to-center distance, the Minuteman® program helps identify the proper belt for your application, as well as provides information on required horsepower, counter-weight and conveyor capacity. To receive a belt recommendation, contact your technical manager or a distributor.



## Belt Selection

Your application may be in the cement industry, power generation or package handling. There is a Continental belt to suit your needs. The following form can help determine what's right for your application.

Keep the following criteria in mind as you go through the Minuteman® Belt Analysis Form on the next page. It will help you analyze your belting needs and determine which belt is the right choice.

Make sure your "Belt Fits!"

**B.E.L.T. F.I.T.S.**

- **B** Belt Covers
- **E** Elongation
- **L** Load Support
- **T** Troughability
- **F** Flex Life
- **I** Impact
- **T** Tensile Strength
- **S** Splice

# Minuteman® Belt Analysis Sheet

## Customer Information

Name/Location: _____

Address: _____

City: _____

State: _____ Zip: _____

Contact: _____

Email: _____

## General Information

Conveyor Description #: _____

## Inputs

Belt Width: _____ in.

Belt Speed: _____ fpm

Tons per Peak Hour: _____ stph

Material Density: _____ lb./cu. ft.

Angle of Idlers: _____ deg

Carrying Idler Spacing: _____ ft.

Drive Wrap Angle: _____ deg

## Material Information

Name of the Material: _____

Max Material Size: _____ in.

Max Drop Height: _____ ft.

Max Material Temp: _____ °F

Min Ambient Temp: _____ °F

Is Any Oil Present?: Yes ☐ No ☐

## Pulleys

| | **Head** | **Tail** |
|---|---|---|
| Pulley Diameter: | _____ | _____ |
| | **Drive** | **Take-Up** |
| Pulley Diameter: | _____ | _____ |

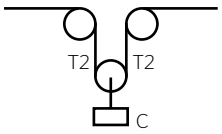
## Transition

| | **Head** | **Tail** |
|---|---|---|
| Length: | _____ | _____ |

## Take-Up

Take-Up Tension: _____ T2

Counter Weight: _____ C




Type of Splice: Vulcanized ☐ Mechanical ☐

## Stations/Flight Information

Please draw diagram

Information Needed:
Stations
Drives
Take-Up
Length
C-C Distance

## Additional Comments

# 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.

With these advanced facilities and equipment at their disposal, our research and development team creates new products, cutting-edge technologies and improved quality assurance measures. This enables us to bring unique products to market faster than ever, while continuing to deliver conveyor belts that provide the industry's lowest cost-per-ton capabilities. In short, by increasing an already strong research and development drive, we ultimately 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® and Monster Hide® Plus that resist the damaging effects of impact, cut and gouge.

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

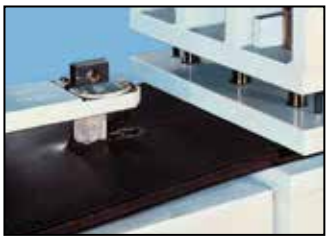
*Tests: EN12881-1 Method D*

## 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.*

**Conveyor Belt Group**

Market segment
Conveyor Belt

Contact
Continental
703 S. Cleveland Massillon Road
Fairlawn, OH 44333-3023 U.S.A.
1-800-235-8872
www.continental-industry.com

Your local contact
www.contitech.de/contactlocator

Canada
1-800-263-7788

Continental
The Future in Motion



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