

■ サンラインベルト

F series

M series

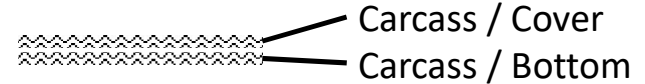
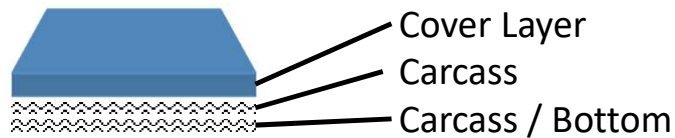
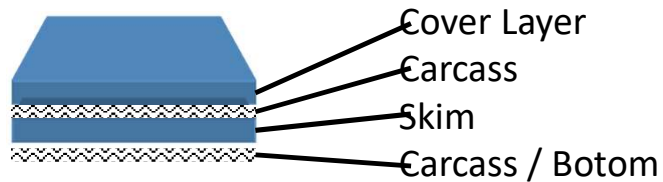
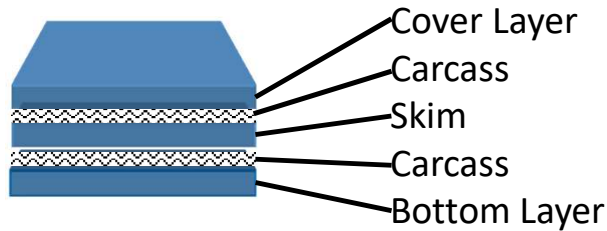
**SUNLINE
BELT**

P series

S series

C-SL-002-103

Sunline Belt - Light Conveyor Duty



Material Carcass Sunline:

1. Polyester Carcass (PET)

Material Cover , Skim, Bottom

1. Polyester (PET)

2. Polyvinyl Chloride (PVC)

3. Polyurethane (PU)

4. Polyurefine

5. Polyethylane

6. Flourences Resin

7. Silicon

8. Teflon

9. Felt

10. Rubber

11. Cotton

Sunline Point:

- Anti Bacterial (All Food Grade)
- Mildew Retarder (All Food Grade)
- Humid Resistant Heat (70% Sunline line up)
- Micro Abrasion, Micro Elongation, Micro Shrinkage (All Sunline Belt)
- Non Fry (90% Sunline line up)
- Anti Static (All Sunline Belt)
- Up to 80 C (80% Sunline line up) , (-30) – (480)

Sunline Belt – General Code

- **F series** Food use

- F1 Anti bacteria, mildew + Non-fray

- F2 Anti bacteria, mildew + Non-fray + Non sticky

- F3 Anti bacteria, mildew + Non-fray + Heat humid resistance
+ low shrinkage against heat.

- F4 Anti bacteria, mildew + Non-fray + trough

- **M Series** General use, distribution

- General conveyance (eg: machine parts), distribution (eg: Baggage, Carton box), Incline conveyance, Food Conveyance

- **S Series** Special use

- Heat resistance, Cold temp, high impact, Oil resistance, low noise, curving, super anti static, etc

- **P Series** minute use (Seamless)

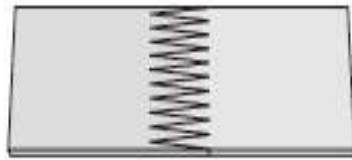
- Food (Non-fray non-sticky), super anti static, sliding



Sunline Belt – Joint / Splicing

• Finger joints

Small pulleys and knife edges require flexibility, so smooth belt surfaces and precision thickness is required. This type of joint is not appropriate for high temperature areas or for roller applications with clinging matter on the belt.



• Double finger joints (specialty)

Combination finger and overlap joint. Easy use on small pulleys, and strong against foreign matter. Applicable for 2 ply belts.



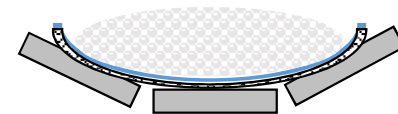
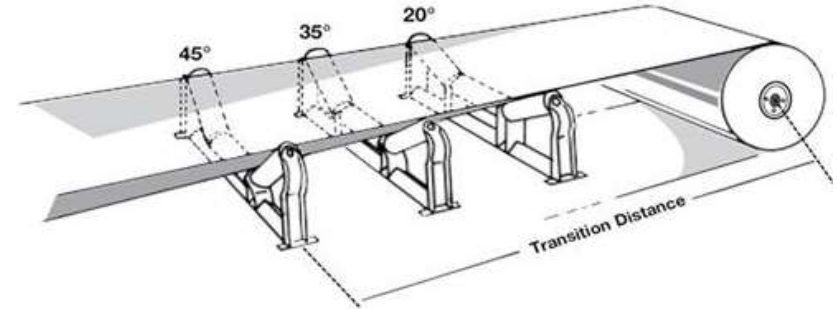
• Overlap joints

Belts are overlap jointed after aligning in a step-like pattern, when finger joints cannot be used. This method is generally used where heat and humidity resistance is required. Hot or cold joints may be used, but cold jointing is not applicable in places with high temperatures.



• Lace joints

Simple joining method using metal clips or fasteners to easily join and replace belts. However, joint strength is inferior to hot and cold joints.



