Ball Bearing Idlers
Advanced Bearing Technology for Performance Excellence

www.syntronmh.com
Part Number: D2000 or E2000

- Meets or exceeds CEMA load ratings
- Meets CEMA dimensional criteria
- Interference pressed heads maintain roll integrity
- Optimum bearing placement minimizes shaft deflection and extends bearing life
- Inline idler roll configuration
- Metric roll diameters available; call the factory for technical specifications

- Paint
  - Polymeric powder coating, Corvel gray
  - Phosphate wash pretreatment
  - Electrostatically applied powder, oven cured
  - Polyester TGIC, 3-5 mils D.F.T.
- Bearings are sealed for life for maintenance-free applications
- Standard idler mounting centers of BW + 9 inches; BW +15 available on D2000 or E2000
Syntron Material Handling’s Link-Belt® belt conveyor idlers and components set the standard of excellence for bulk material handling throughout the world. We offer a full line of ball bearing idler products that meet or exceed CEMA B, C, D and E specifications.

Link-Belt® ball bearing idlers feature advanced bearing technology for less rolling resistance than competing designs. Efficient bearing placement minimizes shaft deflection and extends bearing life. Moreover, the bearings are sealed for life, resulting in maintenance-free service. The new bearing technology also helps to ensure quality control in the manufacturing process and to extend roll life.

Link-Belt® ball bearing idlers are radically different from competitive belt conveyor idlers because they incorporate an interference-fit pressed head design to maintain roll integrity. This ductile iron cast head eliminates welding and any of its associated problems (such as distortion, misalignment or poor weld quality) and delivers very low total indicator runout (TIR) values compared to welded roll designs. The rugged head casting is precision machined for accurate bearing/shaft alignment and extended bearing life.

Precision-machined heads, optimum bearing placement, accurate bearing alignment and solid carbon steel shafting enable Link-Belt idler rolls to exceed CEMA load ratings.

Syntron Material Handling’s Operation combines quality products, prompt shipment and after-sales service to provide outstanding solutions for a wide range of bulk conveying applications.
Link-Belt® B2000 Idler Series

The Link-Belt® B2000 Idler Series is the quality choice in the aggregate, sand and gravel, food processing, agricultural and chemical industries for light- to medium-duty applications. Designed to improve bulk material conveying productivity, the B2000 idler can handle a variety of lightweight materials at medium capacities and belt speeds. The Link-Belt® B2000 Idler comes completely assembled with retainers positively locking the roll shafts to the frame, and is available for belt widths from 14 inches to 42 inches, and 20-, 35-, and 45-degree troughed, positive-action training, impact and return idlers in both 4- and 5-inch diameters. Metric roll diameters available; call the factory for technical specifications.

B2000 Specifications

Frame Construction
Features
• Self-cleaning inverted angle cross member prevents material build-up
• Contoured profile end brackets to prevent material wedging
• Close tolerances to control trough angle, backing height and lean of rolls
Weldment
• Base angles constructed from ASTM A-36 steel
• Precision die-formed center and end brackets
• Jig-welded frames using MIG process
• Welders qualified to AWS D1.1 standards

Roll Construction
Assembly
• 0.008-inch (0.20 mm) Circular Runout average (measured 1 inch from each end)
• 0.015-inch (0.38 mm) Circular Runout maximum
Bearings
• Precision ball bearing with seals on both sides
• 17 mm (0.6693-inch) bore
• Double sealed unit
• 2150 lbf AFBMA dynamic load rating (at 33-1/3 rpm for an L10 bearing life of 500 hrs)
Heads
• Rugged ductile iron cast heads
• Precision machined
• ASTM A536 Grade 65-45-12:
  - Min Tensile – 65,000 psi
  - Min Yield – 45,000 psi
  - Elongation – 12%
  - Used for machinery castings subject to shock and fatigue loading
Grease
• Chevron SRI #2 or equal bearing grease
• Standard temperature range of -40° to 200° F (-40° to 93° C)
Seals
• Single lip nitrile rubber inner seal
• Bearings feature contact seals on both sides
Shaft
• Solid ASTM A-108 C1018 CD material
• 17 mm (0.6693-inch) or 7/8-inch journaled to 17 mm at the bearings, depending on length and load requirements
Shell
• Hot rolled electric welded mechanical tubing
• ASTM A-513/C1010-1020
• 11 ga (0.120-inch) for 4 and 5-inch diameter rolls
Link-Belt® C2000 Idler Series

