



**THE MOST TRUSTED NAME  
IN CONVEYOR COMPONENTS.**

**PULLEYS**

**LAGGING**

**IDLERS**

**IMPACT BEDS**

**MAGNETIC  
SEPARATORS**

**TAKE-UPS**



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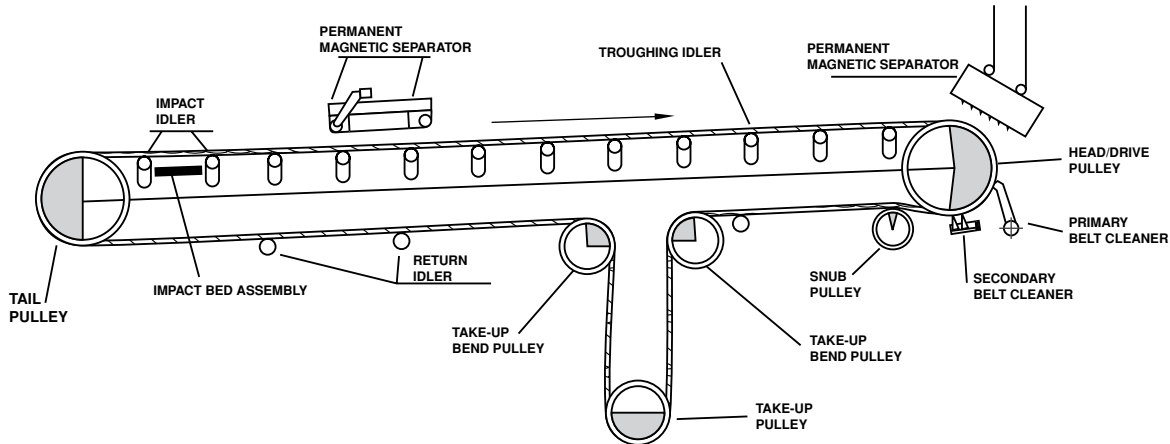
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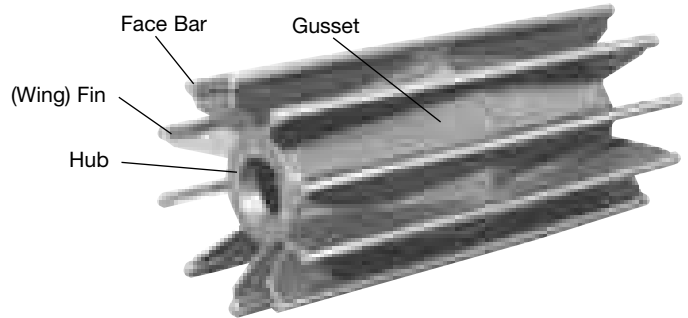
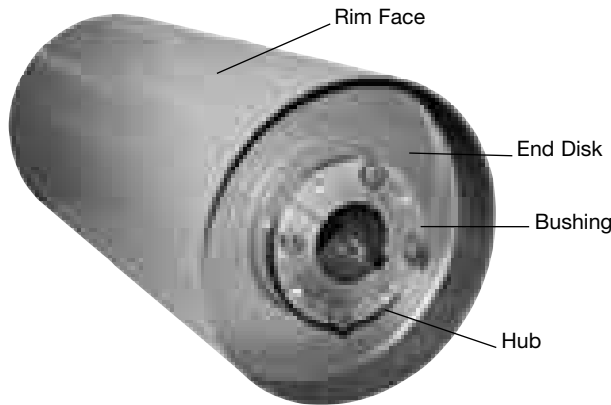


# Conveyor Component Location and Terminology

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications



- **Head/Drive Pulley** Located at the discharge terminus of the conveyor. Provides driving force for the conveyor. May or may not be the head pulley. Usually it has a larger diameter than other pulleys in the system and is often lagged to increase traction and pulley life.
- **Take-Up Bend Pulley** Change belt direction on the slack side of the conveyor. Usually lagged to provide longer belt life.
- **Take-Up Pulley** Provide adjustment to maintain necessary slack side belt tension. Usually gravity force adjustable.
- **Tail Pulley** Usually located immediately preceding the loading point of the conveyor.
- **Snub Pulley** Tightens belt giving more surface contact between belt and pulley face. Usually located just behind drive pulley.



- **Drum Pulley** Can be used at any location. It consists of a rim shell, 2 end discs and 2 shaft locking assemblies.

- **Wing Pulley** Can be used as tail pulley and on gravity take-up assemblies. Helps prevent material build up and belt damage from transported materials. It consists of face bars, fins, gussets and locking assemblies.

## Determining Pulley Face Width

To select the proper pulley face width, the belt width size is necessary. Two rules apply:

(1) Up to and including 42 inch belt width, 2 inches should be added to the belt width dimension.

For example, the pulley width for a 24 inch belt should be 26 inches.

(2) Above 42 inches, 3 inches should be added. The pulley width for a 48-inch wide belt should be 51 inches.

## Standard Industry Procedure For Ordering:

1. Diameter of Pulley
2. Face Width of Pulley
3. Shaft Size

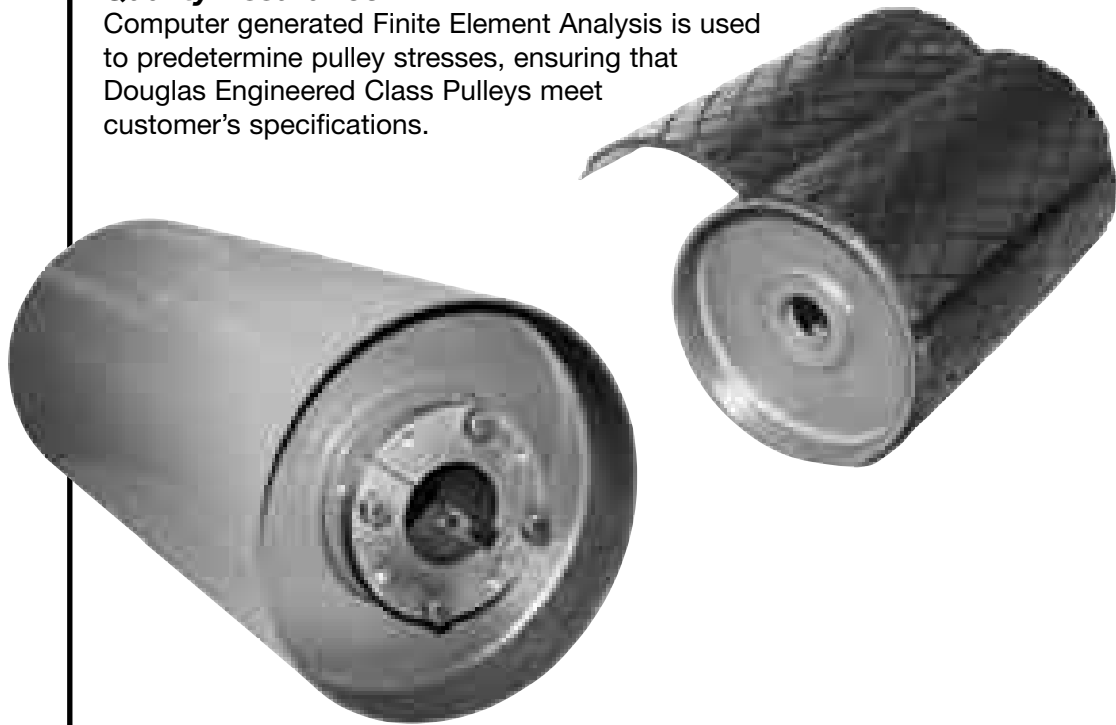
To prevent error, give dimensions in above sequence.

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# Pulleys & Lagging

## Quality Assurance

Computer generated Finite Element Analysis is used to predetermine pulley stresses, ensuring that Douglas Engineered Class Pulleys meet customer's specifications.



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# Standard Heavy Duty Drum Pulleys

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

## Benefits

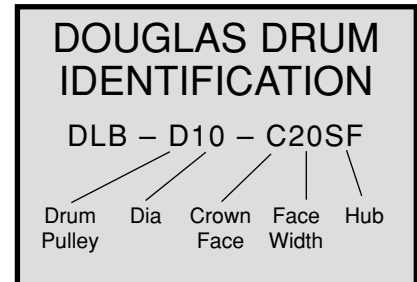
- Meets or exceeds CEMA/ANSI specifications
- Exclusive One Piece Rolled in Crown in all sizes help to ensure consistent, proper belt tracking stronger pulley with tighter tolerances

## Construction

- Full depth weld with reinforcing bar on single longitudinal seam featured on each Douglas Heavy Duty Drum Style Conveyor Pulley
- Crown face pulleys are furnished standard, flat face must be specified
- Douglas hubs feature full depth welds on the inside and outside of pulley end disk decreasing the likelihood of end disk failure due to shaft deflection and shock loads
- Douglas hubs and bushings are interchangeable with QD<sup>®</sup> or XT<sup>®</sup> style
- For approximate shipping weights please consult Factory

## Options

- Hot Vulcanized Pulley Lagging
- Shafting
- Bearing Assemblies
- Take-Up Systems
- Stainless steel construction available
- Machined face pulleys for close tolerance and better belt tracking
- Optional Douglas Keyless Locking Assemblies available



Standard Heavy Duty Drum Pulley with Herringbone Lagging, Bushings, Machined Shaft and Split Roller Bearing Pillow Blocks.

**WARNING:** Douglas Conveyor Pulleys are not intended for use as transmission drive pulleys on high speed applications, nor are they suitable for applications using steel cable belts.

**CAUTION:** Applications using wire mesh belts require flat machined face pulleys.

QD<sup>®</sup> and XT<sup>®</sup> are registered trademarks of Emerson Electric.

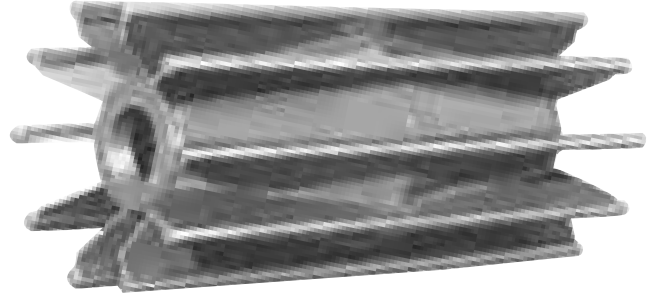
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# Standard Heavy Duty Wing Self-Cleaning Pulleys

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

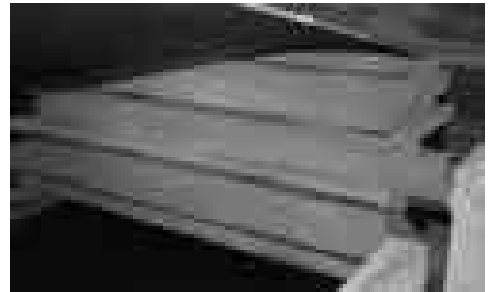
## Benefits

- Meets or exceeds CEMA/ANSI specifications
- Douglas Heavy Duty Wing Style Pulleys feature exclusive minimum 3/4" solid steel round bars
  - Increases service life
  - Helps prevent wing folding damage
  - Wears twice as long as other manufacturers' formed flat bar or 1/4 half moon bar
  - Protects belt bottom cover from cuts and tears
  - Less belt vibration from smoother belt contact
- Special self-cleaning angle formed by gussets discharges material away from the belt and the pulley face helping to prevent material build up and belt damage from conveyed material
- Unique design creates a refined motion that helps to dislodge materials from the belt top cover



## Construction

- Crown face pulleys are furnished standard, flat face must be specified
- For approximate shipping weights please consult Factory
- Douglas hubs and bushings are interchangeable with QD® and XT® style



## Options


- Hot Vulcanized Pulley Lagging
- Shafting
- Bearing Assemblies
- Take-Up Systems
- Stainless steel construction available
- Optional Douglas Keyless Locking Assemblies available
- Stabilizing Rings

**DOUGLAS SOLID 3/4" STEEL ROUND BAR WING TIPS WEAR LONGER AND RETAIN ROUNDNESS.**

WEARS TWICE AS LONG AS OTHER MANUFACTURERS FORMED FLAT BAR OR 1/4 ROUND

PROTECTS UNDERSIDE OF BELT FROM CUTS, SMOOTHER RUNNING

LARGE PULLEYS ARE FITTED WITH 1" SOLID STEEL BARS FOR LONG LIFE



**DOUGLAS WING IDENTIFICATION**

WLB - W10 - C20SF

Wing Dia Crown Face Hub  
 Pulley Face Width

CAUTION: Douglas Conveyor Pulleys not suitable for applications using steel cable belts.

# Spiral Wing Pulley

## Benefits

- Promotes self cleaning, helps move material to outside edges of tail pulley
- Helps smooth out vibrating belt movement

## Construction

- Flat steel bars helically wound around wing fins.



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# Mine Duty/Mill Duty Drum Pulleys

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

### Benefits

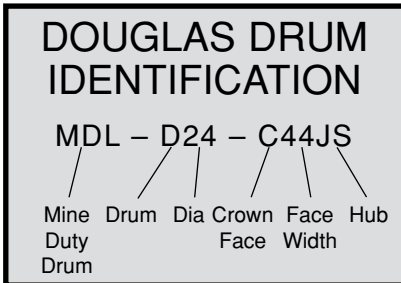
- Exclusive One Piece Rolled-in Crown ensures consistent, proper belt tracking and tighter tolerances

### Construction

- Engineered for the roughest applications, rugged Douglas Mine/Mill Duty Drum Pulleys are intended for use in critical applications where down time must be minimized
- Heavy construction reduces the likelihood of metal fatigue and pulley failure in severe applications minimizing down-time and maintenance
- Full depth weld with reinforcing bar on single longitudinal seam featured on each Douglas Mine Duty/Mill Duty Drum Style Conveyor Pulley
- Crown face pulleys are furnished standard, flat face must be specified
- Douglas hubs feature full depth welds on the inside and outside of the pulley end disk decreasing the likelihood of end disk failure due to shaft deflection and shock loads
- Douglas hubs and bushings are interchangeable with QD® or XT® style



Douglas Mine Duty Pulley with optional XT® style interchangeable bushing



### Options

- Hot Vulcanized Pulley Lagging
- Shafting
- Bearing Assemblies
- Take-Up Systems
- QD® or XT® Hubs & Bushings
- Stainless steel construction available
- Machined face pulleys for close T.I.R. tolerance and better belt tracking
- Optional Douglas Keyless Locking Assemblies available

## Spiral Drum Pulley

### Benefits

- Promotes self-cleaning by removing material to outside of the pulley
- Helps smooth vibrating belt movement

### Construction

- Basic drum pulley in standard duty, Heavy Duty, Mine Duty or Extreme Duty with helically wound bar flights welded to drum pulley O.D.



**WARNING:** Douglas Conveyor Pulleys are not intended for use as transmission drive pulleys on high speed applications, nor are they suitable for applications using steel cable belts.

**CAUTION:** Applications using wire mesh belts require flat machined face pulleys. QD® and XT® are registered trademarks of Emerson Electric.

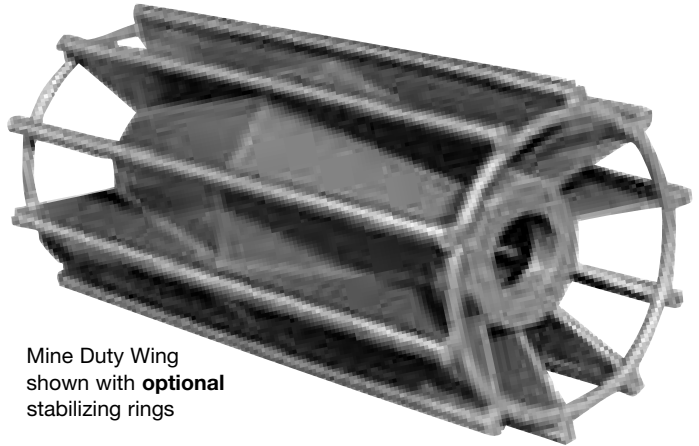
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# Mine Duty/Mill Duty Wing Self Cleaning Conveyor Pulleys

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

## Benefits

- Douglas Mine Duty/Mill Duty Wing Style Pulleys feature exclusive minimum 1" solid steel round bars:
  - Increases service life
  - Helps prevent wing folding damage
  - Wears up to three times as long as other manufacturer's formed flat bar or 1/4 moon bar
  - Protect belt bottom cover from cuts and tears
  - Less belt vibration from smoother belt contact
- Special self-cleaning angle formed by gussets discharges material away from the belt and the pulley face helping to prevent material build up
- Unique design creates a refined motion that helps to dislodge materials from the belt top cover




Mine Duty Wing shown with **optional** stabilizing rings



**DOUGLAS SOLID 1" – 2" STEEL ROUND BAR WING TIPS WEAR LONGER AND RETAIN ROUNDNESS.**

WEARS UP TO THREE TIMES AS LONG AS OTHER MANUFACTURERS FORMED FLAT BAR OR 1/4 ROUND

PROTECTS UNDERSIDE OF BELT FROM CUTS, SMOOTHER RUNNING



## Construction

- Heavy construction of the wings and gussets reduces the likelihood of metal fatigue and pulley failure in severe applications
- Crown face pulleys are furnished standard, flat face must be specified
- Douglas hubs and bushings are interchangeable with QD® or XT® style

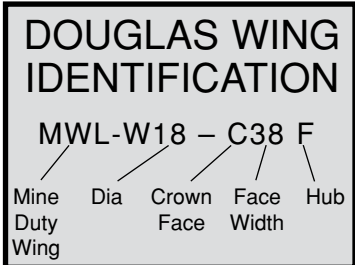
## Options

- Hot Vulcanized Wing Pulley Lagging
- Stainless steel construction available
- "AR" abrasion resistant wing tips available
- Optional Douglas Keyless Locking Assemblies available
- Stabilizing Rings
- Shafting
- Bearing Assemblies
- Take-Up Systems

**DOUGLAS WING IDENTIFICATION**

MWL-W18 – C38 F

Mine Duty Wing    Dia    Crown Face    Face Width    Hub



CAUTION: Douglas Conveyor Pulleys not suitable for applications using steel cable belts.

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# Mine Duty Extreme™ Wing Pulleys

*Unmatched for Durability - 18 Month Warranty Available*

**Benefits**

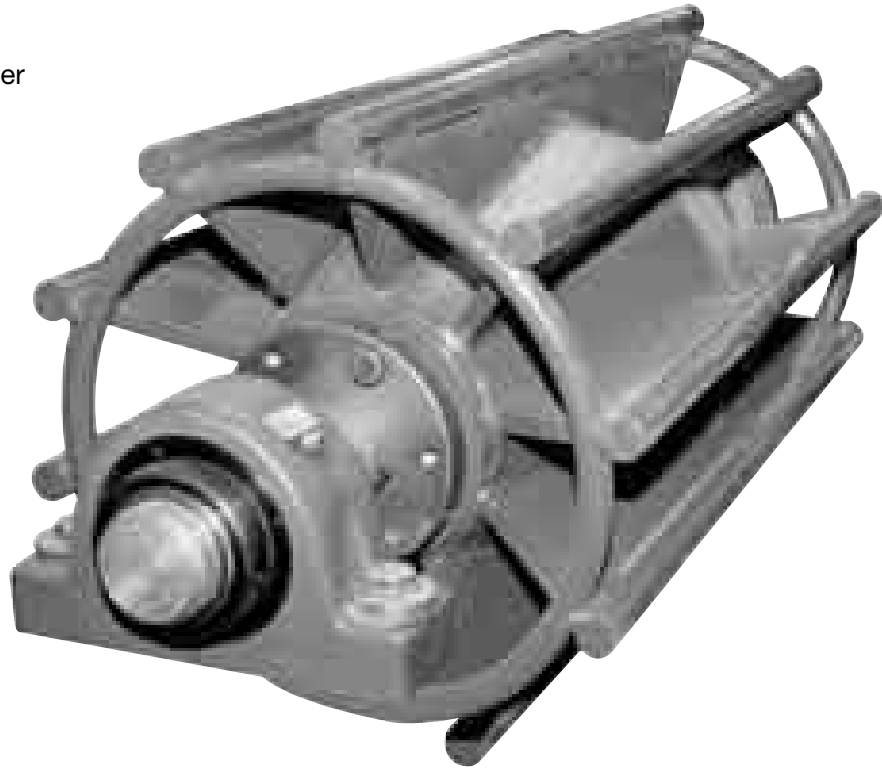
- Maximum life, longer wear
- Helps protect bottom belt cover from cuts and tears
- Less vibration
- Smoother belt contact
- Less metal fatigue
- Improved self cleaning

**Construction**

- 1-1/2" diameter solid steel round face bar
- 1/2" thick wings
- 1/4" gussets

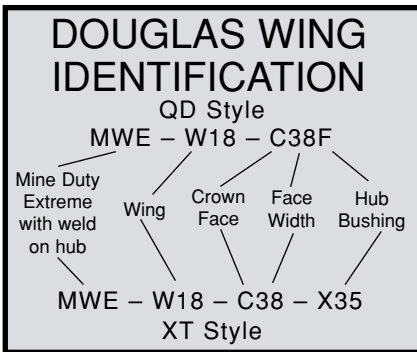
**Options**

- Hot Vulcanized Wing Pulley Lagging
- Stainless steel construction available
- "AR" abrasion resistant wing tips available
- Optional Douglas Keyless Locking Assemblies available
- Shafting
- Bearing Assemblies
- Take-Up Systems



Mine Duty Extreme™ with standard stabilizing rings, QD® or XT® Equivalent hubs, Bushings, Roller bearing pillow block

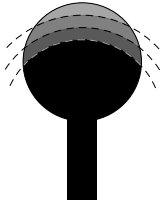
Stabilizing rings are standard on Mine Duty Extreme



**DOUGLAS SOLID 1" - 2" STEEL ROUND BAR WING TIPS WEAR LONGER AND RETAIN ROUNDNESS.**

WEARS UP TO THREE TIMES AS LONG AS OTHER MANUFACTURERS FORMED FLAT BAR OR 1/4 ROUND

PROTECTS UNDERSIDE OF BELT FROM CUTS, SMOOTHER RUNNING



Exclusive 1-1/2" diameter round bar wing tips wear 2-1/2 times longer and prevent possibility of belt cover cuts and fabric ply separation caused by flat, square and quarter round tips

Minimum 1/2" wing thickness and "Never Fold" Wing Support Rings™ prevent wing and pulley failure

Increased gusset angle improves self cleaning action resulting in a cleaner running belt with less chance of belt damage

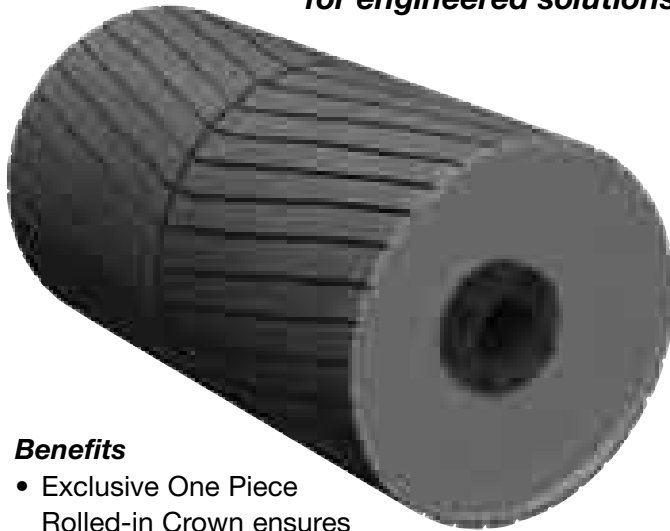
CAUTION: Douglas Conveyor Pulleys not suitable for applications using steel cable belts.

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# Quarry Duty Drum Pulleys

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications



### Benefits

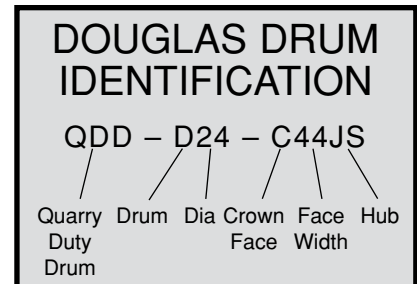
- Exclusive One Piece Rolled-in Crown ensures consistent, proper belt tracking and tighter tolerances

### Construction

- Engineered for the roughest applications, rugged Douglas Quarry Duty Drum Pulleys are intended for use in applications where down time must be minimized
- Heavy construction reduces the likelihood of metal fatigue and pulley failure in severe applications minimizing downtime and maintenance
- Full depth weld with reinforcing bar on single longitudinal seam featured on each Douglas Quarry Duty Drum Style Conveyor Pulley
- Crown face pulleys are furnished standard, flat face must be specified
- Douglas hubs feature full depth welds on the inside and outside of the pulley end disk decreasing the likelihood of end disk failure due to shaft deflection and shock loads
- Douglas hubs and bushings are interchangeable with QD<sup>®</sup>, XT<sup>®</sup> style, HE, or Taper Lock Bushings
- 1/2" to 1" rim thickness; 3/4" - 2" end disk thickness

### Options

- Hot Vulcanized Pulley Lagging
- Shafting
- Bearing Assemblies
- Take-Up Systems
- QD<sup>®</sup>, XT<sup>®</sup>, HE, Taper Lock Hubs & Bushings
- Stainless Steel Construction
- Galvanized Construction
- Shaft Mount Reducers
- Optional Douglas Keyless Locking Assemblies available



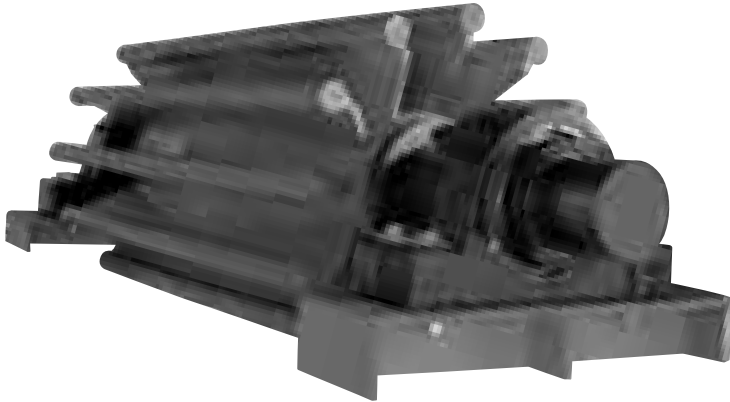
**WARNING:** Douglas conveyor pulleys are not intended for use as transmission drive pulleys on high speed applications, nor are they suitable for applications using steel cable belts.

**CAUTION:** Applications using wire mesh belt require flat-machined face pulleys.

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# Quarry Duty Wing Self-Cleaning Pulleys


Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications



**DOUGLAS SOLID 1" – 2" STEEL ROUND BAR WING TIPS WEAR LONGER AND RETAIN ROUNDNESS.**

WEARS UP TO THREE TIMES AS LONG AS OTHER MANUFACTURERS FORMED FLAT BAR OR 1/4 ROUND

PROTECTS UNDERSIDE OF BELT FROM CUTS, SMOOTHER RUNNING



### Benefits

- Douglas Quarry Duty Wing Style Pulleys feature exclusive minimum 1-1/2" solid steel round bars:
  - Increases service life
  - Helps prevent wing folding damage
  - Wears three times as long as other manufacturers' formed flat bar or 1/4 round bar
  - Protect belt bottom cover from cuts and tears
  - Less belt vibration from smoother belt contact
- Special self-cleaning angle formed by gussets discharges material away from the belt and the pulley face helping to prevent material build up
- Unique design creates a refined motion that helps to dislodge materials from the belt top cover
- Round bar increases belt fastener life

### Options

- Wing Support Rings
- Hot Vulcanized Wing Pulley Lagging
- Stainless Steel
- "AR" abrasion resistant wing tips available
- Optional Douglas Keyless Locking Assemblies available
- Shafting
- Bearing Assemblies
- Take-Up Systems

**DOUGLAS WING IDENTIFICATION**

QDW – W18 – C38 – X35

Quarry Duty Wing
Dia
Crown Face
Face Width
Hub

### Construction

- Heavy construction of the wings and gussets reduces the likelihood of metal fatigue and pulley failure in severe applications
- Crown face pulleys are furnished standard, flat face must be specified
- Douglas hubs and bushings are interchangeable with QD®, XT®, HE or Taper Lock
- 1" - 2" thick round bars



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# Engineered Class Conveyor Drum Pulleys

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

## Benefits

- Engineered to accommodate specific belt tensions
- For use in critical applications where down time must be minimized

## Construction

- Rims are engineered to carry the load, no center disc required
- Engineering design determines end disc configuration
- Full penetration welds between rim and end disc
- Flat face pulleys are furnished standard, crown face must be specified
- Machined face pulleys produced to 0.030" TIR
- Statically balanced

## Options

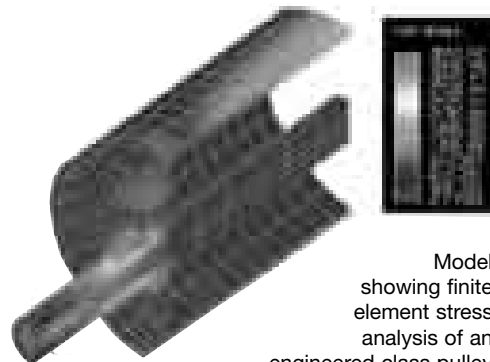
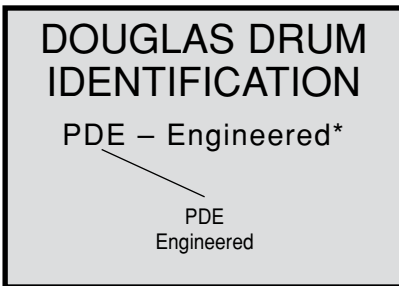
- Machined Hot Vulcanized Pulley Lagging
- Shafting
- Bearing Assemblies
- Take-Up Systems
- Optional Douglas Keyless Locking Assemblies available

## Warranty

- 2 year warranty available



Lagging (Lagging is carefully wrapped prior to shipment) to help protect in shipment. Engineered Drum Pulley with locking elements, machined shafting.



Model showing finite element stress analysis of an engineered class pulley indicates high stress areas and low stress areas



Douglas Engineered Class pulleys are designed for specific applications such as long overland conveyors, wide belt widths, extreme belt tensions and large shaft diameters.

CAUTION: Applications using steel cable belts require special design pulleys.

\*Dimensions are given in item description area of quotation.

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# Hubs & Bushings Interchangeable with QD® Style

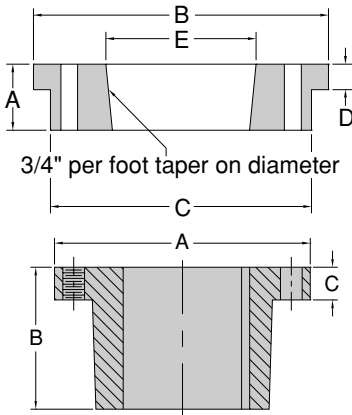
Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications



The 3/4" taper per ft. is sufficient for gripping of most power transmission shafts. Replacements are available from almost every city in the United States and most countries.

### Benefits

- The biggest advantage of the QD Bushing is its availability
- Adaptable design used in a variety of applications
- Design features
  - 3/4" per foot taper
  - 3 or 4 bolt pattern
  - Employs key stock to prevent pulley from rolling on shaft



**DOUGLAS BUSHING IDENTIFICATION**

DBQ – SF x 2<sup>3</sup>/<sub>16</sub>

Bushing Type Bore Size

**DOUGLAS HUB IDENTIFICATION**

DHQ – SF

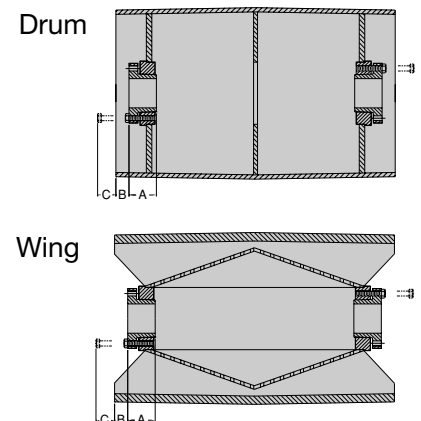
Hub Type

| PART NO. | A     | B       | C       | D     | E      | BOLT         |
|----------|-------|---------|---------|-------|--------|--------------|
| DHQ-SH   | 3/4   | 3 1/16  | 2 13/16 | 3/8   | 1.874  | 3@1/4X1-3/8  |
| DHQ-SDS  | 3/4   | 3 5/8   | 3 3/8   | 3/8   | 2.190  | 3@1/4X1-3/8  |
| DHQ-SK   | 1 1/8 | 4 3/4   | 4 3/8   | 5/8   | 2.815  | 3@5/16X2     |
| DHQ-SF   | 1 1/4 | 5 1/4   | 5       | 5/8   | 3.128  | 3@3/8X2      |
| DHQ-E    | 1 1/2 | 6 1/2   | 6 1/4   | 5/8   | 3.837  | 3@1/2X2-3/4  |
| DHQ-F    | 1 3/4 | 6 15/16 | 6 5/8   | 11/16 | 4.440  | 3@9/16X3-5/8 |
| DHQ-JS   | 2     | 7 5/8   | 7 1/4   | 3/4   | 5.148  | 3@5/8X2-1/2  |
| DHQ-MS   | 2 1/4 | 9 1/2   | 9       | 1     | 6.499  | 4@3/4X3      |
| DHQ-NS   | 2 1/2 | 10 1/2  | 10      | 1     | 6.995  | 4@7/8X3-1/2  |
| DHQ-PS   | 3     | 12      | 11 1/2  | 1     | 8.245  | 4@1X4-1/2    |
| DHQ-WS   | 3 1/2 | 15 1/4  | 14 3/4  | 1     | 10.442 | 4@1-1/8X5    |

| PART NO. | DBQ BORE RANGE | DBQ MAX BORE W/ FULL KEY | A       | B       | C       | CAP SCREW     | WRENCH TORQUE (ft.-lbs.) | APPROX. WEIGHT @ MAX FULL KEY (lbs.) |
|----------|----------------|--------------------------|---------|---------|---------|---------------|--------------------------|--------------------------------------|
| DBQ-SH   | 1/2-1 5/8      | 1 3/8                    | 2 11/16 | 1 5/16  | 7/16    | 3(1/4x1 3/8)  | 9                        | 0.7                                  |
| DBQ-SDS  | 1/2-2          | 1 11/16                  | 3 3/16  | 1 5/16  | 7/16    | 3(1/4x1 3/8)  | 9                        | 1                                    |
| DBQ-SK   | 1/2-2 5/8      | 2 1/8                    | 3 15/16 | 1 15/16 | 9/16    | 3(5/16x2)     | 15                       | 2                                    |
| DBQ-SF   | 1/2-2 5/16     | 2 1/2                    | 4 5/8   | 2 1/16  | 5/8     | 3(3/8x2)      | 30                       | 2.8                                  |
| DBQ-E    | 7/8-3 1/2      | 2 7/8                    | 6       | 2 3/4   | 7/8     | 3(1/2x2 3/4)  | 60                       | 7.1                                  |
| DBQ-F    | 1-4            | 3 1/4                    | 6 5/8   | 3 3/4   | 1       | 3(9/16x3 5/8) | 75                       | 10.6                                 |
| DBQ-JS   | 1 1/2-4 1/2    | 3 1/2                    | 7 1/4   | 3 3/8   | 2 15/16 | 3(5/8x2 1/2)  | 135                      | 16.6                                 |
| DBQ-MS   | 2-5 1/2        | 4 7/16                   | 9       | 4 13/16 | 1 3/16  | 4(3/4x2 1/2)  | 225                      | 33.3                                 |
| DBQ-NS   | 2 7/16-5 7/8   | 5                        | 10      | 6       | 1 1/2   | 4(7/8x3 1/2)  | 300                      | 46.6                                 |
| DBQ-PS   | 2 15/16-7      | 6                        | 11 3/4  | 6 1/2   | 1 1/2   | 4(1x4 1/2)    | 450                      | 78                                   |
| DBQ-WS   | 4-8 1/2        | 6 1/2                    | 15      | 7 1/4   | 1 3/4   | 4(1 1/8x5)    | 600                      | 153                                  |

## Bushing Location Dimensions

| PART NO. | A       | B (DRUM) | B (WING) | C (DRUM) | C (WING) |
|----------|---------|----------|----------|----------|----------|
| DBQ-SH   | 1 5/16  | 7/16     | 11/16    | 15/16    | 11/16    |
| DBQ-SDS  | 1 5/16  | 7/16     | 11/16    | 15/16    | 11/16    |
| DBQ-SK   | 1 15/16 | 5/16     | 9/16     | 1 11/16  | 1 7/16   |
| DBQ-SF   | 2 1/16  | 1/2      | 3/4      | 1 1/2    | 1 1/4    |
| DBQ-E    | 2 3/4   | 3/4      | 1        | 2        | 1 3/4    |
| DBQ-F    | 3 3/4   | 11/16    | 15/16    | 2 15/16  | 2 11/16  |
| DBQ-JS   | 3 3/8   | 9/16     | 13/16    | 1 15/16  | 1 11/16  |
| DBQ-MS   | 4 13/16 | 1 1/8    | 1 3/8    | 1 7/8    | 1 5/8    |
| DBQ-NS   | 6       | 1 1/4    | 1 1/2    | 2 1/4    | 2        |
| DBQ-PS   | 6 1/2   | 1 1/16   | 1 5/16   | 3 7/16   | 3 3/16   |
| DBQ-WS   | 7 1/4   | 1 7/8    | 2 1/8    | 3 1/8    | 2 7/8    |



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# Hubs & Bushings Interchangeable with XT<sup>®</sup> Style

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

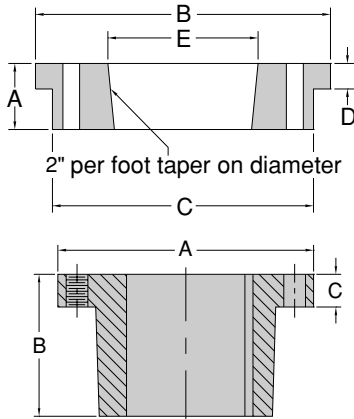
The 2" taper per ft. is the optimum amount for maximum gripping of most power transmission shafts. Replacements are available from almost every city in the United States and most countries.

### Benefits

- The biggest advantage of the XT<sup>®</sup> bushing is that it is designed specifically for conveyor pulleys
- Design features
  - 2" per foot taper
  - 4 or 6 bolt pattern
  - Also employs key stock to prevent pulley from rolling on shaft

### DOUGLAS HUB IDENTIFICATION

DHX - 30  
 Hub                      Type



| PART NO. | A       | B        | C       | D      | E        | BOLT          |
|----------|---------|----------|---------|--------|----------|---------------|
| DHX-15   | 5/8     | 3 3/16   | 2 7/8   | 3/16   | 2        | 4(1/4x1 3/8)  |
| DHX-20   | 13/16   | 4 1/16   | 3 13/16 | 1/4    | 2 11/16  | 4(5/16x2)     |
| DHX-25   | 1 1/8   | 4 11/16  | 4 3/8   | 5/16   | 3 3/16   | 4(3/8x2)      |
| DHX-30   | 1 1/4   | 5 15/16  | 5 3/4   | 3/8    | 3 7/8    | 4(7/16x2)     |
| DHX-35   | 1 1/2   | 6 9/16   | 6 11/32 | 7/16   | 4 11/16  | 4(1/2x2 3/4)  |
| DHX-40   | 1 3/4   | 7 9/16   | 7 1/4   | 1/2    | 5 5/16   | 4(9/16x3 5/8) |
| DHX-45   | 2 1/8   | 8 5/16   | 8       | 5/8    | 5 15/16  | 4(5/8x2 1/2)  |
| DHX-50   | 2 1/2   | 9 15/16  | 9 9/16  | 3/4    | 7 1/4    | 4(3/4x3)      |
| DHX-60   | 2 3/4   | 11 11/16 | 11 1/4  | 13/16  | 8 5/8    | 4(7/8x3 1/2)  |
| DHX-70   | 3 1/8   | 13 5/8   | 13 3/16 | 15/16  | 10       | 4(1x4 1/2)    |
| DHX-80   | 3 7/16  | 14 15/16 | 14 5/8  | 1      | 11 1/8   | 4(1 1/8x5)    |
| DHX-100  | 4 1/8   | 17 15/16 | 17 1/2  | 1 1/8  | 13 11/16 | 6(1 1/8x5)    |
| DHX-120  | 4 13/16 | 20 15/16 | 20 1/2  | 1 5/16 | 16 3/16  | 8(1 1/8x5)    |

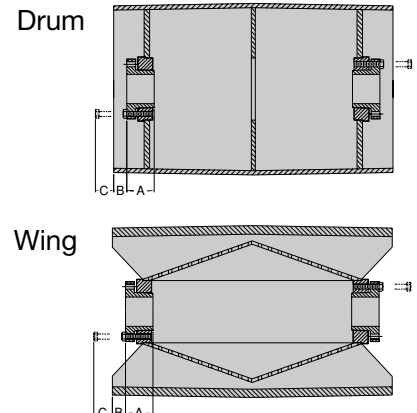
### DOUGLAS BUSHING IDENTIFICATION

DBX - 30 x 2 7/16  
 Bushing                      Type                      Bore Size

| PART NO. | DBX BORE RANGE  | DBX MAX BORE W/ FULL KEY | A        | B       | C      | CAP SCREW     | WRENCH TORQUE (ft.-lbs.) | APPROX. WEIGHT @ MAX FULL KEY (lbs.) |
|----------|-----------------|--------------------------|----------|---------|--------|---------------|--------------------------|--------------------------------------|
| DBX-20   | 3/4-2           | 1 11/16                  | 3 3/4    | 1 13/32 | 15/32  | 4(5/16x2)     | 17                       | 2                                    |
| DBX-25   | 1-2 7/16        | 2 3/16                   | 4 7/16   | 1 7/8   | 5/8    | 4(3/8x2)      | 30                       | 3                                    |
| DBX-30   | 1 7/16-2 15/16  | 2 11/16                  | 5 5/16   | 2 1/16  | 11/16  | 4(7/16x2)     | 46                       | 4                                    |
| DBX-35   | 1 15/16-3 7/16  | 2 15/16                  | 6 5/16   | 2 15/32 | 25/32  | 4(1/2x2 3/4)  | 70                       | 7                                    |
| DBX-40   | 2 7/16-3 15/16  | 3 7/16                   | 7 1/8    | 2 13/16 | 7/8    | 4(9/16x3 5/8) | 100                      | 11                                   |
| DBX-45   | 3 7/16-4 7/16   | 3 15/16                  | 8        | 3 5/16  | 15/16  | 4(5/8x2 1/2)  | 140                      | 16                                   |
| DBX-50   | 3 15/16-4 15/16 | 4 7/16                   | 10 1/8   | 3 3/4   | 1      | 4(3/4x3)      | 250                      | 25                                   |
| DBX-60   | 5 7/16-6        | 5 1/2                    | 11 15/16 | 4 1/8   | 1 1/8  | 4(7/8x3 1/2)  | 400                      | 36                                   |
| DBX-70   | 6 7/16-7        | 6 1/2                    | 13 15/16 | 4 11/16 | 1 5/16 | 4(1x4 1/2)    | 600                      | 58                                   |
| DBX-80   | 7 1/2-8         | 7 1/2                    | 15 5/8   | 5 1/8   | 1 3/8  | 4(1 1/8x5)    | 750                      | 76                                   |
| DBX-100  | 8 1/2-10        | 9                        | 17 15/16 | 6 3/16  | 1 9/16 | 6(1 1/8x5)    | 750                      | 145                                  |

## Location Dimensions

| PART NO. | A       | B (DRUM) | B (WING) | C (DRUM) | C (WING) |
|----------|---------|----------|----------|----------|----------|
| DBX-15   | 1 1/8   | 7/16     | 11/16    | 15/16    | 11/16    |
| DBX-20   | 1 13/32 | 7/16     | 11/16    | 15/16    | 11/16    |
| DBX-25   | 1 7/8   | 5/16     | 9/16     | 1 11/16  | 1 7/16   |
| DBX-30   | 2 1/16  | 1/2      | 3/4      | 1 1/2    | 1 1/4    |
| DBX-35   | 2 15/32 | 3/4      | 1        | 2        | 1 3/4    |
| DBX-40   | 3 13/16 | 11/16    | 15/16    | 2 15/16  | 2 11/16  |
| DBX-45   | 3 5/16  | 9/16     | 13/16    | 1 15/16  | 1 11/16  |
| DBX-50   | 4 3/4   | 1 1/8    | 1 3/8    | 1 7/8    | 1 5/8    |
| DBX-60   | 4 1/8   | 1 1/4    | 1 1/2    | 2 1/4    | 2        |
| DBX-70   | 4 11/16 | 1 1/4    | 1 1/2    | 2 1/4    | 2        |
| DBX-80   | 5 1/8   | 1 7/8    | 2 1/8    | 3 1/8    | 2 7/8    |
| DBX-100  | 6 3/16  | 1 1/16   | 1 5/16   | 3 7/16   | 3 3/16   |
| DBX-120  | 7 1/16  | 1 7/8    | 2/18     | 3 1/8    | 2 7/8    |



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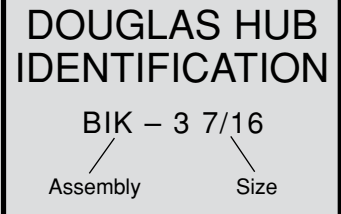
# Keyless Locking Assembly

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
for engineered solutions to your special applications



Proper selection of the correct shaft connector and the correct class of pulley will provide a significant increase in service life saving lost work time, reducing maintenance costs and improving levels of overall efficiency.

Available in most standard power transmission shaft sizes from 3/4" to 20" and metric sizes from 20mm to 600mm.