Sunline Belt – V-Guide

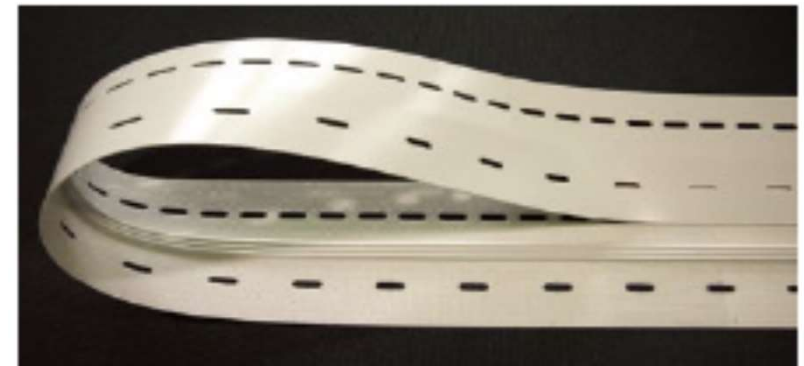
| Type | Shape | Product name | Color | Material #5 | H: Height (mm) #2 | W1: Top width (mm) | W2: Bottom width (mm) | Weight (g/m) | Minimum pulley diameter Normal/ Reverse (mm./φ) | Hardness (JIS-A) | Unpackaged food conveyance |
|------|-------|--------------|--------------|----------------------------|-------------------|--------------------|-----------------------|--------------|---|------------------|----------------------------|
| A | | SL-VA2CG | Green | PVC | 8.5 | 13 | 7.5 | 88 | 70/60 | 70 | × ※1 |
| | | SL-VA2CW | White | PVC | 8.5 | 13 | 7.5 | 88 | 70/60 | 70 | × ※1 |
| | | SL-VA2RDB | Navy blue | Oil resistant PVC | 8.5 | 13 | 7.5 | 88 | 70/60 | 70 | × |
| | | SL-VA1UG | Green | PU | 8.5 | 13 | 7.5 | 90 | 90/70 | 82 | ○ |
| B | | SL-VB2CG | Green | PVC | 10.3 | 16.7 | 9.3 | 147 | 120/105 | 70 | × ※1 |
| | | SL-VB2CW | White | PVC | 10.3 | 16.7 | 9.3 | 147 | 120/105 | 70 | × ※1 |
| | | SL-VB2RDB | Navy blue | Oil resistant PVC | 10.3 | 16.7 | 9.3 | 147 | 120/105 | 70 | × |
| D | | SL-VD1UW | White | PU | 3 | 5 | 2 | 19 | 30/30 (15/15) ※3 | 90 | ○ |
| H ※4 | | SL-VH4X2UC | Transparent | PU | 2.1 | 4.1 | 4.1 | 9 | 25/25 (15/15) ※3 | 85 | ○ |
| | | SL-VH4X2RE | Transparent | PU | 2.1 | 4.1 | 4.1 | 9 | 25/25 (15/15) ※3 | 70 | ○ |
| M | | SL-VM2CG | Green | PVC | 5.5 | 10 | 6 | 51 | 45/45 | 70 | × ※1 |
| | | SL-VM2CW | White | PVC | 5.5 | 10 | 6 | 51 | 45/45 | 70 | × ※1 |
| | | SL-VM2RDB | Navy blue | Oil resistant PVC | 5.5 | 10 | 6 | 51 | 45/45 | 70 | × |
| | | SL-VM2KAW | Whitish Gray | Moisture/heat resistant PU | 5.7 | 9.7 | 6 | 54 | 60/50 | 80 | ○ |
| | | SL-VM1KAW | Whitish Gray | Moisture/heat resistant PU | 5.5 | 10 | 6 | 54 | 60/50 | 80 | ○ |
| | | SL-VM1UG | Green | PU | 5.5 | 10 | 6 | 54 | 60/50 | 82 | ○ |
| N | | SL-VN2UG | Green | PU | 4.1 | 7 | 4.2 | 30 | 40/40 | 91 | ○ |
| | | SL-VN2UW | White | PU | 4.1 | 7 | 4.2 | 30 | 40/40 | 91 | ○ |
| O | | SL-VO2UW | White | PU | 3.1 | 7 | 5 | 29 | 40/40 | 80 | ○ |
| S | | SL-VS2UG | Green | PU | 3.1 | 9.5 | 7 | 26 | 25/25 | 91 | ○ |
| | | SL-VS2UW | White | PU | 3.1 | 9.5 | 7 | 26 | 25/25 | 91 | ○ |
| | | SL-VS2USW | White | PU | 3.1 | 9.5 | 7 | 26 | 25/25 (15/15) ※3 | 77 | ○ |
| | | SL-VS2KAW | 灰白 | Moisture/heat resistant PU | 3.1 | 9.5 | 7 | 26 | 30/30 | 80 | ○ |
| | | SL-VS2CB | Blue | PVC | 3.1 | 9.5 | 7 | 26 | 30/30 | 75 | × ※1 |

• Cushion (sponge) Fabrication



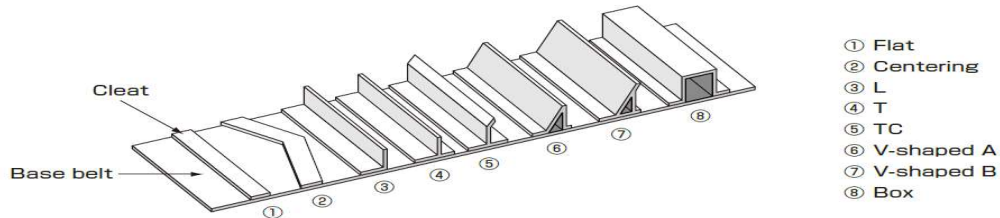
Sponge on the belt surface and V-guides on the belt backside are used in sandwich conveyance.

• Punched Holes + V-guides



Holes punched through the belt are used in suction conveyance.

Sunline Belt – Cleats



| Type | Shape | Name | Type | Shape | Name | |
|------|-------|--------------|------|-------|--------------|--|
| T | | SL-T20U (G) | | | SL-TC30U (G) | |
| | | SL-T30U (G) | | | SL-TC50U (G) | |
| | | SL-T50U (G) | | | SL-TC70U (G) | |
| C | | SL-C30U (G) | | | SL-TC30C (G) | |
| | | SL-C50U (G) | | | SL-TC50C (G) | |
| | | SL-C70U (G) | | | SL-TC70C (G) | |
| F | | SL-F530U (G) | | | | |
| | | SL-F55U (G) | | | | |
| | | SL-F510U (G) | | | | |

• Specialty cleat processing



Small pulleys may be used as the belt and cleat are made of the same materials, so the join area is small.