Link-Belt® C2000 Idlers bridge the gap between the light-duty B2000 and the heavy-duty D2000 series idlers. The C2000 is designed to handle a variety of light- to medium-weight materials at medium capacities and belt speeds for industries such as chemical, pulp and paper, sand and gravel and food processing. The Link-Belt® C2000 Idler comes completely assembled with retainers positively locking the roll shafts to the frame, and is available for belt widths from 24 to 48 inches, and 20- and 35-degree troughed belt idlers, 35-degree troughed belt training idlers, return belt and return belt training idlers in five- and six-inch diameters. Metric roll diameters available; call the factory for technical specifications.

### C2000 Specifications

#### Frame Construction

**Features**
- Self-cleaning inverted angle cross member prevents material build-up
- Contoured profile end brackets to prevent material wedging
- Close tolerances to control trough angle, backing height and lean of rolls

**Weldment**
- Base angles constructed from ASTM A-36 steel
- Precision die-formed center and end brackets
- Jig-welded frames using MIG process
- Welders qualified to AWS D1.1 standards

#### Roll Construction

**Assembly**
- 0.008-inch (0.20 mm) Circular Runout average (measured 1 inch from each end)
- 0.015-inch (0.38 mm) Circular Runout maximum

**Bearings**
- Precision ball bearing with seals on both sides
- 20 mm (0.7874-inch) bore
- 3580 lbf AFBMA dynamic load rating (at 33-1/3 rpm for an L10 bearing life of 500 hrs)

**Heads**
- Rugged ductile iron cast heads
- Precision machined
- ASTM A536 Grade 65-45-12:
  - Min Tensile – 65,000 psi
  - Min Yield – 45,000 psi
  - Elongation – 12%
- Used for machinery castings subject to shock and fatigue loading

**Grease**
- Chevron SRI #2 bearing grease
- Standard temperature range of -40° to 200° F (-40° to 93° C)

**Seals**
- Quad horizontal labyrinth outer seal
- Delrin outer labyrinth member
- Single lip nitrile rubber inner seal
- Bearings feature contact seals on both sides

**Shaft**
- Solid ASTM A-108 C1018 CD material
- 20 mm (0.7874-inch) or 1 inch journaled to 20 mm at the bearings, depending on length and load requirements

**Shell**
- Hot-rolled electric welded mechanical tubing
- ASTM A-513/C1010-1020
- 11 ga (0.120-inch) for 5-inch and 6-inch diameter rolls
- Optional 9 ga (0.148-inch) and 7 ga (0.180-inch) and .250-inch thick shells
Link-Belt® Series D2000 belt conveyor idlers are designed for harsh applications where loads exceed CEMA C limitations. The D2000 is designed for medium to heavy applications such as coal, iron ore and copper mining, as well as rock quarries. Featuring a robust seal design, Syntron Material Handling’s patented pressed head and CEMA D-rated 30mm ball bearings, Link-Belt® D2000 Idlers are available for belt widths from 18 to 72 inches, and 20-, 35-, and 45-degree troughed belt idlers (including rubber lagged impact, picking and feeding and variable trough), troughed belt training idlers, flat belt idlers, return belt idlers and return belt training idlers in five- and six-inch diameters.