## Benefits

- The most efficient mechanism for securing a pulley to a shaft
- No key seat required – saves machining and allows infinite positioning of the pulley on the shaft as well as increasing the strength of the shaft by maintaining shaft integrity
- Frictional connection allows for higher bending moment that allows the end disc to match the shaft deflection offering a higher service factor
- Provides interference fit after multiple high strength screws are tightened
- Release of screws restores initial clearance and allows easy dismounting
- Proven design dramatically increases conveyor uptime when coupled with correct pulley class and properly selected shaft size

# Pulley Selection Data Sheet

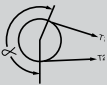
*Help to eliminate pulley performance problems and simplify the selection process by allowing the professionals at Douglas to select the correct pulley for your application. Simply complete the data sheet below and we will analyze, select and quote the proper pulley for you.*

**TOLL FREE FAX: 877-884-1206 OR 205-884-1206.**

Your Name \_\_\_\_\_ Date \_\_\_\_\_  
 Company Name \_\_\_\_\_ Tel # \_\_\_\_\_  
 Address \_\_\_\_\_ FAX \_\_\_\_\_  
 Project \_\_\_\_\_

### CONVEYOR DATA & SPECIFICATIONS

Belt:     Fabric             Steel Cable             Other \_\_\_\_\_  
 Belt Width \_\_\_\_\_ in.  
 Take Up:  Mechanical     Gravity     Hydraulic     Other \_\_\_\_\_  
 Drive Motor: HP \_\_\_\_\_            Belt Speed: \_\_\_\_\_  
 Bearing Centers \_\_\_\_\_            FPM Capacity: \_\_\_\_\_  
 Tons Per Hour: \_\_\_\_\_            Type of Material Conveyed: \_\_\_\_\_  
 Center to Center Distance: \_\_\_\_\_            Lift in Feet: \_\_\_\_\_  
 Delivery Requested: \_\_\_\_\_

|  |   |   |   |   |   |
|--|---|---|---|---|---|
| Conveyor Number  |   |   |   |   |   |
| Pulley Location (Drive, Tail, Take-up, Bend)               |   |   |   |   |   |
| Pulley Quantity  |   |   |   |   |   |
| Pulley Type (Drum or Wing)                                 |   |   |   |   |   |
| Diameter x Face  |   |   |   |   |   |
| Crown or Flat Face   |   |   |   |   |   |
| Lagging Thickness – Type of Grooves                        |   |   |   |   |   |
| Shaft Diameter through Pulley                              |   |   |   |   |   |
| Shaft Diameter through Bearing                             |   |   |   |   |   |
| Shaft Diameter at Drive                                    |   |   |   |   |   |
| Shaft Length   |   |   |   |   |   |
| Number of Keyseats   |   |   |   |   |   |
| Drive Type (Sprocket, Coupling, Shaft Mount Reducer, etc.) |   |   |   |   |   |
| Bearing Centers  |   |   |   |   |   |
| Arc of Contact _____<br>T1 _____ Lbs.<br>T2 _____ Lbs.     |  | ○ | ○ | ○ | ○ |

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# XT Bushing Installation and Operation

**Do not use XT Bushings in any product other than XT Hubs**

## BEFORE INSTALLATION:

1. Make sure that the shaft, barrel & bore of the bushing, XT bushed conveyor pulley hub bores, keys and keyways are clean and free of burrs, paint, etc.
2. For proper operation, make sure that the shaft size is within the size limits shown in Table 1. Some applications may benefit from tighter shaft tolerances.

**⚠CAUTION**

Mounting an XT Bushing on a shaft smaller than the size limits shown in Table 1 may result in a faulty assembly. The assembly may come off the shaft or undesirable assembly runout may result.

## MOUNTING:

3. Using a hoist or other appropriate means, place the shaft through the pulley being careful not to damage the bore of the hub(s) and locate in the desired position. When mounting on an inclined surface, if required, make sure the conveyor pulley and shaft do not drop during installation.
4. It may be necessary to slightly wedge open the saw slot on some Bushings in order to start the bore and position the bushing onto the shaft. A narrow edged regular screw driver may be used. *Avoid excessive wedging forces in Bushing saw slot as this may damage or break Bushing.*
5. Align the shaft keyseat with the Bushing bore keyway and install the key. Make sure the key runs the entire length of the bushing bore. For XT Conveyor Pulleys requiring two bushings, shaft keyways must be in line with each other for proper bushing installation. Some Bushings with shallow keyways are supplied with shaft keys. For proper operation use the key supplied with the bushing.

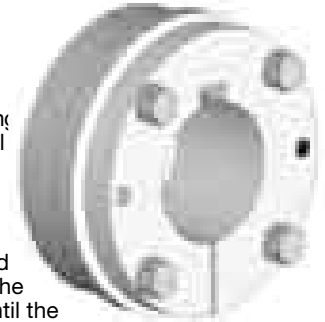
**⚠CAUTION**

To assure proper transmission of torque, all bushings used in drive pulleys must be keyed to the shaft. Tightening the cap screws to a torque higher than shown in Table 2 may lead to product failure. **AVOID.**

6. Align the non-threaded holes in the bushing angles with the threaded holes in the hubs. Insert the cap screws and thread them by hand three or four turns. See Diagram 1 below.
7. Position the assembly axially on the shaft such that it is aligned with its running mate(s). Be sure to check for adequate clearance between the assembly and other nearby components if applicable.
8. Using a torque wrench and appropriate socket, tighten the cap screws in a diagonal fashion. Tighten to the torque shown in Table 2. When the cap screw torque is at or near recommended torque, make at least two more sequential rounds to assure all cap screws are at Table 2.

## REMOVAL

1. Remove all cap screws in a diagonal fashion.
2. Heavier Pulleys may require a hoist or other means of supporting during the remainder of removal procedure. When removing from an inclined surface, make sure the bushing and Pulley do not drop during removal.
3. Insert cap screws in all threaded bushing angle holes. Tighten the cap screws against hub face until the screw force releases the bushing from the hub. If the bushing does not release immediately, tap on the hub with a hammer.
4. When two bushings are used, completely loosen the screws on one bushing before proceeding to loosen the other one.
5. Remove the bushings and shaft from the pulley using the appropriate means.



## OPERATING INSTRUCTIONS:

1. All pulleys should be checked for tightness on the shaft. For the first month of operation, inspect the bushing cap screw torque at least once a week.
2. The pulley lagging should be checked for wear, cracks, and tightness. Changes in coefficient of friction between drive pulley and belt could result in belt slippage.
3. The ends of pulleys should be inspected for cracks or other signs of stress or fatigue. The pulley should not be operated if a crack develops.
4. Take-up pulleys and belt tensioning devices should function normally. Excessive belt tension could fail pulleys, bearings, and shafts.
5. Pulleys should be checked for vertical and lateral alignment. Misalignment can result in belt tracking problems and pulley wear.
6. Bearings should be visually checked for excessive shaft movement in the bearing during operation.
7. All bearings should be checked for alignment, lubrication, and tightness of locking devices.
8. Conveyor pulleys should not be cleaned during operation. It is extremely dangerous to be near the rip point when the pulley is in operation.
9. The conveyor should not be operated without the necessary protective guards.

## SHAFT SIZING SPECIFICATIONS

Table 1

| Shaft Size Range (inches) |         | Lower Shaft Dia. Limit (inches) | Shaft Size Range (mm) |         | Lower Shaft Dia. Limit (mm) |
|---------------------------|---------|---------------------------------|-----------------------|---------|-----------------------------|
| Above                     | Through |                                 | Above                 | Through |                             |
| -                         | 1 1/2   | -0.003                          | -                     | 38.1    | -0.076                      |
| 1 1/2                     | 2 1/2   | -0.004                          | 38.1                  | 63.5    | -1.102                      |
| 2 1/2                     | 4       | -0.005                          | 63.5                  | 101.6   | -0.127                      |
| 4                         | 6       | -0.006                          | 101.6                 | 152.4   | -0.152                      |
| 6                         | 8       | -0.007                          | 152.4                 | 203.2   | -0.178                      |
| 8                         | 9       | -0.008                          | 203.2                 | 228.6   | -0.203                      |
| 9                         | -       | -0.009                          | 229.6                 | -       | -0.229                      |

Note: Upper limit is +0 whether units are inches or millimeters.

## RECOMMENDED WRENCH TORQUE

Table 2

| XT SIZE | SAE Grade 5 Cap Screws |            | Cap Screws Torque |          |        |
|---------|------------------------|------------|-------------------|----------|--------|
|         | Quantity               | Size       | (in-lbs)          | (ft-lbs) | (N-M)  |
| 15      | 4                      | 1/4-20UNC  | 95                | 8        | 10.7   |
| 20      | 4                      | 5/16-18UNC | 192               | 16       | 21.7   |
| 25      | 4                      | 3/8-16UNC  | 348               | 29       | 39.3   |
| 30      | 4                      | 7/16-14UNC | 552               | 46       | 62.4   |
| 35      | 4                      | 1/2-13UNC  | 840               | 70       | 94.9   |
| 40      | 4                      | 9/16-12UNC | 1200              | 100      | 135.6  |
| 45      | 4                      | 5/8-11UNC  | 1680              | 140      | 189.8  |
| 50      | 4                      | 3/4-10UNC  | 3000              | 250      | 339.0  |
| 60      | 4                      | 7/8-9UNC   | 4600              | 383      | 519.8  |
| 70      | 4                      | 1-8UNC     | 7200              | 600      | 813.6  |
| 80      | 4                      | 1-1/8-7UNC | 9000              | 750      | 1017.0 |
| 100     | 6                      | 1-1/8-7UNC | 9000              | 750      | 1017.0 |
| 120     | 8                      | 1-1/8-7UNC | 9000              | 750      | 1017.0 |
| 140     | 10                     | 1-1/8-7UNC | 9000              | 750      | 1017.0 |

(N-M) = Newton Meters

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# QD Bushing Installation and Operation

**Do not use QD Bushings in any other product than QD Hubs**

## INSTALLATION PROCEDURES

1. Inspect the tapered bore of the hub and the tapered surface of the bushing. Remove any paint, dirt, oil, or grease.
2. Do not use any lubricants in this installation.
3. First slide the shaft through the Drum or Wing then slide the bushings onto the shaft. Pick the drum or wing up and push the bushing into the hub. Line up the solid hole in the bushing to the threaded hole in the hub.
4. Push the bolts through the bushing and start to screw into the hub by hand. Use a tape measure to center the Drum or Wing on the shaft then use a wrench to lightly snug the bolts. Check with a tape measure again and bump the drum or wing to center between the bearings. Once in place torque the bolts based on the table below. Make sure you stagger the sequence of tightening the bolts. Using an accurate torque wrench, tighten each cap screw alternatively and evenly; applying no more pressure than recommended in the torque table. Using a hammer and a heavy steel or bronze bar, tap on the face of the bushing (this is called "drifting"), starting opposite the split. Avoid tapping outside of the bolt circle to prevent damage to the bushing. Continue drifting in clockwise and counterclockwise directions from the point opposite the split around the bushings until you reach the specified torque on all cap screws. For JS or larger bushings, repeat this procedure until the specified torque no longer turns the cap screws after drifting.
5. Tighten the second bushing per Step 4. When two bushings are used, complete tightening of one bushing before proceeding to tighten the second bushing.
6. Do not over tighten the cap screws. The bushing should not pull tight (bottom out) against the hub. Clearance must be maintained. The gap between hub and bushings should be uniform at all locations; surfaces on both sides of the bushing split should be even. Check for undersized shafting, if the bushing ange contacts the face of the hub.

## MAINTENANCE

Inspect the bushings and check the torque setting before startup and once a week for the first month of operation. Thereafter, repeat at periodic maintenance intervals.

## REMOVAL

1. Clean the exposed shaft ends.
2. Remove all cap screws.
3. Insert the cap screws into all threaded jacking screw holes in the bushing ange.
4. Turn the cap screws against the ange of the hub alternately and evenly in one bushing. A few turns on each screw and the bushing will break loose, releasing the grip of the bushing on the shaft. Do not apply excessive torque on jacking holes adjacent to the bushing split. If bushing does not break loose immediately, tap the bushing with a soft hammer.
5. Remove bushing from the shaft. If necessary, carefully insert a wedge in the bushing split to expand the bushing bore.
6. Repeat Steps 1 thru 5 for the remaining bushing.

## SAFETY INFORMATION

1. Follow all federal, state, local, and owner recommended safety guidelines.
2. Before beginning work on a conveyor always lockout and tag-out the equipment. Follow All OSHA and other guidelines that pertain to lockout and tag-out procedures.
3. Only workers who are safety trained and familiar with the mechanics and mechanical nature of conveyors should install pulleys and bushings on a conveyor.
4. Do not wear loose clothes, jewelry or neckties when working on or around conveyors. Long hair should be secured under a cap or bandana to prevent injury. The moving parts of a conveyor may catch loose clothes, jewelry, neckties or long hair and may result in serious injury.
5. All conveyors should have safety shut off cable devices in good working condition. If you do not have a safety shut off cable you may call us to obtain one. Frequent tests of this device are required to maintain proper working order.
6. Before starting the conveyor make sure that no one is exposed to the moving parts or material being discharged. The speed of the conveyor and the material being conveyed is sufficient to cause bodily injury.

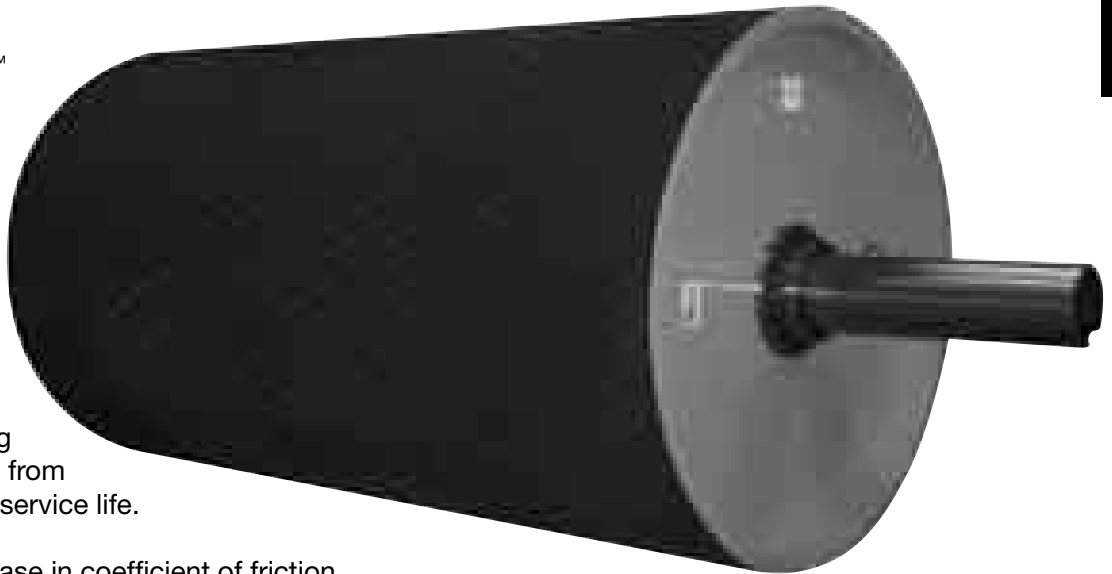


| QD NO. | CAP SCREW     | TORQUE Ft-Lbs |
|--------|---------------|---------------|
| SH     | 3(1/4x1-3/8)  | 6             |
| SDS    | 3(1/4x1-3/8)  | 6             |
| SK     | 3(5/16x2)     | 10            |
| SF     | 3(3/8x2)      | 20            |
| E      | 3(1/2x2-3/4)  | 40            |
| F      | 3(9/16x3-5/8) | 50            |
| JS     | 3(5/8x2-1/2)  | 90            |
| MS     | 4(3/4x2-1/2)  | 150           |
| NS     | 4(7/8x3-1/2)  | 200           |
| PS     | 4(1x4-1/2)    | 300           |
| WS     | 4(1-1/8x5)    | 400           |

# Vulcanized Pulley Lagging

## BENEFITS

Douglas® Truck Tire Tuff™ Conveyor Pulley Lagging delivers increased traction and pulley life over non lagged pulleys. Increased traction between the pulley face and the belt bottom covers reduces belt slippage and helps to improve belt tracking. Vulcanized rubber lagging protects the pulley's face from wear and extends pulley service life.



- As much as 50% increase in coefficient of friction over non lagged pulleys
- Improves Belt Tracking
- Protects pulley face from wear and extends pulley service life
- Herringbone and Diamond Grooves shed water and dirt promoting a self-cleaning effect

and to the highest quality standards in the industry. All pulleys are vulcanized in house using state of the art computer controlled autoclaves and our patented bonding process.

## CONSTRUCTION

Douglas® Vulcanized Rubber Pulley Lagging is constructed of the highest quality materials available

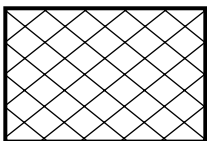
If you have an application that requires exact concentricity or T.I.R. we suggest ordering machined lagging with the tolerance specified. For some applications the initial cost will be quickly offset by labor savings when attempting start-up.

## Rubber Lagging Detail Chart

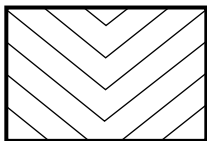
| Standard Thicknesses   | Standard Grooving Patterns                     | Standard Material | Standard Durometer | Special Durometers | Special Materials                                 |
|------------------------|--|-------------------|--------------------|--------------------|---|
| 1/4", 3/8", 1/2", 3/4" | Plain Wrap Impression*, Herringbone**, Diamond | SBR               | 60-65 Shore A      | 40, 80             | MSHA, Nitrile, Neoprene, EPDM, SCOF, Tan Neoprene |

\*+/- 1/8" on rubber thickness & no concentricity tolerance guaranteed, natural variations in material thicknesses are normal. Machined finish lagging is available for specific tolerance requirements

\*\*Specify direction of rotation if Douglas is to install shafting – Groove will normally run with the apex of the pattern leading



Diamond Groove



Herringbone / Chevron Groove

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# Ceramic Pulley Lagging

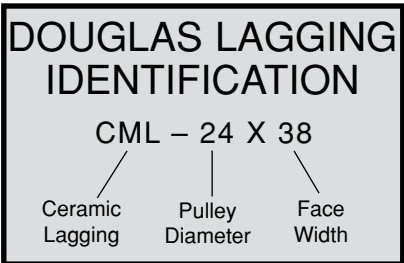
## BENEFITS

Douglas® Ceramic Pulley Lagging delivers substantially increased traction over conventional pulley lagging. Durable ceramic tiles last longer than standard rubber lagging resulting in a dramatic reduction in the number of times the pulley must be changed over the life of the conveyor system.

- As much as twice the coefficient of friction over non lagged pulleys
- As much as 50% higher coefficient of friction over standard rubber lagging
- Virtually eliminates belt slippage
- Lower belt tension and less take-up weight increases life of components and belt
- Improves belt tracking
- Easily sheds water and dirt

## CONSTRUCTION

Douglas® Ceramic Pulley Lagging is constructed of the highest quality materials available and to the highest quality standards in the industry. The unique cross hatched feature of our square ceramic tiles helps to ensure tile retention and virtually eliminates tile loss during the critical initial break in period of the lagging.



## Ceramic Lagging Detail Chart

| Tile Stub Height | Rubber Thickness Beneath Tile | Tile Length & Width | # of Stubs per Tile | Gripping Surface Per Sq Ft | Rubber Shore A Durometer | Rubber Tensile Strength |
|------------------|-------------------------------|---------------------|---------------------|----------------------------|--------------------------|-------------------------|
| .050"            | .500"                         | 1" x 1"             | 18                  | 29.6 Sq In                 | 65                       | 3,400 PSI               |

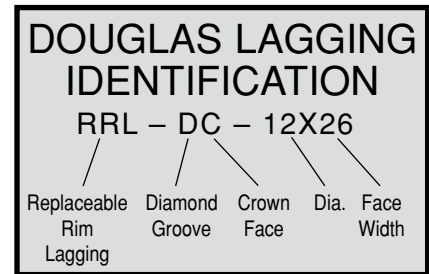
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# Replaceable Rim Lagging™

## BENEFITS

Patented Replaceable Rim Lagging™ (RRL™) is an innovative way to cover new pulleys and recover old pulleys. Engineered sections are made for specific pulleys and effectively cover the pulley face in a protective shell of rubber and steel and are an ideal way to save money and time. Can be installed on new pulleys in our plant or on the pulley in the field.

- Saves up to 70% on labor costs compared to other styles of replaceable lagging
- No layout necessary to fit to existing pulleys
- No cutting necessary: eliminates waste and scrap pieces
- Reduces conveyor downtime and reduces costs associated with pulley installation and removal
- Easy on/Easy off principle means Douglas® RRL™ may be installed in the field without removing the pulley or the conveyor belt
- Minimum gap between sections means the highest possible level of belt to pulley contact and results in a higher level of traction
- Order RRL™ with any new Douglas® pulley and we will install it for free



## CONSTRUCTION

Douglas® Replaceable Rim Lagging™ (RRL™) is constructed of the highest quality materials available and to the highest quality standards in the industry. All RRL™ is vulcanized in house using state of the art computer controlled autoclaves. Standard RRL™ is manufactured with 1/2" 60-65 Durometer SBR compound suitable for a wide variety of applications and is bonded to a 3/16" solid steel backing plate and **ROLLED CROWN FACE standard**. Flat face is available. Diamond grooving is standard making the mounting of RRL™ fast and easy.

Weld on RRL™ is the most commonly ordered replaceable lagging system. Bolt-on is also available.

## INSTALLATION

1. Follow all OSHA, state and owner safety procedures. Lock-out, tag-out all equipment before servicing, **never, never** operate, adjust or install equipment on a moving conveyor.
2. Clean pulley face of dirt and buildup.
3. Place first rim segment on pulley. Hold in place with welder's clamps each end.
4. It may be necessary to pull the middle down with chain. Be sure each segment fits snug against face (prevents segment exing and weld fatigue).
5. Tack in middle and both ends of pulley rim. Tack 1" long every 6" across pulley face.
6. Place second rim segment on pulley with approximately 3/16" to 1/4" gap between first rim segment. Tack weld same manner.

## Replaceable Rim Lagging™ Section Chart

| Diameter               | 12   | 14   | 16  | 18   | 20   | 24   | 30   | 36   | 42   | 48   |
|------------------------|------|------|-----|------|------|------|------|------|------|------|
| Weight P.I.L.          | 2.09 | 2.44 | 2.8 | 3.48 | 3.63 | 4.18 | 5.23 | 6.28 | 7.33 | 8.37 |
| # of Segments Required | 3    | 3    | 4   | 4    | 4    | 4    | 4    | 5    | 5    | 5    |

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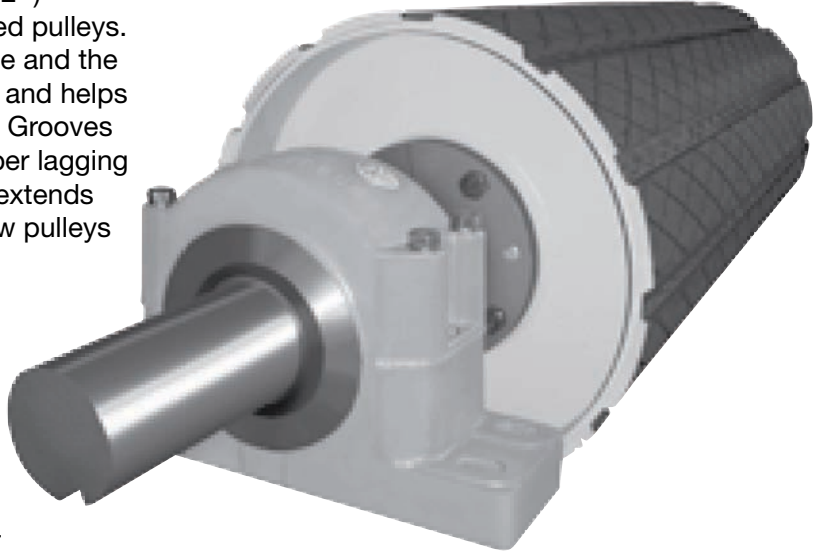
# Sectional Retainer Lagging

## BENEFITS

Douglas® Sectional Retainer Lagging (SRL™) delivers increased traction over non lagged pulleys. Increased traction between the pulley face and the belt bottom covers reduces belt slippage and helps to improve belt tracking. Double Chevron Grooves help shed water and dirt. Vulcanized rubber lagging protects the pulley's face from wear and extends pulley service life. Can be installed on new pulleys in our plant or on the pulley in the field.

## CONSTRUCTION

Douglas® Sectional Retainer Lagging is constructed of the highest quality materials available and to the highest quality standards in the industry. All sections are vulcanized in house using state of the art computer controlled auto-claves. Standard pulley lagging is a 60-65 Durometer Shore A SBR compound suitable for a wide variety of applications. Flat face is standard for SRL™. Special materials similar to the list of materials shown under Vulcanized Pulley Lagging and stainless steel backing plates are available.



**DOUGLAS LAGGING IDENTIFICATION**

SRL - DF - 12X26

Sectional  
Rim Lagging

Diamond  
Groove

Flat  
Face

Dia.  
Face

Face  
Width

**SRCL # of 72" segments required for indicated diameters and face widths based on butt seam process (all segments over 4" long are used by butting ends together in a random pattern)**

|          |    | Face Width |    |    |    |    |    |    |    |    |    |
|----------|----|------------|----|----|----|----|----|----|----|----|----|
|          |    | 26         | 32 | 38 | 44 | 46 | 51 | 54 | 60 | 66 | 72 |
| Diameter | 8  | 2          | 2  | 3  | 3  | 3  | 3  | 3  | 4  | 4  | 4  |
|          | 10 | 2          | 3  | 3  | 4  | 4  | 4  | 4  | 5  | 5  | 5  |
|          | 12 | 3          | 3  | 4  | 4  | 4  | 5  | 5  | 5  | 6  | 6  |
|          | 14 | 3          | 3  | 4  | 5  | 5  | 5  | 6  | 6  | 7  | 7  |
|          | 16 | 3          | 4  | 5  | 5  | 6  | 6  | 6  | 7  | 8  | 8  |
|          | 18 | 4          | 4  | 5  | 6  | 6  | 7  | 7  | 8  | 9  | 9  |
|          | 20 | 4          | 5  | 6  | 7  | 7  | 8  | 8  | 9  | 10 | 10 |
|          | 24 | 5          | 6  | 7  | 8  | 8  | 9  | 9  | 10 | 11 | 12 |
|          | 30 | 6          | 7  | 8  | 10 | 10 | 11 | 12 | 13 | 14 | 15 |
|          | 36 | 7          | 8  | 10 | 11 | 12 | 13 | 14 | 15 | 17 | 18 |
|          | 42 | 8          | 10 | 12 | 13 | 14 | 15 | 18 | 18 | 20 | 21 |
|          | 48 | 9          | 11 | 13 | 15 | 16 | 17 | 18 | 20 | 22 | 24 |

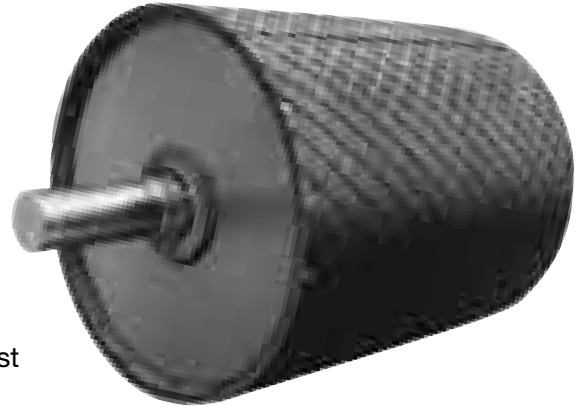
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# Bolt-On Replaceable Rim Lagging™

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

## Benefits

- Fits all standard manufacturers' crown face drum pulleys
- RRL® comes in engineered pre-sized sets of 2 to 5 sections
  - Crown face standard
  - Saves up to 70% on labor
  - Fewer sections, less welds, more belt to pulley contact
  - No layout necessary
  - No cutting necessary
- Order Bolt-On RRL® with a new pulley and Douglas will install it free of labor charge
- Reduce conveyor downtime and pulley installation/removal cost
- Ideally suited for severe applications
- Heavy steel backing plate with rolled in crown and **truck tire tough** 1/2" SBR/Natural rubber revitalizes old pulleys and adds years of service life
- Improve traction capacity of any pulley with Douglas Bolt-On RRL®
- Easy-on easy-off principle means that Douglas RRL® may be installed in the field without removing the pulley or the conveyor belt
- Minimum gap between segments means unequaled belt to pulley contact and more traction



## Construction

- All standard lagging is hot vulcanized in our plant to strict tolerances and the highest industry standards
- Diamond groove standard

## Options

- Optional Herringbone/Chevron groove or plain wrap cloth impression available
- Available in the same range of materials as Douglas conveyor pulley lagging
- Available with stainless steel backing plate

## Installation

1. Follow all OSHA, state and owner safety procedures. Lock-out, tag-out all equipment before servicing, **never, never** operate, adjust or install equipment on a moving conveyor.
2. Clean pulley face of dirt and buildup.
3. Place first rim segment on pulley. Hold in place with welder's clamps each end.
4. It may be necessary to pull the middle down with chain. Be sure each segment fits snug against face (prevents segment flexing and weld fatigue).
5. Drill holes in pulley rim using holes in segments as template.
6. Bolt segments to pulley face.

TO ORDER – See Preceding Page

## Bolt-On Replaceable Rim Lagging® Dimensions

|              |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Diameter     | 8    | 10   | 12   | 14   | 16   | 18   | 20   | 24   | 30   | 36   | 42   | 48   |
| Weight PIL   | 1.47 | 1.74 | 2.09 | 2.44 | 2.80 | 3.63 | 3.48 | 4.18 | 5.23 | 6.28 | 7.33 | 8.37 |
| # of Segment | 2    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 4    | 4    | 4    | 4    |



**GRAIN ELEVATOR APPLICATIONS**

NOTE: If the BOLT ON method is chosen because of fire hazard or grain elevator safety requirements, we do have available static conducting and/or MSHA style rubber compounds. Please specify when required. Size, weight and rubber specifications same as on Weld-On.

**DOUGLAS LAGGING IDENTIFICATION**

RRB – BDC – 12X26

Replaceable Rim Lagging    Bolt On    Diamond Groove    Crown Face    Dia. Face Width

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# Replaceable Wing Lagging™

## BENEFITS

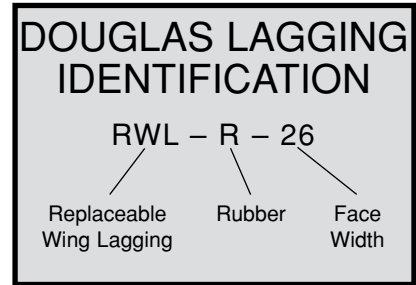
Patented Replaceable Wing Lagging® (RWL™) is an innovative way to cover new wing pulleys and recover old wing pulleys. Engineered sections are made for specific pulley sizes and effectively cover the pulley wings in a protective strip of rubber and steel and are an ideal way to save money and time. Can be installed on new pulleys in our plant or on the pulley in the field.

- Significantly reduces noise and vibration commonly associated with wing pulleys
- Helps prevent damage to the belt bottom cover
- No layout necessary to fit to existing pulleys
- No cutting necessary: eliminates waste and scrap pieces
- Reduces conveyor downtime and reduces costs associated with pulley installation and removal
- Easy on/Easy off principle means Douglas® RWL™ may be installed in the field without removing the pulley or the conveyor belt
- Order RWL™ with any new Douglas® pulley and we will install it for free



## CONSTRUCTION

Douglas® Replaceable Wing Lagging™ (RWL™) is constructed of the highest quality materials available and to the highest quality standards in the industry. All RWL™ is vulcanized in house using state of the art computer controlled autoclaves. Standard RWL™ is manufactured with 1/2" 60-65 Durometer SBR compound suitable for a wide variety of applications and is bonded to saddle style mounting bracket that easily fits over most common wings. Normally furnished with a crown face. Flat face is available.

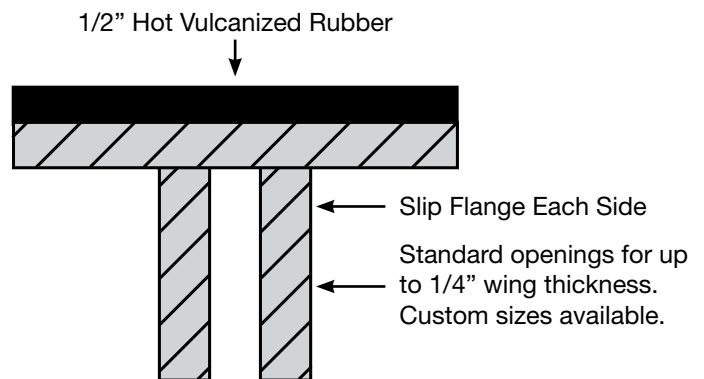


## OPTIONS

- 1/2" thick urethane available on request
- Douglas can provide High Impact Replaceable Wing Lagging® to rebuild any manufacturers' pulley, saving time and money

## INSTALLATION

1. Follow all OSHA, state and owner safety procedures. Lock-out, tag-out all equipment before servicing, **never, never** operate, adjust or install equipment on a moving conveyor.
2. Clean old face bar from wings
3. Slip RWL bar over wing fin edge
4. Tack weld both sides of slip flange

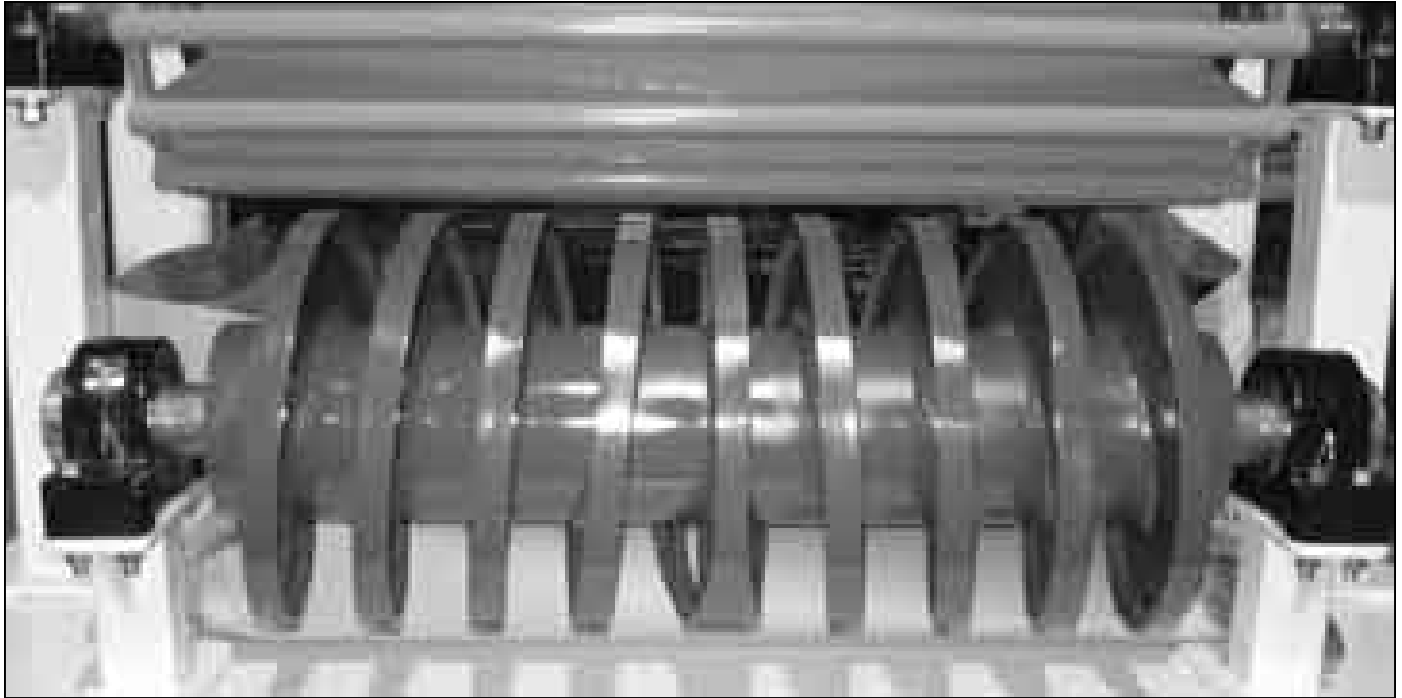


**# of segments required to cover standard # of wings on a pulley (To verify simply count the # of wings on an existing pulley prior to ordering)**

|                        |   |    |    |    |    |    |    |    |    |    |    |    |
|------------------------|---|----|----|----|----|----|----|----|----|----|----|----|
| Diameter               | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 24 | 30 | 36 | 42 | 48 |
| # of Segments Required | 6 | 8  | 10 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 18 | 20 |

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# The Vortex™ Spiral Clean Pulley



Douglas® Manufacturing defies conventional thought with the introduction of the Vortex™ Spiral Clean Pulley an innovative concept in self cleaning pulley design. The cutting edge design is for harsh operating conditions and for those applications where the uninterrupted operation of the pulley is a must.

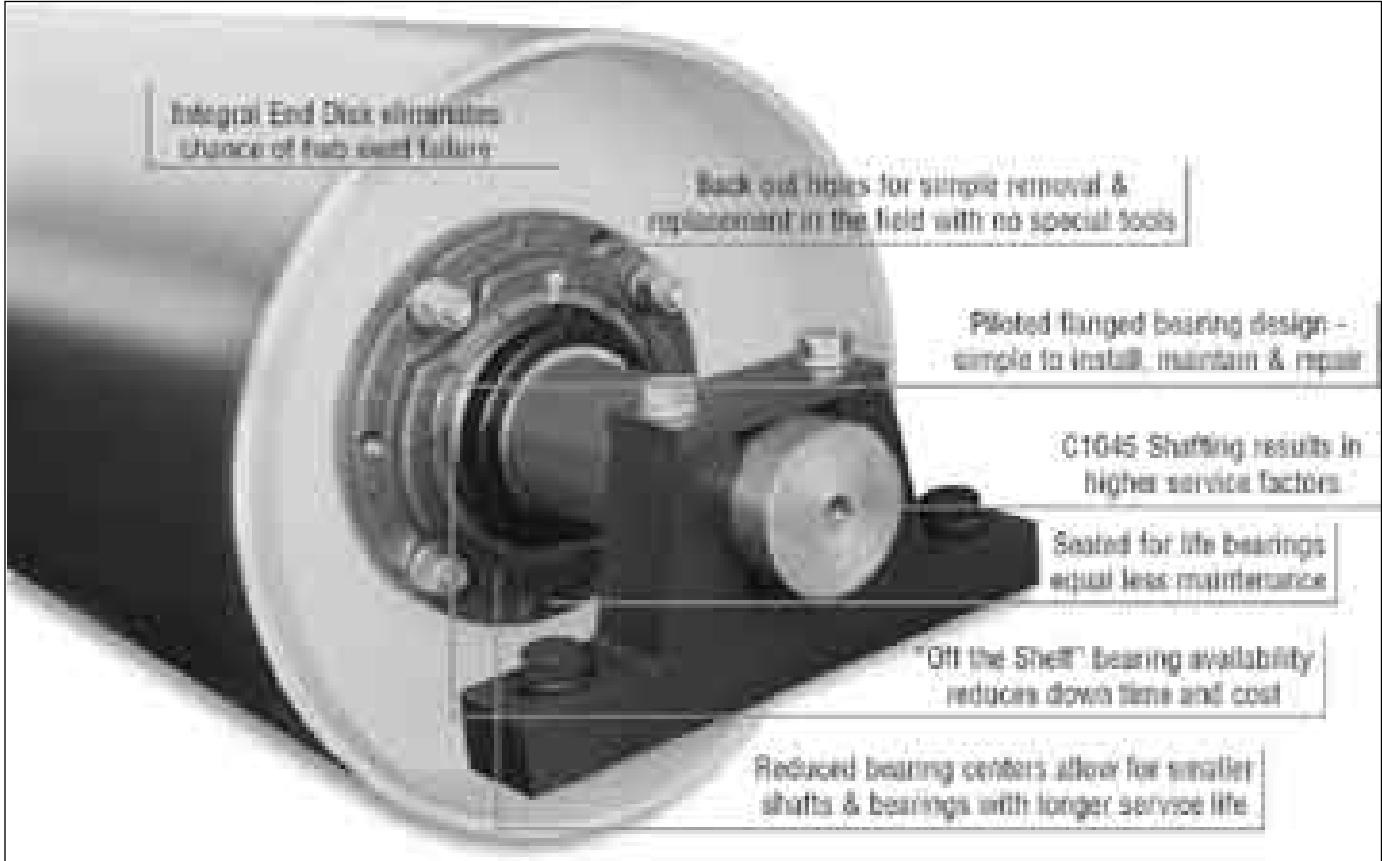


## **DESIGN FEATURES INCLUDE:**

- More efficient self cleaning ability than standard wing pulleys
- Smoother running with reduced vibration that improves sealing at transfer points and reduces the level of noise commonly associated with wing pulleys
- Spiral design aids in belt tracking by moving the belt gently from the center of the pulley to the opposing edges with equal force
- Unique continuous flight design prevents wing folding
- Abrasion resistant contact bar (standard) extends pulley life by as much as 50% over standard contact bars
- 106 Series Keyless Locking Elements (standard) allow for infinite placement on the shaft and transfer torque more efficiently than standard keyed bushings
- Available in the Douglas® Integra™ Series (optional) with bearings mounted inside the pulley for a lower overall profile and enhanced safety.
- Standard industry leading 3 year warranty

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## Integra™ Series Drum & Wing Pulleys



### ***Integral Bearing Pulleys from Douglas Offer Many Performance Benefits***

- Up to 33% higher load ratings result from reduced bearing centers
- May be used in all non-drive applications
- Available in Mine Duty & Extreme Duty® Series
- Improves pulley life in applications where shaft deflection presents problems
- 3 Year Limited Warranty Available



**Available in drum or self cleaning wing styles.**

# Idlers CEMA B, C, D

IDLERS  
CEMA B, C, D

## CEMA B

|  |    |
|--|----|
| 20 Troughed Idlers 4" & 5" Diameter Equal Length Rollers   | 34 |
| 35 Troughed Idlers 4" & 5" Diameter Equal Length Rollers   | 35 |
| 45 Troughed Idlers 4" & 5" Diameter Equal Length Rollers   | 36 |
| Return Idlers 4" & 5" Diameter                             | 37 |
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| Self-Aligning Return Idlers 4" & 5" Diameter               | 41 |
| 20, 35 & 45 Rubber Disc Impact Troughed Idlers 5" Diameter | 42 |
| Rubber Disc Return Idlers 5" Diameter                      | 43 |
| Flat Carrying Idlers 4" & 5" Diameter                      | 44 |
| 20 Low Profile Channel Mount Idlers 4" & 5" Diameter       | 45 |

## CEMA C

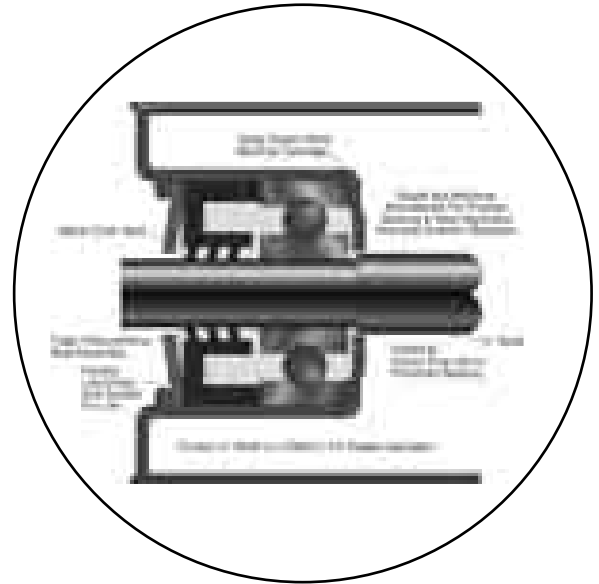
|   |    |
|---|----|
| 20 Troughed Idlers 4", 5" & 6" Diameter Equal Length Rollers  | 48 |
| 35 Troughed Idlers 4", 5" & 6" Diameter Equal Length Rollers  | 49 |
| 45 Troughed Idlers 4", 5" & 6" Diameter Equal Length Rollers  | 50 |
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| 35 Rubber Disc Impact Troughed Idlers 5" & 6" Diameter        | 54 |
| 45 Rubber Disc Impact Troughed Idlers 5" & 6" Diameter        | 55 |
| Rubber Disc Return Idlers 5" Diameter                         | 56 |
| Rubber Cushion Flat Idlers 5" & 6" Diameter                   | 57 |
| 20 Self-Aligning Troughed Idlers 4", 5" & 6" Diameter         | 58 |
| 35 Self-Aligning Troughed Idlers 4", 5" & 6" Diameter         | 59 |
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## CEMA D

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| 45 Troughed Idlers 5" & 6" Diameter Equal Length Rollers | 72 |
| Return Idlers 5" & 6" Diameter                           | 73 |
| 20 Rubber Disc Impact Troughed Idlers 5" & 6" Diameter   | 74 |
| 35 Rubber Disc Impact Troughed Idlers 5" & 6" Diameter   | 75 |
| 45 Rubber Disc Impact Troughed Idlers 5" & 6" Diameter   | 76 |
| 20 Self-Aligning Troughed Idlers 5" & 6" Diameter        | 77 |
| 35 Self-Aligning Troughed Idlers 5" & 6" Diameter        | 78 |
| 45 Self-Aligning Troughed Idlers 5" & 6" Diameter        | 79 |
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| 20 & 35 Side Guide Roller                                | 84 |

# Freedom Series

## CEMA B Idler



***Get all the benefits of a high quality American made idler with the lowest initial investment and lowest total cost of ownership!***

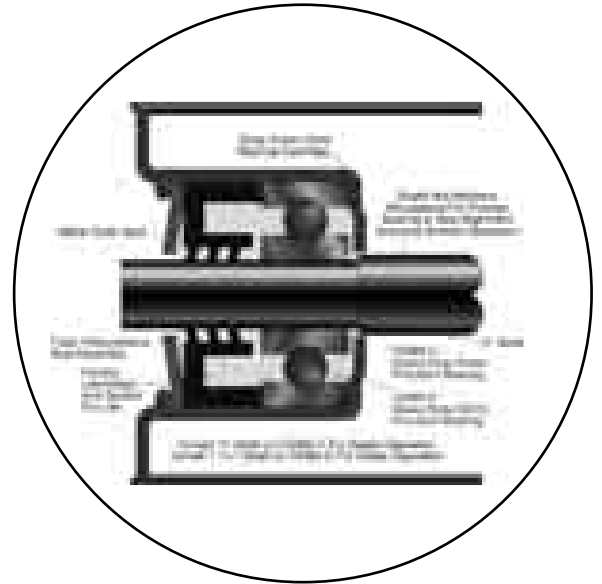
- ★ Engineered for CEMA B applications for improved sealing, better stability and longer life
- ★ Steel end cap with metal outer seal
  - Deep drawn metal end cap
  - Triple polyurethane contact seal prevents material contamination of bearing and provides longer uninterrupted service life
  - Heavy precision ground sealed for life ball bearings provide as much as twice the uninterrupted service life over regreasable tapered roller bearings
  - Extended roll life provides continuous production
  - Keeps rolls moving freely
  - Sealed for life design requires no maintenance
- ★ Machined, shouldered shaft to insure proper bearing alignment, smooth operating surface and eliminate potential for premature bearing failure
- ★ Rigid, self cleaning, welded steel frame with interchangeable mounting slots
- ★ Reduced friction levels help conserve energy
- ★ Fully complies with CEMA B idler ratings

Available in the following configurations: 4" & 5" troughing & returns in 18-48" belt width Impact, Rubber Disc Return, Self Aligning, Unequal length troughing and at carry idlers.

