CEMA Rated Idlers
The Broadest Range of Conveyor Idlers on the Market

Quick Specs
- Classes: CEMA B, C, D, E, and F
- Roll Diameter: 4”- 8”
- Belt Widths: 18”- 120”

Frequently Asked Questions
Which CEMA class do I need?
- According to CEMA, the main influences in selection are belt weight, material weight, load rating, belt sag, idler life, belt rating and belt tension. It’s a confusing combination of data that we’ve tried to simplify with our Idler Selector Calculator. Find it in the “Quick Links” section at superior-ind.com.

Which roll diameter do I need?
- The rule of thumb considers belt speed. At 400 FPM consider a 4” idler, 500 FPM is 5”, 600 FPM is 6” and so on. It’s also a fact that larger diameter rolls have longer lives due to fewer revolutions and thicker shells.

Where can I buy Superior Idlers?
- We have distribution partners with inventory throughout North America and Central America. For local service and fast deliveries, see our partners at superior-ind.com/distributor.

Features and Benefits
SpinGuard® Seal Technology: (Fig 1.1)
- Contact seal prevents foreign material from entering seal cavity
- Grease-filled triple labyrinth seal shuts out contaminants
- Stationary external seal prevents material pinch points

Quick Reaction
- Distributors stocked with standard products
- One to two day turnarounds on custom designs

High Quality Construction
- Thick or thicker steel construction compared to other brands
- Two year complete components warranty
- Largest, broadest range of all CEMA categories on the market

Economical Retrofit Rolls
- Slotted shafts fit most competitor frames
- Hex nut adapter available for hex nut style brackets

No Maintenance Base Frame
- Angled base sheds material
- Flared, non-clogging center stands
- No material pinch points between roll and frame

Idler Specifications

<table>
<thead>
<tr>
<th>Idler Class</th>
<th>Bearing Size</th>
<th>Diameter</th>
<th>Thickness</th>
<th>Belt Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEMA B</td>
<td>17 mm</td>
<td>4”, 5”</td>
<td>11, 9 Ga</td>
<td>18”-48”</td>
</tr>
<tr>
<td>CEMA C</td>
<td>20 mm</td>
<td>4”, 5”, 6”</td>
<td>11, 9, 7 Ga</td>
<td>18”-60”</td>
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<tr>
<td>CEMA D</td>
<td>25 mm</td>
<td>5”, 6”</td>
<td>9, 7 Ga</td>
<td>24”-72”</td>
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<tr>
<td>CEMA E</td>
<td>40 mm</td>
<td>6”, 7”</td>
<td>1/4”</td>
<td>36”-96”</td>
</tr>
<tr>
<td>CEMA F</td>
<td>50 mm</td>
<td>7”, 8”</td>
<td>1/2” or 3/4”</td>
<td>42”-120”</td>
</tr>
</tbody>
</table>

Digital Literature
Forward to Colleague
SpinGuard Seal Technology

1. Flat Surface
   Material will not build up across the flat end disc surface

2. Stationary External Seal
   Stationary external seal helps prevent material pinch points between the frame and the end of the roller

3. Centrifugal Force Chamber
   Centrifugal force creates a self-cleaning flinger effect, keeping water and dirt out

4. Contact Seal
   First defense against contaminants is the contact seal, which creates less drag than a rubber seal

5. Snap Ring
   Creates positive locking for seals and bearings on shaft

6. Triple Labyrinth Seal
   Second defense is the triple labyrinth seal which makes contaminants travel a longer distance
   - The labyrinth is also grease filled to keep contaminants away from the ball bearing
   - The seal material is more durable and is less susceptible to corrosion

7. Ball Bearing
   Factory sealed metric ball bearing on all CEMA rated idlers

Idler Features

1. Base Plate
   Open end stand design gives better access for single or double bolt hole mounting

2. No Pinch Points
   No pinch points between roll and frame means no fugitive material jamming

3. Locking Mechanism
   Integrated locking tab or retainer clip holds roll tight to the frame and offers easy roll change out

4. Narrow Roll Gap
   No pinch point that leads to belt damage

5. Center Stands
   Non-clogging

6. Base Angle
   Sheds material, preventing build-up

Fig 1.1 Idler Can Cutaway

Producer Perspective

Fig 1.1 Idler Can Cutaway
Producer Perspective

Wet and Wild
"In the beginning, our plant was stocked by another brand and some of them were lasting just three months! We run a lot of wet sand and they weren’t making the cut."