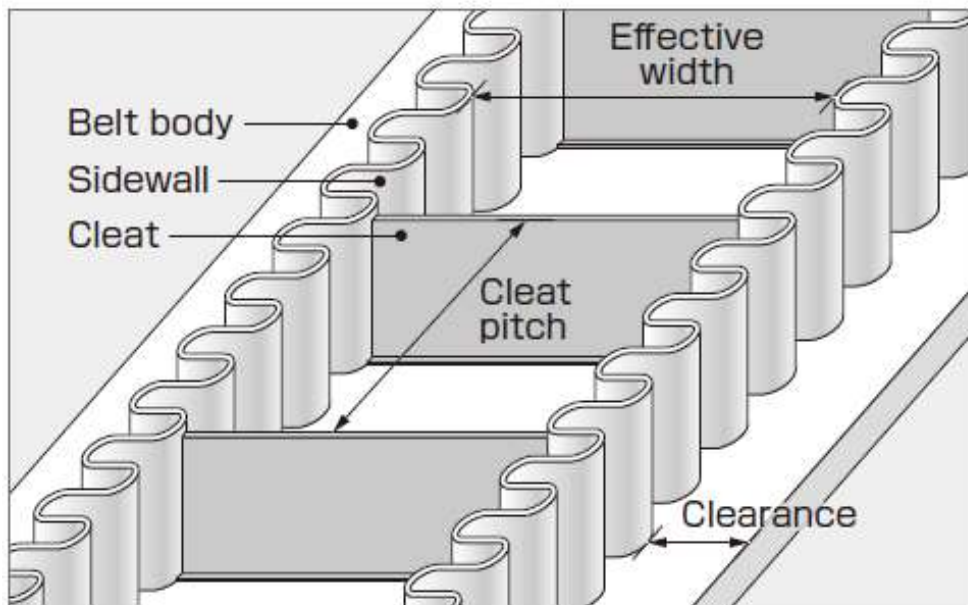
• Centering



Centering cleats on the belt surface for inclined conveyance of bulk materials

Sunline Belt – Flexowell

Belt structure



Features

- Steep incline conveyance
- Contributes to minimizing conveyor system size
- The same belt can be used on a line with different angles
- Little spillage
- Use in various applications and amounts of materials conveyed

Main Applications

- Steep incline conveyance of food, especially powder or bulk
- Steep incline conveyance of raw materials, components
- Withdrawing applications from hoppers, etc.

Sunline Belt – Indonesia – Processing

1. Start investment 2017, Cutting , Joint / Splicing , V-Guide
2. Import dari Jepang, 100% produksi di Jepang
3. Bando Indonesia stock dalam roll
4. Splicing machine menggunakan Aerotools Genarasi 3

Lokal Processing

| NO | SUBJECT | REMARKS |
|----|--------------------------|---|
| 1 | Panjang | Minimal 800mm - Maksimal 100.000 mm, Tergantung Stock |
| 2 | Lebar | Minimal 25mm - Maksimal 1.800 mm, Tergantung Stock |
| 3 | Vguide | Minimal 990mm – Maksimal 100.000 mm, Tergantung Stock |
| 4 | Diameter Punching Hole | Minimal 3mm – 10mm |
| 5 | Joint / Splicing On site | Finger Joint, untuk On Site Tergantung Jadwal kesediaan |

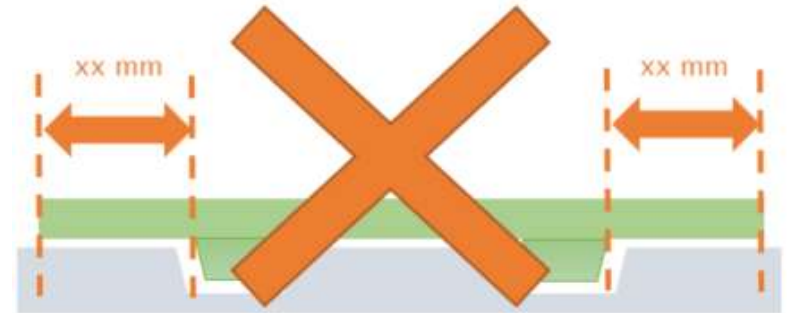
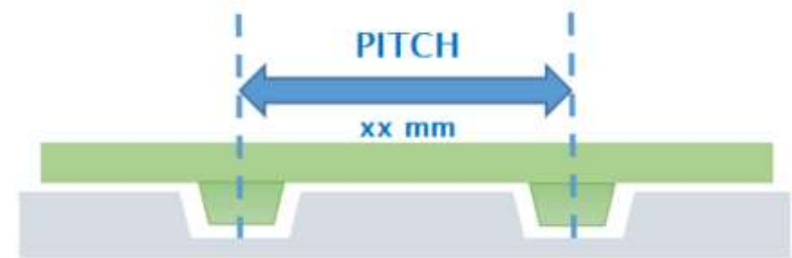
Penulisan Sunline:

SL – MC400 , XXXXmm (W) X XXXXXXmm (L) , Finger Joint , VM2CG , Center / P = XXXmm
Tipe Belt Lebar Belt Panjang Belt Splicing V-Guide V-Guide Position