# B, C & D Idlers



**CEMA C & D Idler**



**IDLERS  
CEMA C & D**

- ★ Engineered for demanding CEMA C or D applications for improved sealing, better stability and longer life
- ★ Steel end cap with metal outer seal
  - Deep drawn metal end cap
  - Triple polyurethane contact seal prevents material contamination of bearing and provides longer uninterrupted service life
  - Heavy precision ground sealed for life ball bearings provide as much as twice the uninterrupted service life over regreasable tapered roller bearings
  - Extended roll life provides continuous production
  - Keeps rolls moving freely
  - Sealed for life design requires no maintenance
- ★ Machined, shouldered shaft to insure proper bearing alignment, smooth operating surface and eliminate potential for premature bearing failure
- ★ Rigid, self cleaning, welded steel frame with interchangeable mounting slots
- ★ Reduced friction levels help conserve energy
- ★ Fully complies with CEMA C idler ratings
- ★ CEMA D Idler fully complies with D Idler ratings

Available in the following configurations: 4", 5" & 6" troughing & returns in 18-60" belt width  
Impact, Rubber Disc Return, Self Aligning, Unequal length troughing and at carry idlers.  
CEMA D available in 5" & 6" diameters.







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|  |    |
|--|----|
| <i>20° Troughed Idlers 4" &amp; 5" Diameter Equal Length Rollers</i> .....     | 34 |
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| <i>45° Troughed Idlers 4" &amp; 5" Diameter Equal Length Rollers</i> .....     | 36 |
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# CEMA-B 20° Troughed Idlers 4" & 5" Diameter Equal Length Rollers

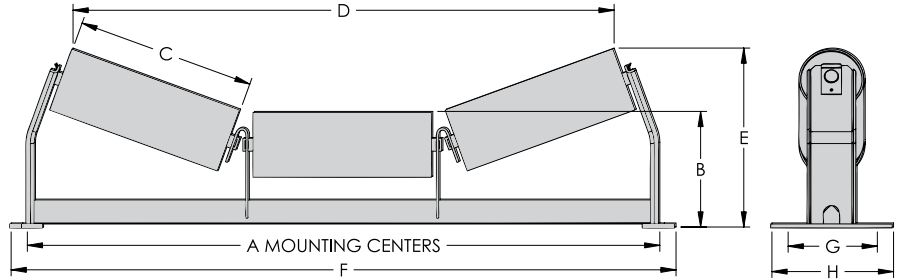
Heavy 20mm (.787") Precision, Permanent Sealed Bearings

IDLERS  
CEMA B

**DOUGLAS IDLER IDENTIFICATION**

DBT-24 - 20 - 04

Douglas CEMA-B Troughing | Belt Width | Troughing Angle | Roll Diameter



## 20° Troughing Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C       | D       | E        | F  | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|---------|---------|----------|----|-------|-------|---------------|----------------------|
| 18         | DBT-18-20-04    | 27  | 27 | 7     | 6 5/8   | 20 3/8  | 9 1/2    | 29 | 6     | 7 1/2 | 1/2           | RBT-18-04            |
| 20         | DBT-20-20-04    | 29  | 29 | 7     | 7 1/4   | 22 5/16 | 9 5/8    | 31 | 6     | 7 1/2 | 1/2           | RBT-20-04            |
| 24         | DBT-24-20-04    | 33  | 33 | 7     | 8 13/16 | 27      | 10 3/16  | 35 | 6     | 7 1/2 | 1/2           | RBT-24-04            |
| 30         | DBT-30-20-04    | 36  | 39 | 7     | 11      | 33 1/16 | 11       | 41 | 6     | 7 1/2 | 1/2           | RBT-30-04            |
| 36         | DBT-36-20-04    | 43  | 45 | 7     | 13 1/8  | 39 3/8  | 11 5/8   | 47 | 6     | 7 1/2 | 1/2           | RBT-36-04            |
| 42         | DBT-42-20-04    | 47  | 51 | 7 1/2 | 15 1/8  | 44 7/8  | 12 13/16 | 53 | 7 1/2 | 9     | 1/2           | RBT-42-04            |
| 48         | DBT-48-20-04    | 53  | 57 | 7 1/2 | 17 1/8  | 51      | 13 9/16  | 59 | 7 1/2 | 9     | 1/2           | RBT-48-04            |

## 20° Troughing Idler 5" Diameter

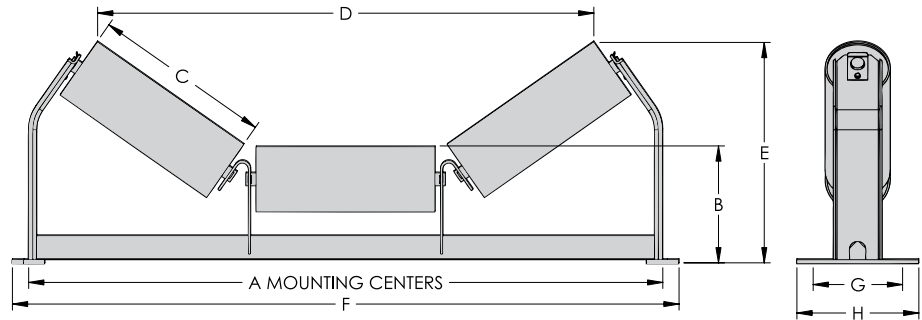
| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C       | D      | E       | F  | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|---------|--------|---------|----|-------|-------|---------------|----------------------|
| 18         | DBT-18-20-05    | 27  | 27 | 7 1/2 | 6 5/8   | 20     | 10      | 29 | 6     | 7 1/2 | 1/2           | RBT-18-05            |
| 20         | DBT-20-20-05    | 29  | 29 | 7 1/2 | 7 1/4   | 22     | 10 1/16 | 31 | 6     | 7 1/2 | 1/2           | RBT-20-05            |
| 24         | DBT-24-20-05    | 33  | 33 | 7 1/2 | 8 13/16 | 27     | 10 5/8  | 35 | 6     | 7 1/2 | 1/2           | RBT-24-05            |
| 30         | DBT-30-20-05    | 36  | 39 | 7 1/2 | 11      | 29 3/4 | 11 3/8  | 41 | 6     | 7 1/2 | 1/2           | RBT-30-05            |
| 36         | DBT-36-20-05    | 43  | 45 | 7 1/2 | 13 1/8  | 39     | 12 1/8  | 47 | 6     | 7 1/2 | 1/2           | RBT-36-05            |
| 42         | DBT-42-20-05    | 47  | 51 | 8     | 15 1/8  | 44     | 13 1/8  | 53 | 7 1/2 | 9     | 1/2           | RBT-42-05            |
| 48         | DBT-48-20-05    | 53  | 57 | 8     | 17 1/8  | 50 5/8 | 14      | 59 | 7 1/2 | 9     | 1/2           | RBT-48-05            |

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# CEMA-B 35° Troughed Idlers 4" & 5" Diameter Equal Length Rollers

Heavy 20mm (.787") Precision, Permanent Sealed Bearings

| DOUGLAS IDLER IDENTIFICATION   |               |                    |   |                  |
|--------------------------------|---------------|--------------------|---|------------------|
| DBT-24                         | -             | 35                 | - | 04               |
| Douglas<br>CEMA-B<br>Troughing | Belt<br>Width | Troughing<br>Angle |   | Roll<br>Diameter |



IDLERS  
CEMA B

## 35° Troughing Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C       | D        | E        | F  | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|---------|----------|----------|----|-------|-------|---------------|----------------------|
| 18         | DBT-18-35-04    | 28  | 27 | 7     | 6 5/8   | 18 5/8   | 11 7/16  | 29 | 6     | 7 1/2 | 1/2           | RBT-18-04            |
| 20         | DBT-20-35-04    | 29  | 29 | 7     | 7 1/4   | 20 5/16  | 11 9/16  | 31 | 6     | 7 1/2 | 1/2           | RBT-20-04            |
| 24         | DBT-24-35-04    | 33  | 33 | 7     | 8 13/16 | 24 7/16  | 12 1/2   | 35 | 6     | 7 1/2 | 1/2           | RBT-24-04            |
| 30         | DBT-30-35-04    | 37  | 39 | 7     | 11      | 30 3/16  | 14       | 41 | 6     | 7 1/2 | 1/2           | RBT-30-04            |
| 36         | DBT-36-35-04    | 44  | 45 | 7     | 13 1/8  | 35 13/16 | 14 3/4   | 47 | 6     | 7 1/2 | 1/2           | RBT-36-04            |
| 42         | DBT-42-35-04    | 48  | 51 | 7 1/2 | 15 1/8  | 40 3/4   | 16 13/16 | 53 | 7 1/2 | 9     | 1/2           | RBT-42-04            |
| 48         | DBT-48-35-04    | 54  | 57 | 7 1/2 | 17 1/8  | 46 1/4   | 17 5/8   | 59 | 7 1/2 | 9     | 1/2           | RBT-48-04            |

## 35° Troughing Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C       | D        | E        | F  | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|---------|----------|----------|----|-------|-------|---------------|----------------------|
| 18         | DBT-18-35-05    | 31  | 27 | 7 1/2 | 6 5/8   | 18 1/16  | 11 13/16 | 29 | 6     | 7 1/2 | 1/2           | RBT-18-05            |
| 20         | DBT-20-35-05    | 33  | 29 | 7 1/2 | 7 1/4   | 19 3/4   | 11 15/16 | 31 | 6     | 7 1/2 | 1/2           | RBT-20-05            |
| 24         | DBT-24-35-05    | 37  | 33 | 7 1/2 | 8 13/16 | 23 7/8   | 12 7/8   | 35 | 6     | 7 1/2 | 1/2           | RBT-24-05            |
| 30         | DBT-30-35-05    | 42  | 39 | 7 1/2 | 11      | 29 5/8   | 14 3/8   | 41 | 6     | 7 1/2 | 1/2           | RBT-30-05            |
| 36         | DBT-36-35-05    | 50  | 45 | 7 1/2 | 13 1/8  | 36 1/4   | 15 3/16  | 47 | 6     | 7 1/2 | 1/2           | RBT-36-05            |
| 42         | DBT-42-35-05    | 55  | 51 | 8     | 15 1/8  | 40 3/16  | 17 3/16  | 53 | 7 1/2 | 9     | 1/2           | RBT-42-05            |
| 48         | DBT-48-35-05    | 61  | 57 | 8     | 17 1/8  | 45 11/16 | 18       | 59 | 7 1/2 | 9     | 1/2           | RBT-48-05            |

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# CEMA-B 45° Troughed Idlers 4" & 5" Diameter Equal Length Rollers

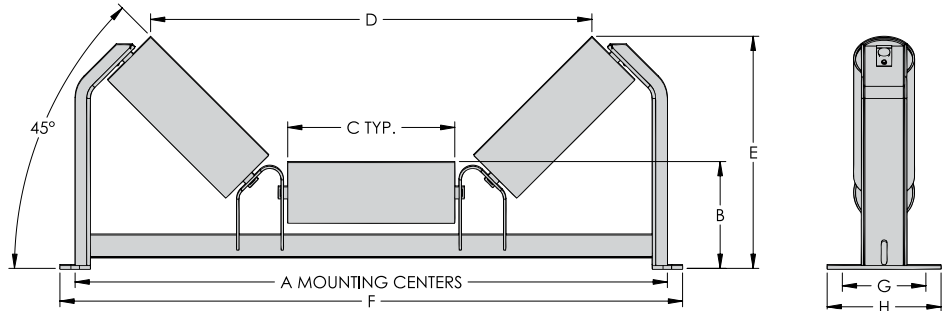
Heavy 20mm (.787") Precision, Permanent Sealed Bearings

IDLERS  
CEMA B

**DOUGLAS IDLER IDENTIFICATION**

DBT-24 - 45 - 04

Douglas CEMA-B Troughing | Belt Width | Troughing Angle | Roll Diameter



## 45° Troughing Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B      | C       | D       | E        | F  | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|--------|---------|---------|----------|----|-------|-------|---------------|----------------------|
| 18         | DBT-18-45-04    | 33  | 27 | 7 1/16 | 6 5/8   | 18 1/2  | 12 3/16  | 29 | 6     | 7 1/2 | 1/2           | RBT-18-04            |
| 20         | DBT-20-45-04    | 36  | 29 | 7 1/16 | 7 1/4   | 20      | 12 5/8   | 31 | 6     | 7 1/2 | 1/2           | RBT-20-04            |
| 24         | DBT-24-45-04    | 40  | 33 | 7 1/16 | 8 13/16 | 23 3/4  | 13 3/4   | 35 | 6     | 7 1/2 | 1/2           | RBT-24-04            |
| 30         | DBT-30-45-04    | 47  | 39 | 7 1/16 | 11      | 29 1/16 | 15 5/16  | 41 | 6     | 7 1/2 | 1/2           | RBT-30-04            |
| 36         | DBT-36-45-04    | 53  | 45 | 7 1/16 | 13 1/8  | 34 3/16 | 16 13/16 | 47 | 6     | 7 1/2 | 1/2           | RBT-36-04            |
| 42         | DBT-42-45-04    | 64  | 51 | 7 3/8  | 15 1/8  | 39      | 18 9/16  | 53 | 7 1/2 | 9     | 1/2           | RBT-42-04            |
| 48         | DBT-48-45-04    | 71  | 57 | 7 3/8  | 17 1/8  | 43 7/8  | 19 15/16 | 59 | 7 1/2 | 9     | 1/2           | RBT-48-04            |

## 45° Troughing Idler 5" Diameter

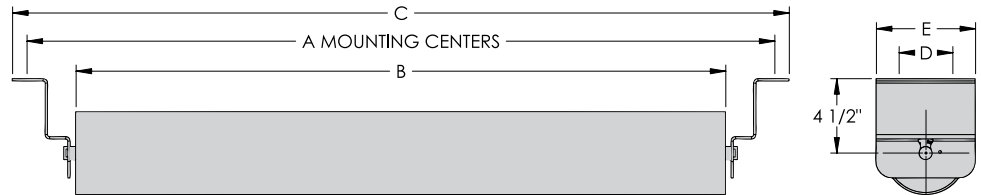
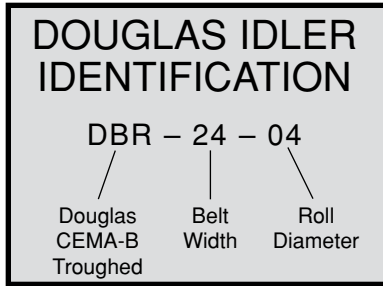
| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B      | C       | D        | E        | F  | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|--------|---------|----------|----------|----|-------|-------|---------------|----------------------|
| 18         | DBT-18-45-05    | 36  | 27 | 7 9/16 | 6 5/8   | 17 13/16 | 12 9/16  | 29 | 6     | 7 1/2 | 1/2           | RBT-18-05            |
| 20         | DBT-20-45-05    | 39  | 29 | 7 9/16 | 7 1/4   | 19 5/16  | 13       | 31 | 6     | 7 1/2 | 1/2           | RBT-20-05            |
| 24         | DBT-24-45-05    | 44  | 33 | 7 9/16 | 8 13/16 | 23 1/16  | 14 1/16  | 35 | 6     | 7 1/2 | 1/2           | RBT-24-05            |
| 30         | DBT-30-45-05    | 52  | 39 | 7 9/16 | 11      | 28 3/8   | 15 7/16  | 41 | 6     | 7 1/2 | 1/2           | RBT-30-05            |
| 36         | DBT-36-45-05    | 59  | 45 | 7 9/16 | 13 1/8  | 33 1/2   | 17 1/8   | 47 | 6     | 7 1/2 | 1/2           | RBT-36-05            |
| 42         | DBT-42-45-05    | 70  | 51 | 7 7/8  | 15 1/8  | 38 5/16  | 18 15/16 | 53 | 7 1/2 | 9     | 1/2           | RBT-42-05            |
| 48         | DBT-48-45-05    | 77  | 57 | 7 7/8  | 17 1/8  | 43 1/8   | 20 5/16  | 59 | 7 1/2 | 9     | 1/2           | RBT-48-05            |

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# CEMA-B Return Idlers

## 4" & 5" Diameter

*Heavy 20mm (.787") Precision, Permanent Sealed Bearings*



**IDLERS  
CEMA B**

### Return Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | D | E | MOUNTING BOLT |
|------------|-----------------|-----|----|----|----|---|---|---------------|
| 18         | DBR-18-04       | 16  | 27 | 21 | 29 | 4 | 6 | 1/2           |
| 20         | DBR-20-04       | 17  | 29 | 23 | 31 | 4 | 6 | 1/2           |
| 24         | DBR-24-04       | 20  | 33 | 27 | 35 | 4 | 6 | 1/2           |
| 30         | DBR-30-04       | 22  | 39 | 33 | 41 | 4 | 6 | 1/2           |
| 36         | DBR-36-04       | 25  | 45 | 39 | 47 | 4 | 6 | 1/2           |
| 42         | DBR-42-04       | 32  | 51 | 45 | 53 | 4 | 6 | 1/2           |
| 48         | DBR-48-04       | 34  | 57 | 51 | 59 | 4 | 6 | 1/2           |

### Return Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | D | E | MOUNTING BOLT |
|------------|-----------------|-----|----|----|----|---|---|---------------|
| 18         | DBR-18-05       | 21  | 27 | 21 | 29 | 4 | 6 | 1/2           |
| 20         | DBR-20-05       | 22  | 29 | 23 | 31 | 4 | 6 | 1/2           |
| 24         | DBR-24-05       | 25  | 33 | 27 | 35 | 4 | 6 | 1/2           |
| 30         | DBR-30-05       | 30  | 39 | 33 | 41 | 4 | 6 | 1/2           |
| 36         | DBR-36-05       | 34  | 45 | 39 | 47 | 4 | 6 | 1/2           |
| 42         | DBR-42-05       | 39  | 51 | 45 | 53 | 4 | 6 | 1/2           |
| 48         | DBR-48-05       | 42  | 57 | 51 | 59 | 4 | 6 | 1/2           |

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# CEMA-B 20° Self-Aligning Troughed Idlers 4" & 5" Diameter

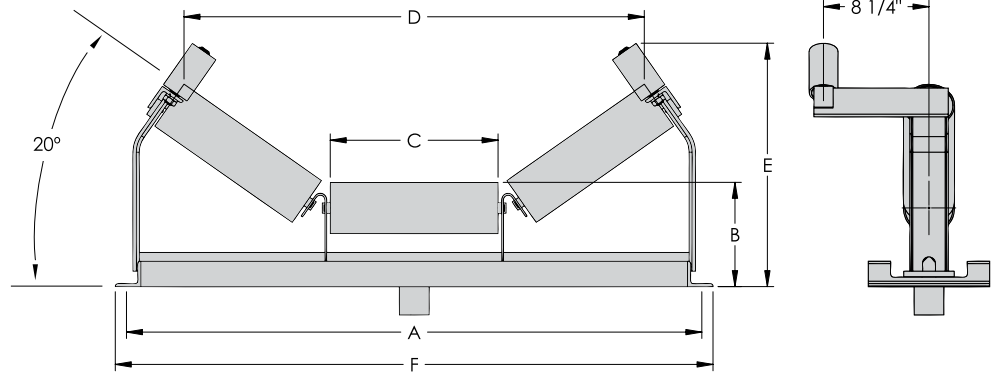
Heavy 20mm (.787") Precision, Permanent Sealed Bearings

BELT TRAVEL →

**DOUGLAS IDLER IDENTIFICATION**

DBS-18 - 20 - 04

Douglas CEMA-B Self-aligning | Belt Width | Troughed Angle | Roll Diameter



## 20° Self-Aligning Troughed Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B      | C       | D        | E        | F  | G | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|--------|---------|----------|----------|----|---|-------|---------------|----------------------|
| 18         | DBS-18-20-04    | 66  | 27 | 8 1/16 | 6 5/8   | 20 11/16 | 13 5/8   | 29 | 6 | 9 1/2 | 1/2           | RBT-18-04            |
| 20         | DBS-20-20-04    | 69  | 29 | 8 1/16 | 7 1/4   | 22 1/2   | 13 15/16 | 31 | 6 | 9 1/2 | 1/2           | RBT-20-04            |
| 24         | DBS-24-20-04    | 73  | 33 | 8 1/16 | 8 11/16 | 27       | 14 3/8   | 35 | 6 | 9 1/2 | 1/2           | RBT-24-04            |
| 30         | DBS-30-20-04    | 79  | 39 | 8 1/16 | 11      | 33 1/4   | 15 1/4   | 41 | 6 | 9 1/2 | 1/2           | RBT-30-04            |
| 36         | DBS-36-20-04    | 86  | 45 | 8 1/16 | 13 1/8  | 39 3/8   | 15 15/16 | 47 | 6 | 9 1/2 | 1/2           | RBT-36-04            |
| 42         | DBS-42-20-04    | 92  | 51 | 8 1/16 | 15 1/8  | 45 3/16  | 17       | 53 | 6 | 9 1/2 | 1/2           | RBT-42-04            |
| 48         | DBS-48-20-04    | 99  | 57 | 8 1/16 | 17 1/4  | 51 1/4   | 17 5/8   | 59 | 6 | 9 1/2 | 1/2           | RBT-48-04            |

## 20° Self-Aligning Troughed Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B      | C       | D        | E        | F  | G | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|--------|---------|----------|----------|----|---|-------|---------------|----------------------|
| 18         | DBS-18-20-05    | 66  | 27 | 8 9/16 | 6 5/8   | 20 11/16 | 13 3/16  | 29 | 6 | 9 1/2 | 1/2           | RBT-18-05            |
| 20         | DBS-20-20-05    | 69  | 29 | 8 9/16 | 7 1/4   | 22 1/2   | 13 15/16 | 31 | 6 | 9 1/2 | 1/2           | RBT-20-05            |
| 24         | DBS-24-20-05    | 73  | 33 | 8 9/16 | 8 13/16 | 27       | 14 3/8   | 35 | 6 | 9 1/2 | 1/2           | RBT-24-05            |
| 30         | DBS-30-20-05    | 79  | 39 | 8 9/16 | 11      | 33 1/4   | 15 1/4   | 41 | 6 | 9 1/2 | 1/2           | RBT-30-05            |
| 36         | DBS-36-20-05    | 86  | 45 | 8 9/16 | 13 1/8  | 39 3/8   | 15 15/16 | 47 | 6 | 9 1/2 | 1/2           | RBT-36-05            |
| 42         | DBS-42-20-05    | 92  | 51 | 8 9/16 | 15 1/8  | 45 3/16  | 17       | 53 | 6 | 9 1/2 | 1/2           | RBT-42-05            |
| 48         | DBS-48-20-05    | 99  | 57 | 8 9/16 | 17 1/4  | 51 1/4   | 17 5/8   | 59 | 6 | 9 1/2 | 1/2           | RBT-48-05            |

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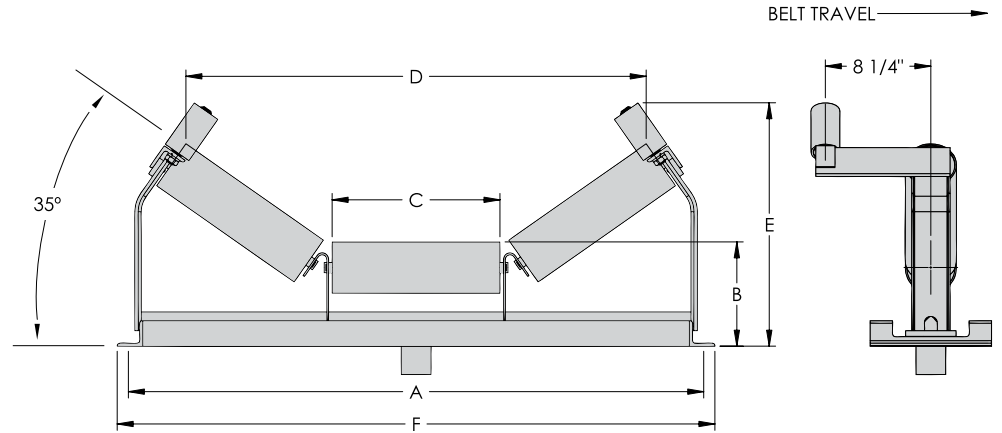
# CEMA-B 35° Self-Aligning Troughed Idlers 4" & 5" Diameter

Heavy 20mm (.787") Precision, Permanent Sealed Bearings

**DOUGLAS IDLER IDENTIFICATION**

DBS-18 - 35 - 04

Douglas CEMA-B Self-aligning | Belt Width | Troughed Angle | Roll Diameter



**IDLERS  
 CEMA B**

## 35° Self-Aligning Troughed Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B      | C       | D        | E        | F  | G | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|--------|---------|----------|----------|----|---|-------|---------------|----------------------|
| 18         | DBS-18-35-04    | 66  | 27 | 8 1/16 | 6 5/8   | 20 11/16 | 15 3/8   | 29 | 6 | 9 1/2 | 1/2           | RBT-18-04            |
| 20         | DBS-20-35-04    | 69  | 29 | 8 1/16 | 7 1/4   | 22 1/2   | 15 3/4   | 31 | 6 | 9 1/2 | 1/2           | RBT-20-04            |
| 24         | DBS-24-35-04    | 73  | 33 | 8 1/16 | 8 11/16 | 27       | 16 5/8   | 35 | 6 | 9 1/2 | 1/2           | RBT-24-04            |
| 30         | DBS-30-35-04    | 79  | 39 | 8 1/16 | 11      | 33 1/4   | 17 15/16 | 41 | 6 | 9 1/2 | 1/2           | RBT-30-04            |
| 36         | DBS-36-35-04    | 86  | 45 | 8 1/16 | 13 1/8  | 39 3/8   | 18 1/8   | 47 | 6 | 9 1/2 | 1/2           | RBT-36-04            |
| 42         | DBS-42-35-04    | 92  | 51 | 8 1/16 | 15 1/8  | 45 3/16  | 20 3/4   | 53 | 6 | 9 1/2 | 1/2           | RBT-42-04            |
| 48         | DBS-48-35-04    | 99  | 57 | 8 1/16 | 17 1/4  | 51 1/4   | 21 15/16 | 59 | 6 | 9 1/2 | 1/2           | RBT-48-04            |

## 35° Self-Aligning Troughed Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C       | D       | E        | F  | G | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|---------|---------|---------|----------|----|---|-------|---------------|----------------------|
| 18         | DBS-18-35-05    | 66  | 27 | 8 9/16  | 6 5/8   | 18 7/16 | 15 3/8   | 29 | 6 | 9 1/2 | 1/2           | RBT-18-05            |
| 20         | DBS-20-35-05    | 69  | 29 | 8 9/16  | 7 1/4   | 20 1/16 | 15 3/4   | 31 | 6 | 9 1/2 | 1/2           | RBT-20-05            |
| 24         | DBS-24-35-05    | 73  | 33 | 8 9/16  | 8 11/16 | 24 1/16 | 16 5/8   | 35 | 6 | 9 1/2 | 1/2           | RBT-24-05            |
| 30         | DBS-30-35-05    | 79  | 39 | 8 9/16  | 11      | 30 7/16 | 17 15/16 | 41 | 6 | 9 1/2 | 1/2           | RBT-30-05            |
| 36         | DBS-36-35-05    | 86  | 45 | 8 9/16  | 13 1/8  | 35 7/16 | 18 1/8   | 47 | 6 | 9 1/2 | 1/2           | RBT-36-05            |
| 42         | DBS-42-35-05    | 92  | 51 | 8 15/16 | 15 1/8  | 40 1/2  | 20 3/4   | 53 | 6 | 9 1/2 | 1/2           | RBT-42-05            |
| 48         | DBS-48-35-05    | 99  | 57 | 8 15/16 | 17 1/4  | 46 1/8  | 21 15/16 | 59 | 6 | 9 1/2 | 1/2           | RBT-48-05            |

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# CEMA-B 45° Self-Aligning Troughed Idlers 4" & 5" Diameter

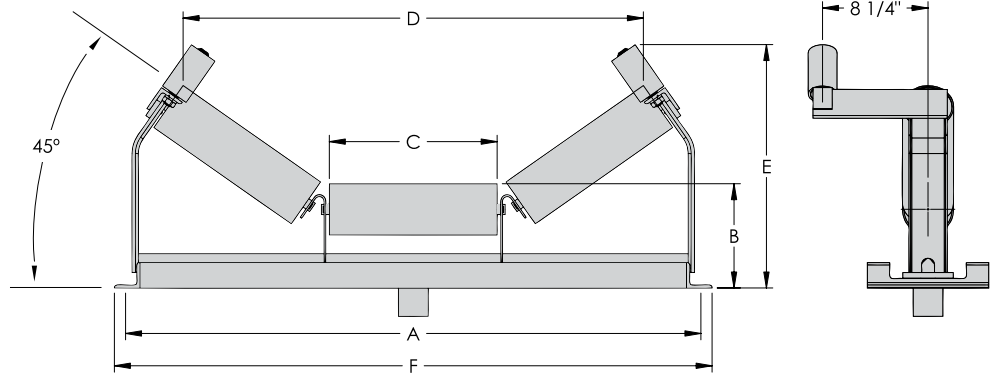
Heavy 20mm (.787") Precision, Permanent Sealed Bearings

BELT TRAVEL →

**DOUGLAS IDLER IDENTIFICATION**

DBS-18 - 45 - 04

Douglas CEMA-B Self-aligning | Belt Width | Troughed Angle | Roll Diameter



## 45° Self-Aligning Troughed Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C       | D       | E       | F  | G | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|---------|---------|---------|----|---|-------|---------------|----------------------|
| 18         | DBS-18-45-04    | 69  | 27 | 7 1/2 | 6 5/8   | 18 1/2  | 15 7/8  | 29 | 6 | 9 1/2 | 1/2           | RBT-18-04            |
| 20         | DBS-20-45-04    | 73  | 29 | 7 1/2 | 7 1/4   | 20      | 16 5/16 | 31 | 6 | 9 1/2 | 1/2           | RBT-20-04            |
| 24         | DBS-24-45-04    | 80  | 33 | 7 1/2 | 8 13/16 | 23 3/4  | 17 7/16 | 35 | 6 | 9 1/2 | 1/2           | RBT-24-04            |
| 30         | DBS-30-45-04    | 86  | 39 | 7 1/2 | 11      | 29 1/16 | 19      | 41 | 6 | 9 1/2 | 1/2           | RBT-30-04            |
| 36         | DBS-36-45-04    | 99  | 45 | 7 1/2 | 13 1/8  | 34 3/16 | 20 1/2  | 47 | 6 | 9 1/2 | 1/2           | RBT-36-04            |
| 42         | DBS-42-45-04    | 115 | 51 | 7 3/8 | 15 1/8  | 39      | 22 1/4  | 53 | 9 | 11    | 1/2           | RBT-42-04            |
| 48         | DBS-48-45-04    | 124 | 57 | 7 3/8 | 17 1/8  | 43 7/8  | 23 5/8  | 59 | 9 | 11    | 1/2           | RBT-48-04            |

## 45° Self-Aligning Troughed Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C       | D        | E        | F  | G | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|---------|----------|----------|----|---|-------|---------------|----------------------|
| 18         | DBS-18-45-05    | 72  | 27 | 8     | 6 5/8   | 17 13/16 | 16 1/4   | 29 | 6 | 9 1/2 | 1/2           | RBT-18-05            |
| 20         | DBS-20-45-05    | 76  | 29 | 8     | 7 1/4   | 19 5/16  | 16 11/16 | 31 | 6 | 9 1/2 | 1/2           | RBT-20-05            |
| 24         | DBS-24-45-05    | 84  | 33 | 8     | 8 13/16 | 23 1/16  | 17 3/4   | 35 | 6 | 9 1/2 | 1/2           | RBT-24-05            |
| 30         | DBS-30-45-05    | 95  | 39 | 8     | 11      | 28 3/8   | 19 1/8   | 41 | 6 | 9 1/2 | 1/2           | RBT-30-05            |
| 36         | DBS-36-45-05    | 105 | 45 | 8     | 13 1/8  | 33 1/2   | 20 13/16 | 47 | 6 | 9 1/2 | 1/2           | RBT-36-05            |
| 42         | DBS-42-45-05    | 121 | 51 | 7 7/8 | 15 1/8  | 38 5/16  | 22 5/8   | 53 | 9 | 11    | 1/2           | RBT-42-05            |
| 48         | DBS-48-45-05    | 130 | 57 | 7 7/8 | 17 1/8  | 43 1/8   | 24       | 59 | 9 | 11    | 1/2           | RBT-48-05            |

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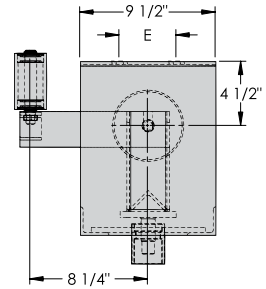
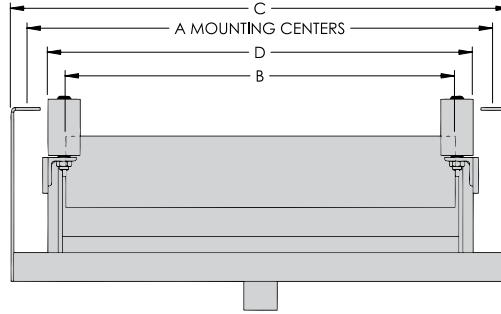
# CEMA-B Self-Aligning Return Idlers 4" & 5" Diameter

*Heavy 20mm (.787") Precision, Permanent Sealed Bearings*

**DOUGLAS IDLER IDENTIFICATION**

DBA - 18 - 04

Douglas CEMA-B Aligning | Belt Width | Roll Diameter



**IDLERS  
 CEMA B**

## Self-Aligning Return Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | D      | E | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|----|----|--------|---|---------------|----------------------|
| 18         | DBA-18-04       | 70  | 27 | 21 | 30 | 23 1/4 | 4 | 1/2           | DBR-18-04            |
| 20         | DBA-20-04       | 75  | 29 | 23 | 33 | 25 1/4 | 4 | 1/2           | DBR-20-04            |
| 24         | DBA-24-04       | 77  | 33 | 27 | 36 | 29 1/4 | 4 | 1/2           | DBR-24-04            |
| 30         | DBA-30-04       | 96  | 39 | 33 | 42 | 35 1/4 | 4 | 1/2           | DBR-30-04            |
| 36         | DBA-36-04       | 122 | 45 | 39 | 48 | 41 1/4 | 4 | 1/2           | DBR-36-04            |
| 42         | DBA-42-04       | 138 | 51 | 45 | 54 | 47 1/4 | 4 | 1/2           | DBR-42-04            |
| 48         | DBA-48-04       | 148 | 57 | 51 | 60 | 53 1/4 | 4 | 1/2           | DBR-48-04            |

## Self-Aligning Return Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | D      | E | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|----|----|--------|---|---------------|----------------------|
| 18         | DBA-18-05       | 71  | 27 | 21 | 30 | 23 1/4 | 4 | 1/2           | DBR-18-05            |
| 20         | DBA-20-05       | 76  | 29 | 23 | 33 | 25 1/4 | 4 | 1/2           | DBR-20-05            |
| 24         | DBA-24-05       | 78  | 33 | 27 | 36 | 29 1/4 | 4 | 1/2           | DBR-24-05            |
| 30         | DBA-30-05       | 97  | 39 | 33 | 42 | 35 1/4 | 4 | 1/2           | DBR-30-05            |
| 36         | DBA-36-05       | 124 | 45 | 39 | 48 | 41 1/4 | 4 | 1/2           | DBR-36-05            |
| 42         | DBA-42-05       | 134 | 51 | 45 | 54 | 47 1/4 | 4 | 1/2           | DBR-42-05            |
| 48         | DBA-48-05       | 149 | 57 | 51 | 60 | 53 1/4 | 4 | 1/2           | DBR-48-05            |

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# CEMA-B 20°, 35° & 45° Rubber Disc Impact Troughed Idlers 5" Diameter

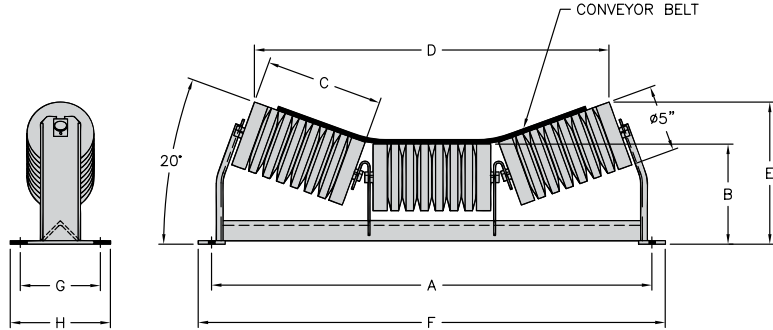
Heavy 20mm (.787") Precision, Permanent Sealed Bearings

IDLERS  
CEMA B

**DOUGLAS IDLER IDENTIFICATION**

DBI - 18 - 20 - 05

Douglas CEMA-B Impact    Belt Width    Troughed Angle    Roll Diameter



## 20° Rubber Disc Troughed Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C       | D        | E       | F  | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|---------|----------|---------|----|-------|-------|---------------|----------------------|
| 18         | DBI-18-20-05    | 36  | 27 | 7 1/2 | 6 5/8   | 20 11/16 | 9 1/2   | 29 | 6     | 7 1/2 | 1/2           | RBI-18-05            |
| 20         | DBI-20-20-05    | 37  | 29 | 7 1/2 | 7 1/4   | 22 1/2   | 10 1/16 | 31 | 6     | 7 1/2 | 1/2           | RBI-20-05            |
| 24         | DBI-24-20-05    | 41  | 33 | 7 1/2 | 8 13/16 | 27       | 10 5/8  | 35 | 6     | 7 1/2 | 1/2           | RBI-24-05            |
| 30         | DBI-30-20-05    | 46  | 39 | 7 1/2 | 11      | 33 1/4   | 11 3/8  | 41 | 6     | 7 1/2 | 1/2           | RBI-30-05            |
| 36         | DBI-36-20-05    | 54  | 45 | 7 1/2 | 13 1/8  | 39 3/8   | 12 1/8  | 47 | 6     | 7 1/2 | 1/2           | RBI-36-05            |
| 42         | DBI-42-20-05    | 59  | 51 | 8     | 15 1/8  | 45 3/16  | 13 1/8  | 53 | 7 1/2 | 9     | 1/2           | RBI-42-05            |
| 48         | DBI-48-20-05    | 65  | 57 | 8     | 17 1/4  | 51 1/4   | 13 7/8  | 59 | 7 1/2 | 9     | 1/2           | RBI-48-05            |

## 35° Rubber Disc Troughed Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C       | D        | E        | F  | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|---------|----------|----------|----|-------|-------|---------------|----------------------|
| 18         | DBI-18-35-05    | 36  | 27 | 7 1/2 | 6 5/8   | 18 5/8   | 11 7/16  | 29 | 6     | 7 1/2 | 1/2           | RBI-18-05            |
| 20         | DBI-20-35-05    | 37  | 29 | 7 1/2 | 7 1/4   | 20 5/16  | 11 13/16 | 31 | 6     | 7 1/2 | 1/2           | RBI-20-05            |
| 24         | DBI-24-35-05    | 41  | 33 | 7 1/2 | 8 13/16 | 24 7/16  | 12 11/16 | 35 | 6     | 7 1/2 | 1/2           | RBI-24-05            |
| 30         | DBI-30-35-05    | 46  | 39 | 7 1/2 | 11      | 30 3/16  | 14       | 41 | 6     | 7 1/2 | 1/2           | RBI-30-05            |
| 36         | DBI-36-35-05    | 54  | 45 | 7 1/2 | 13 1/8  | 35 13/16 | 14 3/16  | 47 | 6     | 7 1/2 | 1/2           | RBI-36-05            |
| 42         | DBI-42-35-05    | 59  | 51 | 8     | 15 1/8  | 41 3/16  | 16 13/16 | 53 | 7 1/2 | 9     | 1/2           | RBI-42-05            |
| 48         | DBI-48-35-05    | 65  | 57 | 8     | 17 1/4  | 46 1/4   | 18       | 59 | 7 1/2 | 9     | 1/2           | RBI-48-05            |

## 45° Rubber Disc Troughed Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B      | C       | D        | E        | F  | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|--------|---------|----------|----------|----|-------|-------|---------------|----------------------|
| 18         | DBI-18-45-05    | 36  | 27 | 7 9/16 | 6 5/8   | 17 13/16 | 12 9/16  | 29 | 6     | 7 1/2 | 1/2           | RBI-18-05            |
| 20         | DBI-20-45-05    | 39  | 29 | 7 9/16 | 7 1/4   | 19 5/16  | 13       | 31 | 6     | 7 1/2 | 1/2           | RBI-20-05            |
| 24         | DBI-24-45-05    | 44  | 33 | 7 9/16 | 8 13/16 | 23 1/16  | 14 1/16  | 35 | 6     | 7 1/2 | 1/2           | RBI-24-05            |
| 30         | DBI-30-45-05    | 52  | 39 | 7 9/16 | 11      | 28 3/8   | 15 7/16  | 41 | 6     | 7 1/2 | 1/2           | RBI-30-05            |
| 36         | DBI-36-45-05    | 59  | 45 | 7 9/16 | 13 1/8  | 33 1/2   | 17 1/8   | 47 | 6     | 7 1/2 | 1/2           | RBI-36-05            |
| 42         | DBI-42-45-05    | 70  | 51 | 7 7/8  | 15 1/8  | 38 5/16  | 18 15/16 | 53 | 7 1/2 | 9     | 1/2           | RBI-42-05            |
| 48         | DBI-48-45-05    | 77  | 57 | 7 7/8  | 17 1/8  | 43 1/8   | 20 5/16  | 59 | 7 1/2 | 9     | 1/2           | RBI-48-05            |

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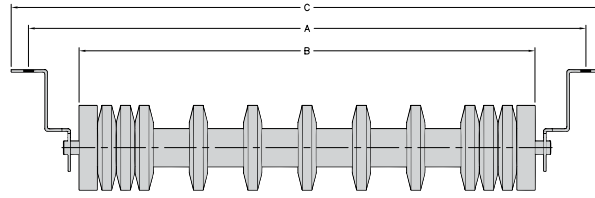
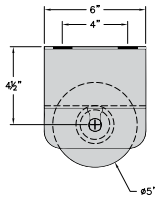
# CEMA-B Rubber Disc Return Idlers 5" Diameter

Heavy 20mm (.787") Precision, Permanent Sealed Bearings

**DOUGLAS IDLER IDENTIFICATION**

DBD - 18 - 05

Douglas CEMA-B Disc | Belt Width | Roll Diameter



Available with 4-1/2" or 1-1/2" Drop Brackets

**IDLERS  
 CEMA B**

## Rubber Disc Return Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | MOUNTING BOLT |
|------------|-----------------|-----|----|----|----|---------------|
| 18         | DBD-18-05       | 20  | 27 | 21 | 29 | 1/2           |
| 20         | DBD-20-05       | 24  | 29 | 23 | 31 | 1/2           |
| 24         | DBD-24-05       | 27  | 33 | 27 | 35 | 1/2           |
| 30         | DBD-30-05       | 34  | 39 | 33 | 41 | 1/2           |
| 36         | DBD-36-05       | 39  | 45 | 39 | 47 | 1/2           |
| 42         | DBD-42-05       | 43  | 51 | 45 | 53 | 1/2           |
| 48         | DBD-48-05       | 49  | 57 | 51 | 59 | 1/2           |

# CEMA-B Flat Carrying Idlers 4" & 5" Diameter

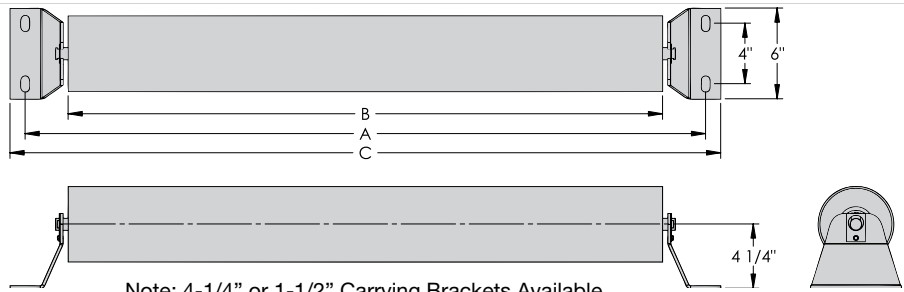
Heavy 20mm (.787") Precision, Permanent Sealed Bearings

IDLER  
CEMA B

**DOUGLAS IDLER IDENTIFICATION**

DBF - 18 - 04

Douglas CEMA-B Flat      Belt Width      Roll Diameter



## Flat Carrying Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | MOUNTING BOLT |
|------------|-----------------|-----|----|----|----|---------------|
| 18         | DBF-18-04       | 14  | 27 | 21 | 29 | 1/2           |
| 20         | DBF-20-04       | 15  | 29 | 23 | 31 | 1/2           |
| 24         | DBF-24-04       | 17  | 33 | 27 | 35 | 1/2           |
| 30         | DBF-30-04       | 20  | 39 | 33 | 41 | 1/2           |
| 36         | DBF-36-04       | 26  | 45 | 39 | 47 | 1/2           |
| 42         | DBF-42-04       | 28  | 51 | 45 | 53 | 1/2           |
| 48         | DBF-48-04       | 30  | 57 | 51 | 59 | 1/2           |