Seal Power
"With other brands, the problems were directly related to bearing failure. Sand was getting through the seals and into the can. I read about Superior’s seal in magazines and now I’m witnessing it!"

Competitive Comparison
"Comparing brand to brand, we get three – sometimes four – times the life with Superior Idlers. They definitely fit the bill!"

Part Number Guide

<table>
<thead>
<tr>
<th>CEMA Rating or Series</th>
<th>Roll Diameter</th>
<th>Troughing Angle</th>
<th>Idler Type</th>
<th>Belt Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>B, C, D, E, F</td>
<td>4” - 8”</td>
<td>20°, 35°, 45°</td>
<td>See Below</td>
<td>18” - 120”</td>
</tr>
</tbody>
</table>

1. **CEMA Rating or Series**
   - Specify either CEMA B, C, D, E, or F

2. **Roll Diameter**
   - Specify either 4, 5, 6, 7, or 8 for the roll size diameter

3. **Troughing Angle**
   - Specify either 20, 35, or 45 for the troughing angle

4. **Idler Type**
   - Specify the idler identification letter for the particular idler, you may need from the chart to the right

5. **Belt Width**
   - Specify the belt width

Idler Type

- **E** Troughing Idler Equal Length Rolls
- **EI** Rubber Cushion Troughing Idler
- **EA** Self-Aligner
- **BA** Bi-Directional Aligning Idler
- **RET** Return Idler
- **FLT** Flat Carrier Idler
- **FLTI** Flat Carrier Rubber Cushion Idler
- **RETI** Return Rubber Cushion Idler
- **RETU** Urathon® Return
- **RETUSP** Spiral Urathon® Return Roll
- **RETA** Return Self-Aligning Idler Roll
- **RETAI** Return Self-Aligning Rubber Cushion Idler
- **RETV** V-Return Idler
- **P** Picking Idler Length Rolls
- **U** Troughing Idler Unequal Length Rolls
- **CM** Low-Profile Channel Mount Idler
- **CMI** Channel Mount Impact Low Profile Idler
- **SM** Low-Profile Standard Mount Idler
- **SMI** Standard Mount Impact Low Profile Idler
- **GO** Offset Troughing Idler
- **EW** Wire Rope Idler
- **VPE** Variable Pitch Idler
- **MOX** Moxie® Roll
- **CB** CB504 Series
- **LS** Live Shaft
- **LSB** Live Shaft Beater
## Idler Styles

### Idler Styles

- **Equal Troughing**
  - Moxie® Rolls
  - Offset Center Roll
  - Wire Rope
  - Wire Rope
  - Variable Pinch
- **Unequal Troughing**
  - CB504 Series
  - CB504 Series
  - Beater Bar Return
- **Channel Mount Low Profile**
  - CB504 Series
  - CB504 Series
  - Beater Bar Return
- **Impact**
  - CB504 Series
  - CB504 Series
  - Beater Bar Return
- **Self-Aligner**
  - CB504 Series
  - CB504 Series
  - Beater Bar Return
- **Flat Carrier Idler**
  - CB504 Series
  - CB504 Series
  - Beater Bar Return
- **Spiral Urathon Return Roll**
  - CB504 Series
  - CB504 Series
  - Beater Bar Return
- **Garland**
  - CB504 Series
  - CB504 Series
  - Beater Bar Return

### Products Available in CEMA Rated Idlers

<table>
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<tr>
<th>Idler Style</th>
<th>CEMA B</th>
<th>CEMA C</th>
<th>CEMA D</th>
<th>CEMA E</th>
<th>CEMA F</th>
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<tr>
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