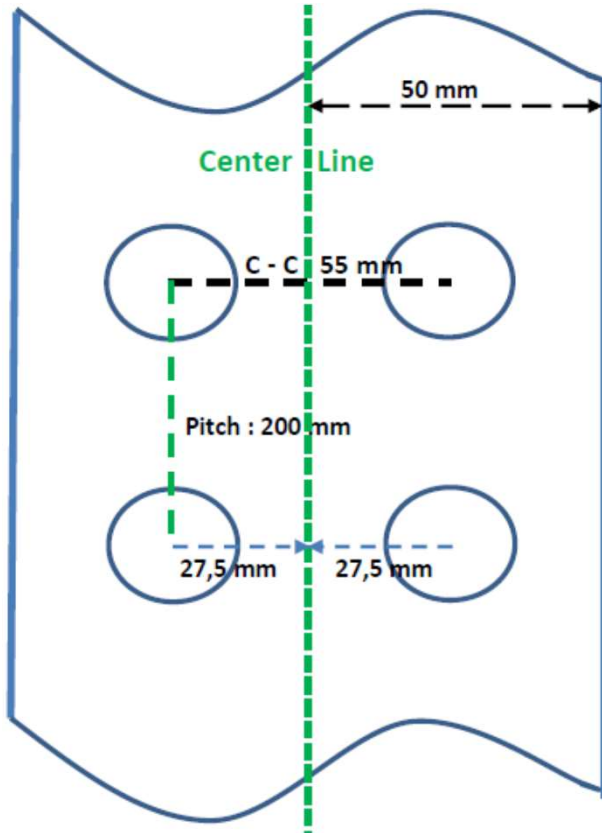


Sunline Belt – Indonesia – V-Guide

| Type | Shape | Product name | Color | Material #s | H: Height (mm) ±2 | W1: Top width (mm) | W2: Bottom width (mm) | Weight (g/m) | Minimum pulley diameter Normal/ Reverse (mm/φ) | Hardness (JIS-A) | Unpackaged food conveyance |
|------|-------|--------------|-------|-------------|-------------------|--------------------|-----------------------|--------------|--|------------------|----------------------------|
| M | | SL-VM2CG | Green | PVC | 5.5 | 10 | 6 | 51 | 45/45 | 70 | × ※1 |
| | | | | | | | | | | | |
| D | | SL-VD1UW | White | PU | 3 | 5 | 2 | 19 | 30/30(15/15) ※3 | 90 | ○ |
| S | | SL-VS2UW | White | PU | 3.1 | 9.5 | 7 | 26 | 25/25 | 91 | ○ |
| | | | | | | | | | | | |

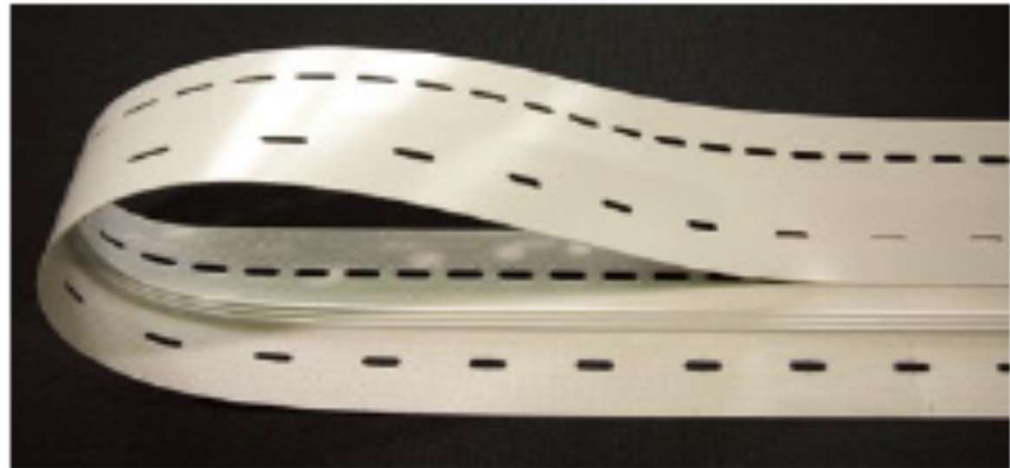


Sunline Belt – Indonesia – Hole



1. Umumnya untuk Bucket dan Pneumatic Line
2. Data dibuatkan Drawing dan Di sertakan ukuran diameter Hole dan Baut

• Punched Holes + V-guides



Holes punched through the belt are used in suction conveyance.

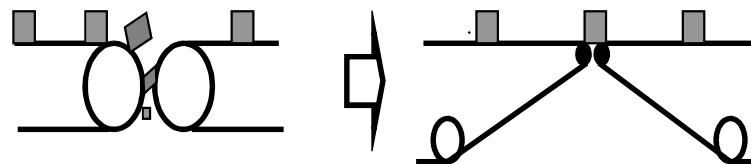
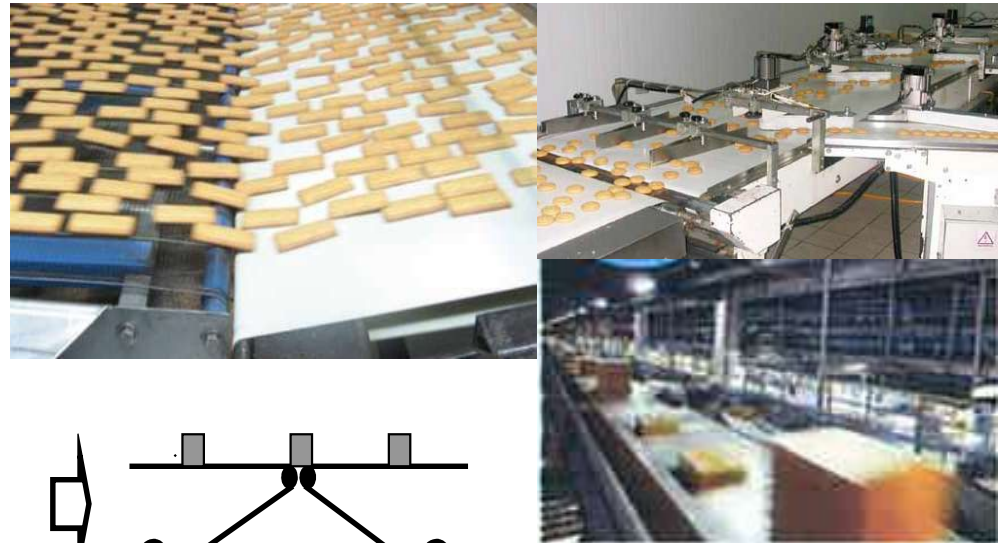
Sunline Belt – Karakteristik