## Flat Carrying Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | MOUNTING BOLT |
|------------|-----------------|-----|----|----|----|---------------|
| 18         | DBF-18-05       | 14  | 27 | 21 | 29 | 1/2           |
| 20         | DBF-20-05       | 15  | 29 | 23 | 31 | 1/2           |
| 24         | DBF-24-05       | 17  | 33 | 27 | 35 | 1/2           |
| 30         | DBF-30-05       | 20  | 39 | 33 | 41 | 1/2           |
| 36         | DBF-36-05       | 26  | 45 | 39 | 47 | 1/2           |
| 42         | DBF-42-05       | 28  | 51 | 45 | 53 | 1/2           |
| 48         | DBF-48-05       | 30  | 57 | 51 | 59 | 1/2           |

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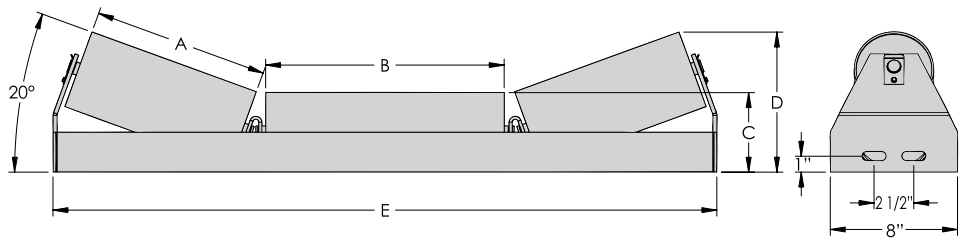
# CEMA-B 20° Low Profile Channel Mount Idlers 4" & 5" Diameter

*Heavy 20mm (.787") Precision, Permanent Sealed Bearings*

**DOUGLAS IDLER IDENTIFICATION**

DBL-24 - 20 - 04

|                                  |               |                   |                  |
|----------------------------------|---------------|-------------------|------------------|
| DBL                              | 24            | 20                | 04               |
| Douglas<br>CEMA-B<br>Low Profile | Belt<br>Width | Troughed<br>Angle | Roll<br>Diameter |



**IDLERS  
CEMA B**

## 20° Low Profile Channel Mount Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A       | B       | C     | D       | E      | MOUNTING BOLT |
|------------|-----------------|-----|---------|---------|-------|---------|--------|---------------|
| 18         | DBL-18-20-04    | 39  | 3 1/16  | 7 1/16  | 4 1/2 | 5 11/16 | 23 3/4 | 1/2           |
| 20         | DBL-20-20-04    | 43  | 5 1/16  | 9 1/16  | 4 1/2 | 6 13/32 | 25 3/4 | 1/2           |
| 24         | DBL-24-20-04    | 47  | 7 1/16  | 11 1/16 | 4 1/2 | 7 1/16  | 29 3/4 | 1/2           |
| 30         | DBL-30-20-04    | 51  | 9 1/16  | 13 1/16 | 4 1/2 | 7 3/4   | 35 3/4 | 1/2           |
| 36         | DBL-36-20-04    | 55  | 11 1/16 | 15 1/16 | 4 1/2 | 8 7/16  | 41 3/4 | 1/2           |
| 42         | DBL-42-20-04    | 61  | 13 1/16 | 17 1/16 | 4 1/2 | 9 3/32  | 47 3/4 | 1/2           |
| 48         | DBL-48-20-04    | 66  | 15 1/16 | 19 1/16 | 4 1/2 | 9 9/16  | 53 3/4 | 1/2           |

## 20° Low Profile Channel Mount Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A       | B       | C | D      | E      | MOUNTING BOLT |
|------------|-----------------|-----|---------|---------|---|--------|--------|---------------|
| 18         | DBL-18-20-05    | 41  | 3 1/16  | 7 1/16  | 5 | 6 3/16 | 23 3/4 | 1/2           |
| 20         | DBL-20-20-05    | 47  | 5 1/16  | 9 1/16  | 5 | 6 7/8  | 25 3/4 | 1/2           |
| 24         | DBL-24-20-05    | 52  | 7 1/16  | 11 1/16 | 5 | 7 9/16 | 29 3/4 | 1/2           |
| 30         | DBL-30-20-05    | 54  | 9 1/16  | 13 1/16 | 5 | 8 3/8  | 35 3/4 | 1/2           |
| 36         | DBL-36-20-05    | 62  | 11 1/16 | 15 1/16 | 5 | 8 7/8  | 41 3/4 | 1/2           |
| 42         | DBL-42-20-05    | 68  | 13 1/16 | 17 1/16 | 5 | 9 9/16 | 47 3/4 | 1/2           |
| 48         | DBL-48-20-05    | 74  | 15 1/16 | 19 1/16 | 5 | 10 1/8 | 53 3/4 | 1/2           |

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# CEMA-C 20° Troughed Idlers

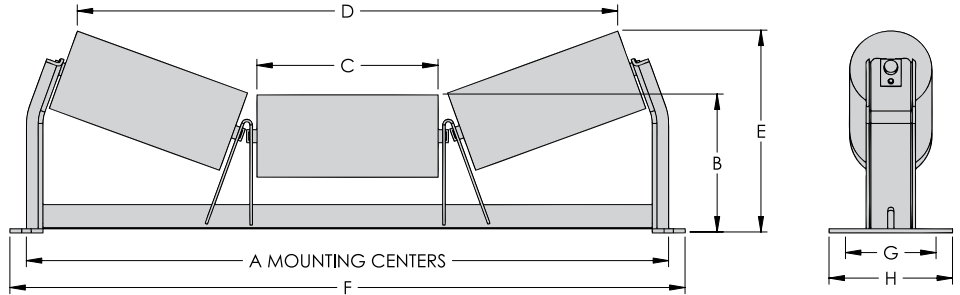
## 4", 5" & 6" Diameter Equal Length Rollers

4" and 5" diameter Heavy 20mm (.787") Precision, Permanent Sealed Bearings  
 6" diameter Heavy 25mm (.984") Precision, Permanent Sealed Bearings

### DOUGLAS IDLER IDENTIFICATION

DCT-24 - 20 - 04

Douglas CEMA-C Troughing | Belt Width | Troughing Angle | Roll Diameter



### 20° Troughing Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 18         | DCT-18-20-04    | 37  | 27 | 8     | 7 1/8  | 21 13/16 | 10 1/2   | 29     | 6     | 7 1/2 | 1/2           | RCT-18-04            |
| 24         | DCT-24-20-04    | 40  | 33 | 8     | 9 1/8  | 27 9/16  | 11 3/16  | 35     | 6     | 7 1/2 | 1/2           | RCT-24-04            |
| 30         | DCT-30-20-04    | 48  | 39 | 8     | 11     | 33 3/8   | 11 13/16 | 41     | 6     | 7 1/2 | 1/2           | RCT-30-04            |
| 36         | DCT-36-20-04    | 54  | 45 | 8     | 13     | 39 1/8   | 12 5/8   | 47     | 6     | 9     | 1/2           | RCT-36-04            |
| 42         | DCT-42-20-04    | 68  | 51 | 8 1/4 | 15 1/8 | 44 7/8   | 13 13/16 | 53     | 7 1/2 | 9     | 5/8           | RCT-42-04            |
| 48         | DCT-48-20-04    | 78  | 57 | 8 1/4 | 17 1/8 | 50 5/8   | 14 3/8   | 59     | 7 1/2 | 9     | 5/8           | RCT-48-04            |
| 54         | DCT-54-20-04    | 84  | 63 | 8 3/4 | 19 1/8 | 56 3/8   | 15 1/8   | 65 1/2 | 9     | 11    | 5/8           | RCT-54-04            |
| 60         | DCT-60-20-04    | 89  | 69 | 8 3/4 | 21 1/8 | 62 1/8   | 15 3/4   | 71 1/2 | 9     | 11    | 5/8           | RCT-60-04            |

### 20° Troughing Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 18         | DCT-18-20-05    | 38  | 27 | 8 1/2 | 7 1/8  | 21 1/2   | 11       | 29     | 6     | 7 1/2 | 1/2           | RCT-18-05            |
| 24         | DCT-24-20-05    | 42  | 33 | 8 1/2 | 9 1/8  | 27 1/4   | 11 11/16 | 35     | 6     | 7 1/2 | 1/2           | RCT-24-05            |
| 30         | DCT-30-20-05    | 52  | 39 | 8 1/2 | 11     | 33       | 12 3/8   | 41     | 6     | 7 1/2 | 1/2           | RCT-30-05            |
| 36         | DCT-36-20-05    | 60  | 45 | 8 1/2 | 13     | 38 3/4   | 13 1/16  | 47     | 6     | 9     | 1/2           | RCT-36-05            |
| 42         | DCT-42-20-05    | 76  | 51 | 8 3/4 | 15 1/8 | 44 1/2   | 14 3/16  | 53     | 7 1/2 | 9     | 5/8           | RCT-42-05            |
| 48         | DCT-48-20-05    | 85  | 57 | 8 3/4 | 17 1/8 | 50 5/16  | 14 7/8   | 59     | 7 1/2 | 9     | 5/8           | RCT-48-05            |
| 54         | DCT-54-20-05    | 94  | 63 | 9 1/4 | 19 1/8 | 56 1/16  | 15 3/8   | 65 1/2 | 9     | 11    | 5/8           | RCT-54-05            |
| 60         | DCT-60-20-05    | 102 | 69 | 9 1/4 | 21 1/8 | 61 13/16 | 16 3/16  | 71 1/2 | 9     | 11    | 5/8           | RCT-60-05            |

### 20° Troughing Idler 6" Diameter

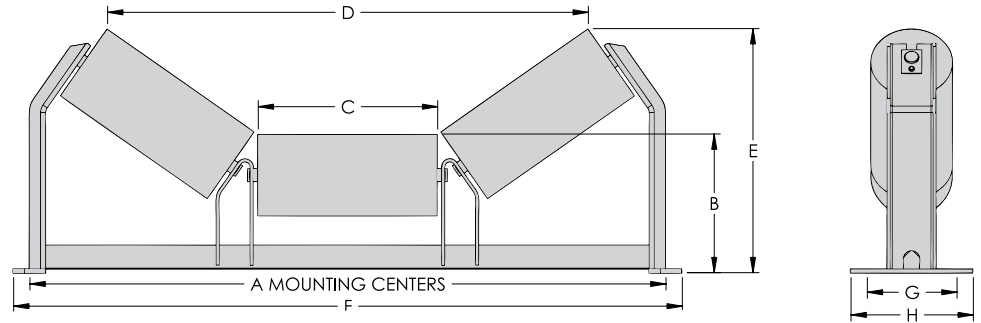
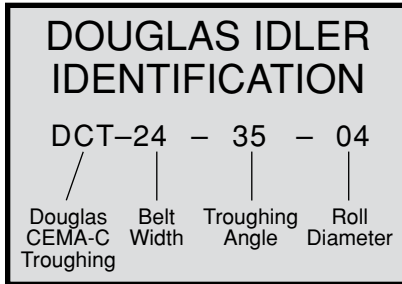
| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E       | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|---------|--------|-------|-------|---------------|----------------------|
| 18         | DCT-18-20-06    | 41  | 27 | 9     | 7 1/8  | 21 1/8   | 11 3/8  | 29     | 6     | 7 1/2 | 1/2           | RCT-18-06            |
| 24         | DCT-24-20-06    | 51  | 33 | 9     | 9 1/8  | 26 7/8   | 12 1/16 | 35     | 6     | 7 1/2 | 1/2           | RCT-24-06            |
| 30         | DCT-30-20-06    | 55  | 39 | 9     | 11     | 32 5/8   | 12 3/4  | 41     | 6     | 7 1/2 | 1/2           | RCT-30-06            |
| 36         | DCT-36-20-06    | 60  | 45 | 9     | 13     | 38 3/8   | 13 1/2  | 47     | 6     | 9     | 1/2           | RCT-36-06            |
| 42         | DCT-42-20-06    | 76  | 51 | 9 1/4 | 15 1/8 | 44 1/8   | 14 9/16 | 53     | 7 1/2 | 9     | 5/8           | RCT-42-06            |
| 48         | DCT-48-20-06    | 85  | 57 | 9 1/4 | 17 1/8 | 49 15/16 | 15 1/4  | 59     | 7 1/2 | 9     | 5/8           | RCT-48-06            |
| 54         | DCT-54-20-06    | 94  | 63 | 9 3/4 | 19 1/8 | 55 11/16 | 15 3/4  | 65 1/2 | 9     | 11    | 5/8           | RCT-54-06            |
| 60         | DCT-60-20-06    | 102 | 69 | 9 3/4 | 21 1/8 | 61 3/8   | 16 9/16 | 71 1/2 | 9     | 11    | 5/8           | RCT-60-06            |

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# CEMA-C 35° Troughed Idlers

## 4", 5" & 6" Diameter Equal Length Rollers

4" and 5" diameter Heavy 20mm (.787") Precision, Permanent Sealed Bearings  
 6" diameter Heavy 25mm (.984") Precision, Permanent Sealed Bearings



**IDLERS  
CEMA C**

### 35° Troughing Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 18         | DCT-18-35-04    | 38  | 27 | 8     | 7 1/8  | 19 15/16 | 12 1/4   | 29     | 6     | 7 1/2 | 1/2           | RCT-18-04            |
| 24         | DCT-24-35-04    | 40  | 33 | 8     | 9 1/8  | 24 5/8   | 13 7/8   | 35     | 6     | 7 1/2 | 1/2           | RCT-24-04            |
| 30         | DCT-30-35-04    | 48  | 39 | 8     | 11     | 30 1/8   | 14 9/16  | 41     | 6     | 7 1/2 | 1/2           | RCT-30-04            |
| 36         | DCT-36-35-04    | 54  | 45 | 8     | 13     | 35 3/4   | 15 11/16 | 47     | 6     | 9     | 1/2           | RCT-36-04            |
| 42         | DCT-42-35-04    | 68  | 51 | 8 1/4 | 15 1/8 | 41 1/16  | 17 5/16  | 53     | 7 1/2 | 9     | 5/8           | RCT-42-04            |
| 48         | DCT-48-35-04    | 76  | 57 | 8 1/4 | 17 1/8 | 46 5/16  | 18 7/16  | 59     | 7 1/2 | 9     | 5/8           | RCT-48-04            |
| 54         | DCT-54-35-04    | 84  | 63 | 8 3/4 | 19 1/8 | 51 5/8   | 19 5/8   | 65 1/2 | 9     | 11    | 5/8           | RCT-54-04            |
| 60         | DCT-60-35-04    | 89  | 69 | 8 3/4 | 21 1/8 | 56 7/8   | 20 3/4   | 71 1/2 | 9     | 11    | 5/8           | RCT-60-04            |

### 35° Troughing Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 18         | DCT-18-35-05    | 40  | 27 | 8 1/2 | 7 1/8  | 19 3/8   | 12 3/8   | 29     | 6     | 7 1/2 | 1/2           | RCT-18-05            |
| 24         | DCT-24-35-05    | 45  | 33 | 8 1/2 | 9 1/8  | 24 5/8   | 13 13/16 | 35     | 6     | 7 1/2 | 1/2           | RCT-24-05            |
| 30         | DCT-30-35-05    | 55  | 39 | 8 1/2 | 11     | 29 1/2   | 14 15/16 | 41     | 6     | 7 1/2 | 1/2           | RCT-30-05            |
| 36         | DCT-36-35-05    | 62  | 45 | 8 1/2 | 13     | 35 3/16  | 16       | 47     | 6     | 9     | 1/2           | RCT-36-05            |
| 42         | DCT-42-35-05    | 80  | 51 | 9     | 15 1/8 | 40 1/2   | 17 11/16 | 53     | 7 1/2 | 9     | 5/8           | RCT-42-05            |
| 48         | DCT-48-35-05    | 88  | 57 | 9     | 17 1/8 | 45 3/4   | 18 7/8   | 59     | 7 1/2 | 9     | 5/8           | RCT-48-05            |
| 54         | DCT-54-35-05    | 98  | 63 | 9 1/4 | 19 1/8 | 50 13/16 | 20 7/16  | 65 1/2 | 9     | 11    | 5/8           | RCT-54-05            |
| 60         | DCT-60-35-05    | 105 | 69 | 9 1/4 | 21 1/8 | 56 5/16  | 21 9/16  | 71 1/2 | 9     | 11    | 5/8           | RCT-60-05            |

### 35° Troughing Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 18         | DCT-18-35-06    | 41  | 27 | 9     | 7 1/8  | 18 13/16 | 12 3/4   | 29     | 6     | 7 1/2 | 1/2           | RCT-18-06            |
| 24         | DCT-24-35-06    | 52  | 33 | 9     | 9 1/8  | 24 1/16  | 14 3/16  | 35     | 6     | 7 1/2 | 1/2           | RCT-24-06            |
| 30         | DCT-30-35-06    | 62  | 39 | 9     | 11     | 28 15/16 | 15 5/16  | 41     | 6     | 7 1/2 | 1/2           | RCT-30-06            |
| 36         | DCT-36-35-06    | 85  | 45 | 9     | 13     | 34 9/16  | 16 3/8   | 47     | 6     | 9     | 1/2           | RCT-36-06            |
| 42         | DCT-42-35-06    | 95  | 51 | 9 1/4 | 15 1/8 | 39 15/16 | 18 1/16  | 53     | 7 1/2 | 9     | 5/8           | RCT-42-06            |
| 48         | DCT-48-35-06    | 105 | 57 | 9 1/4 | 17 1/8 | 45 1/8   | 19 1/4   | 59     | 7 1/2 | 9     | 5/8           | RCT-48-06            |
| 54         | DCT-54-35-06    | 120 | 63 | 9 3/4 | 19 1/8 | 50 3/16  | 20 13/16 | 65 1/2 | 9     | 11    | 5/8           | RCT-54-06            |
| 60         | DCT-60-35-06    | 126 | 69 | 9 3/4 | 21 1/8 | 55 11/16 | 21 15/16 | 71 1/2 | 9     | 11    | 5/8           | RCT-60-06            |

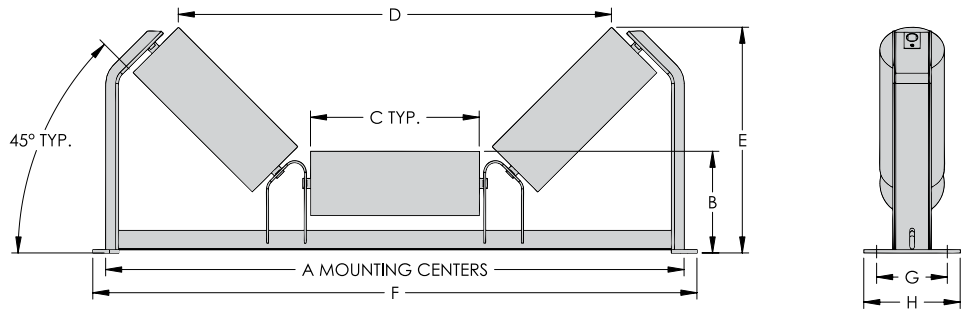
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# CEMA-C 45° Troughed Idlers 4", 5" & 6" Diameter Equal Length Rollers

4" and 5" diameter Heavy 20mm (.787") Precision, Permanent Sealed Bearings  
 6" diameter Heavy 25mm (.984") Precision, Permanent Sealed Bearings

## DOUGLAS IDLER IDENTIFICATION

DCT-24 - 45 - 04  
 Douglas CEMA-C Troughing Belt Width Troughing Angle Roll Diameter



### 45° Troughing Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|---------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 18         | DCT-18-45-04    | 37  | 27 | 7 15/16 | 7 1/8  | 19 15/16 | 13 7/16  | 29     | 6     | 7 1/2 | 1/2           | RCT-18-04            |
| 24         | DCT-24-45-04    | 40  | 33 | 7 15/16 | 9 1/8  | 24 13/16 | 14 7/8   | 35     | 6     | 7 1/2 | 1/2           | RCT-24-04            |
| 30         | DCT-30-45-04    | 48  | 39 | 7 15/16 | 11 1/8 | 29 5/8   | 16 1/4   | 41     | 6     | 7 1/2 | 1/2           | RCT-30-04            |
| 36         | DCT-36-45-04    | 54  | 45 | 7 15/16 | 13 1/8 | 34 7/16  | 17 11/16 | 47     | 6     | 7 1/2 | 1/2           | RCT-36-04            |
| 42         | DCT-42-45-04    | 68  | 51 | 8 1/4   | 15 1/8 | 39 1/8   | 19 7/16  | 53     | 7 1/2 | 9     | 5/8           | RCT-42-04            |
| 48         | DCT-48-45-04    | 78  | 57 | 8 1/4   | 17 1/8 | 44 1/8   | 20 7/8   | 59     | 7 1/2 | 9     | 5/8           | RCT-48-04            |
| 54         | DCT-54-45-04    | 84  | 63 | 8 3/4   | 19 1/8 | 48 15/16 | 22 3/4   | 65 1/2 | 9     | 11    | 5/8           | RCT-54-04            |
| 60         | DCT-60-45-04    | 89  | 69 | 8 3/4   | 21 1/8 | 53 3/4   | 24 1/8   | 71 1/2 | 9     | 11    | 5/8           | RCT-60-04            |

### 45° Troughing Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B      | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|--------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 18         | DCT-18-45-05    | 38  | 27 | 8 7/16 | 7 1/8  | 19 3/16  | 13 13/16 | 29     | 6     | 7 1/2 | 1/2           | RCT-18-05            |
| 24         | DCT-24-45-05    | 45  | 33 | 8 7/16 | 9 1/8  | 24 1/16  | 15 1/4   | 35     | 6     | 7 1/2 | 1/2           | RCT-24-05            |
| 30         | DCT-30-45-05    | 55  | 39 | 8 7/16 | 11 1/8 | 28 7/8   | 16 5/8   | 41     | 6     | 7 1/2 | 1/2           | RCT-30-05            |
| 36         | DCT-36-45-05    | 62  | 45 | 8 7/16 | 13 1/8 | 33 11/16 | 18 1/16  | 47     | 6     | 7 1/2 | 1/2           | RCT-36-05            |
| 42         | DCT-42-45-05    | 80  | 51 | 8 3/4  | 15 1/8 | 38 1/2   | 19 13/16 | 53     | 7 1/2 | 9     | 5/8           | RCT-42-05            |
| 48         | DCT-48-45-05    | 88  | 57 | 8 3/4  | 17 1/8 | 43 3/8   | 21 1/4   | 59     | 7 1/2 | 9     | 5/8           | RCT-48-05            |
| 54         | DCT-54-45-05    | 98  | 63 | 9 1/4  | 19 1/8 | 48 3/16  | 23 1/8   | 65 1/2 | 9     | 11    | 5/8           | RCT-54-05            |
| 60         | DCT-60-45-05    | 105 | 69 | 9 1/4  | 21 1/8 | 53       | 24 1/2   | 71 1/2 | 9     | 11    | 5/8           | RCT-60-05            |

### 45° Troughing Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C      | D       | E       | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|---------|--------|---------|---------|--------|-------|-------|---------------|----------------------|
| 18         | DCT-18-45-06    | 40  | 27 | 8 15/16 | 7 1/8  | 18 7/16 | 14 3/16 | 29     | 6     | 7 1/2 | 1/2           | RCT-18-06            |
| 24         | DCT-24-45-06    | 46  | 33 | 8 15/16 | 9 1/8  | 23 5/16 | 15 5/8  | 35     | 6     | 7 1/2 | 1/2           | RCT-24-06            |
| 30         | DCT-30-45-06    | 55  | 39 | 8 15/16 | 11 1/8 | 28 1/8  | 17      | 41     | 6     | 7 1/2 | 1/2           | RCT-30-06            |
| 36         | DCT-36-45-06    | 67  | 45 | 8 15/16 | 13 1/8 | 32 1/4  | 18 7/16 | 47     | 6     | 7 1/2 | 1/2           | RCT-36-06            |
| 42         | DCT-42-45-06    | 82  | 51 | 9 1/4   | 15 1/8 | 37 3/4  | 20 3/16 | 53     | 7 1/2 | 9     | 5/8           | RCT-42-06            |
| 48         | DCT-48-45-06    | 90  | 57 | 9 1/4   | 17 1/8 | 42 5/8  | 21 3/4  | 59     | 7 1/2 | 9     | 5/8           | RCT-48-06            |
| 54         | DCT-54-45-06    | 100 | 63 | 9 3/4   | 19 1/8 | 47 7/16 | 23 1/2  | 65 1/2 | 9     | 11    | 5/8           | RCT-54-06            |
| 60         | DCT-60-45-06    | 107 | 69 | 9 3/4   | 21 1/8 | 52 1/4  | 24 7/8  | 71 1/2 | 9     | 11    | 5/8           | RCT-60-06            |

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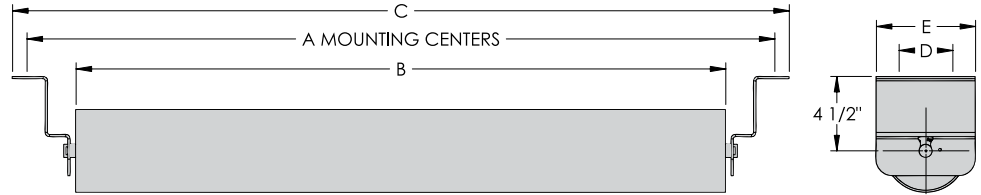
# CEMA-C Return Idlers 4", 5" & 6" Diameter

**4" and 5" diameter Heavy 20mm (.787") Precision, Permanent Sealed Bearings**  
**6" diameter Heavy 25mm (.984") Precision, Permanent Sealed Bearings**

**DOUGLAS IDLER IDENTIFICATION**

DCR - 18 - 04

Douglas Belt Roll  
 CEMA-C Width Diameter  
 Return



**IDLERS  
 CEMA C**

### Return Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C  | D | E | MOUNTING BOLT |
|------------|-----------------|-----|----|---------|----|---|---|---------------|
| 18         | DCR-18-04       | 17  | 27 | 21      | 29 | 4 | 6 | 1/2           |
| 24         | DCR-24-04       | 20  | 33 | 27      | 35 | 4 | 6 | 1/2           |
| 30         | DCR-30-04       | 23  | 39 | 33      | 41 | 4 | 6 | 1/2           |
| 36         | DCR-36-04       | 29  | 45 | 39      | 47 | 4 | 6 | 1/2           |
| 42         | DCR-42-04       | 31  | 51 | 45      | 53 | 4 | 6 | 1/2           |
| 48         | DCR-48-04       | 33  | 57 | 51      | 59 | 4 | 6 | 1/2           |
| 54         | DCR-54-04       | 38  | 63 | 57 5/16 | 65 | 4 | 6 | 1/2           |
| 60         | DCR-60-04       | 40  | 69 | 63 5/16 | 71 | 4 | 6 | 1/2           |

### Return Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C  | D | E | MOUNTING BOLT |
|------------|-----------------|-----|----|---------|----|---|---|---------------|
| 18         | DCR-18-05       | 22  | 27 | 21      | 29 | 4 | 6 | 1/2           |
| 24         | DCR-24-05       | 27  | 33 | 27      | 35 | 4 | 6 | 1/2           |
| 30         | DCR-30-05       | 31  | 39 | 33      | 41 | 4 | 6 | 1/2           |
| 36         | DCR-36-05       | 35  | 45 | 39      | 47 | 4 | 6 | 1/2           |
| 42         | DCR-42-05       | 38  | 51 | 45      | 53 | 4 | 6 | 1/2           |
| 48         | DCR-48-05       | 44  | 57 | 51      | 59 | 4 | 6 | 1/2           |
| 54         | DCR-54-05       | 49  | 63 | 57 5/16 | 65 | 4 | 6 | 1/2           |
| 60         | DCR-60-05       | 53  | 69 | 63 5/16 | 71 | 4 | 6 | 1/2           |

### Return Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C  | D | E | MOUNTING BOLT |
|------------|-----------------|-----|----|---------|----|---|---|---------------|
| 18         | DCR-18-06       | 26  | 27 | 21      | 29 | 4 | 6 | 1/2           |
| 24         | DCR-24-06       | 31  | 33 | 27      | 35 | 4 | 6 | 1/2           |
| 30         | DCR-30-06       | 35  | 39 | 33      | 41 | 4 | 6 | 1/2           |
| 36         | DCR-36-06       | 39  | 45 | 39      | 47 | 4 | 6 | 1/2           |
| 42         | DCR-42-06       | 42  | 51 | 45      | 53 | 4 | 6 | 1/2           |
| 48         | DCR-48-06       | 48  | 57 | 51      | 59 | 4 | 6 | 1/2           |
| 54         | DCR-54-06       | 53  | 63 | 57 5/16 | 65 | 4 | 6 | 1/2           |
| 60         | DCR-60-06       | 57  | 69 | 63 5/16 | 71 | 4 | 6 | 1/2           |

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# CEMA-C Flat Carrying Idlers

## 4", 5" & 6" Diameter

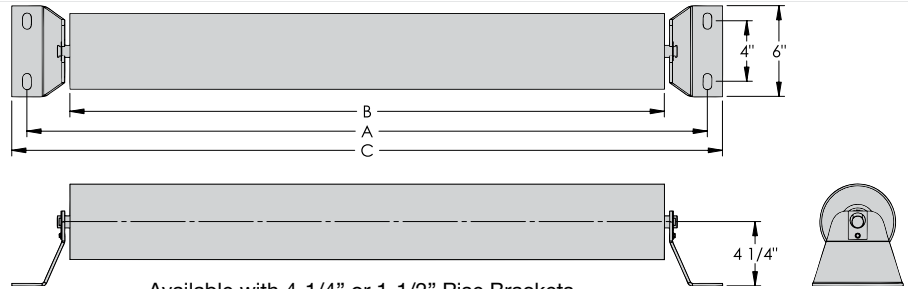
**4" and 5" diameter Heavy 20mm (.787") Precision, Permanent Sealed Bearings**  
**6" diameter Heavy 25mm (.984") Precision, Permanent Sealed Bearings**

### DOUGLAS IDLER IDENTIFICATION

DCF - 18 - 04

|                      |                      |

Douglas      Belt      Roll  
 CEMA-C      Width      Diameter  
 Flat



### Flat Carrying Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C  | MOUNTING BOLT |
|------------|-----------------|-----|----|---------|----|---------------|
| 18         | DCF-18-04       | 17  | 27 | 21 5/16 | 29 | 1/2           |
| 24         | DCF-24-04       | 20  | 33 | 27 5/16 | 35 | 1/2           |
| 30         | DCF-30-04       | 23  | 39 | 33 5/16 | 41 | 1/2           |
| 36         | DCF-36-04       | 29  | 45 | 39 5/16 | 47 | 1/2           |
| 42         | DCF-42-04       | 31  | 51 | 45 5/16 | 53 | 1/2           |
| 48         | DCF-48-04       | 33  | 57 | 51 5/16 | 59 | 1/2           |
| 54         | DCF-54-04       | 38  | 63 | 57 5/16 | 65 | 1/2           |
| 60         | DCF-60-04       | 40  | 69 | 63 5/16 | 71 | 1/2           |

### Flat Carrying Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C  | MOUNTING BOLT |
|------------|-----------------|-----|----|---------|----|---------------|
| 18         | DCF-18-05       | 22  | 27 | 21 5/16 | 29 | 1/2           |
| 24         | DCF-24-05       | 27  | 33 | 27 5/16 | 35 | 1/2           |
| 30         | DCF-30-05       | 31  | 39 | 33 5/16 | 41 | 1/2           |
| 36         | DCF-36-05       | 35  | 45 | 39 5/16 | 47 | 1/2           |
| 42         | DCF-42-05       | 38  | 51 | 45 5/16 | 53 | 1/2           |
| 48         | DCF-48-05       | 44  | 57 | 51 5/16 | 59 | 1/2           |
| 54         | DCF-54-05       | 49  | 63 | 57 5/16 | 65 | 1/2           |
| 60         | DCF-60-05       | 53  | 69 | 63 5/16 | 71 | 1/2           |

### Flat Carrying Idler 6" Diameter

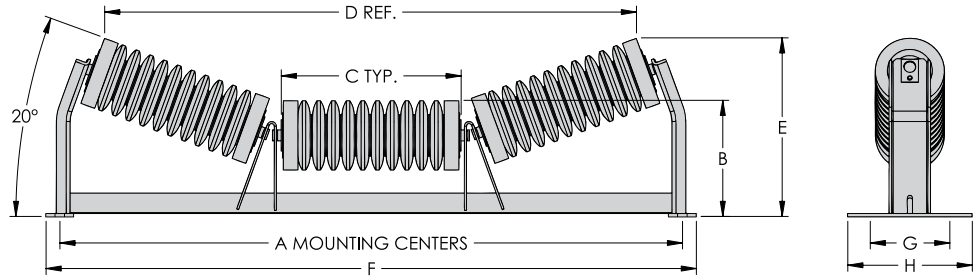
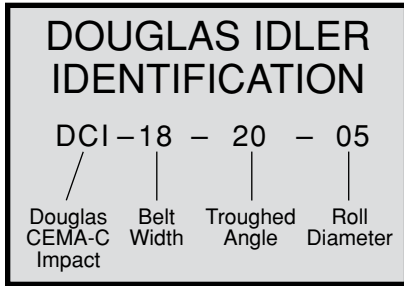
| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C  | MOUNTING BOLT |
|------------|-----------------|-----|----|---------|----|---------------|
| 18         | DCF-18-06       | 26  | 27 | 21 5/16 | 29 | 1/2           |
| 24         | DCF-24-06       | 31  | 33 | 27 5/16 | 35 | 1/2           |
| 30         | DCF-30-06       | 35  | 39 | 33 5/16 | 41 | 1/2           |
| 36         | DCF-36-06       | 39  | 45 | 39 5/16 | 47 | 1/2           |
| 42         | DCF-42-06       | 42  | 51 | 45 5/16 | 53 | 1/2           |
| 48         | DCF-48-06       | 48  | 57 | 51 5/16 | 59 | 1/2           |
| 54         | DCF-54-06       | 53  | 63 | 57 5/16 | 65 | 1/2           |
| 60         | DCF-60-06       | 57  | 69 | 63 5/16 | 71 | 1/2           |

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IDLERS  
CEMA-C

# CEMA-C 20° Rubber Disc Impact Troughed Idlers 5" & 6" Diameter

Heavy 20mm (.787") Precision, Permanent Sealed Bearings



**IDLERS  
 CEMA C**

## 20° Rubber Disc Troughed Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 18         | DCI-18-20-05    | 44  | 27 | 8     | 7 1/8  | 21 1/2   | 11       | 29     | 6     | 7 1/2 | 1/2           | RCI-18-05            |
| 24         | DCI-24-20-05    | 49  | 33 | 8     | 9 1/8  | 27 1/4   | 11 11/16 | 35     | 6     | 7 1/2 | 1/2           | RCI-24-05            |
| 30         | DCI-30-20-05    | 66  | 39 | 8     | 11     | 33       | 12 3/8   | 41     | 6     | 7 1/2 | 1/2           | RCI-30-05            |
| 36         | DCI-36-20-05    | 76  | 45 | 8     | 13     | 38 3/4   | 13 1/16  | 47     | 6     | 9     | 1/2           | RCI-36-05            |
| 42         | DCI-42-20-05    | 94  | 51 | 8 1/4 | 15 1/8 | 44 1/2   | 14 3/16  | 53     | 7 1/2 | 9     | 5/8           | RCI-42-05            |
| 48         | DCI-48-20-05    | 105 | 57 | 8 1/4 | 17 1/8 | 50 5/16  | 14 7/8   | 59     | 7 1/2 | 9     | 5/8           | RCI-48-05            |
| 54         | DCI-54-20-05    | 108 | 63 | 8 3/4 | 19 1/8 | 56 1/16  | 15 3/8   | 65 1/2 | 9     | 11    | 5/8           | RCI-54-05            |
| 60         | DCI-60-20-05    | 127 | 69 | 8 3/4 | 21 1/8 | 61 13/16 | 16 3/16  | 71 1/2 | 9     | 11    | 5/8           | RCI-60-05            |

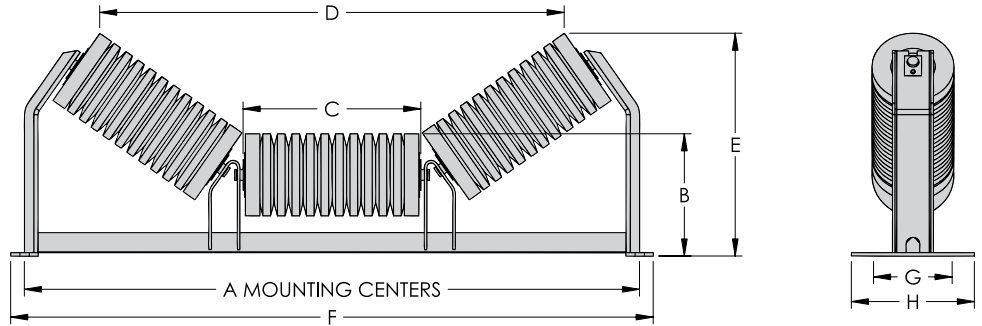
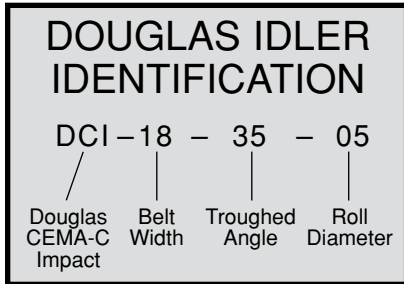
## 20° Rubber Disc Troughed Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E       | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|---------|--------|-------|-------|---------------|----------------------|
| 18         | DCI-18-20-06    | 47  | 27 | 8 1/2 | 7 1/8  | 21 1/8   | 11 3/8  | 29     | 6     | 7 1/2 | 1/2           | RCI-18-06            |
| 24         | DCI-24-20-06    | 60  | 33 | 8 1/2 | 9 1/8  | 26 7/8   | 12 1/16 | 35     | 6     | 7 1/2 | 1/2           | RCI-24-06            |
| 30         | DCI-30-20-06    | 72  | 39 | 8 1/2 | 11     | 32 5/8   | 12 3/4  | 41     | 6     | 7 1/2 | 1/2           | RCI-30-06            |
| 36         | DCI-36-20-06    | 82  | 45 | 8 1/2 | 13     | 38 3/8   | 13 1/2  | 47     | 6     | 9     | 1/2           | RCI-36-06            |
| 42         | DCI-42-20-06    | 100 | 51 | 8 3/4 | 15 1/8 | 44 1/8   | 14 9/16 | 53     | 7 1/2 | 9     | 5/8           | RCI-42-06            |
| 48         | DCI-48-20-06    | 120 | 57 | 8 3/4 | 17 1/8 | 49 15/16 | 15 1/4  | 59     | 7 1/2 | 9     | 5/8           | RCI-48-06            |
| 54         | DCI-54-20-06    | 126 | 63 | 9 1/4 | 19 1/8 | 55 11/16 | 15 3/4  | 65 1/2 | 9     | 11    | 5/8           | RCI-54-06            |
| 60         | DCI-60-20-06    | 133 | 69 | 9 1/4 | 21 1/8 | 61 3/8   | 16 9/16 | 71 1/2 | 9     | 11    | 5/8           | RCI-60-06            |

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# CEMA-C 35° Rubber Disc Impact Troughed Idlers 5" & 6" Diameter

Heavy 20mm (.787") Precision, Permanent Sealed Bearings



## 35° Rubber Disc Troughed Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 18         | DCI-18-35-05    | 46  | 27 | 8     | 7 1/8  | 19 3/8   | 12 3/8   | 29     | 6     | 7 1/2 | 1/2           | RCI-18-05            |
| 24         | DCI-24-35-05    | 56  | 33 | 8     | 9 1/8  | 24 5/8   | 13 13/16 | 35     | 6     | 7 1/2 | 1/2           | RCI-24-05            |
| 30         | DCI-30-35-05    | 67  | 39 | 8     | 11     | 29 1/2   | 14 15/16 | 41     | 6     | 7 1/2 | 1/2           | RCI-30-05            |
| 36         | DCI-36-35-05    | 77  | 45 | 8     | 13     | 35 3/16  | 16       | 47     | 6     | 9     | 1/2           | RCI-36-05            |
| 42         | DCI-42-35-05    | 96  | 51 | 8 1/4 | 15 1/8 | 40 1/2   | 17 11/16 | 53     | 7 1/2 | 9     | 5/8           | RCI-42-05            |
| 48         | DCI-48-35-05    | 107 | 57 | 8 1/4 | 17 1/8 | 45 3/4   | 18 7/8   | 59     | 7 1/2 | 9     | 5/8           | RCI-48-05            |
| 54         | DCI-54-35-05    | 118 | 63 | 8 3/4 | 19 1/8 | 50 13/16 | 20 7/16  | 65 1/2 | 9     | 11    | 5/8           | RCI-54-05            |
| 60         | DCI-60-35-05    | 130 | 69 | 8 3/4 | 21 1/8 | 56 5/16  | 21 9/16  | 71 1/2 | 9     | 11    | 5/8           | RCI-60-05            |

## 35° Rubber Disc Troughed Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 18         | DCI-18-35-06    | 49  | 27 | 8 1/2 | 7 1/8  | 18 13/16 | 12 3/4   | 29     | 6     | 7 1/2 | 1/2           | RCI-18-06            |
| 24         | DCI-24-35-06    | 63  | 33 | 8 1/2 | 9 1/8  | 24 1/16  | 14 3/16  | 35     | 6     | 7 1/2 | 1/2           | RCI-24-06            |
| 30         | DCI-30-35-06    | 75  | 39 | 8 1/2 | 11     | 28 15/16 | 15 5/16  | 41     | 6     | 7 1/2 | 1/2           | RCI-30-06            |
| 36         | DCI-36-35-06    | 84  | 45 | 8 1/2 | 13     | 34 9/16  | 16 3/8   | 47     | 6     | 9     | 1/2           | RCI-36-06            |
| 42         | DCI-42-35-06    | 102 | 51 | 8 3/4 | 15 1/8 | 39 15/16 | 18 1/16  | 53     | 7 1/2 | 9     | 5/8           | RCI-42-06            |
| 48         | DCI-48-35-06    | 128 | 57 | 8 3/4 | 17 1/8 | 45 1/8   | 19 1/4   | 59     | 7 1/2 | 9     | 5/8           | RCI-48-06            |
| 54         | DCI-54-35-06    | 130 | 63 | 9 1/4 | 19 1/8 | 50 3/16  | 20 13/16 | 65 1/2 | 9     | 11    | 5/8           | RCI-54-06            |
| 60         | DCI-60-35-06    | 136 | 69 | 9 1/4 | 21 1/8 | 55 11/16 | 21 15/16 | 71 1/2 | 9     | 11    | 5/8           | RCI-60-06            |

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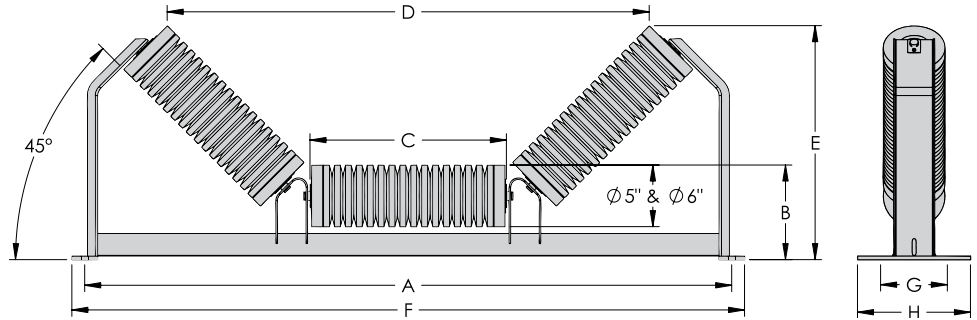
# CEMA-C 45° Rubber Disc Impact Troughed Idlers 5" & 6" Diameter

Heavy 20mm (.787") Precision, Permanent Sealed Bearings

**DOUGLAS IDLER IDENTIFICATION**

DCI-18-45-05

Douglas CEMA-C Impact | Belt Width | Troughed Angle | Roll Diameter



**IDLERS  
 CEMA C**

## 45° Rubber Disc Troughed Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B      | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|--------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 18         | DCI-18-45-05    | 38  | 27 | 8 7/16 | 7 1/8  | 19 3/16  | 13 13/16 | 29     | 6     | 7 1/2 | 1/2           | RCI-18-05            |
| 24         | DCI-24-45-05    | 45  | 33 | 8 7/16 | 9 1/8  | 24 1/16  | 15 1/4   | 35     | 6     | 7 1/2 | 1/2           | RCI-24-05            |
| 30         | DCI-30-45-05    | 55  | 39 | 8 7/16 | 11 1/8 | 28 7/8   | 16 5/8   | 41     | 6     | 7 1/2 | 1/2           | RCI-30-05            |
| 36         | DCI-36-45-05    | 62  | 45 | 8 7/16 | 13 1/8 | 33 11/16 | 18 1/16  | 47     | 6     | 7 1/2 | 1/2           | RCI-36-05            |
| 42         | DCI-42-45-05    | 80  | 51 | 8 3/4  | 15 1/8 | 38 1/2   | 19 13/16 | 53     | 7 1/2 | 9     | 5/8           | RCI-42-05            |
| 48         | DCI-48-45-05    | 88  | 57 | 8 3/4  | 17 1/8 | 43 3/8   | 21 1/4   | 59     | 7 1/2 | 9     | 5/8           | RCI-48-05            |
| 54         | DCI-54-45-05    | 98  | 63 | 9 1/4  | 19 1/8 | 48 3/16  | 23 1/8   | 65 1/2 | 9     | 11    | 5/8           | RCI-54-05            |
| 60         | DCI-60-45-05    | 105 | 69 | 9 1/4  | 21 1/8 | 53       | 24 1/2   | 71 1/2 | 9     | 11    | 5/8           | RCI-60-05            |

