

# CEMA Rated Idlers



The Broadest Range of Conveyor Idlers on the Market



## Standard Sizes

- ▶ 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](http://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](http://superior-ind.com/distributor).



CEMA RATED IDLERS

## 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

Specs	Bearing Size	Diameter	Thickness	Belt Width
CEMA B	17 mm	4", 5"	11, 9 Ga	18" - 48"
CEMA C	20 mm	4", 5", 6"	11, 9, 7 Ga	18" - 60"
CEMA D	25 mm	5", 6"	9, 7 Ga	24" - 72"
CEMA E	40 mm	6", 7"	1/4"	36" - 96"
CEMA F	50 mm	7", 8"	1/2" or 3/4"	42" - 120"

# SpinGuard Seal Technology

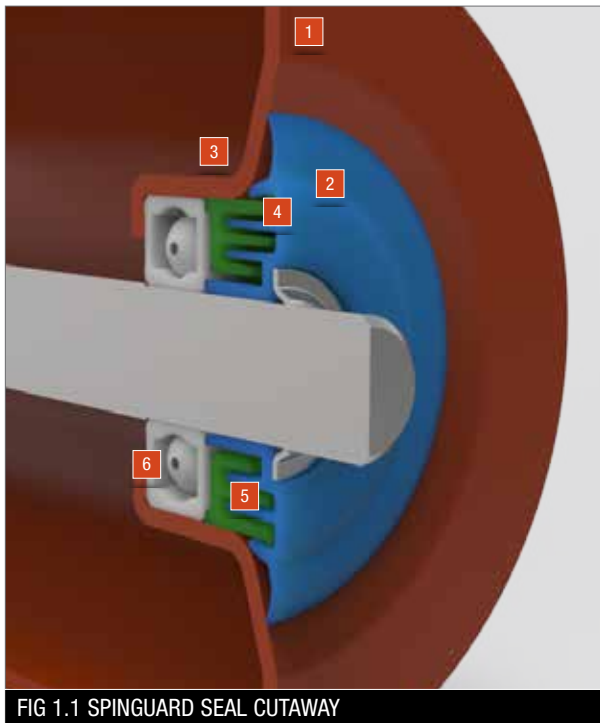


FIG 1.1 SPINGUARD SEAL CUTAWAY

- 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 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 durable seal material is more durable and is less susceptible to corrosion
- 6 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



# Producer Perspective



PLANT SUPT. AT EASTERN COLORADO AGGREGATES, LA JUNTA, CO

## Fugitive Material

“ 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

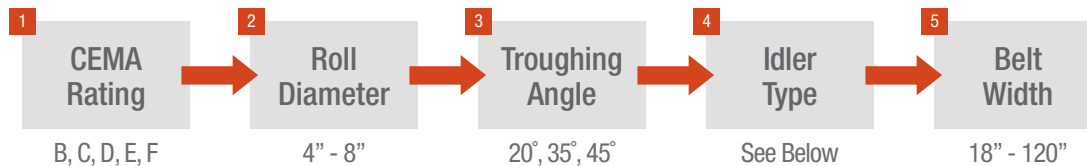
“ With other brands, the problems were directly related to bearing failure. Sand was getting through the seals and into the can. I read about Superior's seal in magazines and now I'm witnessing it! ”

## 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

Example: C6-35E-36



### 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



EQUAL TROUGHING



MOXIE® ROLLS



UNEQUAL TROUGHING



CB504 SERIES



FEEDER/PICKING



CHANNEL MOUNT  
LOW PROFILE



IMPACT



OFFSET CENTER ROLL



WIRE ROPE



VARIABLE PINCH



V-RETURN



SELF-ALIGNER



SELF-ALIGNING RETURN



LIVE SHAFT ROLLERS



BEATER BAR RETURN



FLAT CARRIER IDLER



RUBBER CUSHION FLAT CARRIER



RETURN



RUBBER DISC RETURN



URATHON® RETURN ROLL



SPIRAL URATHON®  
RETURN ROLL



GARLAND

## Products Available in CEMA Rated Idlers

Idler Style	CEMA B	CEMA C	CEMA D	CEMA E	CEMA F
Equal Troughing	X	X	X	X	X
Moxie® Rolls	–	X	X	–	–
Unequal Troughing	–	X	X	X	X
Feeder/Picking	–	X	X	X	X
Channel Mount Low Profile	X	X	X	–	–
Impact	X	X	X	X	X
Offset Center Roll	X	X	–	–	–
Wire Rope	–	X	X	–	–
Variable Pitch	–	X	X	X	–
V-Return	–	X	X	X	–
Self-Aligner	X	X	X	X	X
Self-Aligning Return	X	X	X	X	–
Live Shaft Return	–	X	X	–	–
Beater Bar	–	X	X	–	–
Flat-Carrier	X	X	X	X	X
Rubber Cushion Flat Carrier	X	X	X	X	–
Steel Return	X	X	X	X	X
Rubber Lagged Return	–	X	X	–	–
Rubber Disc Return	X	X	X	X	–
Urathon® Return Roll	X	X	X	X	–
Spiral Urathon® Return Roll	–	X	X	X	–
Garland Return	–	X	–	–	–