**D2000 Specifications**

**Frame Construction**
- Self-cleaning inverted angle cross member prevents material build-up
- Contoured profile end brackets to prevent material wedging
- Close tolerances to control trough angle, backing height and lean of rolls

**Weldment**
- Base angles constructed from ASTM A-36 steel
- Precision die-formed center and end brackets
- Jig-welded frames using MIG process
- Welders qualified to AWS D1.1 standards

**Roll Construction**

**Assembly**
- 0.030-inch (0.38 mm) Circular Runout maximum

**Bearings**
- Precision ball bearing with seals on both sides
- 30 mm (1.1811-inch) bore
- 6306-2RS sealed unit

**Heads**
- Rugged ductile iron cast heads
- Precision machined
- ASTM A536 Grade 65-45-12:
  - Min Tensile – 65,000 psi
  - Min Yield – 45,000 psi
  - Elongation – 12%
  - Used for machinery castings subject to shock and fatigue loading

**Grease**
- Bearing manufacturer’s standard grease
- Chevron SRI #2 or equal
- Standard temperature range of -20° to 350° F (-29° to 177° C)

**Seals**
- Quad horizontal labyrinth outer seal
- Delrin outer labyrinth member
- Dual lip nitrile rubber inner seal
- Bearings feature contact seals on both sides

**Shaft**
- Solid ASTM A-108 C1018 CD material
- 30 mm (1.1811-inch), with options for 1-3/8-inch (1.375-inch) or 1-1/2 inch (1.500-inch) journaled to 30 mm at the bearings, depending on length and load requirements

**Shell**
- Hot-rolled electric welded mechanical tubing
- ASTM A-513/C1010-1020
- 9 ga (0.148-inch) for 5-inch diameter rolls
- 8 ga (0.165-inch) for 6-inch diameter rolls
- Optional 11 ga (0.120-inch), 7 ga (0.180-inch), and 0.250-inch thick shells
Link-Belt® E2000 Idler Series

Link-Belt® Series E2000 belt conveyor idlers are designed for the rugged, maximum capacity and continuous handling requirements of heavy, coarse and abrasive materials such as coal, iron ore, copper, large stone and overburden. Featuring an exceptionally robust seal design and 40mm ball bearings, the E2000 exceeds CEMA E load ratings. Link-Belt® E2000 idlers are available for belt widths from 36 to 96 inches, and 20-, 35-, and 45-degree troughed belt idlers (including rubber cushion and variable troughed), troughed belt training idlers, flat belt idlers, return belt idlers and return belt training idlers in six- and seven-inch diameters.

E2000 Series

E2000 Specifications

Frame Construction
Features
- Self-cleaning inverted angle cross member prevents material build-up
- Contoured profile end brackets to prevent material wedging
- Close tolerances to control trough angle, backing height and lean of rolls

Weldment
- Base angles constructed from ASTM A-36 steel
- Precision die-formed center and end brackets
- Jig-welded frames using MIG process
- Welders qualified to AWS D1.1 standards

Roll Construction
Assembly
- 0.030-inch (0.38 mm) Circular Runout maximum

Bearings
- Precision ball bearing with seals on both sides
- 40 mm (1.5748-inch bore)
- 6308-2RS sealed unit

Heads
- Rugged 65-45-12 ductile iron cast heads
- Precision machined
- ASTM A536 Grade 65-45-12:
  - Min Tensile – 65,000 psi
  - Min Yield – 45,000 psi
  - Elongation – 12%
  - Used for machinery castings subject to shock and fatigue loading

Grease
- Bearing manufacturer’s standard grease
- Chevron SRI #2 or equal
- Standard temperature range of -20° to 350° F (-29° to 177° C)

Seals
- Quad horizontal labyrinth outer seal
- Delrin outer labyrinth member
- Dual lip nitrile rubber inner seal
- Bearings feature contact seals on both sides

Shaft
- Solid ASTM A-108 C1018 CD material
- 40 mm (1.5748-inch) or 1.750-inch journaled to 40 mm at the bearings, depending on length and load requirements

Shell
- Hot-rolled electric welded mechanical tubing
- ASTM A-513/C1010-1020
- 8 ga (0.165-inch) for 6-inch diameter rolls
  - Optional 7 ga (0.180-inch) and 0.250-inch thick shells
- 0.250-inch for 7-inch diameter rolls
Proven Engineered Products – Complete Material Handling Solutions