## 45° Rubber Disc Troughed Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C      | D       | E       | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|---------|--------|---------|---------|--------|-------|-------|---------------|----------------------|
| 18         | DCI-18-45-06    | 40  | 27 | 8 15/16 | 7 1/8  | 18 7/16 | 14 3/16 | 29     | 6     | 7 1/2 | 1/2           | RCI-18-06            |
| 24         | DCI-24-45-06    | 48  | 33 | 8 15/16 | 9 1/8  | 23 5/16 | 15 5/8  | 35     | 6     | 7 1/2 | 1/2           | RCI-24-06            |
| 30         | DCI-30-45-06    | 57  | 39 | 8 15/16 | 11 1/8 | 28 1/8  | 17      | 41     | 6     | 7 1/2 | 1/2           | RCI-30-06            |
| 36         | DCI-36-45-06    | 67  | 45 | 8 15/16 | 13 1/8 | 32 1/4  | 18 7/16 | 47     | 6     | 7 1/2 | 1/2           | RCI-36-06            |
| 42         | DCI-42-45-06    | 82  | 51 | 9 1/4   | 15 1/8 | 37 3/4  | 20 3/16 | 53     | 7 1/2 | 9     | 5/8           | RCI-42-06            |
| 48         | DCI-48-45-06    | 90  | 57 | 9 1/4   | 17 1/8 | 42 5/8  | 21 3/4  | 59     | 7 1/2 | 9     | 5/8           | RCI-48-06            |
| 54         | DCI-54-45-06    | 101 | 63 | 9 3/4   | 19 1/8 | 47 7/16 | 23 1/2  | 65 1/2 | 9     | 11    | 5/8           | RCI-54-06            |
| 60         | DCI-60-45-06    | 109 | 69 | 9 3/4   | 21 1/8 | 52 1/4  | 24 7/8  | 71 1/2 | 9     | 11    | 5/8           | RCI-60-06            |

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# CEMA-C Rubber Disc Return Idlers

## 5" & 6" Diameter

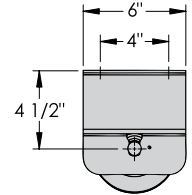
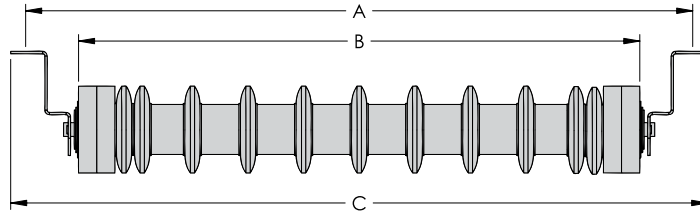
Heavy 20mm (.787") Precision, Permanent Sealed Bearings

IDLERS  
CEMA C

**DOUGLAS IDLER IDENTIFICATION**

DCD - 18 - 05

↓                      ↓                      ↓  
 Douglas CEMA-C Disc      Belt Width      Roll Diameter



Available with 4-1/2" or 1-1/2" Drop Brackets

### Rubber Disc Return Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C  | MOUNTING BOLT |
|------------|-----------------|-----|----|---------|----|---------------|
| 18         | DCD-18-05       | 22  | 27 | 21 5/16 | 29 | 1/2           |
| 24         | DCD-24-05       | 27  | 33 | 27 5/16 | 35 | 1/2           |
| 30         | DCD-30-05       | 31  | 39 | 33 5/16 | 41 | 1/2           |
| 36         | DCD-36-05       | 35  | 45 | 39 5/16 | 47 | 1/2           |
| 42         | DCD-42-05       | 38  | 51 | 45 5/16 | 53 | 1/2           |
| 48         | DCD-48-05       | 44  | 57 | 51 5/16 | 59 | 1/2           |
| 54         | DCD-54-05       | 49  | 63 | 57 5/16 | 65 | 1/2           |
| 60         | DCD-60-05       | 53  | 69 | 63 5/16 | 71 | 1/2           |

### Rubber Disc Return Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C  | MOUNTING BOLT |
|------------|-----------------|-----|----|---------|----|---------------|
| 18         | DCD-18-06       | 35  | 27 | 21 5/16 | 29 | 1/2           |
| 24         | DCD-24-06       | 41  | 33 | 27 5/16 | 35 | 1/2           |
| 30         | DCD-30-06       | 46  | 39 | 33 5/16 | 41 | 1/2           |
| 36         | DCD-36-06       | 50  | 45 | 39 5/16 | 47 | 1/2           |
| 42         | DCD-42-06       | 63  | 51 | 45 5/16 | 53 | 1/2           |
| 48         | DCD-48-06       | 65  | 57 | 51 5/16 | 59 | 1/2           |
| 54         | DCD-54-06       | 67  | 63 | 57 5/16 | 65 | 1/2           |
| 60         | DCD-60-06       | 70  | 69 | 63 5/16 | 71 | 1/2           |

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# CEMA-C Rubber Cushion Flat Idlers

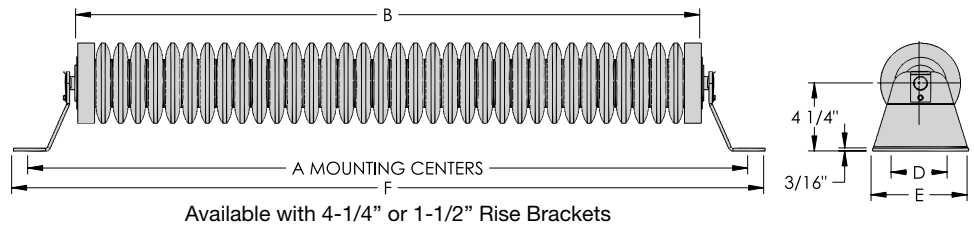
## 5" & 6" Diameter

Heavy 20mm (.787") Precision, Permanent Sealed Bearings

**DOUGLAS IDLER IDENTIFICATION**

DCC - 18 - 05

Douglas CEMA-C Cushion      Belt Width      Roll Diameter



**IDLERS  
CEMA C**

### Rubber Cushion Flat Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C  | D | E | MOUNTING BOLT |
|------------|-----------------|-----|----|---------|----|---|---|---------------|
| 18         | DCC-18-05       | 36  | 27 | 21 5/16 | 29 | 4 | 6 | 1/2           |
| 24         | DCC-24-05       | 41  | 33 | 27 5/16 | 35 | 4 | 6 | 1/2           |
| 30         | DCC-30-05       | 47  | 39 | 33 5/16 | 41 | 4 | 6 | 1/2           |
| 36         | DCC-36-05       | 53  | 45 | 39 5/16 | 47 | 4 | 6 | 1/2           |
| 42         | DCC-42-05       | 61  | 51 | 45 5/16 | 53 | 4 | 6 | 1/2           |
| 48         | DCC-48-05       | 68  | 57 | 51 5/16 | 59 | 4 | 6 | 1/2           |
| 54         | DCC-54-05       | 74  | 63 | 57 5/16 | 65 | 4 | 6 | 1/2           |
| 60         | DCC-60-05       | 80  | 69 | 63 5/16 | 71 | 4 | 6 | 1/2           |

### Rubber Cushion Flat Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C  | D | E | MOUNTING BOLT |
|------------|-----------------|-----|----|---------|----|---|---|---------------|
| 18         | DCC-18-06       | 37  | 27 | 21 5/16 | 29 | 4 | 6 | 1/2           |
| 24         | DCC-24-06       | 44  | 33 | 27 5/16 | 35 | 4 | 6 | 1/2           |
| 30         | DCC-30-06       | 50  | 39 | 33 5/16 | 41 | 4 | 6 | 1/2           |
| 36         | DCC-36-06       | 59  | 45 | 39 5/16 | 47 | 4 | 6 | 1/2           |
| 42         | DCC-42-06       | 68  | 51 | 45 5/16 | 53 | 4 | 6 | 1/2           |
| 48         | DCC-48-06       | 75  | 57 | 51 5/16 | 59 | 4 | 6 | 1/2           |
| 54         | DCC-54-06       | 82  | 63 | 57 5/16 | 65 | 4 | 6 | 1/2           |
| 60         | DCC-60-06       | 91  | 69 | 63 5/16 | 71 | 4 | 6 | 1/2           |

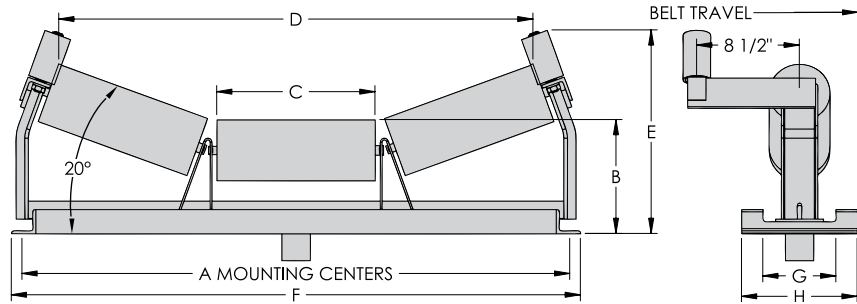
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# CEMA-C 20° Self-Aligning Troughed Idlers 4", 5" & 6" Diameter

4" and 5" diameter Heavy 20mm (.787") Precision, Permanent Sealed Bearings  
 6" diameter Heavy 25mm (.984") Precision, Permanent Sealed Bearings

## DOUGLAS IDLER IDENTIFICATION

DCS-18 - 20 - 04  
 Douglas Belt Troughed Roll  
 CEMA-C Width Angle Diameter  
 Self-aligning



### 20° Self-Aligning Troughed Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H      | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|--------|---------------|----------------------|
| 18         | DCS-18-20-04    | 74  | 27 | 8 7/8 | 7 1/8  | 21 13/16 | 14 5/8   | 29     | 6     | 9 1/2  | 1/2           | RCT-18-04            |
| 24         | DCS-24-20-04    | 80  | 33 | 8 7/8 | 9 1/8  | 27 9/16  | 15 5/16  | 35     | 6     | 9 1/2  | 1/2           | RCT-24-04            |
| 30         | DCS-30-20-04    | 88  | 39 | 8 7/8 | 11     | 33 3/8   | 15 15/16 | 41     | 6     | 9 1/2  | 1/2           | RCT-30-04            |
| 36         | DCS-36-20-04    | 98  | 45 | 8 7/8 | 13     | 39 1/8   | 16 3/4   | 47     | 6     | 9 1/2  | 1/2           | RCT-36-04            |
| 42         | DCS-42-20-04    | 104 | 51 | 9 1/4 | 15 1/8 | 44 7/8   | 17 15/16 | 53     | 7 1/2 | 11 1/2 | 5/8           | RCT-42-04            |
| 48         | DCS-48-20-04    | 110 | 57 | 9 1/4 | 17 1/8 | 50 5/8   | 18 1/2   | 59     | 7 1/2 | 11 1/2 | 5/8           | RCT-48-04            |
| 54         | DCS-54-20-04    | 119 | 63 | 9 1/2 | 19 1/8 | 56 3/8   | 19 1/4   | 65 1/2 | 9     | 11 1/2 | 5/8           | RCT-54-04            |
| 60         | DCS-60-20-04    | 125 | 69 | 9 1/2 | 21 1/8 | 62 1/8   | 19 7/8   | 71 1/2 | 9     | 11 1/2 | 5/8           | RCT-60-04            |

### 20° Self-Aligning Troughed Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H      | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|--------|---------------|----------------------|
| 18         | DCS-18-20-05    | 74  | 27 | 9 3/8 | 7 1/8  | 21 1/2   | 14 5/8   | 29     | 6     | 9 1/2  | 1/2           | RCT-18-05            |
| 24         | DCS-24-20-05    | 80  | 33 | 9 3/8 | 9 1/8  | 27 1/4   | 15 5/16  | 35     | 6     | 9 1/2  | 1/2           | RCT-24-05            |
| 30         | DCS-30-20-05    | 88  | 39 | 9 3/8 | 11     | 33       | 15 15/16 | 41     | 6     | 9 1/2  | 1/2           | RCT-30-05            |
| 36         | DCS-36-20-05    | 98  | 45 | 9 3/8 | 13     | 38 3/4   | 16 3/4   | 47     | 6     | 9 1/2  | 1/2           | RCT-36-05            |
| 42         | DCS-42-20-05    | 104 | 51 | 9 5/8 | 15 1/8 | 44 1/2   | 17 15/16 | 53     | 7 1/2 | 11 1/2 | 5/8           | RCT-42-05            |
| 48         | DCS-48-20-05    | 110 | 57 | 9 5/8 | 17 1/8 | 50 5/16  | 18 1/2   | 59     | 7 1/2 | 11 1/2 | 5/8           | RCT-48-05            |
| 54         | DCS-54-20-05    | 119 | 63 | 10    | 19 1/8 | 56 1/16  | 19 1/4   | 65 1/2 | 9     | 11 1/2 | 5/8           | RCT-54-05            |
| 60         | DCS-60-20-05    | 125 | 69 | 10    | 21 1/8 | 61 13/16 | 19 7/8   | 71 1/2 | 9     | 11 1/2 | 5/8           | RCT-60-05            |

### 20° Self-Aligning Troughed Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B      | C      | D        | E        | F      | G     | H      | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|--------|--------|----------|----------|--------|-------|--------|---------------|----------------------|
| 18         | DCS-18-20-06    | 79  | 27 | 9 7/8  | 7 1/8  | 21 1/8   | 14 5/8   | 29     | 6     | 9 1/2  | 1/2           | RCT-18-06            |
| 24         | DCS-24-20-06    | 82  | 33 | 9 7/8  | 9 1/8  | 26 7/8   | 15 5/16  | 35     | 6     | 9 1/2  | 1/2           | RCT-24-06            |
| 30         | DCS-30-20-06    | 100 | 39 | 9 7/8  | 11     | 32 5/8   | 15 15/16 | 41     | 6     | 9 1/2  | 1/2           | RCT-30-06            |
| 36         | DCS-36-20-06    | 108 | 45 | 9 7/8  | 13     | 38 3/8   | 16 3/4   | 47     | 6     | 9 1/2  | 1/2           | RCT-36-06            |
| 42         | DCS-42-20-06    | 114 | 51 | 10 1/8 | 15 1/8 | 44 1/8   | 17 15/16 | 53     | 7 1/2 | 11 1/2 | 5/8           | RCT-42-06            |
| 48         | DCS-48-20-06    | 126 | 57 | 10 1/8 | 17 1/8 | 49 15/16 | 18 1/2   | 59     | 7 1/2 | 11 1/2 | 5/8           | RCT-48-06            |
| 54         | DCS-54-20-06    | 135 | 63 | 10 1/2 | 19 1/8 | 55 11/16 | 19 1/4   | 65 1/2 | 9     | 11 1/2 | 5/8           | RCT-54-06            |
| 60         | DCS-60-20-06    | 143 | 69 | 10 1/2 | 21 1/8 | 61 3/8   | 19 7/8   | 71 1/2 | 9     | 11 1/2 | 5/8           | RCT-60-06            |

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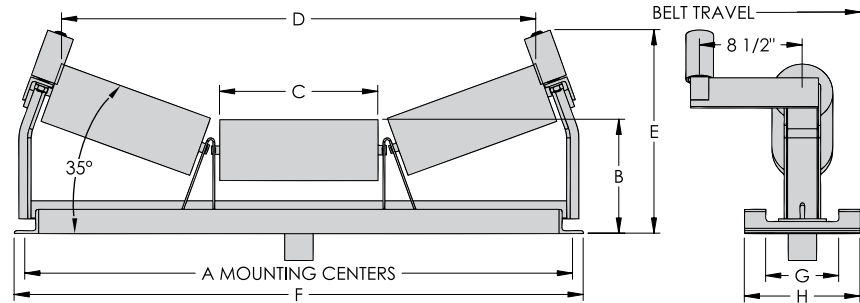
# CEMA-C 35° Self-Aligning Troughed Idlers 4", 5" & 6" Diameter

4" and 5" diameter Heavy 20mm (.787") Precision, Permanent Sealed Bearings  
 6" diameter Heavy 25mm (.984") Precision, Permanent Sealed Bearings

**DOUGLAS IDLER IDENTIFICATION**

DCS-18 - 35 - 04

Douglas CEMA-C Self-aligning Belt Width Troughed Angle Roll Diameter



**IDLERS  
 CEMA C**

## 35° Self-Aligning Troughed Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H      | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|--------|---------------|----------------------|
| 18         | DCS-18-35-04    | 74  | 27 | 8 7/8 | 7 1/8  | 19 15/16 | 16 7/16  | 29     | 6     | 9 1/2  | 1/2           | RCT-18-04            |
| 24         | DCS-24-35-04    | 82  | 33 | 8 7/8 | 9 1/8  | 24 5/8   | 17 7/8   | 35     | 6     | 9 1/2  | 1/2           | RCT-24-04            |
| 30         | DCS-30-35-04    | 88  | 39 | 8 7/8 | 11     | 30 1/8   | 19       | 41     | 6     | 9 1/2  | 1/2           | RCT-30-04            |
| 36         | DCS-36-35-04    | 99  | 45 | 8 7/8 | 13     | 35 3/4   | 20 1/16  | 47     | 6     | 9 1/2  | 1/2           | RCT-36-04            |
| 42         | DCS-42-35-04    | 104 | 51 | 9 1/4 | 15 1/8 | 41 1/16  | 21 3/4   | 53     | 7 1/2 | 11 1/2 | 5/8           | RCT-42-04            |
| 48         | DCS-48-35-04    | 110 | 57 | 9 1/4 | 17 1/8 | 46 5/16  | 22 15/16 | 59     | 7 1/2 | 11 1/2 | 5/8           | RCT-48-04            |
| 54         | DCS-54-35-04    | 119 | 63 | 9 1/2 | 19 1/8 | 51 5/8   | 24 1/2   | 65 1/2 | 9     | 11 1/2 | 5/8           | RCT-54-04            |
| 60         | DCS-60-35-04    | 125 | 69 | 9 1/2 | 21 1/8 | 56 7/8   | 25 5/8   | 71 1/2 | 9     | 11 1/2 | 5/8           | RCT-60-04            |

## 35° Self-Aligning Troughed Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E       | F      | G     | H      | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|---------|--------|-------|--------|---------------|----------------------|
| 18         | DCS-18-35-05    | 74  | 27 | 9 3/8 | 7 1/8  | 19 3/8   | 16 7/16 | 29     | 6     | 9 1/2  | 1/2           | RCT-18-05            |
| 24         | DCS-24-35-05    | 82  | 33 | 9 3/8 | 9 1/8  | 24 5/8   | 17 7/8  | 35     | 6     | 9 1/2  | 1/2           | RCT-24-05            |
| 30         | DCS-30-35-05    | 88  | 39 | 9 3/8 | 11 1/8 | 29 1/2   | 19      | 41     | 6     | 9 1/2  | 1/2           | RCT-30-05            |
| 36         | DCS-36-35-05    | 99  | 45 | 9 3/8 | 13 1/8 | 35 3/16  | 20 1/16 | 47     | 6     | 9 1/2  | 1/2           | RCT-36-05            |
| 42         | DCS-42-35-05    | 104 | 51 | 9 3/4 | 15 1/8 | 40 1/2   | 21 3/4  | 53     | 7 1/2 | 11 1/2 | 1/2           | RCT-42-05            |
| 48         | DCS-48-35-05    | 110 | 57 | 9 3/4 | 17 1/8 | 45 3/4   | 22 5/16 | 59     | 7 1/2 | 11 1/2 | 5/8           | RCT-48-05            |
| 54         | DCS-54-35-05    | 119 | 63 | 10    | 19 1/8 | 50 13/16 | 24 1/2  | 65 1/2 | 9     | 11 1/2 | 5/8           | RCT-54-05            |
| 60         | DCS-60-35-05    | 138 | 69 | 10    | 21 1/8 | 56 5/16  | 25 5/8  | 71 1/2 | 9     | 11 1/2 | 5/8           | RCT-60-05            |

## 35° Self-Aligning Troughed Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B      | C      | D        | E        | F      | G     | H      | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|--------|--------|----------|----------|--------|-------|--------|---------------|----------------------|
| 18         | DCS-18-35-06    | 89  | 27 | 9 7/8  | 7 1/8  | 18 13/16 | 16 7/16  | 29     | 6     | 9 1/2  | 1/2           | RCT-18-06            |
| 24         | DCS-24-35-06    | 92  | 33 | 9 7/8  | 9 1/8  | 24 1/16  | 17 7/8   | 35     | 6     | 9 1/2  | 1/2           | RCT-24-06            |
| 30         | DCS-30-35-06    | 100 | 39 | 9 7/8  | 11     | 28 15/16 | 19       | 41     | 6     | 9 1/2  | 1/2           | RCT-30-06            |
| 36         | DCS-36-35-06    | 108 | 45 | 9 7/8  | 13     | 34 9/16  | 20 1/16  | 47     | 6     | 9 1/2  | 1/2           | RCT-36-06            |
| 42         | DCS-42-35-06    | 115 | 51 | 10 1/4 | 15 1/8 | 39 15/16 | 21 3/4   | 53     | 7 1/2 | 11 1/2 | 5/8           | RCT-42-06            |
| 48         | DCS-48-35-06    | 126 | 57 | 10 1/4 | 17 1/8 | 45 1/8   | 22 15/16 | 59     | 7 1/2 | 11 1/2 | 5/8           | RCT-48-06            |
| 54         | DCS-54-35-06    | 135 | 63 | 10 1/2 | 19 1/8 | 50 3/16  | 24 1/2   | 65 1/2 | 9     | 11 1/2 | 5/8           | RCT-54-06            |
| 60         | DCS-60-35-06    | 143 | 69 | 10 1/2 | 21 1/8 | 55 11/16 | 25 5/8   | 71 1/2 | 9     | 11 1/2 | 5/8           | RCT-60-06            |

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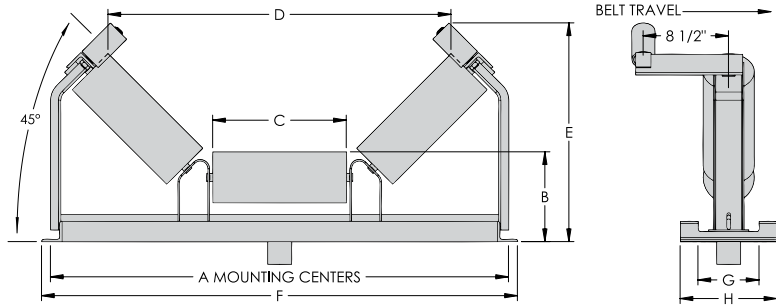
# CEMA-C 45° Self-Aligning Troughed Idlers 4", 5" & 6" Diameter

**4" and 5" diameter Heavy 20mm (.787") Precision, Permanent Sealed Bearings**  
**6" diameter Heavy 25mm (.984") Precision, Permanent Sealed Bearings**

## DOUGLAS IDLER IDENTIFICATION

DCS-18 - 45 - 04

Douglas CEMA-C Self-aligning  
 Belt Width  
 Troughed Angle  
 Roll Diameter



### 45° Self-Aligning Troughed Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C      | D        | E        | F      | G     | H      | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|---------|--------|----------|----------|--------|-------|--------|---------------|----------------------|
| 18         | DCS-18-45-04    | 84  | 27 | 8 3/8   | 7 1/8  | 19 7/8   | 17 3/16  | 29     | 6     | 9 1/2  | 1/2           | RCT-18-04            |
| 24         | DCS-24-45-04    | 91  | 33 | 8 3/8   | 9 1/8  | 24 3/4   | 18 5/8   | 35     | 6     | 9 1/2  | 1/2           | RCT-24-04            |
| 30         | DCS-30-45-04    | 100 | 39 | 8 3/8   | 11 1/8 | 29 9/16  | 20       | 41     | 6     | 9 1/2  | 1/2           | RCT-30-04            |
| 36         | DCS-36-45-04    | 109 | 45 | 8 3/8   | 13 1/8 | 34 3/8   | 20 15/16 | 47     | 6     | 9 1/2  | 1/2           | RCT-36-04            |
| 42         | DCS-42-45-04    | 132 | 51 | 8 11/16 | 15 1/8 | 39 3/16  | 23 3/16  | 53     | 7 1/2 | 11 1/2 | 5/8           | RCT-42-04            |
| 48         | DCS-48-45-04    | 142 | 57 | 8 11/16 | 17 1/8 | 44 1/16  | 24 5/8   | 59     | 7 1/2 | 11 1/2 | 5/8           | RCT-48-04            |
| 54         | DCS-54-45-04    | 155 | 63 | 9 3/16  | 19 1/8 | 48 7/8   | 26 1/2   | 65 1/2 | 9     | 14     | 5/8           | RCT-54-04            |
| 60         | DCS-60-45-04    | 167 | 69 | 9 3/16  | 21 1/8 | 53 11/16 | 27 7/8   | 71 1/2 | 9     | 14     | 5/8           | RCT-60-04            |

### 45° Self-Aligning Troughed Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C      | D        | E        | F      | G     | H      | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|---------|--------|----------|----------|--------|-------|--------|---------------|----------------------|
| 18         | DCS-18-45-05    | 89  | 27 | 8 7/8   | 7 1/8  | 19 3/16  | 17 3/16  | 29     | 6     | 9 1/2  | 1/2           | RCT-18-05            |
| 24         | DCS-24-45-05    | 95  | 33 | 8 7/8   | 9 1/8  | 24 1/16  | 18 5/8   | 35     | 6     | 9 1/2  | 1/2           | RCT-24-05            |
| 30         | DCS-30-45-05    | 103 | 39 | 8 7/8   | 11 1/8 | 28 7/8   | 20       | 41     | 6     | 9 1/2  | 1/2           | RCT-30-05            |
| 36         | DCS-36-45-05    | 114 | 45 | 8 7/8   | 13 1/8 | 33 11/16 | 20 15/16 | 47     | 6     | 9 1/2  | 1/2           | RCT-36-05            |
| 42         | DCS-42-45-05    | 135 | 51 | 9 3/16  | 15 1/8 | 38 1/2   | 23 3/16  | 53     | 7 1/2 | 11 1/2 | 5/8           | RCT-42-05            |
| 48         | DCS-48-45-05    | 145 | 57 | 9 3/16  | 17 1/8 | 43 3/8   | 24 5/8   | 59     | 7 1/2 | 11 1/2 | 5/8           | RCT-48-05            |
| 54         | DCS-54-45-05    | 158 | 63 | 9 11/16 | 19 1/8 | 48 3/16  | 26 1/2   | 65 1/2 | 9     | 14     | 5/8           | RCT-54-05            |
| 60         | DCS-60-45-05    | 170 | 69 | 9 11/16 | 21 1/8 | 53       | 27 7/8   | 71 1/2 | 9     | 14     | 5/8           | RCT-60-05            |

### 45° Self-Aligning Troughed Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C      | D        | E        | F      | G     | H      | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|---------|--------|----------|----------|--------|-------|--------|---------------|----------------------|
| 18         | DCS-18-45-06    | 89  | 29 | 9 3/8   | 7 1/8  | 18 1/2   | 17 3/16  | 29     | 6     | 9 1/2  | 1/2           | RCT-18-06            |
| 24         | DCS-24-45-06    | 95  | 34 | 9 3/8   | 9 1/8  | 23 3/8   | 18 5/8   | 35     | 6     | 9 1/2  | 1/2           | RCT-24-06            |
| 30         | DCS-30-45-06    | 103 | 40 | 9 3/8   | 11 1/8 | 28 3/16  | 20       | 41     | 6     | 9 1/2  | 1/2           | RCT-30-06            |
| 36         | DCS-36-45-06    | 114 | 46 | 9 3/8   | 13 1/8 | 33       | 20 15/16 | 47     | 6     | 9 1/2  | 1/2           | RCT-36-06            |
| 42         | DCS-42-45-06    | 135 | 52 | 9 11/16 | 15 1/8 | 37 13/16 | 23 3/16  | 53     | 7 1/2 | 11 1/2 | 5/8           | RCT-42-06            |
| 48         | DCS-48-45-06    | 145 | 58 | 9 11/16 | 17 1/8 | 42 11/16 | 24 5/8   | 59     | 7 1/2 | 11 1/2 | 5/8           | RCT-48-06            |
| 54         | DCS-54-45-06    | 158 | 64 | 10 3/16 | 19 1/8 | 47 1/2   | 26 1/2   | 65 1/2 | 9     | 14     | 5/8           | RCT-54-06            |
| 60         | DCS-60-45-06    | 170 | 71 | 10 3/16 | 21 1/8 | 52 5/16  | 27 7/8   | 71 1/2 | 9     | 14     | 5/8           | RCT-60-06            |

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# CEMA-C Self-Aligning Return Idlers

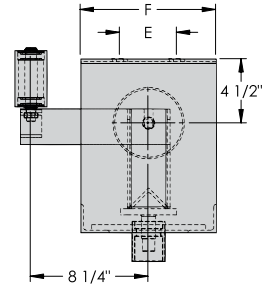
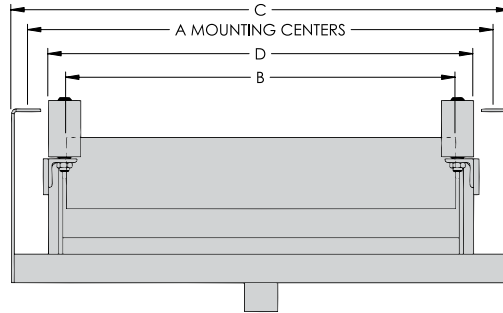
## 4", 5" & 6" Diameter

4" and 5" diameter Heavy 20mm (.787") Precision, Permanent Sealed Bearings  
 6" diameter Heavy 25mm (.984") Precision, Permanent Sealed Bearings

**DOUGLAS IDLER IDENTIFICATION**

DCA - 18 - 04

Douglas CEMA-C Aligning      Belt Width      Roll Diameter



**IDLERS  
CEMA C**

### Self-Aligning Return Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | D      | E | F     | MOUNTING BOLT |
|------------|-----------------|-----|----|----|----|--------|---|-------|---------------|
| 18         | DCA-18-04       | 73  | 27 | 21 | 30 | 23 5/8 | 4 | 9 1/2 | 1/2           |
| 24         | DCA-24-04       | 80  | 33 | 27 | 36 | 29 5/8 | 4 | 9 1/2 | 1/2           |
| 30         | DCA-30-04       | 100 | 39 | 33 | 42 | 35 5/8 | 4 | 9 1/2 | 1/2           |
| 36         | DCA-36-04       | 125 | 45 | 39 | 48 | 41 5/8 | 4 | 9 1/2 | 1/2           |
| 42         | DCA-42-04       | 142 | 51 | 45 | 54 | 47 5/8 | 4 | 9 1/2 | 1/2           |
| 48         | DCA-48-04       | 150 | 57 | 51 | 60 | 53 5/8 | 4 | 9 1/2 | 1/2           |
| 54         | DCA-54-04       | 165 | 63 | 57 | 66 | 59 5/8 | 4 | 9 1/2 | 1/2           |
| 60         | DCA-60-04       | 180 | 69 | 63 | 72 | 65 5/8 | 4 | 9 1/2 | 1/2           |

### Self-Aligning Return Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | D      | E | F     | MOUNTING BOLT |
|------------|-----------------|-----|----|----|----|--------|---|-------|---------------|
| 18         | DCA-18-05       | 74  | 27 | 21 | 30 | 23 5/8 | 4 | 9 1/2 | 1/2           |
| 24         | DCA-24-05       | 82  | 33 | 27 | 36 | 29 5/8 | 4 | 9 1/2 | 1/2           |
| 30         | DCA-30-05       | 109 | 39 | 33 | 42 | 35 5/8 | 4 | 9 1/2 | 1/2           |
| 36         | DCA-36-05       | 131 | 45 | 39 | 48 | 41 5/8 | 4 | 9 1/2 | 1/2           |
| 42         | DCA-42-05       | 146 | 51 | 45 | 54 | 47 5/8 | 4 | 9 1/2 | 1/2           |
| 48         | DCA-48-05       | 155 | 57 | 51 | 60 | 53 5/8 | 4 | 9 1/2 | 1/2           |
| 54         | DCA-54-05       | 168 | 63 | 57 | 66 | 59 5/8 | 4 | 9 1/2 | 1/2           |
| 60         | DCA-60-05       | 183 | 69 | 63 | 72 | 65 5/8 | 4 | 9 1/2 | 1/2           |

### Self-Aligning Return Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | D      | E | F     | MOUNTING BOLT |
|------------|-----------------|-----|----|----|----|--------|---|-------|---------------|
| 18         | DCA-18-06       | 78  | 27 | 21 | 30 | 23 5/8 | 4 | 9 1/2 | 1/2           |
| 24         | DCA-24-06       | 86  | 33 | 27 | 36 | 29 5/8 | 4 | 9 1/2 | 1/2           |
| 30         | DCA-30-06       | 113 | 39 | 33 | 42 | 35 5/8 | 4 | 9 1/2 | 1/2           |
| 36         | DCA-36-06       | 135 | 45 | 39 | 48 | 41 5/8 | 4 | 9 1/2 | 1/2           |
| 42         | DCA-42-06       | 150 | 51 | 45 | 54 | 47 5/8 | 4 | 9 1/2 | 1/2           |
| 48         | DCA-48-06       | 159 | 57 | 51 | 60 | 53 5/8 | 4 | 9 1/2 | 1/2           |
| 54         | DCA-54-06       | 172 | 63 | 57 | 66 | 59 5/8 | 4 | 9 1/2 | 1/2           |
| 60         | DCA-60-06       | 187 | 69 | 63 | 72 | 65 5/8 | 4 | 9 1/2 | 1/2           |

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# CEMA-C 20° Low Profile Channel Mount Idlers 4" & 5" Diameter

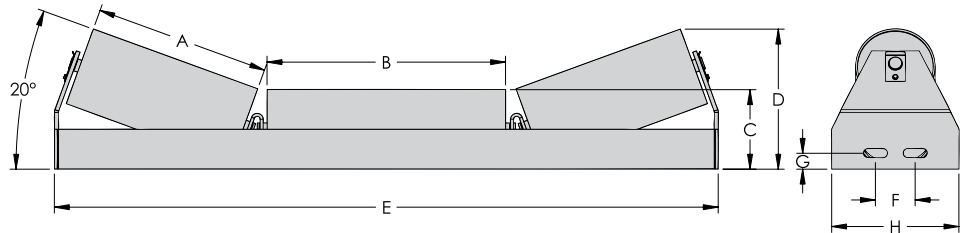
**Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications**

**IDLERS  
 CEMA C**

**DOUGLAS IDLER IDENTIFICATION**

DCL-24 - 20 - 04

|         |            |                |               |
|---------|------------|----------------|---------------|
| DCL     | - 24       | - 20           | - 04          |
| Douglas | Belt Width | Troughed Angle | Roll Diameter |



- Bolts to inside of channel frames
- Space saving for use in limited space applications, as under portable crushers, conveyor transfer or loading points with limited space

## 20° Low Profile Channel Mount Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A      | B       | C     | D      | E      | F     | G | H | MOUNTING BOLT |
|------------|-----------------|-----|--------|---------|-------|--------|--------|-------|---|---|---------------|
| 24         | DCL-24-20-04    | 40  | 7 1/16 | 11 1/16 | 4 1/2 | 7 1/16 | 29 3/4 | 2 1/2 | 1 | 8 | 1/2           |
| 30         | DCL-30-20-04    | 46  | 8 7/8  | 12 1/2  | 4 1/2 | 8 1/8  | 35 3/4 | 2 1/2 | 1 | 8 | 1/2           |
| 36         | DCL-36-20-04    | 54  | 11     | 15      | 4 1/2 | 8 3/8  | 41 3/4 | 2 1/2 | 1 | 8 | 1/2           |
| 42         | DCL-42-20-04    | 56  | 13     | 17      | 4 1/2 | 9 3/32 | 47 3/4 | 2 1/2 | 1 | 8 | 1/2           |
| 48         | DCL-48-20-04    | 65  | 14 3/4 | 19      | 4 1/2 | 9 3/4  | 53 3/4 | 2 1/2 | 1 | 8 | 1/2           |

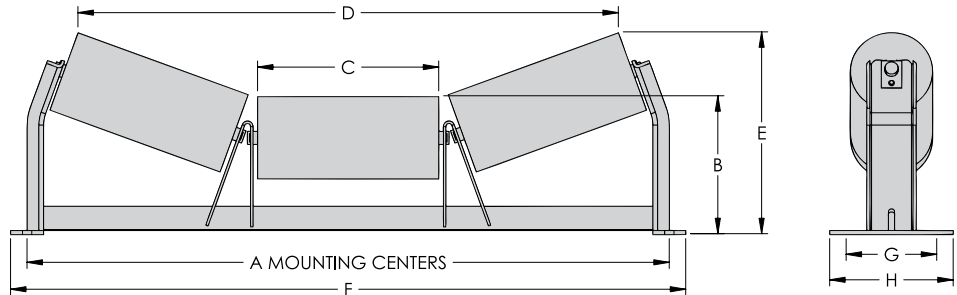
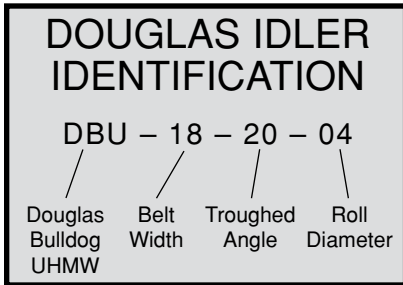
## 20° Low Profile Channel Mount Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A      | B       | C | D       | E      | F     | G | H | MOUNTING BOLT |
|------------|-----------------|-----|--------|---------|---|---------|--------|-------|---|---|---------------|
| 24         | DCL-24-20-05    | 42  | 7 1/16 | 11 1/16 | 5 | 7 1/2   | 29 3/4 | 2 1/2 | 1 | 8 | 1/2           |
| 30         | DCL-30-20-05    | 48  | 8 7/8  | 12 1/2  | 5 | 8 5/8   | 35 3/4 | 2 1/2 | 1 | 8 | 1/2           |
| 36         | DCL-36-20-05    | 57  | 11     | 15      | 5 | 8 13/16 | 41 3/4 | 2 1/2 | 1 | 8 | 1/2           |
| 42         | DCL-42-20-05    | 61  | 13     | 17      | 5 | 9 9/16  | 47 3/4 | 2 1/2 | 1 | 8 | 1/2           |
| 48         | DCL-48-20-05    | 68  | 14 3/4 | 19      | 5 | 10 1/4  | 53 3/4 | 2 1/2 | 1 | 8 | 1/2           |

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# UHMW 20° Troughed Idlers 4" & 5" Diameter Equal Length Rollers

*Made From Solid Ultra High Molecular Weight Material  
 No Bearings, No Seals, For Conveyor Speeds Not Exceeding 350 FPM  
 Corrosion Resistant, No Grease, Sanitary, Helps Prevent Premature Belt Wear*



**IDLERS  
CEMA C**

## 20° Troughing Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 18         | DBU-18-20-04    | 37  | 27 | 8     | 7 1/8  | 21 13/16 | 10 1/2   | 29     | 6     | 7 1/2 | 1/2           | RBU-18-04            |
| 24         | DBU-24-20-04    | 40  | 33 | 8     | 9 1/8  | 27 9/16  | 11 3/16  | 35     | 6     | 7 1/2 | 1/2           | RBU-24-04            |
| 30         | DBU-30-20-04    | 48  | 39 | 8     | 11     | 33 3/8   | 11 13/16 | 41     | 6     | 7 1/2 | 1/2           | RBU-30-04            |
| 36         | DBU-36-20-04    | 54  | 45 | 8     | 13     | 39 1/8   | 12 5/8   | 47     | 6     | 9     | 1/2           | RBU-36-04            |
| 42         | DBU-42-20-04    | 68  | 51 | 8 1/4 | 15 1/8 | 44 7/8   | 13 13/16 | 53     | 7 1/2 | 9     | 5/8           | RBU-42-04            |
| 48         | DBU-48-20-04    | 78  | 57 | 8 1/4 | 17 1/8 | 50 5/8   | 14 3/8   | 59     | 7 1/2 | 9     | 5/8           | RBU-48-04            |
| 54         | DBU-54-20-04    | 84  | 63 | 8 3/4 | 19 1/8 | 56 3/8   | 15 1/8   | 65 1/2 | 9     | 11    | 5/8           | RBU-54-04            |
| 60         | DBU-60-20-04    | 89  | 69 | 8 3/4 | 21 1/8 | 62 1/8   | 15 3/4   | 71 1/2 | 9     | 11    | 5/8           | RBU-60-04            |

## 20° Troughing Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 18         | DBU-18-20-05    | 38  | 27 | 8 1/2 | 7 1/8  | 21 1/2   | 11       | 29     | 6     | 7 1/2 | 1/2           | RBU-18-05            |
| 24         | DBU-24-20-05    | 42  | 33 | 8 1/2 | 9 1/8  | 27 1/4   | 11 11/16 | 35     | 6     | 7 1/2 | 1/2           | RBU-24-05            |
| 30         | DBU-30-20-05    | 52  | 39 | 8 1/2 | 11     | 33       | 12 3/8   | 41     | 6     | 7 1/2 | 1/2           | RBU-30-05            |
| 36         | DBU-36-20-05    | 60  | 45 | 8 1/2 | 13     | 38 3/4   | 13 1/16  | 47     | 6     | 9     | 1/2           | RBU-36-05            |
| 42         | DBU-42-20-05    | 76  | 51 | 8 3/4 | 15 1/8 | 44 1/2   | 14 3/16  | 53     | 7 1/2 | 9     | 5/8           | RBU-42-05            |
| 48         | DBU-48-20-05    | 85  | 57 | 8 3/4 | 17 1/8 | 50 5/16  | 14 7/8   | 59     | 7 1/2 | 9     | 5/8           | RBU-48-05            |
| 54         | DBU-54-20-05    | 94  | 63 | 9 1/4 | 19 1/8 | 56 1/16  | 15 3/8   | 65 1/2 | 9     | 11    | 5/8           | RBU-54-05            |
| 60         | DBU-60-20-05    | 102 | 69 | 9 1/4 | 21 1/8 | 61 13/16 | 16 3/16  | 71 1/2 | 9     | 11    | 5/8           | RBU-60-05            |

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# UHMW 35° Troughed Idlers 4" & 5" Diameter Equal Length Rollers

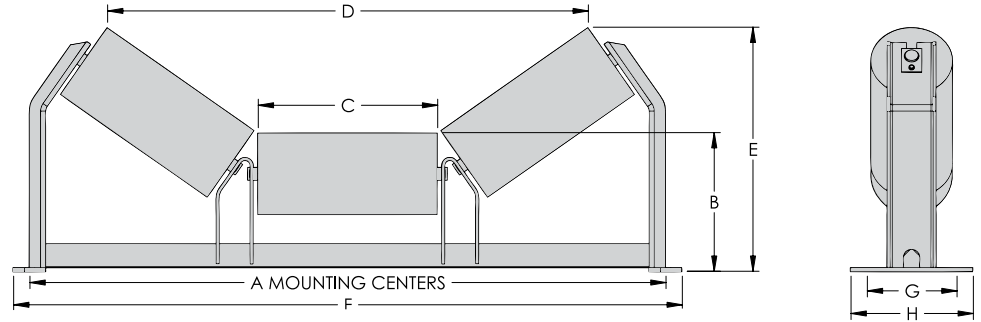
**Made From Solid Ultra High Molecular Weight Material**  
**No Bearings, No Seals, For Conveyor Speeds Not Exceeding 350 FPM**  
**Corrosion Resistant, No Grease, Sanitary, Helps Prevent Premature Belt Wear**

**IDLERS  
 CEMA C**

**DOUGLAS IDLER IDENTIFICATION**

DBU - 18 - 35 - 04

Douglas Bulldog UHMW    Belt Width    Troughed Angle    Roll Diameter



## 35° Troughing Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 18         | DBU-18-35-04    | 38  | 27 | 8     | 7 1/8  | 19 15/16 | 12 1/4   | 29     | 6     | 7 1/2 | 1/2           | RBU-18-04            |
| 24         | DBU-24-35-04    | 40  | 33 | 8     | 9 1/8  | 24 5/8   | 13 7/8   | 35     | 6     | 7 1/2 | 1/2           | RBU-24-04            |
| 30         | DBU-30-35-04    | 48  | 39 | 8     | 11     | 30 1/8   | 14 9/16  | 41     | 6     | 7 1/2 | 1/2           | RBU-30-04            |
| 36         | DBU-36-35-04    | 54  | 45 | 8     | 13     | 35 3/4   | 15 11/16 | 47     | 6     | 9     | 1/2           | RBU-36-04            |
| 42         | DBU-42-35-04    | 68  | 51 | 8 1/4 | 15 1/8 | 41 1/16  | 17 5/16  | 53     | 7 1/2 | 9     | 5/8           | RBU-42-04            |
| 48         | DBU-48-35-04    | 76  | 57 | 8 1/4 | 17 1/8 | 46 5/16  | 18 7/16  | 59     | 7 1/2 | 9     | 5/8           | RBU-48-04            |
| 54         | DBU-54-35-04    | 84  | 63 | 8 3/4 | 19 1/8 | 51 5/8   | 19 5/8   | 65 1/2 | 9     | 11    | 5/8           | RBU-54-04            |
| 60         | DBU-60-35-04    | 89  | 69 | 8 3/4 | 21 1/8 | 56 7/8   | 20 3/4   | 71 1/2 | 9     | 11    | 5/8           | RBU-60-04            |

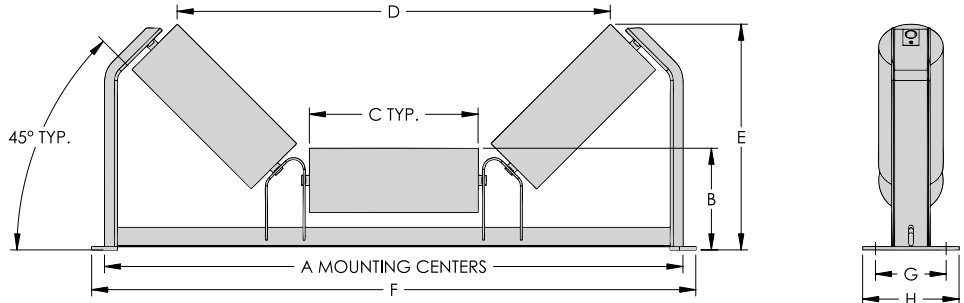
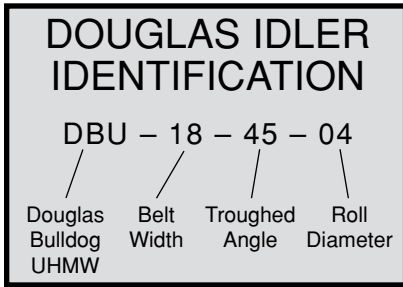
## 35° Troughing Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 18         | DBU-18-35-05    | 40  | 27 | 8 1/2 | 7 1/8  | 19 3/8   | 12 3/8   | 29     | 6     | 7 1/2 | 1/2           | RBU-18-05            |
| 24         | DBU-24-35-05    | 45  | 33 | 8 1/2 | 9 1/8  | 24 5/8   | 13 13/16 | 35     | 6     | 7 1/2 | 1/2           | RBU-24-05            |
| 30         | DBU-30-35-05    | 55  | 39 | 8 1/2 | 11     | 29 1/2   | 14 15/16 | 41     | 6     | 7 1/2 | 1/2           | RBU-30-05            |
| 36         | DBU-36-35-05    | 62  | 45 | 8 1/2 | 13     | 35 3/16  | 16       | 47     | 6     | 9     | 1/2           | RBU-36-05            |
| 42         | DBU-42-35-05    | 80  | 51 | 8 3/4 | 15 1/8 | 40 1/2   | 17 11/16 | 53     | 7 1/2 | 9     | 5/8           | RBU-42-05            |
| 48         | DBU-48-35-05    | 88  | 57 | 8 3/4 | 17 1/8 | 45 3/4   | 18 7/8   | 59     | 7 1/2 | 9     | 5/8           | RBU-48-05            |
| 54         | DBU-54-35-05    | 98  | 63 | 9 1/4 | 19 1/8 | 50 13/16 | 20 7/16  | 65 1/2 | 9     | 11    | 5/8           | RBU-54-05            |
| 60         | DBU-60-35-05    | 105 | 69 | 9 1/4 | 21 1/8 | 56 5/16  | 21 9/16  | 71 1/2 | 9     | 11    | 5/8           | RBU-60-05            |