Design Belt

1. Setiap Maker punya design masing2, jadi pasti ada perbedaaan dari setiap maker
2. Terutama Thickness, biasa nya memiliki perbedaan setiap design nya dengan competitor untuk fungsi yang sama
3. Bentuk Profile, pasti berbeda walaupun ada yang sekilas terlihat sama
4. Ukuran Joint Finger, Biasa nya berbeda
5. Cara Splicing, Berbeda – beda

Pemilihan Belt

1. Mengenal karakteristik Sunline Belt
2. Mengetahui Proses kerja mesin dan line conveyor
3. Ukuran Pully
4. Sudut incline dan decline
5. Suhu Item dan Ambience Ruang sekitar belt
6. Wet Humid / Dry Humid
7. Item Lengket atau Tidak Lengket
8. Knife Edge, Ujung Plat
9. Oil atau Tidak
10. Antistatic atau Super antistatic
11. Bahan Material Belt
12. Berat Item



Sunline Belt – Tabel Material

Chemical

| Chemical | Belt cover material | PU | PVC | Polyester (impregnated, canvas surface) PET | Oil resistant chloride vinyl | Specialty rubber Special R | Heat resistant rubber Silicon rubber | Fluorine resin | | Specialty synthetic resin |
|---------------------------------|---------------------|----|-----|---|------------------------------|----------------------------|--------------------------------------|----------------|----------|---------------------------|
| | | | | | | | | Surface | Backside | |
| Isopropyl alcohol | | ○ | △ | △ | △ | △ | ○ | ○ | ○ | ○ |
| Ethyl alcohol (ethanol) | | ○ | △ | ○ | ○ | △ | ○ | ○ | ○ | ○ |
| Potassium chloride | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Calcium chloride | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Hydrochloric acid (gas) | | × | △ | × | △ | △ | ○ | ○ | ○ | ○ |
| Hydrochloric acid (5-36%) | | × | ○ | × | ○ | ○ | ○ | ○ | ○ | ○ |
| Hydrochloric acid (5% or less) | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Caustic soda (sodium hydroxide) | | △ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Sodium hydroxide solution (50%) | | △ | ○ | × | ○ | ○ | × | △ | × | △ |
| Volatile oil | | ○ | △ | ○ | ○ | △ | △ | ○ | △ | ○ |
| Strong alkali | | △ | △ | × | △ | △ | △ | △ | × | △ |
| Strong acid | | × | △ | × | △ | △ | ○ | ○ | ○ | ○ |

Sunline Belt – Market

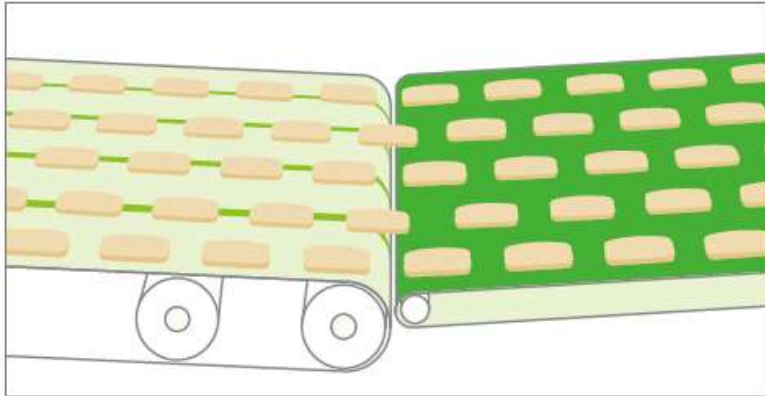
Contoh :

1. Roti : a. Dough Calendering, Dough Weighting
b. Packaging
2. Biscuit : a. Dough Line
b. Cooling Line
c. Packaging
3. Pupuk / Feed : a. Raw material
b. Packaging Line
4. Permen / Coklat : a. Processing cooling
b. Filling and Bathing
5. Soap : a. Material handling
b. Packaging Line
6. Distribution Center
7. Casting : a. Silica Sand
8. Stamping
9. Steel : a. Cutting
b. Packing
10. Ban : a. Material Handling
b. Calendering
c. Cutting
d. Building

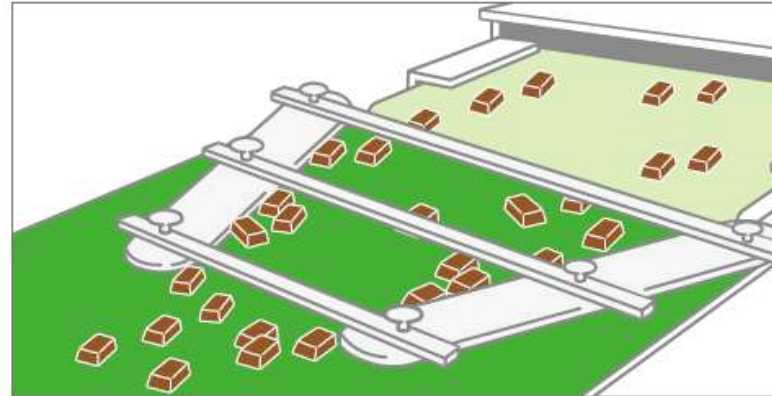
Gambaran Line yang dituju:

