

Food & Chemical Applications

CONTIBELT SOLID STEEL PROCESS BELTS

www.contibelt.com

Contibelt Systems, Inc. 11565 Pearl Road, Suite 300 Strongsville, OH 44136 phone: (855) 333-1650 e-mail: usa@contibelt.com web: www.contibelt.com

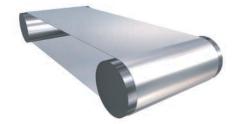


# Producing with Contibelt



## One product - many possibilities

Freezing, steaming, drying, forming or transporting: Contibelt solid steel process belts are important components in modern continuous production processes. While our belts are an excellent choice for hygienically transporting products, they can do more than this: transfer temperature and/or pressure.



Contibelt solid steel belts are developed to be used in various applications and they can be manufactured to meet different specifications in order to suit your individual requirements.

## Your business and Contibelt

Contibelt will assist you in manufacturing your product in the most economical way. Together with our experienced application engineers we will choose the steel belt that reliably suits your application requirements with respect to tensile strength, hardness, ductility, abrasionand corrosion resistance and elongation.

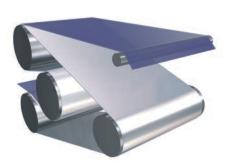
Irrespective of whether your produce chocolates, processed food, chemicals, pharmaceutics or wooden particle boards: Contibelt will support your success.

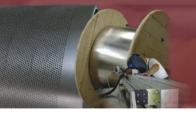


## Innovation is important to us

We put emphasis on research, and on continuously improving our products. Contibelt has partnered up with renowned research institutes. Together, we optimize the mechanical properties of the steel grades used in our products, and we successfully developed our unique CONVEROPE tracking v-rope. Consequently, Contibelt's v-rope attachment is significantly more durable and resists more adverse production environments than conventional, hot bonded v-ropes of other suppliers. This gives you the reliability you need for producing efficiently.

Our more than 20 years of experience and continuous research are the basis of our success.





# Steel Belts for the Chemical Industry



In this sector of industry, continuous process belts are an integral part of modern production processes. Unlike conveyor belts used purely for transportation purposes, the surface and the material of belts used in the chemical industry play an important role. The conversion of individual products from a liquid to a solid state must be effected just as smoothly as the production of desired product surfaces. Stainless special steel belts with good corrosion resistance are particularly well suited for such uses. Common applications of steel belts in the chemical industry include production of resins, waxes, paraffin, sulphur, phosphates, powder-coatings and the like.



## Our delivery program:

Dimensions: width: 24" / 32" / 40" / 48" / 59" / 61" / 61.8" (nominal width in inches)

thickness: .024" / .032" / .040" / .048" (thickness in inches)

(other dimensions available upon request)

Surface: mill finish according to ASTM standard 2B

(other surface finishes available upon request)

Tolerances: width tolerance +/-.040'' (+/- 1 mm)

thickness tolerance +/- 10 %

Belt materials: the choice of the most suitable steel belt material is depending on individual customer

requirements and shall best be decided upon together with our experienced engineers who can choose from a wide variety of steel and stainless steel qualities which have been especially developed for steel belt applications. These materials include, amongst

others - the following qualities:

CB 301 SGA (cold rolled austenitic stainless steel)

CB 316 SGA (austenitic stainless steel with improved corrosion resistance)

CB 31 SGM (cold rolled martensitic stainless steel)

CB 630 SGM (precipitation hardened, martensitic stainless steel)

Belt tracking: plain belt, without v-rope

centered v-rope side v-rope(s) retaining rope(s)

Belt ends: prepared for field welding

shop welded endless in our facilities

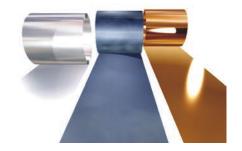


# Steel and Surface Qualities



Contibelt offers belts in a variety of steel qualities, dimensions and surface finishes for an impressive number of applications. The below list gives an overview over our most popular steel qualities. However, the final choice of the steel grade most suitable for your specific application should be made together with our experienced engineers.

Contibelt closely cooperates with renowned research institutes in order to continuously adjust our steel qualities to changing customer requirements.



## Our steel qualities in brief:

#### **CB 105 SGF**

Patented, cold rolled, microstructured special steel with ferritic structure. This steel quality is especially suitable for chocolate and cocoa mass transportation.

### **CB 301 SGA**

Cold rolled, stainless steel with austenitic structure. In general, the material is in accordance with the ASTM Standard AISI 301. Its high tensile strength characteristics, good corrosion resistance and good weldability make our CB 301 SGA a perfect choice for a wide variety of applications.

### **CB 316 SGA**

Cold rolled, stainless steel with austenitic structure and increased corrosion resistance over CB 301 SGA. In general, the material is in accordance with the ASTM - Standard AISI 316.

### **CB31SGM**

Cold rolled stainless steel with martensitic structure. This steel quality with very good spring properties, high ductility, high tensile strength and low temperature expansion was especially designed for steel belt applications.

### **CB 630 SGM**

Cold rolled, precipitation-hardened stainless steel with martensitic structure, chemical composition similar to AISI 630. This steel was especially designed for highly demanding steel belt applications and is characterized by high tensile and yield strength, high ductility, high fatigue strength, good corrosion resistance and good weldability.



# Contibelt's unique v-ropes



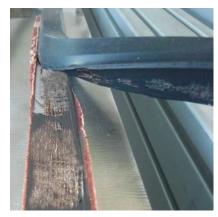
Frequently, steel belts are tracked on conveyors using nitrile rubber vropes. These are bonded to the underside of the belts. Conventional vropes by other steel belt suppliers, which are attached to the belt using hot bonding techniques, can come loose. This causes major inconveniences on a running steel belt. Contibelt took a different approach to vrope attachment and developed a unique, highly reliable v-rope: the Contibelt CONVEROPE.

## How does our v-rope work:

Contibelt realized the drawbacks of conventional hot bonding processes used to attach v-ropes onto steel belts, and partnered up with experts from renowned research institutions to develop a better solution. The excellent attachment of our unique v-rope is based on a chemical bond between the molecules of our rubber v-rope and those of our steel belts.

Not just are our v-ropes significantly more resistant against mechanical stresses than conventionally bonded ones, they also resist higher operating temperatures. Whereas conventional v-ropes may come loose at temperatures of only  $+176^{\circ}$  F (80° Celsius), Contibelt guarantees that its standard v-rope CONVEROPE MHT will reliably resist long term temperature exposure to temperatures of up to  $+275^{\circ}$  F (135° Celsius). This makes our v-rope perfectly suitable for steaming applications.

And Contibelt also has a solution for your low temperature applications: Our CONVEROPE ULT v-rope is suitable for permanent exposure to temperatures of -58° F (-50° Celsius) and therefore can be used in freeze-drying applications.



Conventionally bonded v-ropes by other steel belt manufacturers might come loose at temperatures of  $+176^{\circ}$  F ( $+80^{\circ}$  C).



Our Contibelt CONVEROPE will reliably resist mechanical stress and temperatures of up to  $+275^{\circ}$  F ( $+135^{\circ}$  C).