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# UHMW 45° Troughed Idlers 4" & 5" Diameter Equal Length Rollers

*Made From Solid Ultra High Molecular Weight Material  
 No Bearings, No Seals, For Conveyor Speeds Not Exceeding 350 FPM  
 Corrosion Resistant, No Grease, Sanitary, Helps Prevent Premature Belt Wear*



**IDLERS  
CEMA C**

## 45° Troughing Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|---------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 18         | DBU-18-45-04    | 37  | 27 | 7 15/16 | 7 1/8  | 19 15/16 | 13 7/16  | 29     | 6     | 7 1/2 | 1/2           | RBU-18-04            |
| 24         | DBU-24-45-04    | 40  | 33 | 7 15/16 | 9 1/8  | 24 13/16 | 14 7/8   | 35     | 6     | 7 1/2 | 1/2           | RBU-24-04            |
| 30         | DBU-30-45-04    | 48  | 39 | 7 15/16 | 11 1/8 | 29 5/8   | 16 1/4   | 41     | 6     | 7 1/2 | 1/2           | RBU-30-04            |
| 36         | DBU-36-45-04    | 54  | 45 | 7 15/16 | 13 1/8 | 34 7/16  | 17 11/16 | 47     | 6     | 7 1/2 | 1/2           | RBU-36-04            |
| 42         | DBU-42-45-04    | 68  | 51 | 8 1/4   | 15 1/8 | 39 1/8   | 19 7/16  | 53     | 7 1/2 | 9     | 5/8           | RBU-42-04            |
| 48         | DBU-48-45-04    | 78  | 57 | 8 1/4   | 17 1/8 | 44 1/8   | 20 7/8   | 59     | 7 1/2 | 9     | 5/8           | RBU-48-04            |
| 54         | DBU-54-45-04    | 84  | 63 | 8 3/4   | 19 1/8 | 48 15/16 | 22 3/4   | 65 1/2 | 9     | 11    | 5/8           | RBU-54-04            |
| 60         | DBU-60-45-04    | 89  | 69 | 8 3/4   | 21 1/8 | 53 3/4   | 24 1/8   | 71 1/2 | 9     | 11    | 5/8           | RBU-60-04            |

## 45° Troughing Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B      | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|--------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 18         | DBU-18-45-05    | 38  | 27 | 8 7/16 | 7 1/8  | 19 3/16  | 13 13/16 | 29     | 6     | 7 1/2 | 1/2           | RBU-18-05            |
| 24         | DBU-24-45-05    | 45  | 33 | 8 7/16 | 9 1/8  | 24 1/16  | 15 1/4   | 35     | 6     | 7 1/2 | 1/2           | RBU-24-05            |
| 30         | DBU-30-45-05    | 55  | 39 | 8 7/16 | 11 1/8 | 28 7/8   | 16 5/8   | 41     | 6     | 7 1/2 | 1/2           | RBU-30-05            |
| 36         | DBU-36-45-05    | 62  | 45 | 8 7/16 | 13 1/8 | 33 11/16 | 18 1/16  | 47     | 6     | 7 1/2 | 1/2           | RBU-36-05            |
| 42         | DBU-42-45-05    | 80  | 51 | 8 3/4  | 15 1/8 | 38 1/2   | 19 13/16 | 53     | 7 1/2 | 9     | 5/8           | RBU-42-05            |
| 48         | DBU-48-45-05    | 88  | 57 | 8 3/4  | 17 1/8 | 43 3/8   | 21 1/4   | 59     | 7 1/2 | 9     | 5/8           | RBU-48-05            |
| 54         | DBU-54-45-05    | 98  | 63 | 9 1/4  | 19 1/8 | 48 3/16  | 23 1/8   | 65 1/2 | 9     | 11    | 5/8           | RBU-54-05            |
| 60         | DBU-60-45-05    | 105 | 69 | 9 1/4  | 21 1/8 | 53       | 24 1/2   | 71 1/2 | 9     | 11    | 5/8           | RBU-60-05            |

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# UHMW Return Idlers 4" & 5" Diameter

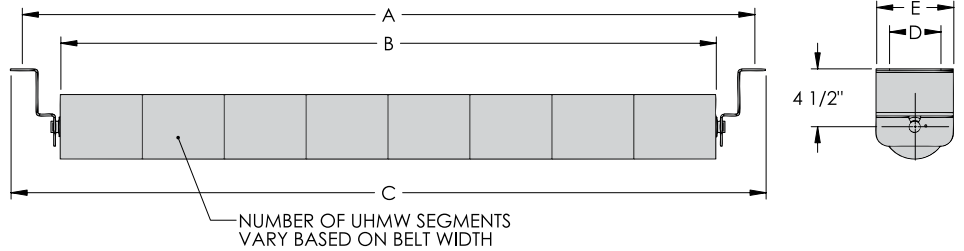
**Made From Solid Ultra High Molecular Weight Material  
 No Bearings, No Seals, For Conveyor Speeds Not Exceeding 350 FPM  
 Corrosion Resistant, No Grease, Sanitary, Helps Prevent Premature Belt Wear**

**IDLERS  
 CEMA C**

**DOUGLAS IDLER IDENTIFICATION**

DBH - 18 - 04

Douglas Bulldog UHMW    Belt Width    Roll Diameter



## Return Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | D | E | MOUNTING BOLT |
|------------|-----------------|-----|----|----|----|---|---|---------------|
| 18         | DBH-18-04       | 16  | 27 | 21 | 29 | 4 | 6 | 1/2           |
| 20         | DBH-20-04       | 17  | 29 | 23 | 31 | 4 | 6 | 1/2           |
| 24         | DBH-24-04       | 20  | 33 | 27 | 35 | 4 | 6 | 1/2           |
| 30         | DBH-30-04       | 22  | 39 | 33 | 41 | 4 | 6 | 1/2           |
| 36         | DBH-36-04       | 25  | 45 | 39 | 47 | 4 | 6 | 1/2           |
| 42         | DBH-42-04       | 32  | 51 | 45 | 53 | 4 | 6 | 1/2           |
| 48         | DBH-48-04       | 34  | 57 | 51 | 59 | 4 | 6 | 1/2           |

## Return Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | D | E | MOUNTING BOLT |
|------------|-----------------|-----|----|----|----|---|---|---------------|
| 18         | DBH-18-05       | 21  | 27 | 21 | 29 | 4 | 6 | 1/2           |
| 20         | DBH-20-05       | 22  | 29 | 23 | 31 | 4 | 6 | 1/2           |
| 24         | DBH-24-05       | 25  | 33 | 27 | 35 | 4 | 6 | 1/2           |
| 30         | DBH-30-05       | 30  | 39 | 33 | 41 | 4 | 6 | 1/2           |
| 36         | DBH-36-05       | 34  | 45 | 39 | 47 | 4 | 6 | 1/2           |
| 42         | DBH-42-05       | 39  | 51 | 45 | 53 | 4 | 6 | 1/2           |
| 48         | DBH-48-05       | 42  | 57 | 51 | 59 | 4 | 6 | 1/2           |

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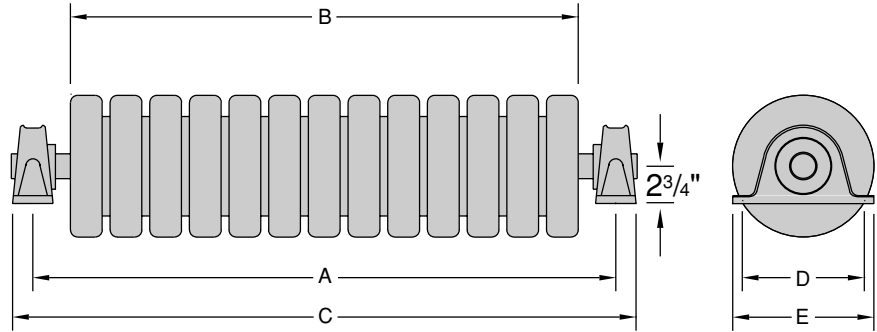
# Live Shaft Rubber Disc Idlers 5" & 6" Diameter

*Includes 2 1/4" Diameter Shaft and Ball Bearing Pillow Blocks*

**DOUGLAS IDLER IDENTIFICATION**

LRD - 24 - 06

Live Shaft  
Rubber  
Disc
Belt  
Width
Roll  
Diameter



**IDLERS  
CEMA C**

## Live Shaft Rubber Disc Idler 5" Diameter

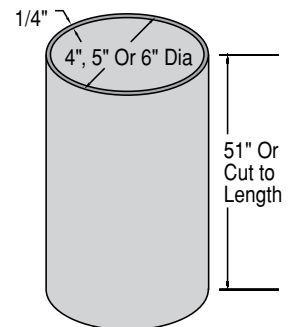
| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C      | D     | E     | MOUNTING BOLT |
|------------|-----------------|-----|----|----|--------|-------|-------|---------------|
| 24         | LRD-24-05       | 104 | 33 | 27 | 35 1/2 | 7 1/2 | 9 1/2 | 5/8           |
| 30         | LRD-30-05       | 118 | 39 | 33 | 41 1/2 | 7 1/2 | 9 1/2 | 5/8           |
| 36         | LRD-36-05       | 134 | 45 | 39 | 47 1/2 | 7 1/2 | 9 1/2 | 5/8           |
| 42         | LRD-42-05       | 148 | 51 | 45 | 53 1/2 | 7 1/2 | 9 1/2 | 5/8           |
| 48         | LRD-48-05       | 165 | 57 | 51 | 59 1/2 | 7 1/2 | 9 1/2 | 5/8           |
| 54         | LRD-54-05       | 179 | 63 | 57 | 65 1/2 | 7 1/2 | 9 1/2 | 5/8           |
| 60         | LRD-60-05       | 195 | 69 | 63 | 71 1/2 | 7 1/2 | 9 1/2 | 5/8           |

## Live Shaft Rubber Disc Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | D     | E     | MOUNTING BOLT |
|------------|-----------------|-----|----|----|----|-------|-------|---------------|
| 24         | LRD-24-06       | 109 | 33 | 27 | 37 | 7 1/2 | 9 1/2 | 5/8           |
| 30         | LRD-30-06       | 124 | 39 | 33 | 43 | 7 1/2 | 9 1/2 | 5/8           |
| 36         | LRD-36-06       | 140 | 45 | 39 | 49 | 7 1/2 | 9 1/2 | 5/8           |
| 42         | LRD-42-06       | 155 | 51 | 45 | 55 | 7 1/2 | 9 1/2 | 5/8           |
| 48         | LRD-48-06       | 172 | 57 | 51 | 61 | 7 1/2 | 9 1/2 | 5/8           |
| 54         | LRD-54-06       | 187 | 63 | 57 | 67 | 7 1/2 | 9 1/2 | 5/8           |
| 60         | LRD-60-06       | 204 | 69 | 63 | 73 | 7 1/2 | 9 1/2 | 5/8           |

# Urethane Idler Roll Covers 4", 5" & 6" Diameter

*1/4" Thick Pliable, Urethane Tube*

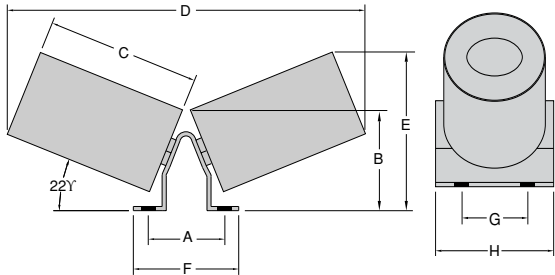


- Rebuilds Old Rolls.
- Helps Prevent Material Buildup.
- Extend Roll Life Up To 8 Times.
- Easy To Install, Cut To Length or Order Cut, Tap On With Rubber Mallet.
- 4", 5" and 6" Idler Roller Covers Fits All CEMA Manufactured Rollers.
- Available in 51" Tube Length or Cut To Length.

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# 2 Roll Troughed Idlers 4" Diameter 22°

Heavy 20mm (.787") Precision, Permanent Sealed Bearings



- 11 ga. roller
- Sealed 20mm ball bearings ea. end
- 7/8" dia. thru shaft

**DOUGLAS IDLER IDENTIFICATION**

2RI – 18

|                      |

2 Roll            Belt

Idler                Width

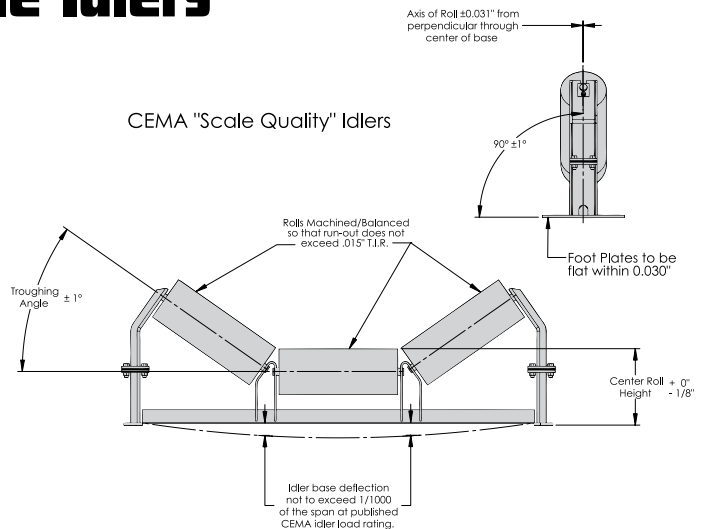
- Compact – space saving design
- Single mounting point can use 6" wide Flange beam for main conveyor frame
- Offers ideal and economical way to move crushed, medium weight materials
- Heavy duty roll, 7/8" diameter thru shaft with 20mm precision ball bearings, contact seals

## 22° Troughed Idler 4" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A      | B      | C        | D      | E     | F      | G       | H       | MOUNTING BOLT |
|------------|-----------------|-----|--------|--------|----------|--------|-------|--------|---------|---------|---------------|
| 12         | 2RI-12          | 13  | 3 7/16 | 4 1/16 | 6 15/16  | 15 1/2 | 7 1/8 | 4 7/16 | 3 15/16 | 4 15/16 | 3/8           |
| 14         | 2RI-14          | 14  | 3 7/16 | 4 1/16 | 7 15/16  | 17 1/2 | 7 5/8 | 4 7/16 | 3 15/16 | 4 15/16 | 3/8           |
| 16         | 2RI-16          | 15  | 3 7/16 | 4 1/16 | 9 1/16   | 21     | 7 1/2 | 4 7/16 | 3 15/16 | 4 15/16 | 3/8           |
| 18         | 2RI-18          | 16  | 3 7/16 | 4 1/16 | 9 15/16  | 21 1/2 | 8 1/2 | 4 7/16 | 3 15/16 | 4 15/16 | 3/8           |
| 20         | 2RI-20          | 17  | 3 7/16 | 4 1/16 | 10 15/16 | 23 1/2 | 9 1/8 | 4 7/16 | 3 15/16 | 4 15/16 | 3/8           |
| 24         | 2RI-24          | 18  | 3 7/16 | 4 1/16 | 13       | 27 1/2 | 9 7/8 | 4 7/16 | 3 15/16 | 4 15/16 | 3/8           |
| 30         | 2RI-30          | 19  | 3 7/16 | 4 1/16 | 15 15/16 | 33 1/2 | 10    | 4 7/16 | 3 15/16 | 4 15/16 | 3/8           |

## Belt Scale Idlers

- Douglas belt scale idlers are manufactured to prevent load shift and to help ensure accurate weight measurements of conveyed material when used with mechanical weighing devices (belt scales).
- Douglas belt scale idlers are available in CEMA C and D configurations, in 20°, 35° and 45° troughing angles. These idlers are factory lubricated and are "sealed for life" or maintenance free.
- Contact the local authorized Douglas Distributor of your choice or contact Douglas Manufacturing for further assistance.



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IDLERS  
CEMA C



# Idlers CEMA-D

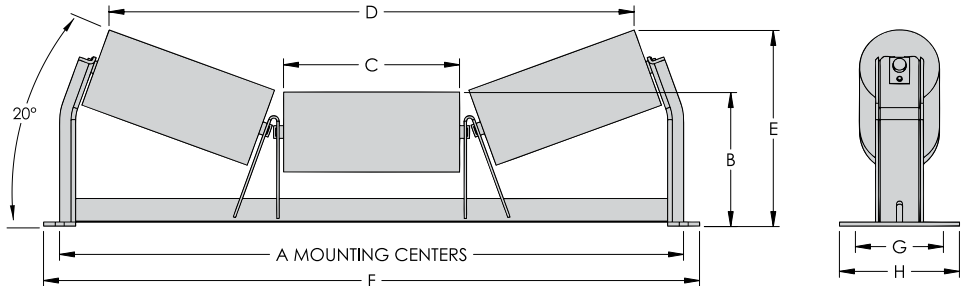
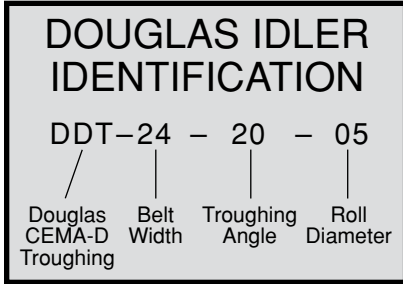
|  |    |
|--|----|
| <i>20° Troughed Idlers 5" &amp; 6" Diameter Equal Length Rollers</i> ..... | 70 |
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IDLERS  
CEMA D

# CEMA-D 20° Troughed Idlers 5" & 6" Diameter Equal Length Rollers

Heavy 25mm (.984") Precision, Permanent Sealed Bearings

IDLER  
CEMA-D



## 20° Troughing Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 24         | DDT-24-20-05    | 50  | 33 | 8 1/2 | 9 1/8  | 27 1/4   | 11 11/16 | 35     | 6     | 7 1/2 | 1/2           | RDT-24-05            |
| 30         | DDT-30-20-05    | 60  | 39 | 8 1/2 | 11     | 33       | 12 3/8   | 41     | 6     | 7 1/2 | 1/2           | RDT-30-05            |
| 36         | DDT-36-20-05    | 74  | 45 | 8 1/2 | 13     | 38 3/4   | 13 1/16  | 47     | 6     | 9     | 1/2           | RDT-36-05            |
| 42         | DDT-42-20-05    | 76  | 51 | 8 3/4 | 15 1/8 | 44 1/2   | 14 3/16  | 53     | 7 1/2 | 9     | 5/8           | RDT-42-05            |
| 48         | DDT-48-20-05    | 86  | 57 | 8 3/4 | 17 1/8 | 50 5/16  | 14 7/8   | 59     | 7 1/2 | 9     | 5/8           | RDT-48-05            |
| 54         | DDT-54-20-05    | 97  | 63 | 9 1/4 | 19 1/8 | 56 1/16  | 15 3/8   | 65 1/2 | 9     | 11    | 5/8           | RDT-54-05            |
| 60         | DDT-60-20-05    | 107 | 69 | 9 1/4 | 21 1/8 | 61 13/16 | 16 3/16  | 71 1/2 | 9     | 11    | 5/8           | RDT-60-05            |

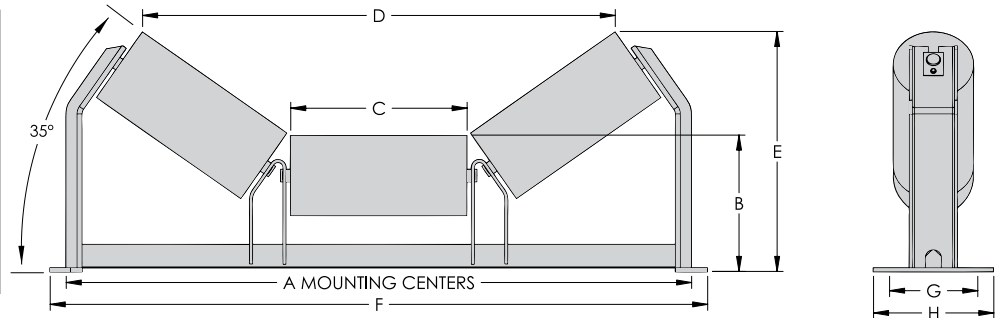
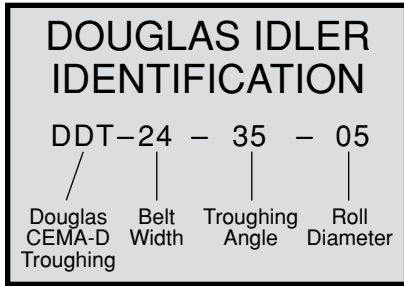
## 20° Troughing Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E       | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|---------|--------|-------|-------|---------------|----------------------|
| 24         | DDT-24-20-06    | 61  | 33 | 9     | 9 1/8  | 26 7/8   | 12 1/16 | 35     | 6     | 7 1/2 | 1/2           | RDT-24-06            |
| 30         | DDT-30-20-06    | 67  | 39 | 9     | 11     | 32 5/8   | 12 3/4  | 41     | 6     | 7 1/2 | 1/2           | RDT-30-06            |
| 36         | DDT-36-20-06    | 74  | 45 | 9     | 13     | 38 3/8   | 13 1/2  | 47     | 6     | 9     | 1/2           | RDT-36-06            |
| 42         | DDT-42-20-06    | 86  | 51 | 9 1/4 | 15 1/8 | 44 1/8   | 14 9/16 | 53     | 7 1/2 | 9     | 5/8           | RDT-42-06            |
| 48         | DDT-48-20-06    | 96  | 57 | 9 1/4 | 17 1/8 | 49 15/16 | 15 1/4  | 59     | 7 1/2 | 9     | 5/8           | RDT-48-06            |
| 54         | DDT-54-20-06    | 109 | 63 | 9 3/4 | 19 1/8 | 55 11/16 | 15 3/4  | 65 1/2 | 9     | 11    | 5/8           | RDT-54-06            |
| 60         | DDT-60-20-06    | 121 | 69 | 9 3/4 | 21 1/8 | 61 3/8   | 16 9/16 | 71 1/2 | 9     | 11    | 5/8           | RDT-60-06            |

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# CEMA-D 35° Troughed Idlers 5" & 6" Diameter Equal Length Rollers

Heavy 25mm (.984") Precision, Permanent Sealed Bearings



**IDLERS  
 CEMA D**

## 35° Troughing Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 24         | DDT-24-35-05    | 50  | 33 | 8 1/2 | 9 1/8  | 24 5/8   | 13 13/16 | 35     | 6     | 7 1/2 | 1/2           | RDT-24-05            |
| 30         | DDT-30-35-05    | 60  | 39 | 8 1/2 | 11     | 29 1/2   | 14 15/16 | 41     | 6     | 7 1/2 | 1/2           | RDT-30-05            |
| 36         | DDT-36-35-05    | 68  | 45 | 8 1/2 | 13     | 35 3/16  | 16       | 47     | 6     | 9     | 1/2           | RDT-36-05            |
| 42         | DDT-42-35-05    | 75  | 51 | 8 3/4 | 15 1/8 | 40 1/2   | 17 11/16 | 53     | 7 1/2 | 9     | 5/8           | RDT-42-05            |
| 48         | DDT-48-35-05    | 86  | 57 | 8 3/4 | 17 1/8 | 45 3/4   | 18 7/8   | 59     | 7 1/2 | 9     | 5/8           | RDT-48-05            |
| 54         | DDT-54-35-05    | 97  | 63 | 9 1/4 | 19 1/8 | 50 13/16 | 20 7/16  | 65 1/2 | 9     | 11    | 5/8           | RDT-54-05            |
| 60         | DDT-60-35-05    | 107 | 69 | 9 1/4 | 21 1/8 | 56 5/16  | 21 9/16  | 71 1/2 | 9     | 11    | 5/8           | RDT-60-05            |

## 35° Troughing Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 24         | DDT-24-35-06    | 61  | 33 | 9     | 9 1/8  | 24 1/16  | 14 3/16  | 35     | 6     | 7 1/2 | 1/2           | RDT-24-06            |
| 30         | DDT-30-35-06    | 67  | 39 | 9     | 11     | 28 15/16 | 15 5/16  | 41     | 6     | 7 1/2 | 1/2           | RDT-30-06            |
| 36         | DDT-36-35-06    | 74  | 45 | 9     | 13     | 34 9/16  | 16 3/8   | 47     | 6     | 9     | 1/2           | RDT-36-06            |
| 42         | DDT-42-35-06    | 86  | 51 | 9 1/4 | 15 1/8 | 39 15/16 | 18 1/16  | 53     | 7 1/2 | 9     | 5/8           | RDT-42-06            |
| 48         | DDT-48-35-06    | 96  | 57 | 9 1/4 | 17 1/8 | 45 1/8   | 19 1/4   | 59     | 7 1/2 | 9     | 5/8           | RDT-48-06            |
| 54         | DDT-54-35-06    | 109 | 63 | 9 3/4 | 19 1/8 | 50 3/16  | 20 13/16 | 65 1/2 | 9     | 11    | 5/8           | RDT-54-06            |
| 60         | DDT-60-35-06    | 121 | 69 | 9 3/4 | 21 1/8 | 55 11/16 | 21 15/16 | 71 1/2 | 9     | 11    | 5/8           | RDT-60-06            |

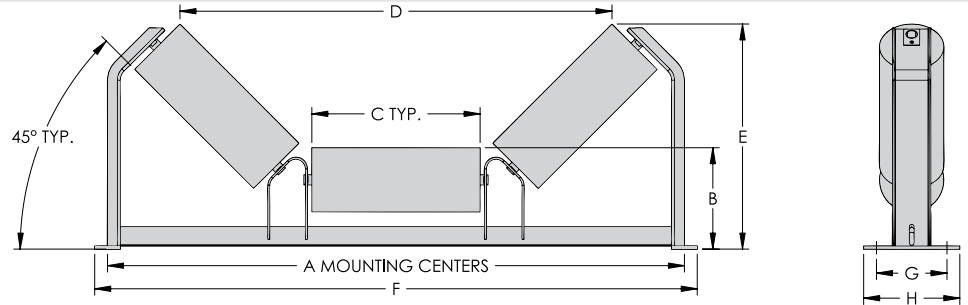
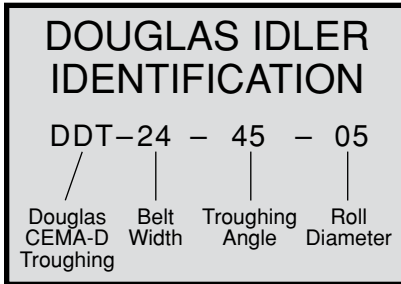
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# CEMA-D 45° Troughed Idlers 5" & 6" Diameter Equal Length Rollers

Heavy 25mm (.984") Precision, Permanent Sealed Bearings

IDLERS  
CEMA-D



## 45° Troughing Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B      | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|--------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 24         | DDT-24-45-05    | 53  | 33 | 8 7/16 | 9 1/8  | 24 1/16  | 15 1/4   | 35     | 6     | 7 1/2 | 1/2           | RDT-24-05            |
| 30         | DDT-30-45-05    | 64  | 39 | 8 7/16 | 11 1/8 | 28 7/8   | 16 5/8   | 41     | 6     | 7 1/2 | 1/2           | RDT-30-05            |
| 36         | DDT-36-45-05    | 73  | 45 | 8 7/16 | 13 1/8 | 33 11/16 | 18 1/16  | 47     | 6     | 7 1/2 | 1/2           | RDT-36-05            |
| 42         | DDT-42-45-05    | 93  | 51 | 8 3/4  | 15 1/8 | 38 1/2   | 19 13/16 | 53     | 7 1/2 | 9     | 5/8           | RDT-42-05            |
| 48         | DDT-48-45-05    | 102 | 57 | 8 3/4  | 17 1/8 | 43 3/8   | 21 1/4   | 59     | 7 1/2 | 9     | 5/8           | RDT-48-05            |
| 54         | DDT-54-45-05    | 114 | 63 | 9 1/4  | 19 1/8 | 48 3/16  | 23 1/8   | 65 1/2 | 9     | 11    | 5/8           | RDT-54-05            |
| 60         | DDT-60-45-05    | 123 | 69 | 9 1/4  | 21 1/8 | 53       | 24 1/2   | 71 1/2 | 9     | 11    | 5/8           | RDT-60-05            |

## 45° Troughing Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C      | D       | E       | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|---------|--------|---------|---------|--------|-------|-------|---------------|----------------------|
| 24         | DDT-24-45-06    | 65  | 33 | 8 15/16 | 9 1/8  | 23 5/16 | 15 5/8  | 35     | 6     | 7 1/2 | 1/2           | RDT-24-06            |
| 30         | DDT-30-45-06    | 78  | 39 | 8 15/16 | 11 1/8 | 28 1/8  | 17      | 41     | 6     | 7 1/2 | 1/2           | RDT-30-06            |
| 36         | DDT-36-45-06    | 94  | 45 | 8 15/16 | 13 1/8 | 32 1/4  | 18 7/16 | 47     | 6     | 7 1/2 | 1/2           | RDT-36-06            |
| 42         | DDT-42-45-06    | 113 | 51 | 9 1/4   | 15 1/8 | 37 3/4  | 20 3/16 | 53     | 7 1/2 | 9     | 5/8           | RDT-42-06            |
| 48         | DDT-48-45-06    | 125 | 57 | 9 1/4   | 17 1/8 | 42 5/8  | 21 3/4  | 59     | 7 1/2 | 9     | 5/8           | RDT-48-06            |
| 54         | DDT-54-45-06    | 139 | 63 | 9 3/4   | 19 1/8 | 47 7/16 | 23 1/2  | 65 1/2 | 9     | 11    | 5/8           | RDT-54-06            |
| 60         | DDT-60-45-06    | 150 | 69 | 9 3/4   | 21 1/8 | 52 1/4  | 24 7/8  | 71 1/2 | 9     | 11    | 5/8           | RDT-60-06            |

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# CEMA-D Return Idlers

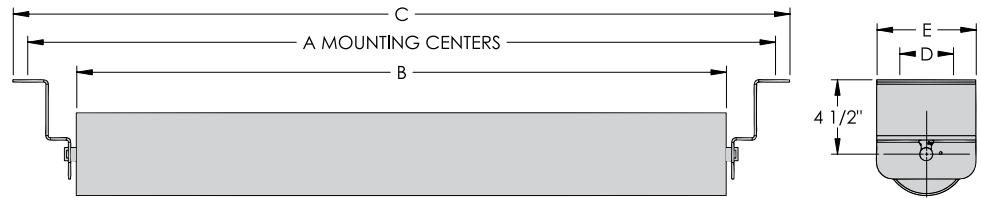
## 5" & 6" Diameter

**Heavy 25mm (.984") Precision, Permanent Sealed Bearings**

**DOUGLAS IDLER IDENTIFICATION**

DDR - 24 - 05

|                             |               |                  |
|-----------------------------|---------------|------------------|
| DDR                         | 24            | 05               |
| Douglas<br>CEMA-D<br>Return | Belt<br>Width | Roll<br>Diameter |



**IDLERS  
CEMA D**

### **Return Idler 5" Diameter**

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C  | D | E | MOUNTING BOLT |
|------------|-----------------|-----|----|---------|----|---|---|---------------|
| 24         | DDR-24-05       | 27  | 33 | 27 5/16 | 35 | 4 | 6 | 1/2           |
| 30         | DDR-30-05       | 31  | 39 | 33 5/16 | 41 | 4 | 6 | 1/2           |
| 36         | DDR-36-05       | 35  | 45 | 39 5/16 | 47 | 4 | 6 | 1/2           |
| 42         | DDR-42-05       | 38  | 51 | 45 5/16 | 53 | 4 | 6 | 1/2           |
| 48         | DDR-48-05       | 44  | 57 | 51 5/16 | 59 | 4 | 6 | 1/2           |
| 54         | DDR-54-05       | 49  | 63 | 57 5/16 | 65 | 4 | 6 | 1/2           |
| 60         | DDR-60-05       | 53  | 69 | 63 5/16 | 71 | 4 | 6 | 1/2           |

### **Return Idler 6" Diameter**

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C  | D | E | MOUNTING BOLT |
|------------|-----------------|-----|----|---------|----|---|---|---------------|
| 18         | DDR-18-06       | 26  | 27 | 21 5/16 | 29 | 4 | 6 | 1/2           |
| 24         | DDR-24-06       | 31  | 33 | 27 5/16 | 35 | 4 | 6 | 1/2           |
| 30         | DDR-30-06       | 35  | 39 | 33 5/16 | 41 | 4 | 6 | 1/2           |
| 36         | DDR-36-06       | 39  | 45 | 39 5/16 | 47 | 4 | 6 | 1/2           |
| 42         | DDR-42-06       | 42  | 51 | 45 5/16 | 53 | 4 | 6 | 1/2           |
| 48         | DDR-48-06       | 48  | 57 | 51 5/16 | 59 | 4 | 6 | 1/2           |
| 54         | DDR-54-06       | 53  | 63 | 57 5/16 | 65 | 4 | 6 | 1/2           |
| 60         | DDR-60-06       | 57  | 69 | 63 5/16 | 71 | 4 | 6 | 1/2           |

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# CEMA-D 20° Rubber Disc Impact Troughed Idlers 5" & 6" Diameter

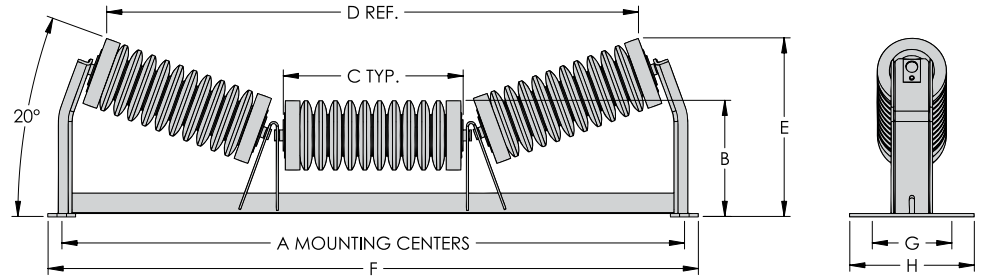
*Heavy 20mm (.787") Double Row Precision, Permanent Sealed Bearings*

**IDLERS  
CEMA D**

**DOUGLAS IDLER  
IDENTIFICATION**

DDI-24 - 20 - 05

|                             |               |                   |                  |
|-----------------------------|---------------|-------------------|------------------|
| Douglas<br>CEMA-D<br>Impact | Belt<br>Width | Troughed<br>Angle | Roll<br>Diameter |
|-----------------------------|---------------|-------------------|------------------|



## 20° Rubber Disc Troughed Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 24         | DDI-24-20-05    | 49  | 33 | 8     | 9 1/8  | 27 1/4   | 11 11/16 | 35     | 6     | 7 1/2 | 1/2           | RDI-24-05            |
| 30         | DDI-30-20-05    | 66  | 39 | 8     | 11     | 33       | 12 3/8   | 41     | 6     | 7 1/2 | 1/2           | RDI-30-05            |
| 36         | DDI-36-20-05    | 76  | 45 | 8     | 13     | 38 3/4   | 13 1/16  | 47     | 6     | 9     | 1/2           | RDI-36-05            |
| 42         | DDI-42-20-05    | 94  | 51 | 8 1/4 | 15 1/8 | 44 1/2   | 14 3/16  | 53     | 7 1/2 | 9     | 5/8           | RDI-42-05            |
| 48         | DDI-48-20-05    | 105 | 57 | 8 1/4 | 17 1/8 | 50 5/16  | 14 7/8   | 59     | 7 1/2 | 9     | 5/8           | RDI-48-05            |
| 54         | DDI-54-20-05    | 108 | 63 | 8 3/4 | 19 1/8 | 56 1/16  | 15 3/8   | 65 1/2 | 9     | 11    | 5/8           | RDI-54-05            |
| 60         | DDI-60-20-05    | 127 | 69 | 8 3/4 | 21 1/8 | 61 13/16 | 16 3/16  | 71 1/2 | 9     | 11    | 5/8           | RDI-60-05            |

## 20° Rubber Disc Troughed Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E       | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|---------|--------|-------|-------|---------------|----------------------|
| 24         | DDI-24-20-06    | 60  | 33 | 8 1/2 | 9 1/8  | 26 7/8   | 12 1/16 | 35     | 6     | 7 1/2 | 1/2           | RDI-24-06            |
| 30         | DDI-30-20-06    | 72  | 39 | 8 1/2 | 11     | 32 5/8   | 12 3/4  | 41     | 6     | 7 1/2 | 1/2           | RDI-30-06            |
| 36         | DDI-36-20-06    | 82  | 45 | 8 1/2 | 13     | 38 3/8   | 13 1/2  | 47     | 6     | 9     | 1/2           | RDI-36-06            |
| 42         | DDI-42-20-06    | 100 | 51 | 8 3/4 | 15 1/8 | 44 1/8   | 14 9/16 | 53     | 7 1/2 | 9     | 5/8           | RDI-42-06            |
| 48         | DDI-48-20-06    | 120 | 57 | 8 3/4 | 17 1/8 | 49 15/16 | 15 1/4  | 59     | 7 1/2 | 9     | 5/8           | RDI-48-06            |
| 54         | DDI-54-20-06    | 126 | 63 | 9 1/4 | 19 1/8 | 55 11/16 | 15 3/4  | 65 1/2 | 9     | 11    | 5/8           | RDI-54-06            |
| 60         | DDI-60-20-06    | 133 | 69 | 9 1/4 | 21 1/8 | 61 3/8   | 16 9/16 | 71 1/2 | 9     | 11    | 5/8           | RDI-60-06            |

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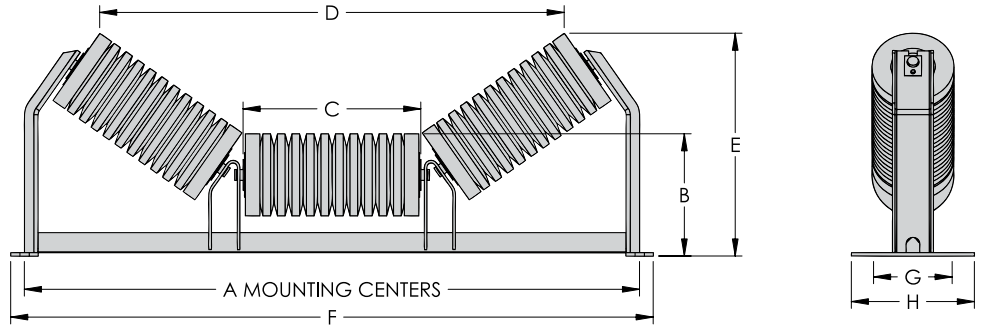
# CEMA-D 35° Rubber Disc Impact Troughed Idlers 5" & 6" Diameter

Heavy 20mm (.787") Double Row Precision, Permanent Sealed Bearings

**DOUGLAS IDLER IDENTIFICATION**

DDI-24 - 35 - 05

Douglas CEMA-D Impact    Belt Width    Troughed Angle    Roll Diameter



**IDLERS  
 CEMA D**

## 35° Rubber Disc Troughed Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 24         | DDI-24-35-05    | 56  | 33 | 8     | 9 1/8  | 24 5/8   | 13 13/16 | 35     | 6     | 7 1/2 | 1/2           | RDI-24-05            |
| 30         | DDI-30-35-05    | 67  | 39 | 8     | 11     | 29 1/2   | 14 15/16 | 41     | 6     | 7 1/2 | 1/2           | RDI-30-05            |
| 36         | DDI-36-35-05    | 77  | 45 | 8     | 13     | 35 3/16  | 16       | 47     | 6     | 9     | 1/2           | RDI-36-05            |
| 42         | DDI-42-35-05    | 96  | 51 | 8 1/4 | 15 1/8 | 40 1/2   | 17 11/16 | 53     | 7 1/2 | 9     | 5/8           | RDI-42-05            |
| 48         | DDI-48-35-05    | 107 | 57 | 8 1/4 | 17 1/8 | 45 3/4   | 18 7/8   | 59     | 7 1/2 | 9     | 5/8           | RDI-48-05            |
| 54         | DDI-54-35-05    | 118 | 63 | 8 3/4 | 19 1/8 | 50 13/16 | 20 7/16  | 65 1/2 | 9     | 11    | 5/8           | RDI-54-05            |
| 60         | DDI-60-35-05    | 130 | 69 | 8 3/4 | 21 1/8 | 56 5/16  | 21 9/16  | 71 1/2 | 9     | 11    | 5/8           | RDI-60-05            |

## 35° Rubber Disc Troughed Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 24         | DDI-24-35-06    | 63  | 33 | 8 1/2 | 9 1/8  | 24 1/16  | 14 3/16  | 35     | 6     | 7 1/2 | 1/2           | RDI-24-06            |
| 30         | DDI-30-35-06    | 75  | 39 | 8 1/2 | 11     | 28 15/16 | 15 5/16  | 41     | 6     | 7 1/2 | 1/2           | RDI-30-06            |
| 36         | DDI-36-35-06    | 84  | 45 | 8 1/2 | 13     | 34 9/16  | 16 3/8   | 47     | 6     | 9     | 1/2           | RDI-36-06            |
| 42         | DDI-42-35-06    | 102 | 51 | 8 3/4 | 15 1/8 | 39 15/16 | 18 1/16  | 53     | 7 1/2 | 9     | 5/8           | RDI-42-06            |
| 48         | DDI-48-35-06    | 128 | 57 | 8 3/4 | 17 1/8 | 45 1/8   | 19 1/4   | 59     | 7 1/2 | 9     | 5/8           | RDI-48-06            |
| 54         | DDI-54-35-06    | 130 | 63 | 9 1/4 | 19 1/8 | 50 3/16  | 20 13/16 | 65 1/2 | 9     | 11    | 5/8           | RDI-54-06            |
| 60         | DDI-60-35-06    | 136 | 69 | 9 1/4 | 21 1/8 | 55 11/16 | 21 15/16 | 71 1/2 | 9     | 11    | 5/8           | RDI-60-06            |

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# CEMA-D 45° Rubber Disc Impact Troughed Idlers 5" & 6" Diameter

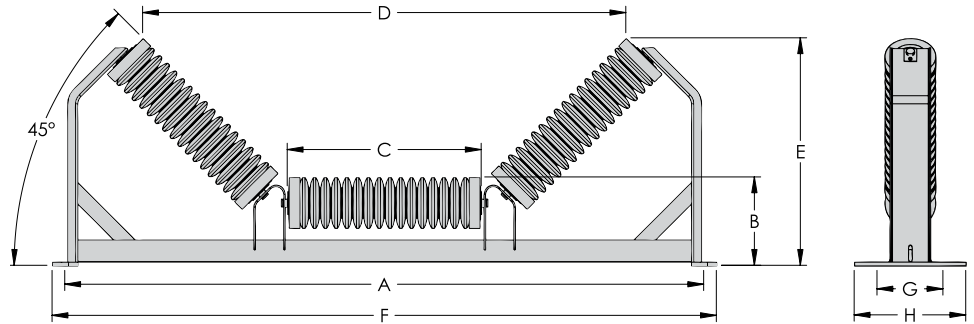
Heavy 20mm (.787") Double Row Precision, Permanent Sealed Bearings

IDLERS  
CEMA-D

**DOUGLAS IDLER IDENTIFICATION**

DDI-24 - 45 - 05

Douglas Belt Troughed Roll  
 CEMA-D Width Angle Diameter  
 Impact



## 45° Rubber Disc Troughed Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B      | C      | D        | E        | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|--------|--------|----------|----------|--------|-------|-------|---------------|----------------------|
| 24         | DDI-24-45-05    | 66  | 33 | 8 7/16 | 9 1/8  | 24 1/16  | 15 1/4   | 35     | 6     | 7 1/2 | 1/2           | RDI-24-05            |
| 30         | DDI-30-45-05    | 86  | 39 | 8 7/16 | 11 1/8 | 28 7/8   | 16 5/8   | 41     | 6     | 7 1/2 | 1/2           | RDI-30-05            |
| 36         | DDI-36-45-05    | 100 | 45 | 8 7/16 | 13 1/8 | 33 11/16 | 18 1/16  | 47     | 6     | 7 1/2 | 1/2           | RDI-36-05            |
| 42         | DDI-42-45-05    | 114 | 51 | 8 3/4  | 15 1/8 | 38 1/2   | 19 13/16 | 53     | 7 1/2 | 9     | 5/8           | RDI-42-05            |
| 48         | DDI-48-45-05    | 127 | 57 | 8 3/4  | 17 1/8 | 43 3/8   | 21 1/4   | 59     | 7 1/2 | 9     | 5/8           | RDI-48-05            |
| 54         | DDI-54-45-05    | 142 | 63 | 9 1/4  | 19 1/8 | 48 3/16  | 23 1/8   | 65 1/2 | 9     | 11    | 5/8           | RDI-54-05            |
| 60         | DDI-60-45-05    | 147 | 69 | 9 1/4  | 21 1/8 | 53       | 24 1/2   | 71 1/2 | 9     | 11    | 5/8           | RDI-60-05            |