1. Packaging Line
2. Dough Processing
3. No Color Contamination
4. Food Processing Line
5. Produksi Ban
6. Buah, Teh, Rokok

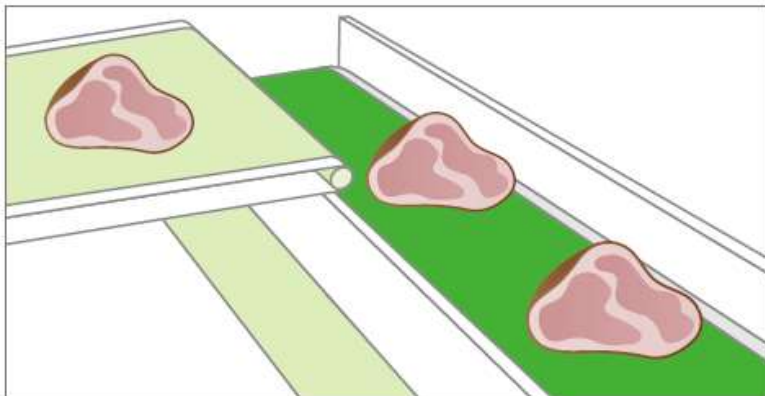
Sunline Belt – Market



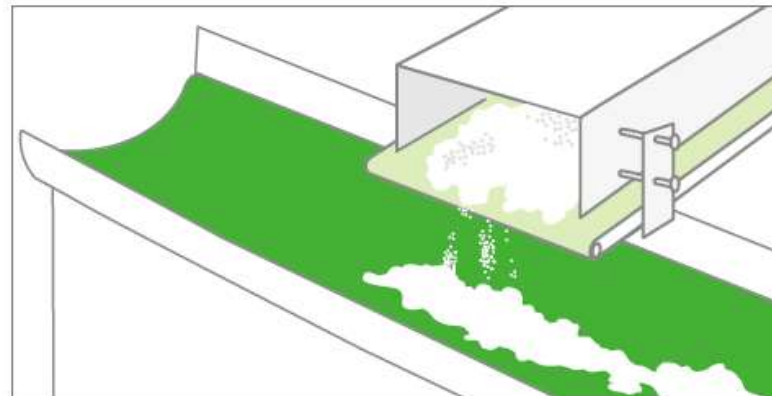
【 Small pulley and knife edge applications 】



【 Less sticky 】

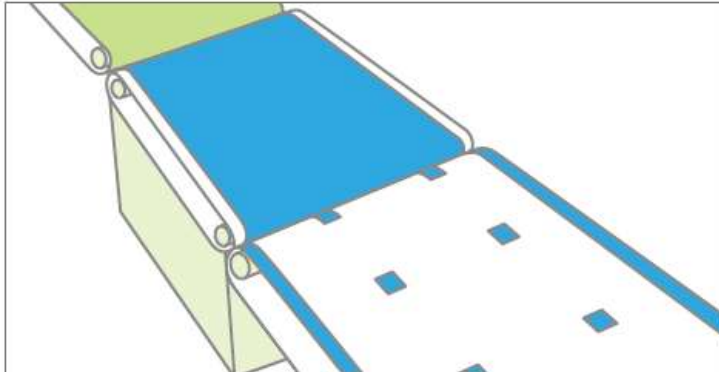


【 Long service life, even in applications requiring frequent cleaning or sterilization 】