## 45° Rubber Disc Troughed Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C      | D       | E       | F      | G     | H     | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|---------|--------|---------|---------|--------|-------|-------|---------------|----------------------|
| 24         | DDI-24-45-06    | 68  | 33 | 8 15/16 | 9 1/8  | 23 5/16 | 15 5/8  | 35     | 6     | 7 1/2 | 1/2           | RDI-24-06            |
| 30         | DDI-30-45-06    | 88  | 39 | 8 15/16 | 11 1/8 | 28 1/8  | 17      | 41     | 6     | 7 1/2 | 1/2           | RDI-30-06            |
| 36         | DDI-36-45-06    | 103 | 45 | 8 15/16 | 13 1/8 | 32 1/4  | 18 7/16 | 47     | 6     | 7 1/2 | 1/2           | RDI-36-06            |
| 42         | DDI-42-45-06    | 117 | 51 | 9 1/4   | 15 1/8 | 37 3/4  | 20 3/16 | 53     | 7 1/2 | 9     | 5/8           | RDI-42-06            |
| 48         | DDI-48-45-06    | 131 | 57 | 9 1/4   | 17 1/8 | 42 5/8  | 21 3/4  | 59     | 7 1/2 | 9     | 5/8           | RDI-48-06            |
| 54         | DDI-54-45-06    | 146 | 63 | 9 3/4   | 19 1/8 | 47 7/16 | 23 1/2  | 65 1/2 | 9     | 11    | 5/8           | RDI-54-06            |
| 60         | DDI-60-45-06    | 153 | 69 | 9 3/4   | 21 1/8 | 52 1/4  | 24 7/8  | 71 1/2 | 9     | 11    | 5/8           | RDI-60-06            |

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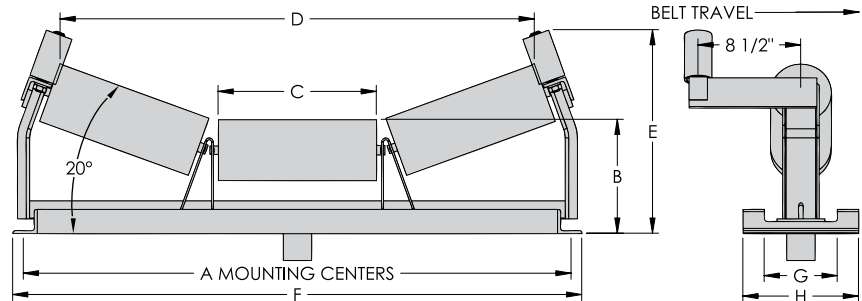
# CEMA-D 20° Self-Aligning Troughed Idlers 5" & 6" Diameter

Heavy 25mm (.984") Precision, Permanent Sealed Bearings

**DOUGLAS IDLER IDENTIFICATION**

DDS-24 - 20 - 04

Douglas Belt Troughed Roll  
 CEMA-D Width Angle Diameter  
 Self-aligning



**IDLERS  
 CEMA D**

## 20° Self-Aligning Troughed Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E        | F      | G     | H      | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|----------|--------|-------|--------|---------------|----------------------|
| 24         | DDS-24-20-05    | 80  | 33 | 9 3/8 | 9 1/8  | 27 1/4   | 15 5/16  | 35     | 6     | 9 1/2  | 1/2           | RDT-24-05            |
| 30         | DDS-30-20-05    | 88  | 39 | 9 3/8 | 11     | 33       | 15 15/16 | 41     | 6     | 9 1/2  | 1/2           | RDT-30-05            |
| 36         | DDS-36-20-05    | 98  | 45 | 9 3/8 | 13     | 38 3/4   | 16 3/4   | 47     | 6     | 9 1/2  | 1/2           | RDT-36-05            |
| 42         | DDS-42-20-05    | 104 | 51 | 9 5/8 | 15 1/8 | 44 1/2   | 17 15/16 | 53     | 7 1/2 | 11 1/2 | 5/8           | RDT-42-05            |
| 48         | DDS-48-20-05    | 110 | 57 | 9 5/8 | 17 1/8 | 50 5/16  | 18 1/2   | 59     | 7 1/2 | 11 1/2 | 5/8           | RDT-48-05            |
| 54         | DDS-54-20-05    | 119 | 63 | 10    | 19 1/8 | 56 1/16  | 19 1/4   | 65 1/2 | 9     | 11 1/2 | 5/8           | RDT-54-05            |
| 60         | DDS-60-20-05    | 125 | 69 | 10    | 21 1/8 | 61 13/16 | 19 7/8   | 71 1/2 | 9     | 11 1/2 | 5/8           | RDT-60-05            |

## 20° Self-Aligning Troughed Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B      | C      | D        | E        | F      | G     | H      | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|--------|--------|----------|----------|--------|-------|--------|---------------|----------------------|
| 24         | DDS-24-20-06    | 82  | 33 | 9 7/8  | 9 1/8  | 26 7/8   | 15 5/16  | 35     | 6     | 9 1/2  | 1/2           | RDT-24-06            |
| 30         | DDS-30-20-06    | 100 | 39 | 9 7/8  | 11     | 32 5/8   | 15 15/16 | 41     | 6     | 9 1/2  | 1/2           | RDT-30-06            |
| 36         | DDS-36-20-06    | 108 | 45 | 9 7/8  | 13     | 38 3/8   | 16 3/4   | 47     | 6     | 9 1/2  | 1/2           | RDT-36-06            |
| 42         | DDS-42-20-06    | 114 | 51 | 10 1/8 | 15 1/8 | 44 1/8   | 17 15/16 | 53     | 7 1/2 | 11 1/2 | 5/8           | RDT-42-06            |
| 48         | DDS-48-20-06    | 126 | 57 | 10 1/8 | 17 1/8 | 49 15/16 | 18 1/2   | 59     | 7 1/2 | 11 1/2 | 5/8           | RDT-48-06            |
| 54         | DDS-54-20-06    | 135 | 63 | 10 1/2 | 19 1/8 | 55 11/16 | 19 1/4   | 65 1/2 | 9     | 11 1/2 | 5/8           | RDT-54-06            |
| 60         | DDS-60-20-06    | 143 | 69 | 10 1/2 | 21 1/8 | 61 3/8   | 19 7/8   | 71 1/2 | 9     | 11 1/2 | 5/8           | RDT-60-06            |

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# CEMA-D 35° Self-Aligning Troughed Idlers 5" & 6" Diameter

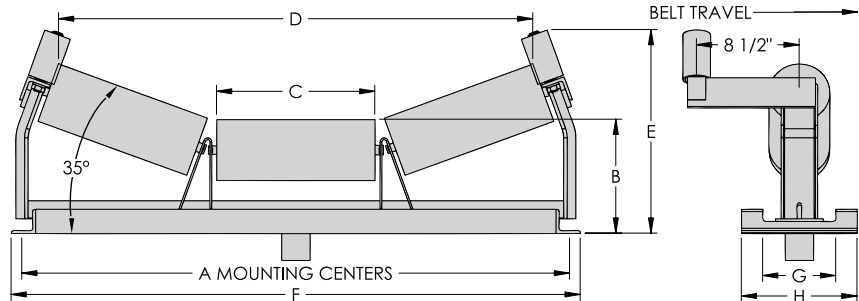
Heavy 25mm (.984") Precision, Permanent Sealed Bearings

IDLERS  
CEMA D

**DOUGLAS IDLER IDENTIFICATION**

DDS-24 - 25 - 05

Douglas CEMA-D Self-aligning Belt Width Troughed Angle Roll Diameter



## 35° Self-Aligning Troughed Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B     | C      | D        | E       | F      | G     | H      | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|-------|--------|----------|---------|--------|-------|--------|---------------|----------------------|
| 24         | DDS-24-35-05    | 82  | 33 | 9 3/8 | 9 1/8  | 24 5/8   | 17 7/8  | 35     | 6     | 9 1/2  | 1/2           | RDT-24-05            |
| 30         | DDS-30-35-05    | 88  | 39 | 9 3/8 | 11 1/8 | 29 1/2   | 19      | 41     | 6     | 9 1/2  | 1/2           | RDT-30-05            |
| 36         | DDS-36-35-05    | 99  | 45 | 9 3/8 | 13 1/8 | 35 3/16  | 20 1/16 | 47     | 6     | 9 1/2  | 1/2           | RDT-36-05            |
| 42         | DDS-42-35-05    | 104 | 51 | 9 3/4 | 15 1/8 | 40 1/2   | 21 3/4  | 53     | 7 1/2 | 11 1/2 | 1/2           | RDT-42-05            |
| 48         | DDS-48-35-05    | 110 | 57 | 9 3/4 | 17 1/8 | 45 3/4   | 22 5/16 | 59     | 7 1/2 | 11 1/2 | 5/8           | RDT-48-05            |
| 54         | DDS-54-35-05    | 119 | 63 | 10    | 19 1/8 | 50 13/16 | 24 1/2  | 65 1/2 | 9     | 11 1/2 | 5/8           | RDT-54-05            |
| 60         | DDS-60-35-05    | 138 | 69 | 10    | 21 1/8 | 56 5/16  | 25 5/8  | 71 1/2 | 9     | 11 1/2 | 5/8           | RDT-60-05            |

## 35° Self-Aligning Troughed Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B      | C      | D        | E        | F      | G     | H      | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|--------|--------|----------|----------|--------|-------|--------|---------------|----------------------|
| 24         | DDS-24-35-06    | 92  | 33 | 9 7/8  | 9 1/8  | 24 1/16  | 17 7/8   | 35     | 6     | 9 1/2  | 1/2           | RDT-24-06            |
| 30         | DDS-30-35-06    | 100 | 39 | 9 7/8  | 11     | 28 15/16 | 19       | 41     | 6     | 9 1/2  | 1/2           | RDT-30-06            |
| 36         | DDS-36-35-06    | 108 | 45 | 9 7/8  | 13     | 34 9/16  | 20 1/16  | 47     | 6     | 9 1/2  | 1/2           | RDT-36-06            |
| 42         | DDS-42-35-06    | 115 | 51 | 10 1/4 | 15 1/8 | 39 15/16 | 21 3/4   | 53     | 7 1/2 | 11 1/2 | 5/8           | RDT-42-06            |
| 48         | DDS-48-35-06    | 126 | 57 | 10 1/4 | 17 1/8 | 45 1/8   | 22 15/16 | 59     | 7 1/2 | 11 1/2 | 5/8           | RDT-48-06            |
| 54         | DDS-54-35-06    | 135 | 63 | 10 1/2 | 19 1/8 | 50 3/16  | 24 1/2   | 65 1/2 | 9     | 11 1/2 | 5/8           | RDT-54-06            |
| 60         | DDS-60-35-06    | 143 | 69 | 10 1/2 | 21 1/8 | 55 11/16 | 25 5/8   | 71 1/2 | 9     | 11 1/2 | 5/8           | RDT-60-06            |

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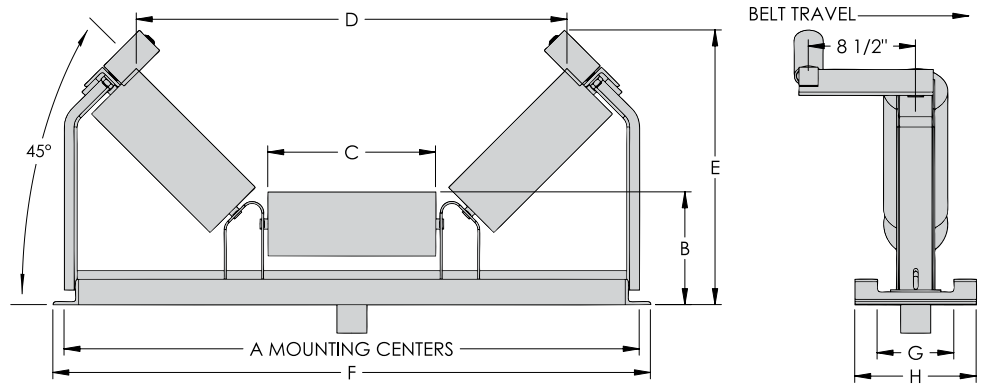
# CEMA-D 45° Self-Aligning Troughed Idlers 5" & 6" Diameter

*Heavy 25mm (.984") Precision, Permanent Sealed Bearings*

**DOUGLAS IDLER IDENTIFICATION**

DDS-24 - 45 - 05

Douglas CEMA-B Self-aligning Belt Width Troughed Angle Roll Diameter



**IDLERS  
 CEMA D**

## 45° Self-Aligning Troughed Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C      | D        | E        | F      | G     | H      | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|---------|--------|----------|----------|--------|-------|--------|---------------|----------------------|
| 24         | DDS-24-45-05    | 103 | 33 | 8 7/8   | 9 1/8  | 24 1/16  | 18 5/8   | 35     | 6     | 9 1/2  | 1/2           | RDT-24-05            |
| 30         | DDS-30-45-05    | 112 | 39 | 8 7/8   | 11 1/8 | 28 7/8   | 20       | 41     | 6     | 9 1/2  | 1/2           | RDT-30-05            |
| 36         | DDS-36-45-05    | 125 | 45 | 8 7/8   | 13 1/8 | 33 11/16 | 20 15/16 | 47     | 6     | 9 1/2  | 1/2           | RDT-36-05            |
| 42         | DDS-42-45-05    | 148 | 51 | 9 3/16  | 15 1/8 | 38 1/2   | 23 3/16  | 53     | 7 1/2 | 11 1/2 | 5/8           | RDT-42-05            |
| 48         | DDS-48-45-05    | 159 | 57 | 9 3/16  | 17 1/8 | 43 3/8   | 24 5/8   | 59     | 7 1/2 | 11 1/2 | 5/8           | RDT-48-05            |
| 54         | DDS-54-45-05    | 174 | 63 | 9 11/16 | 19 1/8 | 48 3/16  | 26 1/2   | 65 1/2 | 9     | 14     | 5/8           | RDT-54-05            |
| 60         | DDS-60-45-05    | 188 | 69 | 9 11/16 | 21 1/8 | 53       | 27 7/8   | 71 1/2 | 9     | 14     | 5/8           | RDT-60-05            |

## 45° Self-Aligning Troughed Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C      | D        | E        | F      | G     | H      | MOUNTING BOLT | REPLACEMENT ROLL NO. |
|------------|-----------------|-----|----|---------|--------|----------|----------|--------|-------|--------|---------------|----------------------|
| 24         | DDS-24-45-06    | 104 | 34 | 9 3/8   | 9 1/8  | 23 3/8   | 18 5/8   | 35     | 6     | 9 1/2  | 1/2           | RDT-24-06            |
| 30         | DDS-30-45-06    | 114 | 40 | 9 3/8   | 11 1/8 | 28 3/16  | 20       | 41     | 6     | 9 1/2  | 1/2           | RDT-30-06            |
| 36         | DDS-36-45-06    | 127 | 46 | 9 3/8   | 13 1/8 | 33       | 20 15/16 | 47     | 6     | 9 1/2  | 1/2           | RDT-36-06            |
| 42         | DDS-42-45-06    | 151 | 52 | 9 11/16 | 15 1/8 | 37 13/16 | 23 3/16  | 53     | 7 1/2 | 11 1/2 | 5/8           | RDT-42-06            |
| 48         | DDS-48-45-06    | 163 | 58 | 9 11/16 | 17 1/8 | 42 11/16 | 24 5/8   | 59     | 7 1/2 | 11 1/2 | 5/8           | RDT-48-06            |
| 54         | DDS-54-45-06    | 178 | 64 | 10 3/16 | 19 1/8 | 47 1/2   | 26 1/2   | 65 1/2 | 9     | 14     | 5/8           | RDT-54-06            |
| 60         | DDS-60-45-06    | 192 | 71 | 10 3/16 | 21 1/8 | 52 5/16  | 27 7/8   | 71 1/2 | 9     | 14     | 5/8           | RDT-60-06            |

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# CEMA-D Self-Aligning Return Idlers 5" & 6" Diameter

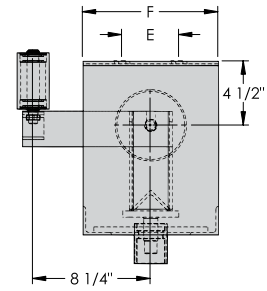
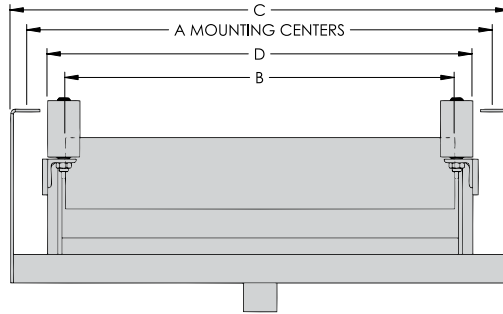
**Heavy 25mm (.984") Precision, Permanent Sealed Bearings**

**IDLERS  
CEMA-D**

**DOUGLAS IDLER  
IDENTIFICATION**

DDA – 24 – 05

|                               |               |                  |
|-------------------------------|---------------|------------------|
| /                             | /             | /                |
| Douglas<br>CEMA-D<br>Aligning | Belt<br>Width | Roll<br>Diameter |



### Self-Aligning Return Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | D      | E | F     | MOUNTING BOLT |
|------------|-----------------|-----|----|----|----|--------|---|-------|---------------|
| 24         | DDA-24-05       | 92  | 33 | 27 | 36 | 29 5/8 | 4 | 9 1/2 | 1/2           |
| 30         | DDA-30-05       | 119 | 39 | 33 | 42 | 35 5/8 | 4 | 9 1/2 | 1/2           |
| 36         | DDA-36-05       | 141 | 45 | 39 | 48 | 41 5/8 | 4 | 9 1/2 | 1/2           |
| 42         | DDA-42-05       | 156 | 51 | 45 | 54 | 47 5/8 | 4 | 9 1/2 | 1/2           |
| 48         | DDA-48-05       | 165 | 57 | 51 | 60 | 53 5/8 | 4 | 9 1/2 | 1/2           |
| 54         | DDA-54-05       | 178 | 63 | 57 | 66 | 59 5/8 | 4 | 9 1/2 | 1/2           |
| 60         | DDA-60-05       | 193 | 69 | 63 | 72 | 65 5/8 | 4 | 9 1/2 | 1/2           |

### Self-Aligning Return Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | D      | E | F     | MOUNTING BOLT |
|------------|-----------------|-----|----|----|----|--------|---|-------|---------------|
| 24         | DDA-24-06       | 92  | 33 | 27 | 36 | 29 5/8 | 4 | 9 1/2 | 1/2           |
| 30         | DDA-30-06       | 119 | 39 | 33 | 42 | 35 5/8 | 4 | 9 1/2 | 1/2           |
| 36         | DDA-36-06       | 141 | 45 | 39 | 48 | 41 5/8 | 4 | 9 1/2 | 1/2           |
| 42         | DDA-42-06       | 156 | 51 | 45 | 54 | 47 5/8 | 4 | 9 1/2 | 1/2           |
| 48         | DDA-48-06       | 165 | 57 | 51 | 60 | 53 5/8 | 4 | 9 1/2 | 1/2           |
| 54         | DDA-54-06       | 178 | 63 | 57 | 66 | 59 5/8 | 4 | 9 1/2 | 1/2           |
| 60         | DDA-60-06       | 193 | 69 | 63 | 72 | 65 5/8 | 4 | 9 1/2 | 1/2           |

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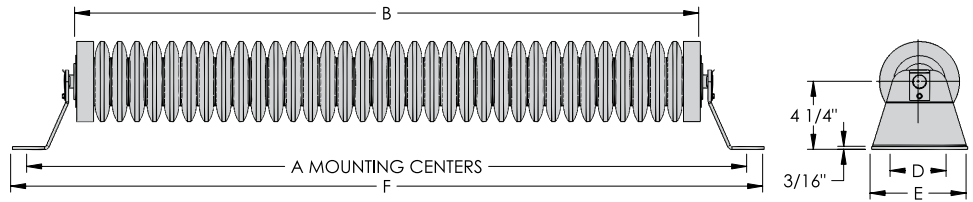
# CEMA-D Rubber Disc Flat Idlers 5" & 6" Diameter

Heavy 20mm (.787") Double Row Precision, Permanent Sealed Bearings

**DOUGLAS IDLER IDENTIFICATION**

DDC - 18 - 05

↓                      ↓                      ↓  
 Douglas              Belt                      Roll  
 CEMA-D              Width                      Diameter  
 Cushion



**IDLERS  
CEMA D**

## Rubber Disc Flat Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C  | D | E | MOUNTING BOLT |
|------------|-----------------|-----|----|---------|----|---|---|---------------|
| 24         | DDC-24-05       | 45  | 33 | 27 5/16 | 35 | 4 | 6 | 1/2           |
| 30         | DDC-30-05       | 51  | 39 | 33 5/16 | 41 | 4 | 6 | 1/2           |
| 36         | DDC-36-05       | 57  | 45 | 39 5/16 | 47 | 4 | 6 | 1/2           |
| 42         | DDC-42-05       | 65  | 51 | 45 5/16 | 53 | 4 | 6 | 1/2           |
| 48         | DDC-48-05       | 73  | 57 | 51 5/16 | 59 | 4 | 6 | 1/2           |
| 54         | DDC-54-05       | 78  | 63 | 57 5/16 | 65 | 4 | 6 | 1/2           |
| 60         | DDC-60-05       | 84  | 69 | 63 5/16 | 71 | 4 | 6 | 1/2           |

## Rubber Disc Flat Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C  | D | E | MOUNTING BOLT |
|------------|-----------------|-----|----|---------|----|---|---|---------------|
| 24         | DDC-24-06       | 47  | 33 | 27 5/16 | 35 | 4 | 6 | 1/2           |
| 30         | DDC-30-06       | 53  | 39 | 33 5/16 | 41 | 4 | 6 | 1/2           |
| 36         | DDC-36-06       | 59  | 45 | 39 5/16 | 47 | 4 | 6 | 1/2           |
| 42         | DDC-42-06       | 67  | 51 | 45 5/16 | 53 | 4 | 6 | 1/2           |
| 48         | DDC-48-06       | 75  | 57 | 51 5/16 | 59 | 4 | 6 | 1/2           |
| 54         | DDC-54-06       | 80  | 63 | 57 5/16 | 65 | 4 | 6 | 1/2           |
| 60         | DDC-60-06       | 86  | 69 | 63 5/16 | 71 | 4 | 6 | 1/2           |

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# CEMA-D Rubber Disc Return Idlers 5" & 6" Diameter

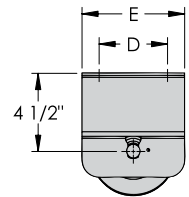
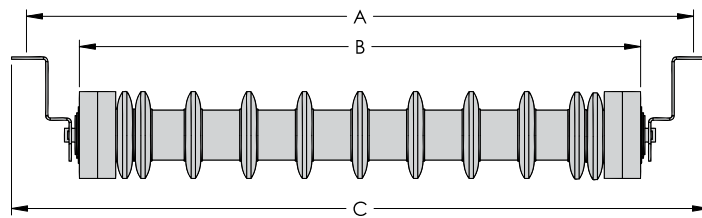
*Heavy 20mm (.787") Double Row Precision, Permanent Sealed Bearings*

**IDLERS  
CEMA D**

**DOUGLAS IDLER  
IDENTIFICATION**

DDD - 24 - 05

Douglas CEMA-D Disc      Belt Width      Roll Diameter



## Rubber Disc Return Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C  | D | E | MOUNTING BOLT |
|------------|-----------------|-----|----|---------|----|---|---|---------------|
| 24         | DDD-24-05       | 32  | 33 | 27 5/16 | 35 | 4 | 6 | 1/2           |
| 30         | DDD-30-05       | 36  | 39 | 33 5/16 | 41 | 4 | 6 | 1/2           |
| 36         | DDD-36-05       | 40  | 45 | 39 5/16 | 47 | 4 | 6 | 1/2           |
| 42         | DDD-42-05       | 44  | 51 | 45 5/16 | 53 | 4 | 6 | 1/2           |
| 48         | DDD-48-05       | 48  | 57 | 51 5/16 | 59 | 4 | 6 | 1/2           |
| 54         | DDD-54-05       | 54  | 63 | 57 5/16 | 65 | 4 | 6 | 1/2           |
| 60         | DDD-60-05       | 59  | 69 | 63 5/16 | 71 | 4 | 6 | 1/2           |

## Rubber Disc Return Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C  | D | E | MOUNTING BOLT |
|------------|-----------------|-----|----|---------|----|---|---|---------------|
| 24         | DDD-24-06       | 36  | 33 | 27 5/16 | 35 | 4 | 6 | 1/2           |
| 30         | DDD-30-06       | 40  | 39 | 33 5/16 | 41 | 4 | 6 | 1/2           |
| 36         | DDD-36-06       | 44  | 45 | 39 5/16 | 47 | 4 | 6 | 1/2           |
| 42         | DDD-42-06       | 46  | 51 | 45 5/16 | 53 | 4 | 6 | 1/2           |
| 48         | DDD-48-06       | 53  | 57 | 51 5/16 | 59 | 4 | 6 | 1/2           |
| 54         | DDD-54-06       | 57  | 63 | 57 5/16 | 65 | 4 | 6 | 1/2           |
| 60         | DDD-60-06       | 62  | 69 | 63 5/16 | 71 | 4 | 6 | 1/2           |

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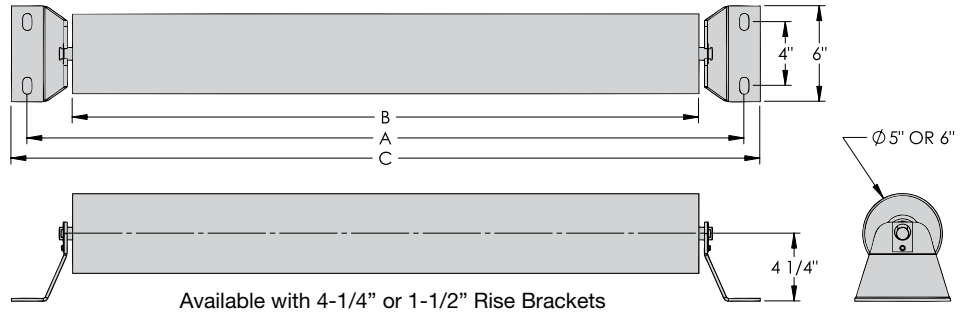
# CEMA-D Flat Carrying Idlers 5" & 6" Diameter

Heavy 25mm (.984") Precision, Permanent Sealed Bearings

**DOUGLAS IDLER  
 IDENTIFICATION**

DDF - 18 - 05

Douglas CEMA-D Flat | Belt Width | Roll Diameter



**IDLERS  
 CEMA D**

## Flat Carrying Idler 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C  | MOUNTING BOLT |
|------------|-----------------|-----|----|---------|----|---------------|
| 24         | DDF-24-05       | 35  | 33 | 27 5/16 | 35 | 1/2           |
| 30         | DDF-30-05       | 41  | 39 | 33 5/16 | 41 | 1/2           |
| 36         | DDF-36-05       | 47  | 45 | 39 5/16 | 47 | 1/2           |
| 42         | DDF-42-05       | 53  | 51 | 45 5/16 | 53 | 1/2           |
| 48         | DDF-48-05       | 60  | 57 | 51 5/16 | 59 | 1/2           |
| 54         | DDF-54-05       | 66  | 63 | 57 5/16 | 65 | 1/2           |
| 60         | DDF-60-05       | 72  | 69 | 63 5/16 | 71 | 1/2           |

## Flat Carrying Idler 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B       | C  | MOUNTING BOLT |
|------------|-----------------|-----|----|---------|----|---------------|
| 24         | DDF-24-06       | 38  | 33 | 27 5/16 | 35 | 1/2           |
| 30         | DDF-30-06       | 44  | 39 | 33 5/16 | 41 | 1/2           |
| 36         | DDF-36-06       | 50  | 45 | 39 5/16 | 47 | 1/2           |
| 42         | DDF-42-06       | 56  | 51 | 45 5/16 | 53 | 1/2           |
| 48         | DDF-48-06       | 63  | 57 | 51 5/16 | 59 | 1/2           |
| 54         | DDF-54-06       | 69  | 63 | 57 5/16 | 65 | 1/2           |
| 60         | DDF-60-06       | 75  | 69 | 63 5/16 | 71 | 1/2           |

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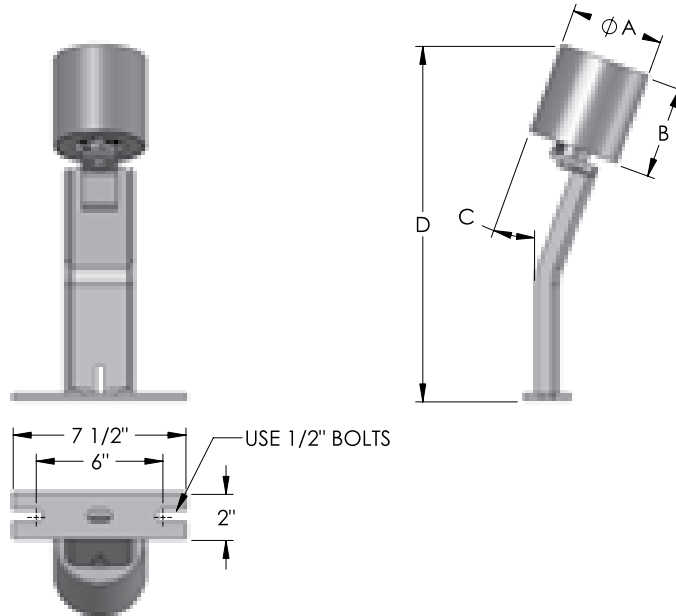
# 20° & 35° Side Guide Roller

Heavy 20mm (.787") Precision, Permanent Sealed Bearings

## SIDE GUIDE ROLLER IDENTIFICATION

SGR - 4 - 4  
 Side Guide Roll      Roll Diameter      Roll Length

SGF - 20 - 1  
 Side Guide Frame      Idler Angle      Frame Type



### 20° Side Guide Roller

| FRAME NO. | ROLL NO. | BELT WIDTH | A | B | C  | D        | E   |
|-----------|----------|------------|---|---|----|----------|-----|
| SGF-20-1  | SGR-4-4  | 14~20      | 4 | 4 | 20 | 12 1/2   | 1/2 |
| SGF-20-1  | SGR-4-5  | 14~20      | 4 | 5 | 20 | 13       | 1/2 |
| SGF-20-1  | SGR-5-5  | 14~20      | 5 | 5 | 20 | 13 5/16  | 1/2 |
| SGF-20-2  | SGR-4-4  | 24~36      | 4 | 4 | 20 | 13 7/8   | 1/2 |
| SGF-20-2  | SGR-4-5  | 24~36      | 4 | 5 | 20 | 14 3/8   | 1/2 |
| SGF-20-2  | SGR-5-5  | 24~36      | 5 | 5 | 20 | 14 11/16 | 1/2 |
| SGF-20-3  | SGR-4-4  | 42~48      | 4 | 4 | 20 | 15 1/4   | 1/2 |
| SGF-20-3  | SGR-4-5  | 42~48      | 4 | 5 | 20 | 15 3/4   | 1/2 |
| SGF-20-3  | SGR-5-5  | 42~48      | 5 | 5 | 20 | 16 1/16  | 1/2 |

### 35° Side Guide Roller

| FRAME NO. | ROLL NO. | BELT WIDTH | A | B | C  | D       | E   |
|-----------|----------|------------|---|---|----|---------|-----|
| SGF-35-1  | SGR-4-4  | 14~20      | 4 | 4 | 35 | 16 1/4  | 1/2 |
| SGF-35-1  | SGR-4-5  | 14~20      | 4 | 5 | 35 | 16 3/4  | 1/2 |
| SGF-35-1  | SGR-5-5  | 14~20      | 5 | 5 | 35 | 17 1/16 | 1/2 |
| SGF-35-2  | SGR-4-4  | 24~36      | 4 | 4 | 35 | 17 3/4  | 1/2 |
| SGF-35-2  | SGR-4-5  | 24~36      | 4 | 5 | 35 | 18 1/4  | 1/2 |
| SGF-35-2  | SGR-5-5  | 24~36      | 5 | 5 | 35 | 18 9/16 | 1/2 |
| SGF-35-3  | SGR-4-4  | 42~48      | 4 | 4 | 35 | 19 3/4  | 1/2 |
| SGF-35-3  | SGR-4-5  | 42~48      | 4 | 5 | 35 | 20 1/4  | 1/2 |
| SGF-35-3  | SGR-5-5  | 42~48      | 5 | 5 | 35 | 20 9/16 | 1/2 |

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# Magnetic Separators



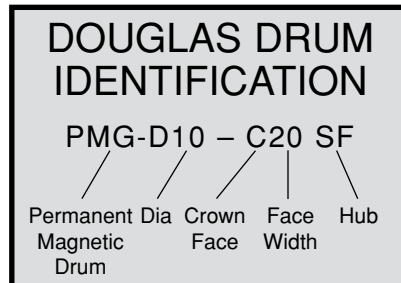
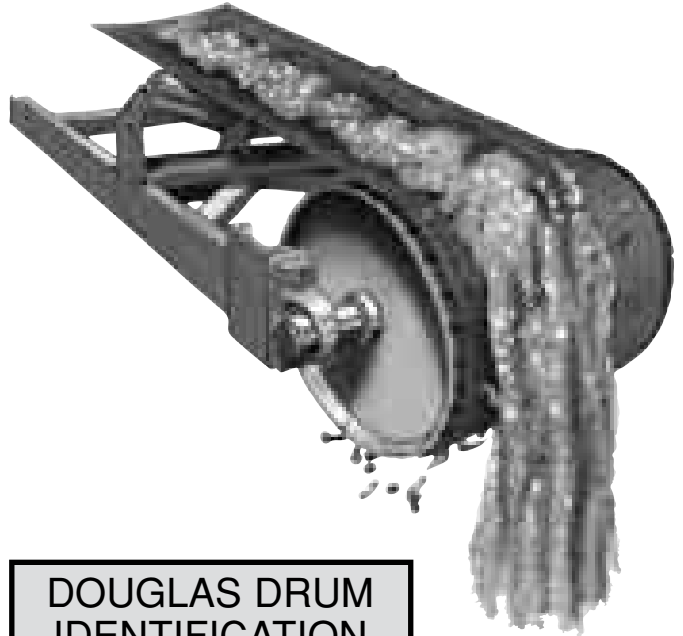
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# Permanent Magnetic Conveyor Pulleys

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

## Benefits

- Meets or exceeds CEMA/ANSI specifications
- Exclusive One Piece Rolled in Crown ensures consistent, proper belt tracking and tighter tolerances
- Automatically turns any conveyor into a magnetic separator
- Reduce operating expenses:
  - Remove potentially harmful tramp ferrous metal before it damages expensive processing equipment
  - Discharges tramp metal away from the normal product flow, improves product purity
- Permanent magnets operate without electric power supply
- Lifetime warranty on the performance of the magnetic field



## Construction

- Heavy construction reduces the likelihood of metal fatigue and pulley failure in severe applications minimizing down-time and maintenance requirements
- Full depth weld with reinforcing bar on single longitudinal seam featured on each Douglas Permanent Magnetic Conveyor Pulley
- Crown face pulleys are furnished standard, flat face must be specified
- Douglas hubs feature full depth welds on the inside and outside of the pulley end disk decreasing the likelihood of end disk failure due to shaft deflection and shock loads
- Douglas hubs and bushings are interchangeable with QD® or XT® style, maintain tighter holding power to the shaft and eliminate shaft damage caused by set screws or welded in shafts
- Stainless Steel Rim standard on all permanent magnetic pulleys

## Options

- Hot Vulcanized Pulley Lagging (*may decrease magnetic field strength up to 30%*)
- Shafting
- Bearing Assemblies
- Optional Douglas Keyless Locking Assemblies available

For General Guidelines, Please design around the following general requirements.

| PULLEY DIAMETER | RPM | FPM | BURDEN DEPTH |
|-----------------|-----|-----|--------------|
| 8               | 40  | 84  | 2            |
| 10              | 40  | 105 | 2-1/2        |
| 12              | 40  | 126 | 2-1/2        |
| 14              | 40  | 146 | 3            |
| 16              | 40  | 167 | 3            |
| 18              | 40  | 189 | 3-1/2        |
| 20              | 40  | 210 | 4            |
| 24              | 40  | 251 | 5            |
| 30              | 40  | 314 | 6            |
| 36              | 37  | 350 | 7            |
| 42              | 34  | 375 | 7            |
| 48              | 32  | 400 | 7            |

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# Self Cleaning Permanent Magnetic Separators

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

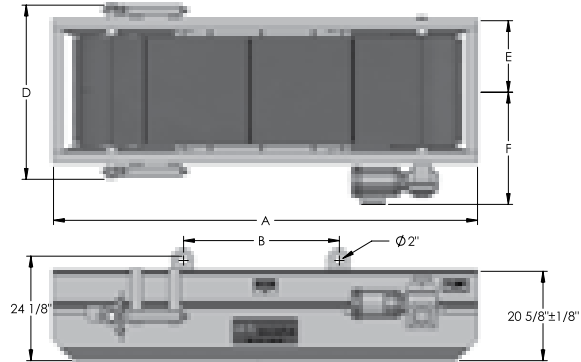
## Benefits

- Reduce operating expenses:
  - Remove potentially harmful tramp ferrous metal before it damages expensive processing equipment
  - Automatically discharge tramp metal away from the main conveyor
- Improve product purity
- Permanent magnets operate without electrical hook-ups
- Made in the U.S.A. with standard power transmission components for simple maintenance operation



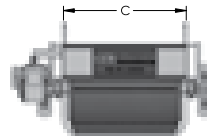
## Construction

- Heavy grade structural steel frame complete with crown face heavy duty lagged head pulley, crown face heavy duty tail pulley and slide tube belt take-ups
- Heavy duty rubber cover belt standard with hot vulcanized cleats
- Head and tail pulley guards
- Shipped complete, factory test run and ready for installation
- CLASS II shaft mount gear drive with TEFC motor for long trouble free service life



## Options

- Heavy duty rubber cover belt with hot vulcanized cleats standard
- Stainless steel or armor clad belts optional
- Two mounting options: across the belt or in-line at the discharge point of the conveyor
- Hydraulic Drive



**DOUGLAS MAGNET IDENTIFICATION**

Cross Belt CBM - 24

|                      |

Model #            Belt Width

Cross Belt Permanent Magnetic Separator

## Heavy Duty Cross-Belt Self Cleaning Separator

| MODEL NO. | BELT WIDTH | WT.   | A   | B  | C      | D  | E      | F MAX. |
|-----------|------------|-------|-----|----|--------|----|--------|--------|
| CBM-24    | 24         | 2,100 | 75  | 24 | 28 3/8 | 40 | 16 1/2 | 30     |
| CBM-30    | 30         | 2,400 | 80  | 30 | 28 3/8 | 40 | 16 1/2 | 30     |
| CBM-36    | 36         | 2,500 | 85  | 36 | 28 3/8 | 40 | 16 1/2 | 30     |
| CBM-42    | 42         | 2,800 | 90  | 42 | 28 3/8 | 40 | 16 1/2 | 30     |
| CBM-48    | 48         | 3,100 | 100 | 48 | 28 3/8 | 40 | 16 1/2 | 30     |
| CBM-54    | 54         | 3,300 | 105 | 54 | 28 3/8 | 40 | 16 1/2 | 30     |
| CBM-60    | 60         | 3,600 | 110 | 60 | 28 3/8 | 40 | 16 1/2 | 30     |
| CBM-72    | 72         | 3,900 | 120 | 72 | 28 3/8 | 40 | 16 1/2 | 30     |

## Heavy Duty Inline Dimensions

| MODEL NO. | BELT WIDTH | WT.   | A  | B  | C  | D  | E  | F  |
|-----------|------------|-------|----|----|----|----|----|----|
| ILM-24    | 24         | 3,000 | 85 | 36 | 35 | 40 | 18 | 30 |
| ILM-30    | 30         | 3,750 | 85 | 36 | 41 | 46 | 21 | 33 |
| ILM-36    | 36         | 4,650 | 85 | 36 | 47 | 52 | 24 | 36 |
| ILM-42    | 42         | 5,200 | 85 | 36 | 53 | 58 | 27 | 39 |
| ILM-48    | 48         | 5,750 | 85 | 36 | 59 | 64 | 30 | 42 |
| ILM-54    | 54         | 6,800 | 85 | 36 | 65 | 70 | 33 | 45 |
| ILM-60    | 60         | 7,650 | 85 | 36 | 71 | 76 | 36 | 48 |
| ILM-72    | 72         | 9,250 | 85 | 36 | 83 | 88 | 42 | 54 |

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\*Drive motor utilizes standard three phase electrical hook-up.

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MAGNETS

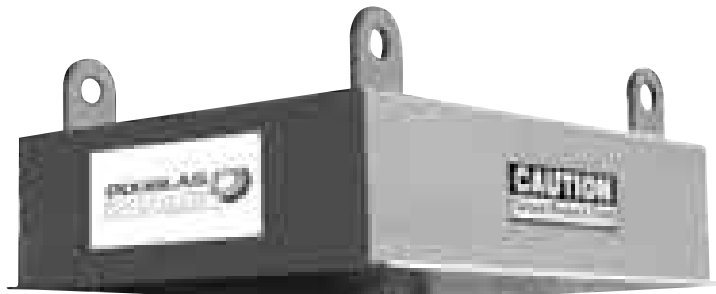


# Manual Cleaning Permanent Magnetic Separators

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

## Benefits

- Reduce operating expenses:
  - Remove potentially harmful tramp ferrous metal before it damages expensive processing equipment
  - Performs similar to Cross Belt Magnet except manual cleaning of ferrous metal is required
  - Improve product purity
- Permanent magnets operate without electrical hook-ups
- Lifetime warranty on the performance of the magnetic field strength
- No exposed or moving parts to wear or damage gives trouble-free service and longer life

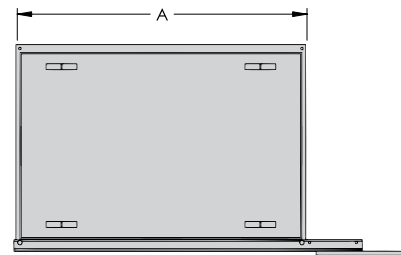
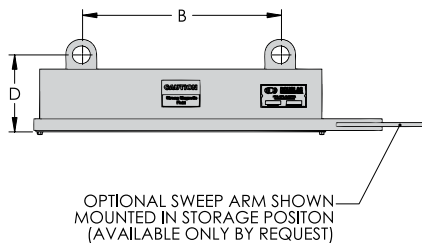
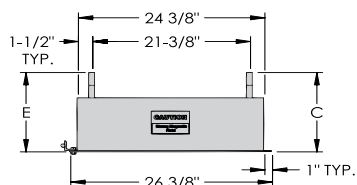
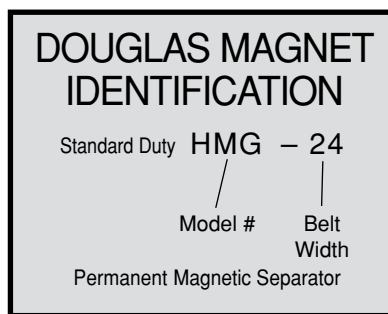


## Construction

- Magnetic box constructed of heavy grade first quality structural grade steel with permanent ceramic magnets
- Shipped complete and ready for installation

## Options

- Pivot arm available for easy cleaning
- Two mounting options: across the belt or in-line at the discharge point of the conveyor



## Extra Heavy Duty Suspended Separator

| MODEL NO. | BELT WIDTH | WT.   | A      | B  | C      | D     | E      |
|-----------|------------|-------|--------|----|--------|-------|--------|
| HMG-24    | 24         | 754   | 24 3/8 | 14 | 8 3/16 | 9 3/4 | 11 3/4 |
| HMG-30    | 30         | 955   | 30 3/8 | 20 | 8 3/16 | 9 3/4 | 11 3/4 |
| HMG-36    | 36         | 1,146 | 36 3/8 | 26 | 8 3/16 | 9 3/4 | 11 3/4 |
| HMG-42    | 42         | 1,337 | 42 3/8 | 32 | 8 3/16 | 9 3/4 | 11 3/4 |
| HMG-48    | 48         | 1,528 | 48 3/8 | 38 | 8 3/16 | 9 3/4 | 11 3/4 |
| HMG-54    | 54         | 1,719 | 54 3/8 | 44 | 8 3/16 | 9 3/4 | 11 3/4 |
| HMG-60    | 60         | 1,910 | 60 3/8 | 50 | 8 3/16 | 9 3/4 | 11 3/4 |
| HMG-72    | 72         | 2,292 | 72 3/8 | 62 | 8 3/16 | 9 3/4 | 11 3/4 |

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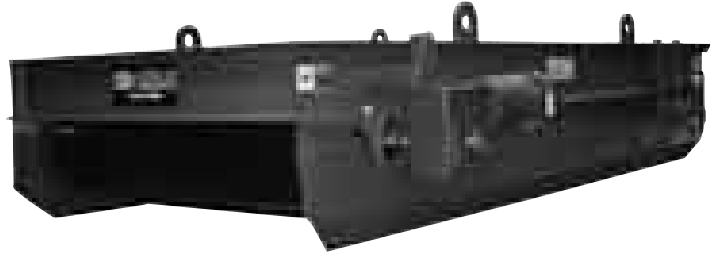
MAGNETS

# Super Duty Cross Belt Separator

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

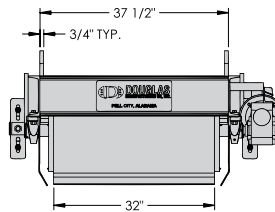
## Benefits

- Reduce operating expenses:
  - Remove potentially harmful tramp ferrous metal before it damages expensive processing equipment
  - Automatically discharge tramp metal away from the main conveyor
- Improve product purity
- Permanent magnets operate without electrical hook-ups
- Made in the U.S.A. with standard power transmission components for simple maintenance operation
- Up to 30% more powerful than other permanent magnetic separators



## Construction

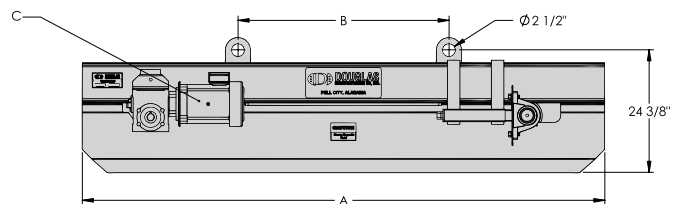
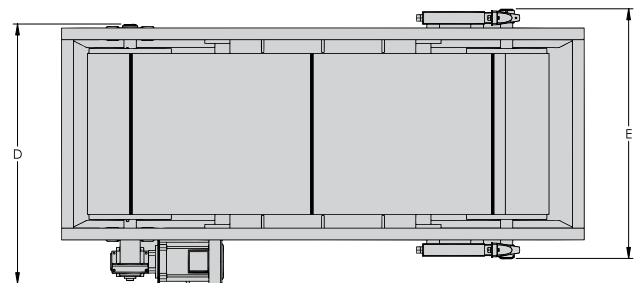
- Heavy grade structural steel frame complete with crown face heavy duty lagged head pulley, crown face heavy duty tail pulley and slide tube belt take-ups
- Heavy duty rubber cover belt standard with stainless steel cleats
- Head and tail pulley guards
- Shipped complete, factory test run and ready for installation
- CLASS II shaft mount gear drive with TEFC motor for long trouble free service life



Optional Zero Speed Switch Shown

## Options

- Heavy duty rubber cover belt with hot vulcanized cleats standard
- Stainless steel or armor clad belts optional
- Two mounting options: across the belt or in-line at the discharge point of the conveyor
- Hydraulic Drive



**DOUGLAS MAGNET IDENTIFICATION**

Cross Belt    **CBX - 24**

/

Model #      Belt Width

Cross Belt Permanent Magnetic Separator

## Super Duty Cross Belt Separator

| MODEL NO. | BELT WIDTH | WT.   | A   | B  | H.P. C | D        | E        |
|-----------|------------|-------|-----|----|--------|----------|----------|
| CBX-24    | 24         | 2,833 | 92  | 30 | 2      | 51 11/16 | 49 11/16 |
| CBX-30    | 30         | 3,406 | 98  | 36 | 2      | 51 11/16 | 49 11/16 |
| CBX-36    | 36         | 3,984 | 104 | 42 | 2      | 51 11/16 | 49 11/16 |
| CBX-42    | 42         | 4,687 | 110 | 48 | 3      | 68 1/4   | 49 11/16 |
| CBX-48    | 48         | 5,041 | 116 | 54 | 3      | 68 1/4   | 49 11/16 |
| CBX-54    | 54         | 5,784 | 122 | 60 | 3      | 68 1/4   | 49 11/16 |
| CBX-60    | 60         | 6,265 | 128 | 66 | 3      | 68 1/4   | 49 11/16 |

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MAGNETS

# New XMG Super Duty Permanent Magnet

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 for engineered solutions to your special applications

## Benefits

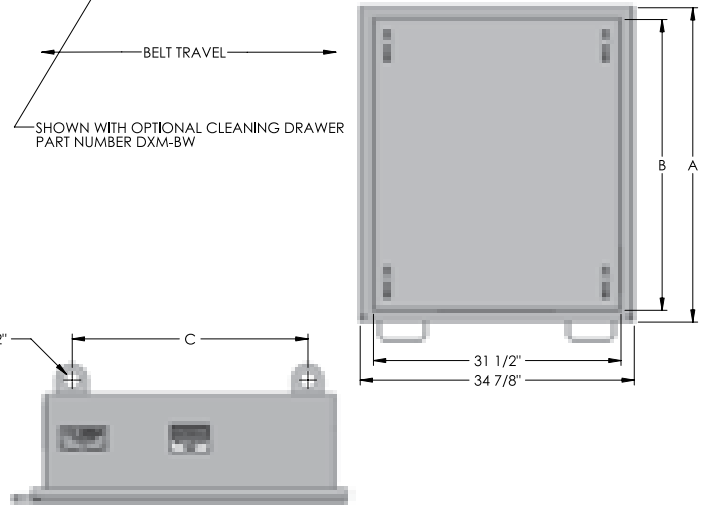
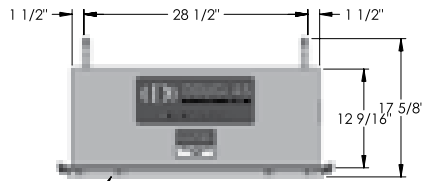
- Reduce operating expenses:
  - Remove potentially harmful tramp ferrous metal before it damages expensive processing equipment
  - Performs similar to Cross Belt Magnet except manual cleaning of ferrous metal is required
  - Improve product purity
- Permanent magnets operate without electrical hook-ups
- No exposed or moving parts to wear or damage gives trouble-free service and longer life
- Made in the U.S.A. with standard power transmission components for simple maintenance operation
- Up to 30% more power than other permanent magnetic separators

## Construction

- Magnetic box constructed of heavy grade first quality structural grade steel with permanent ceramic magnets
- Shipped complete and ready for installation
- Double pole design penetrates deeper and provides increased power to more effectively remove tramp ferrous metals

## Options

- Two mounting options: across the belt or in-line at the discharge point of the conveyor
- Stainless Steel Cleaning Drawer



MAGNETS

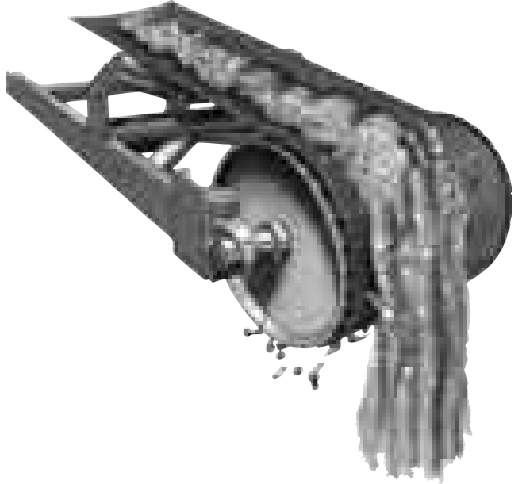
## XMG Ultra Power Permanent Magnet

| MODEL NO. | BELT WIDTH | WT.   | A  | B  | C  |
|-----------|------------|-------|----|----|----|
| XMG-24    | 24         | 1,849 | 28 | 25 | 18 |
| XMG-30    | 30         | 2,330 | 34 | 31 | 24 |
| XMG-36    | 36         | 2,645 | 40 | 37 | 30 |
| XMG-42    | 42         | 3,319 | 46 | 43 | 36 |
| XMG-48    | 48         | 3,631 | 52 | 49 | 42 |
| XMG-54    | 54         | 4,212 | 58 | 55 | 48 |
| XMG-60    | 60         | 4,524 | 64 | 61 | 54 |
| XMG-72    | 72         | 5,413 | 76 | 73 | 66 |

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# Application Data Sheet for Magnets

Complete this form and fax to Douglas at 205-884-1206 for assistance.  
 We can help select the correct magnet for your application.