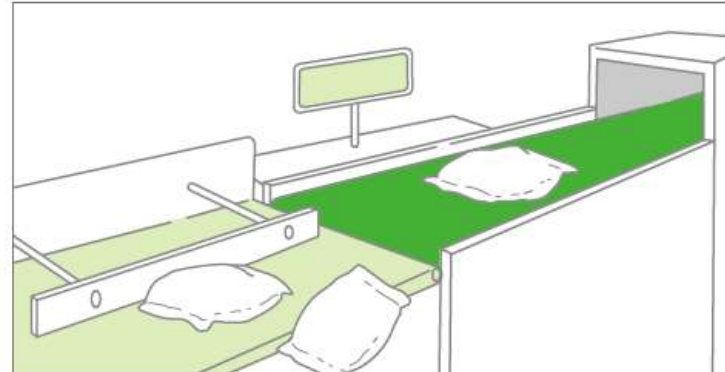


【 Trough-shaped conveyance for powder or bulk materials 】

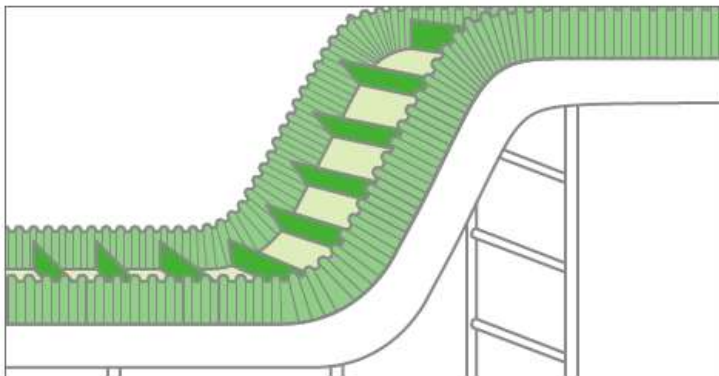
Sunline Belt – Market



【 Available in blue to easily detect foreign object inclusion 】

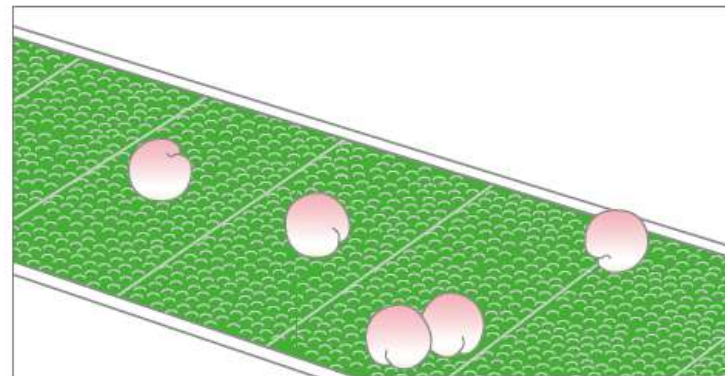


【 High precision seamless belts for scales 】



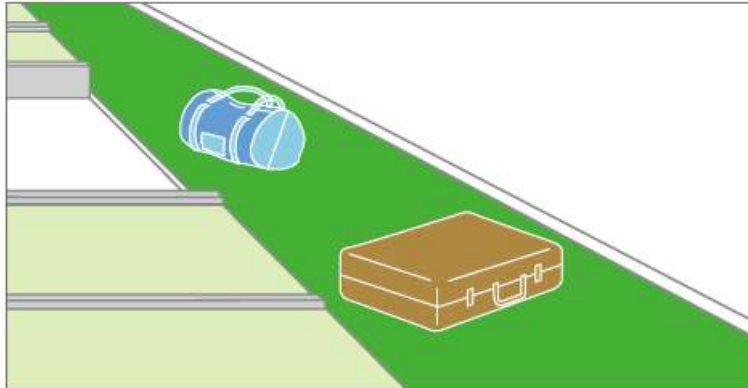
【 Inclined conveyance in narrow spaces 】

※Actual belt color may differ from those shown above.

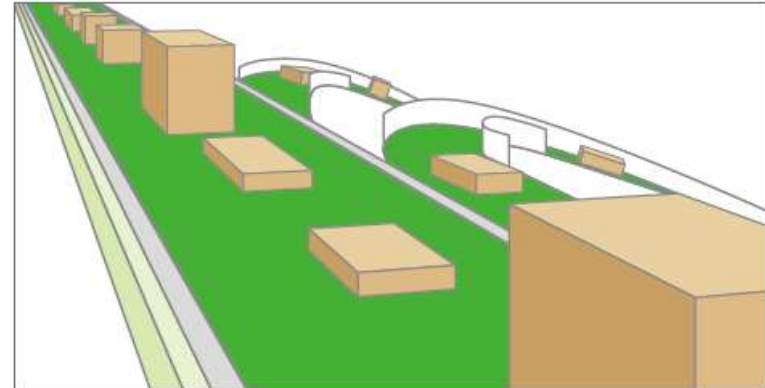


【 Prevents damage or rolling of fruits and vegetables 】

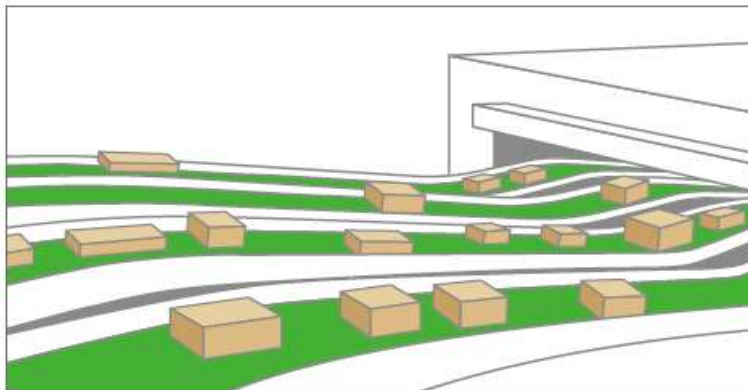
Sunline Belt – Market



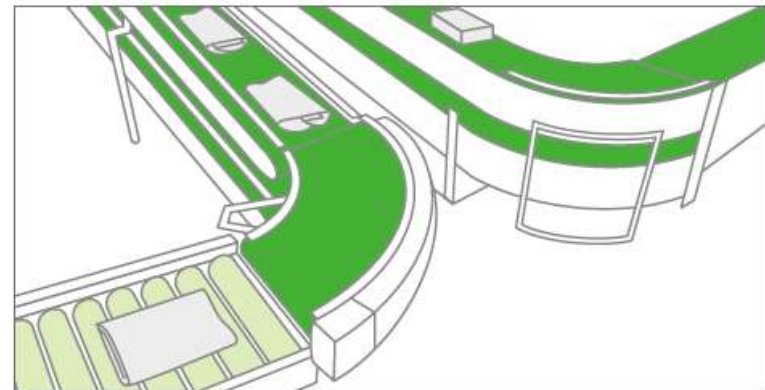
【 High speed conveyance for heavy baggage on airport conveyors 】



【 Slide conveyance for sorting lines 】

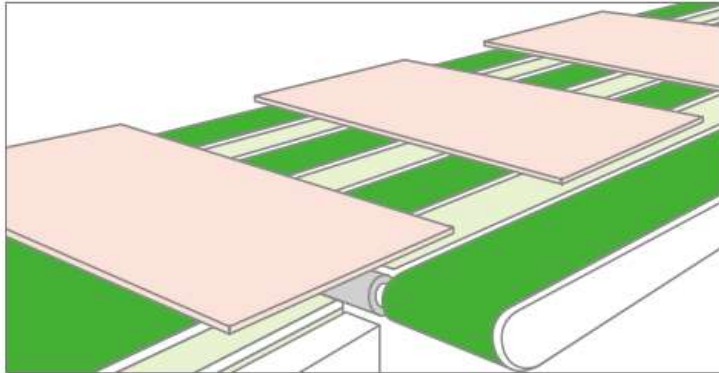


【 Inclined conveyance of boxes or bags 】

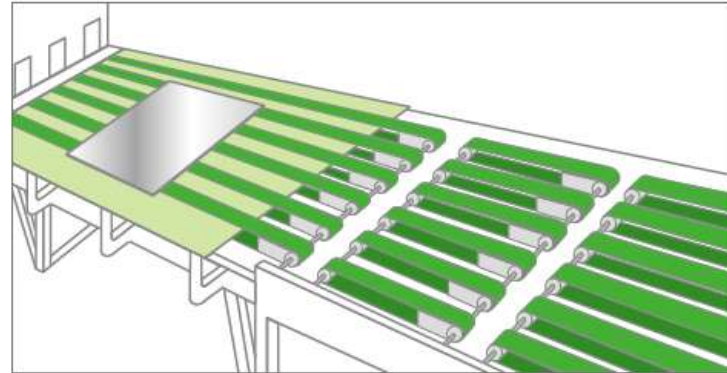


【 Flexible horizontal and vertical curves 】

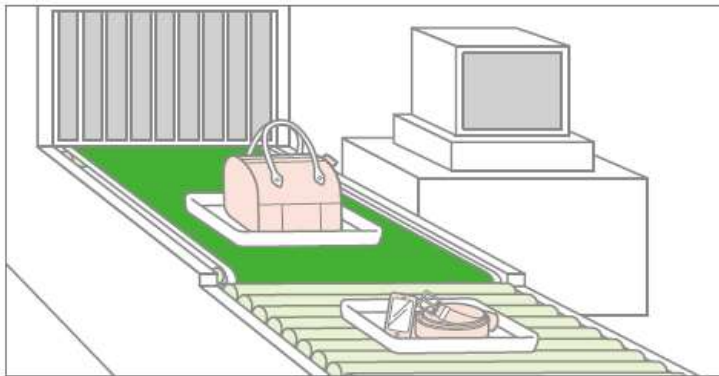
Sunline Belt – Market



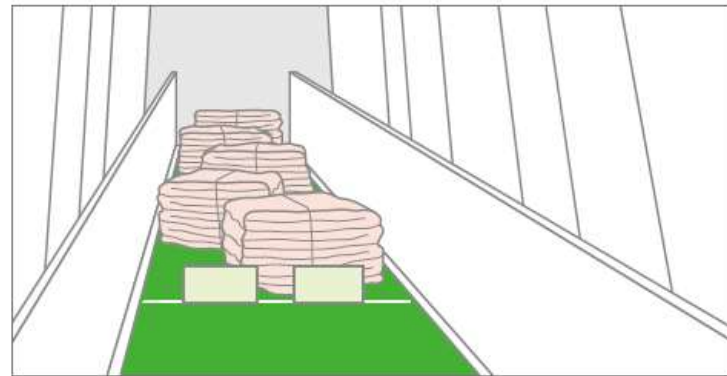
【 Multiple belts for large sized material such as plywood 】



【 Post-press conveyance of steel plates and iron parts 】



【 Inspection scanners 】



【 Cleats used in inclined conveyance 】

※Actual belt color may differ from those shown above.

Sunline Belt – Stock Lokal

| ■ SL-M2400 | ■ SL-SY163 | ■ SL-M4300 | ■ SL-MC400 ★ | ■ SL-M5100 | ■ SL-M5201N |
|---------------------------------------|---------------------------------------|--|-------------------------------------|---------------------------------|---------------------------------|
| | | | | | |
| | | | | | |
| | | | | | |
| Top/Backside | Top/Backside | Top/Backside | Top/Backside | Top/Backside | Top/Backside |
| Material PU/PET | Material PU/PET | Material PU/PET | Material Special rubber/PET | Material PET/PET | Material PET/PET |
| Color Green/White | Color White/White | Color Green/White | Color Green/White | Color White/White | Color White/White |
| Profile Smooth and glossy/Impregnated | Profile Smooth and glossy/Impregnated | Profile Smooth and glossy/Fabric surface | Profile Special (R8)/Fabric surface | Profile Impregnated/Impregnated | Profile Impregnated/Impregnated |
| 2PLY | 1PLY | 1PLY | 2PLY | 1PLY | 2PLY |
| General Used | General Used | Extreme Bending | Inclined / Grip | Extreme Bending | Easy Release |
| Food Grade | Food Grade | General Used | Non Food Grade | Easy Release | |
| | | Food Grade | | | |

Sunline Belt – Stock Lokal

■ SL-F2100



Top/Backside

Material PU/PET

Color White/White

Profile Smooth and glossy/Impregnated

1PLY

Extreme Bending

Easy Release

Food Grade

Non Fray

■ SL-F2200N



Top/Backside

Material PU/PET

Color White/White

Profile Smooth and glossy/Impregnated

2PLY

Extreme Bending

Easy Release

Food Grade

Non Fray

■ SL-F2105



Top/Backside

Material PU/PET

Color White/White

Profile Special (R7)/Impregnated

1PLY

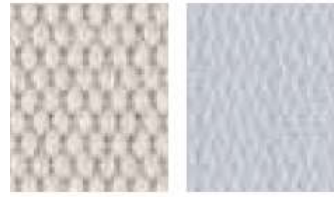
Extreme Bending

Easy Release

Food Grade

Non Fray

■ SL-S8231N



Top/Backside

Material Cotton/PET

Color White/White

Profile Cotton fabric/Impregnated

2PLY

Easy Release

Bucket

■ SL-S5425



Top/Backside

Material PU/PET

Color Green/White

Profile Smooth and glossy/Impregnated

2PLY

Abrasive / Impact Resistant

Food Grade

Non Fray

Sunline Belt – Process