Your Company \_\_\_\_\_

Your Name \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Fax \_\_\_\_\_

Phone \_\_\_\_\_

- Crossbelt
- Inline

- Permanent Magnetic Pulley
- Manual Clean
- Self Cleaning

Conveyed Material \_\_\_\_\_

Burden Depth \_\_\_\_\_

Weight \_\_\_\_\_

Size \_\_\_\_\_

Description \_\_\_\_\_

Conveyor Capacity in TPH or Cubic Ft. Hr. \_\_\_\_\_

Conveyor Incline in Degrees \_\_\_\_\_

Belt Speed \_\_\_\_\_ Motor HP \_\_\_\_\_

Wetness of Material \_\_\_\_\_

Belt Width \_\_\_\_\_

Type, Size & Quantity of Ferrous Metal to be Separated \_\_\_\_\_

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# Material Control Products



MATERIAL CONTROL

|  |     |
|--|-----|
| Titan™ CEMA C & D Impact Bed Assemblies 48" & 60" Long .....       | 94  |
| Titan™ Trailblazer™ Sectional Impact Bed Assemblies 48" Long ..... | 95  |
| Titan™ Trailblazer™ Sectional Impact Bed Assemblies 60" Long ..... | 96  |
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# Titan™ CEMA C & D Impact Bed Assemblies 48" & 60" Long

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

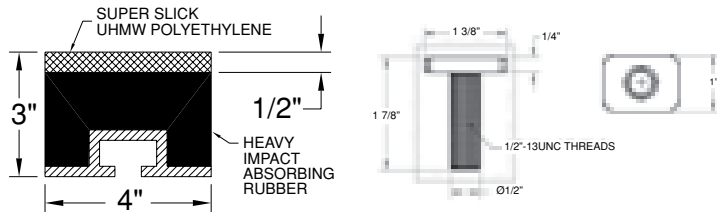
### Benefits

- Absorbs shock loads and helps prevent belt damage by supporting the full width of the conveyor belt
- Provides near perfect seal between conveyor belt and skirt boards
- Eliminates the cost of idler maintenance and failure, no bent idler shafts, frames or worn rollers to replace
- Support arms adjustable from flat to 20° and 35°
- Easy installation



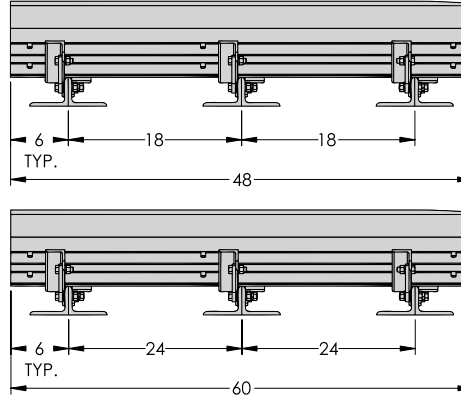
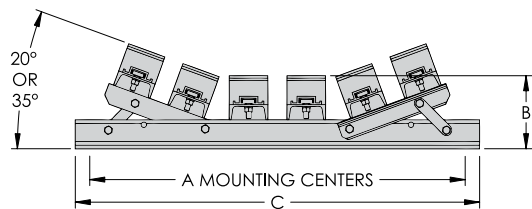
### Construction

- Frame constructed of heavy grade structural steel
- Impact bars constructed of shock absorbing rubber with friction reducing UHMW caps (see inset)
- Replacement Impact Bars mount using field proven T-Bolt locking system
- Shipped complete and ready for installation



### Options

- Bar and bed length available in 48" and 60" lengths
- Replacement Bars available
- "T" Bolts available



**DOUGLAS IMPACT BED IDENTIFICATION**

IBA - 2448

Impact Bed Assemblies      Belt Width      Length

---

IBB - 48

Replacement Bar      Length

## Heavy Duty Impact Bed 48" Long

| BELT WIDTH | MODEL NO. | WT. | A  | B     | C  | NUMBER OF BARS | MOUNTING BOLT |
|------------|-----------|-----|----|-------|----|----------------|---------------|
| 24         | IBA-2448  | 510 | 33 | 7-3/4 | 36 | 6              | 3/4           |
| 30         | IBA-3048  | 520 | 39 | 7-3/4 | 42 | 6              | 3/4           |
| 36         | IBA-3648  | 585 | 45 | 7-3/4 | 48 | 7              | 3/4           |
| 42         | IBA-4248  | 735 | 51 | 8-3/4 | 54 | 9              | 3/4           |
| 48         | IBA-4848  | 745 | 57 | 8-3/4 | 60 | 9              | 3/4           |
| 54         | IBA-5448  | 850 | 63 | 8-3/4 | 66 | 10             | 3/4           |
| 60         | IBA-6048  | 940 | 69 | 8-3/4 | 72 | 12             | 3/4           |

## Heavy Duty Impact Bed 60" Long

| BELT WIDTH | MODEL NO. | WT.  | A  | B     | C  | NUMBER OF BARS | MOUNTING BOLT |
|------------|-----------|------|----|-------|----|----------------|---------------|
| 24         | IBA-2460  | 570  | 33 | 7-3/4 | 36 | 6              | 3/4           |
| 30         | IBA-3060  | 590  | 39 | 7-3/4 | 42 | 6              | 3/4           |
| 36         | IBA-3660  | 675  | 45 | 7-3/4 | 48 | 7              | 3/4           |
| 42         | IBA-4260  | 850  | 51 | 8-3/4 | 54 | 9              | 3/4           |
| 48         | IBA-4860  | 860  | 57 | 8-3/4 | 60 | 9              | 3/4           |
| 54         | IBA-5460  | 977  | 63 | 8-3/4 | 66 | 10             | 3/4           |
| 60         | IBA-6060  | 1093 | 69 | 8-3/4 | 72 | 12             | 3/4           |

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MATERIAL CONTROL

# Titan™ Trailblazer™ Sectional Impact Bed Assemblies 48" Long

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

### Benefits

- Three (3) piece sectional “Trailblazer” impact bed using quick release hitch pins allows each of the three sections to slide in either direction for removal from the frame with the conveyor belt in place, reducing down time.
- Removable sections allow simple bar replacement
- Sections allow for ease of installation in tight or out of the way applications
- Absorbs shock loads and helps prevent belt damage by supporting the full width of the conveyor belt
- Provides near perfect seal between conveyor belt and skirt boards
- Eliminates the cost of idler maintenance and failure, no bent idler shafts, frames or worn rollers to replace

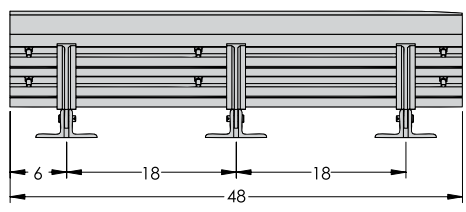
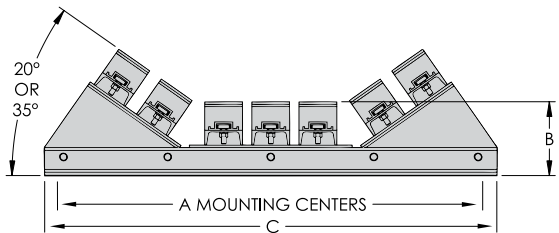
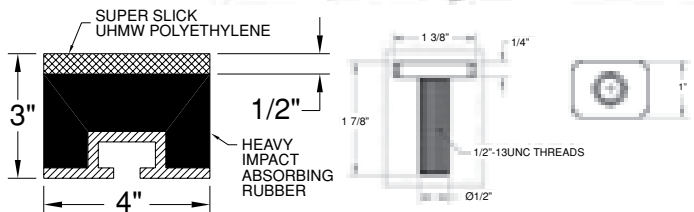
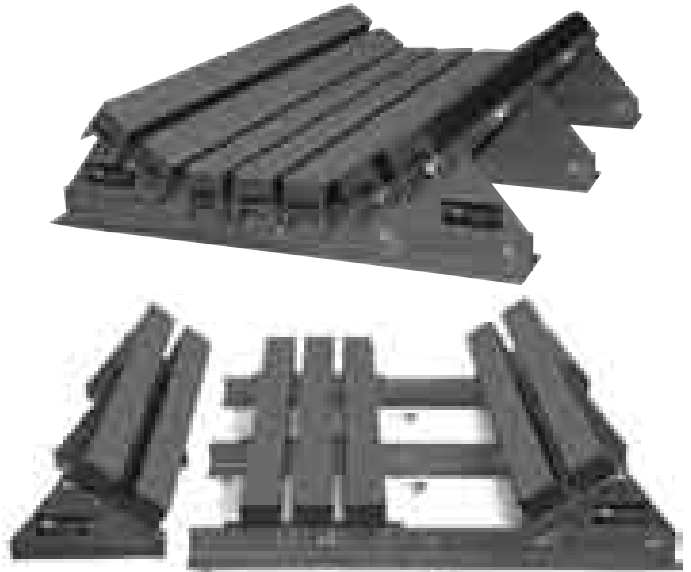
### Construction

- Frame constructed of heavy grade structural steel
- Impact bars constructed of shock absorbing rubber with friction reducing UHMW caps (see inset)
- Replacement Impact Bars mount using field proven T-Bolt locking system

### Options

- Bar and bed length available in 48” and 60” lengths
- 20° and 35° troughs
- Replacement bars available
- “T” Bolts, hitch pins and clips available

Acceptable for CEMA-E impact ratings.



**DOUGLAS 20° SECTIONAL IMPACT BED**

ISE - 24248

Impact Bed Sectional    Belt Width    Length Angle 20°

---

IBB - 48

Replacement Bar    Length

### Sectional Heavy Duty Impact Bed 48" Long

| BELT WIDTH | MODEL NO. 20° SIDE ARMS | MODEL NO. 35° SIDE ARMS | WT.  | A  | B     | C  | NUMBER OF BARS | MOUNTING BOLT |
|------------|-------------------------|-------------------------|------|----|-------|----|----------------|---------------|
| 24         | ISE-24248               | ISE-24348               | 580  | 33 | 7-7/8 | 36 | 6              | 3/4           |
| 30         | ISE-30248               | ISE-30348               | 593  | 39 | 7-7/8 | 42 | 6              | 3/4           |
| 36         | ISE-36248               | ISE-36348               | 655  | 45 | 7-7/8 | 48 | 7              | 3/4           |
| 42         | ISE-42248               | ISE-42348               | 805  | 51 | 8-3/4 | 54 | 9              | 3/4           |
| 48         | ISE-48248               | ISE-48348               | 825  | 57 | 8-3/4 | 60 | 9              | 3/4           |
| 54         | ISE-54248               | ISE-54348               | 900  | 63 | 8-3/4 | 66 | 10             | 3/4           |
| 60         | ISE-60248               | ISE-60348               | 1010 | 69 | 8-3/4 | 72 | 12             | 3/4           |

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MATERIAL CONTROL



# Titan™ Trailblazer™ Sectional Impact Bed Assemblies 60" Long

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

### Benefits

- Three (3) piece sectional "Trailblazer" impact bed using quick release hitch pins allows each of the three sections to slide in either direction for removal from the frame with the conveyor belt in place, reducing down time.
- Removable sections allow simple bar replacement
- Sections allow for ease of installation in tight or out of the way applications
- Absorbs shock loads and helps prevent belt damage by supporting the full width of the conveyor belt
- Provides near perfect seal between conveyor belt and skirt boards
- Eliminates the cost of idler maintenance and failure, no bent idler shafts, frames or worn rollers to replace

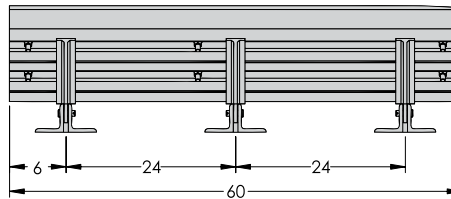
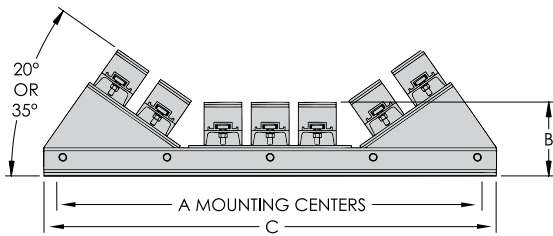
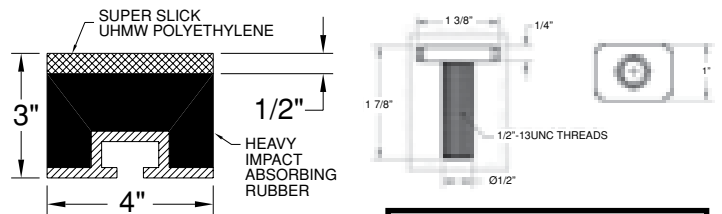
### Construction

- Frame constructed of heavy grade structural steel
- Impact bars constructed of shock absorbing rubber with friction reducing UHMW caps (see inset)
- Replacement Impact Bars mount using field proven T-Bolt locking system

### Options

- Bar and bed length available in 48" and 60" lengths
- 20° and 35° troughs
- Replacement bars available
- "T" Bolts, hitch pins and clips available

Acceptable for CEMA-E impact ratings.



**DOUGLAS 20° SECTIONAL IMPACT BED**

ISE - 24260

Impact Bed Sectional    Belt Width    Length Angle 20°

---

IBB - 60

Replacement Bar    Length

### Sectional Heavy Duty Impact Bed 60" Long

| BELT WIDTH | MODEL NO. 20° SIDE ARMS | MODEL NO. 35° SIDE ARMS | WT.  | A  | B     | C  | NUMBER OF BARS | MOUNTING BOLT |
|------------|-------------------------|-------------------------|------|----|-------|----|----------------|---------------|
| 24         | ISE-24260               | ISE-24360               | 640  | 33 | 7-7/8 | 36 | 6              | 3/4           |
| 30         | ISE-30260               | ISE-30360               | 653  | 39 | 7-7/8 | 42 | 6              | 3/4           |
| 36         | ISE-36260               | ISE-36360               | 725  | 45 | 7-7/8 | 48 | 7              | 3/4           |
| 42         | ISE-42260               | ISE-42360               | 895  | 51 | 8-3/4 | 54 | 9              | 3/4           |
| 48         | ISE-48260               | ISE-48360               | 915  | 57 | 8-3/4 | 60 | 9              | 3/4           |
| 54         | ISE-54260               | ISE-54360               | 1000 | 63 | 8-3/4 | 66 | 10             | 3/4           |
| 60         | ISE-60260               | ISE-60360               | 1130 | 69 | 8-3/4 | 72 | 12             | 3/4           |

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MATERIAL CONTROL

# Titan™ Floater™ Sectional Impact Bed Assembly

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

## Benefits

- Engineered spring shock absorber constantly adjusts to shock loads and helps to prevent belt damage by supporting the full width of the conveyor belt
- Removable bars employ field tested T-Bolt design for simple bar replacement and maintenance saving time and money
- Provides near perfect seal between the conveyor belt and skirt boards
- Belt rides on low friction UHMW plastic with deformable rubber under the sliding surface to help absorb impact
- Sturdy construction will accommodate up to CEMA E impact ratings
- Helps eliminate the cost of idler maintenance and failure – no bent idler shafts or worn rollers to replace

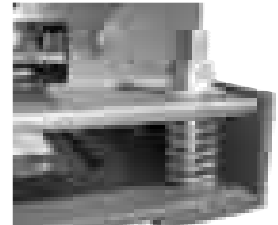
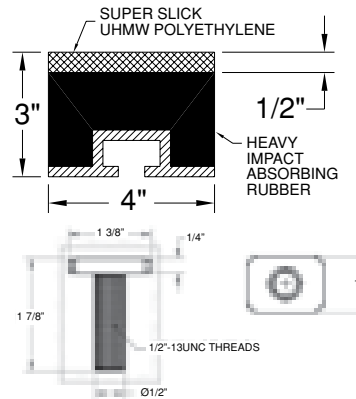
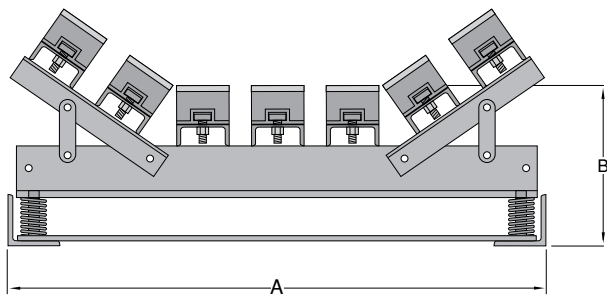
- Replacement of impact bars is easy with field proven T-Bolt locking system
- Shipped complete and ready for installation

## Options

- Bar and bed lengths available in 48" and 60" lengths
- Beds designed for 18"-72" belt widths
- 20° and 35° trough available
- Support arms adjustable from flat to 20° and 35°
- Replacement bars and t-bolts available for shipment from stock

## Construction

- Shock absorber constructed of heavy gauge spring for virtually trouble-free operation
- Frame and rails constructed of heavy grade structural steel and full depth welds
- Impact bars constructed of low friction UHMW plastic with specially engineered shock absorbing rubber



**MATERIAL CONTROL**

**DOUGLAS FLOATER™ IDENTIFICATION**

IFC – 30 – 48

|        |       |          |
|--------|-------|----------|
|        |       |          |
| Impact | Belt  | Length   |
| Bed    | Width | Assembly |

## Sectional Impact Bed Dimensions

| BELT WIDTH | MODEL NO. | A      | B       | NUMBER OF BARS | 48" WT. | 60" WT. |
|------------|-----------|--------|---------|----------------|---------|---------|
| 30         | IFC-30-00 | 35 1/2 | 11 9/16 | 6              | 650     | 710     |
| 36         | IFC-36-00 | 41 1/2 | 11 9/16 | 7              | 726     | 795     |
| 42         | IFC-42-00 | 47 1/2 | 12 9/16 | 9              | 880     | 970     |
| 48         | IFC-48-00 | 53 1/2 | 12 9/16 | 9              | 905     | 995     |
| 54         | IFC-54-00 | 59 1/2 | 12 9/16 | 10             | 1010    | 1110    |
| 60         | IFC-60-00 | 65 1/2 | 12 9/16 | 12             | 1120    | 4240    |

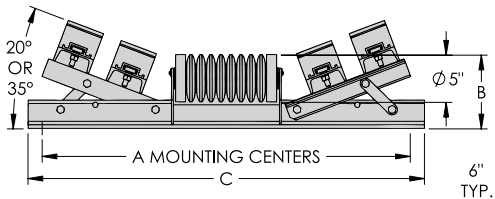
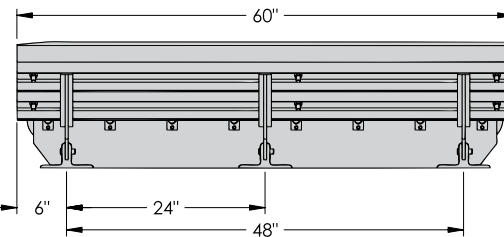
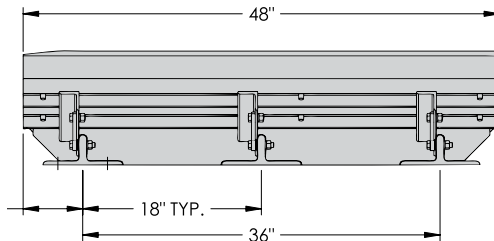
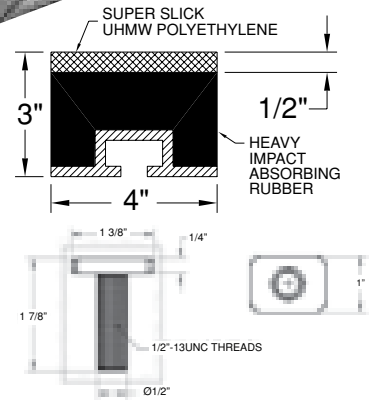
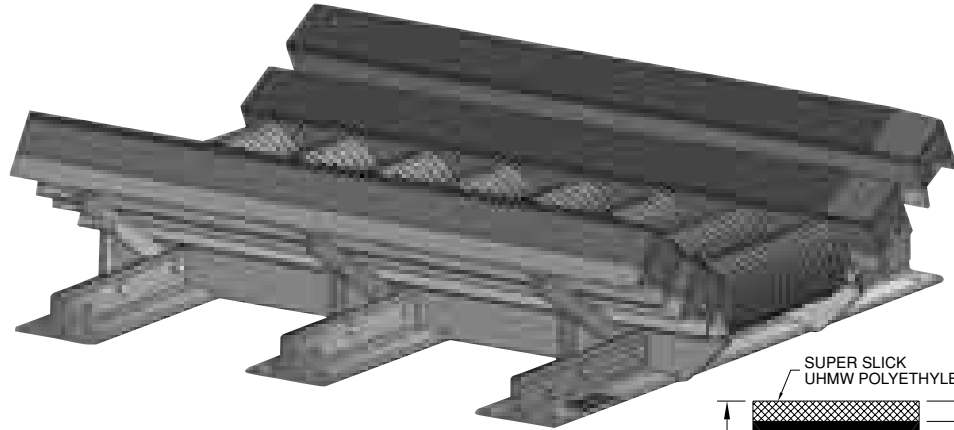
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# Titan™ Impact Roller Bed 48" & 60" Long

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

- Easy to use, install and maintain.
- Impact center rolls replace bars to help reduce friction and drag between the impact bed and belt.
- Absorbs shock load and helps to prevent belt damage by uniformly supporting the full width of the belt.
- Provides near perfect seal between the belt and skirt boards.
- Standard with 5" CEMA C sealed impact rolls.
- Support arms adjustable from 0° to 20° to 35°.



**DOUGLAS IMPACT ROLLER BED**

**IRB - 2448**

Impact Bed Length  
 Belt Width

Adjustable

---

**IBB - 48**

Replacement Bar Length

## Impact Roller Bed 48" Long

| MODEL NO. | BELT WIDTH | WT.   | A  | B       | C  | NO. OF BARS | NO. OF ROLLS | MOUNTING BOLT |
|-----------|------------|-------|----|---------|----|-------------|--------------|---------------|
| IRB-2448  | 24         | 534   | 33 | 7 13/16 | 36 | 4           | 6            | 3/4           |
| IRB-3048  | 30         | 576   | 39 | 7 13/16 | 42 | 4           | 6            | 3/4           |
| IRB-3648  | 36         | 795   | 45 | 7 13/16 | 48 | 4           | 6            | 3/4           |
| IRB-4248  | 42         | 928   | 51 | 8 7/16  | 54 | 6           | 6            | 3/4           |
| IRB-4848  | 48         | 972   | 57 | 8 7/16  | 60 | 6           | 6            | 3/4           |
| IRB-5448  | 54         | 1,052 | 63 | 8 7/16  | 66 | 6           | 6            | 3/4           |
| IRB-6048  | 60         | 1,226 | 69 | 8 7/16  | 72 | 8           | 6            | 3/4           |

## Impact Roller Bed 60" Long

| MODEL NO. | BELT WIDTH | WT.   | A  | B       | C  | NO. OF BARS | NO. OF ROLLS | MOUNTING BOLT |
|-----------|------------|-------|----|---------|----|-------------|--------------|---------------|
| IRB-2460  | 24         | 586   | 33 | 7 13/16 | 36 | 4           | 8            | 3/4           |
| IRB-3060  | 30         | 680   | 39 | 7 13/16 | 42 | 4           | 8            | 3/4           |
| IRB-3660  | 36         | 702   | 45 | 7 13/16 | 48 | 4           | 8            | 3/4           |
| IRB-4260  | 42         | 967   | 51 | 8 7/16  | 54 | 6           | 8            | 3/4           |
| IRB-4860  | 48         | 896   | 57 | 8 7/16  | 60 | 6           | 8            | 3/4           |
| IRB-5460  | 54         | 965   | 63 | 8 7/16  | 66 | 6           | 8            | 3/4           |
| IRB-6060  | 60         | 1,117 | 69 | 8 7/16  | 72 | 8           | 8            | 3/4           |

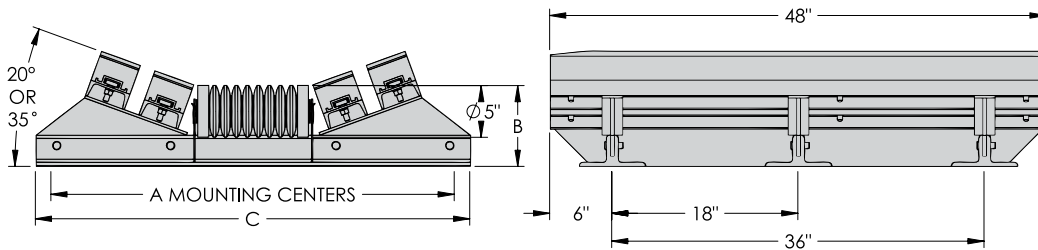
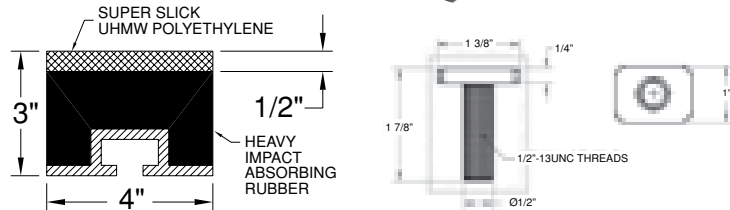
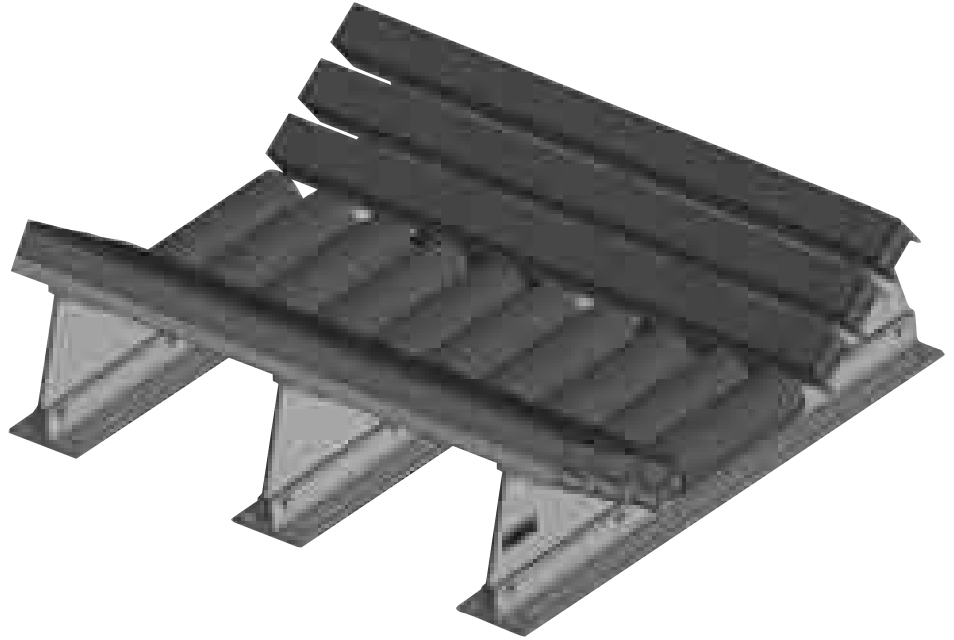
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MATERIAL CONTROL

# Titan™ 20° & 35° Impact Bed Sectional Roller 48" Long

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

- Impact center rolls replace bars to help reduce friction and drag between the impact bed and belt.
- Three piece section design uses quick release hitch pins to allow each of the sections to slide in either direction for removal, maintenance and bar replacement with the belt in place.
- Absorbs shock load and helps to prevent belt damage by uniformly supporting the full width of the belt.
- Provides near perfect seal between the belt and skirt boards.
- Standard with 5" CEMA D sealed impact rolls.
- Engineered for demanding CEMA D & E applications.



**DOUGLAS SECTIONAL IMPACT BED**

ISR - 24248

Impact Bed Sectional      Belt Width      Length Angle 20°

IBB - 48

Replacement Bar      Length

## Impact Bed Sectional Roller 48" Long

| BELT WIDTH | MODEL NO. 20° SIDE ARMS | WT.   | MODEL NO. 35° SIDE ARMS | WT.   | A  | B       | C  | NO. OF BARS | NO. OF ROLLS | MOUNTING BOLT |
|------------|-------------------------|-------|-------------------------|-------|----|---------|----|-------------|--------------|---------------|
| 24         | ISR-24248               | 550   | ISR-24348               | 552   | 33 | 7 13/16 | 36 | 4           | 6            | 5/8           |
| 30         | ISR-30248               | 597   | ISR-30348               | 595   | 39 | 7 13/16 | 42 | 4           | 6            | 5/8           |
| 36         | ISR-36248               | 679   | ISR-36348               | 657   | 45 | 7 13/16 | 48 | 4           | 6            | 5/8           |
| 42         | ISR-42248               | 972   | ISR-42348               | 807   | 51 | 8 7/16  | 54 | 6           | 6            | 5/8           |
| 48         | ISR-48248               | 1,043 | ISR-48348               | 827   | 57 | 8 7/16  | 60 | 6           | 6            | 5/8           |
| 54         | ISR-54248               | 1,134 | ISR-54348               | 902   | 63 | 8 7/16  | 66 | 6           | 6            | 5/8           |
| 60         | ISR-60248               | 1,299 | ISR-60348               | 1,012 | 69 | 8 7/16  | 72 | 8           | 6            | 5/8           |

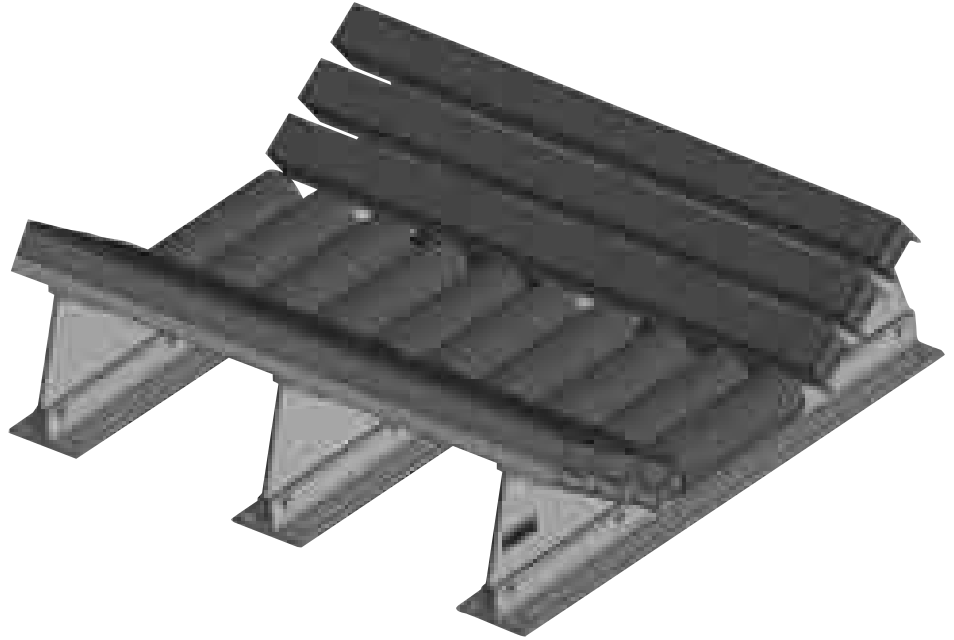
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**MATERIAL CONTROL**

# Titan™ 20° & 35° Impact Bed Sectional Roller 60" Long

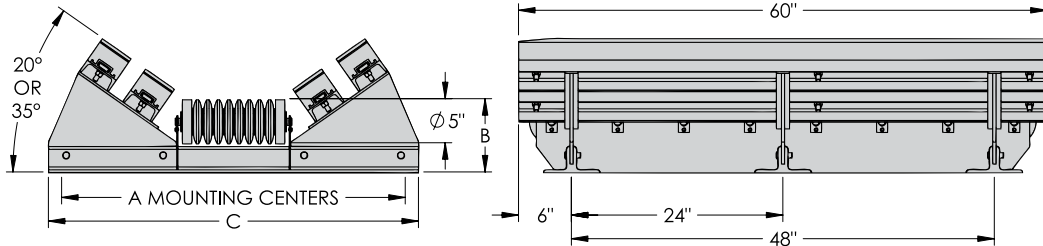
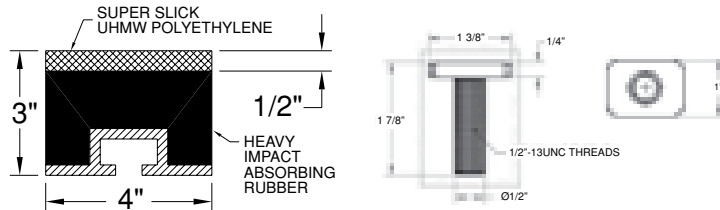
Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

- Impact center rolls replace bars to help reduce friction and drag between the impact bed and belt.
- Three piece section design uses quick release hitch pins to allow each of the sections to slide in either direction for removal, maintenance and bar replacement with the belt in place.
- Absorbs shock load and helps to prevent belt damage by uniformly supporting the full width of the belt.
- Provides near perfect seal between the belt and skirt boards.
- Standard with 5" CEMA D sealed impact rolls.
- Engineered for demanding CEMA D & E applications.



MATERIAL CONTROL

- Standard with 5" CEMA D sealed impact rolls.
- Engineered for demanding CEMA D & E applications.



**DOUGLAS SECTIONAL IMPACT BED**

ISR - 24260

Impact Bed Sectional      Belt Width      Length Angle 20°

IBB - 60

Replacement Bar      Length

## Impact Bed Sectional Roller 60" Long

| BELT WIDTH | MODEL NO. 20° SIDE ARMS | WT.   | MODEL NO. 35° SIDE ARMS | WT.   | A  | B       | C  | NO. OF BARS | NO. OF ROLLS | MOUNTING BOLT |
|------------|-------------------------|-------|-------------------------|-------|----|---------|----|-------------|--------------|---------------|
| 24         | ISR-24260               | 846   | ISR-24360               | 852   | 33 | 7 13/16 | 36 | 4           | 8            | 5/8           |
| 30         | ISR-30260               | 870   | ISR-30360               | 876   | 39 | 7 13/16 | 42 | 4           | 8            | 5/8           |
| 36         | ISR-36260               | 1,008 | ISR-36360               | 1,015 | 45 | 7 13/16 | 48 | 4           | 8            | 5/8           |
| 42         | ISR-42260               | 1,265 | ISR-42360               | 1,271 | 51 | 8 7/16  | 54 | 6           | 8            | 5/8           |
| 48         | ISR-48260               | 1,338 | ISR-48360               | 1,343 | 57 | 8 7/16  | 60 | 6           | 8            | 5/8           |
| 54         | ISR-54260               | 1,388 | ISR-54360               | 1,394 | 63 | 8 7/16  | 66 | 6           | 8            | 5/8           |
| 60         | ISR-60260               | 1,645 | ISR-60360               | 1,653 | 69 | 8 7/16  | 72 | 8           | 8            | 5/8           |

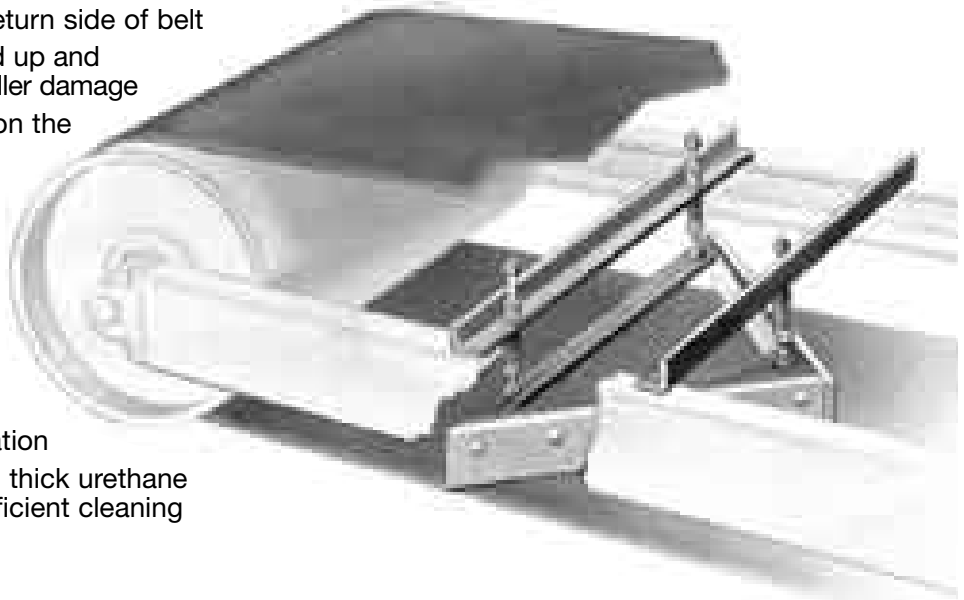
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# Bulldog™ Belt Plow

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

### Benefits

- Maximum level of cleaning on return side of belt
  - Prevents foreign material build up and decreases resultant belt and roller damage
- Diverts material when mounted on the top side of the belt, discharging material to one or both sides of conveyor belt
- Protects tail pulley and belt when used in front of tail pulley as a tramp material diverter and bottom belt cover cleaner



### Construction

- Standard carbon steel configuration
- Heavy duty construction with 1" thick urethane wiper blades for long life and efficient cleaning

### Options

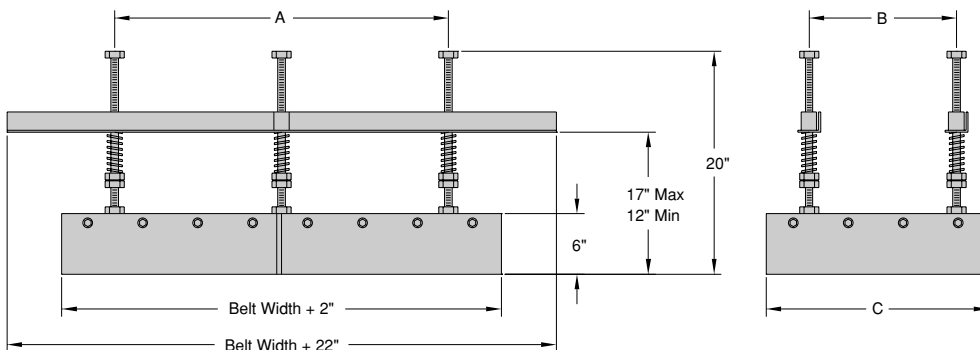
- Stainless steel frame



### Bulldog® Belt Plow Dimensions

| MODEL NO. | BELT WIDTH | A  | B      | C  |
|-----------|------------|----|--------|----|
| CBP-12    | 12         | 8  | 5      | 7  |
| CBP-16    | 16         | 12 | 7      | 9  |
| CBP-18    | 18         | 14 | 8      | 10 |
| CBP-20    | 20         | 16 | 9      | 11 |
| CBP-24    | 24         | 20 | 11     | 13 |
| CBP-30    | 30         | 13 | 6-1/2  | 16 |
| CBP-36    | 36         | 19 | 9-1/2  | 19 |
| CBP-42    | 42         | 25 | 12-1/2 | 22 |
| CBP-48    | 48         | 31 | 15-1/2 | 25 |
| CBP-54    | 54         | 37 | 18-1/2 | 28 |
| CBP-60    | 60         | 43 | 21-1/2 | 31 |
| CBP-72    | 72         | 55 | 27-1/2 | 37 |

MATERIAL CONTROL



**DOUGLAS PLOW IDENTIFICATION**

CBP - 12

|

Conveyor Belt Plow      Belt Width

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# Beater Rolls 5" & 6" Diameter

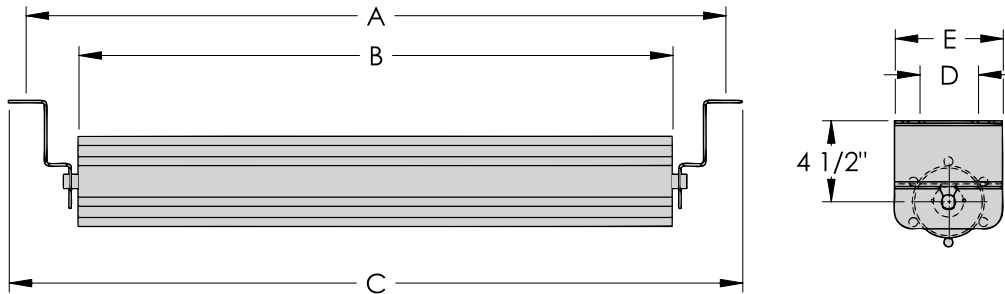
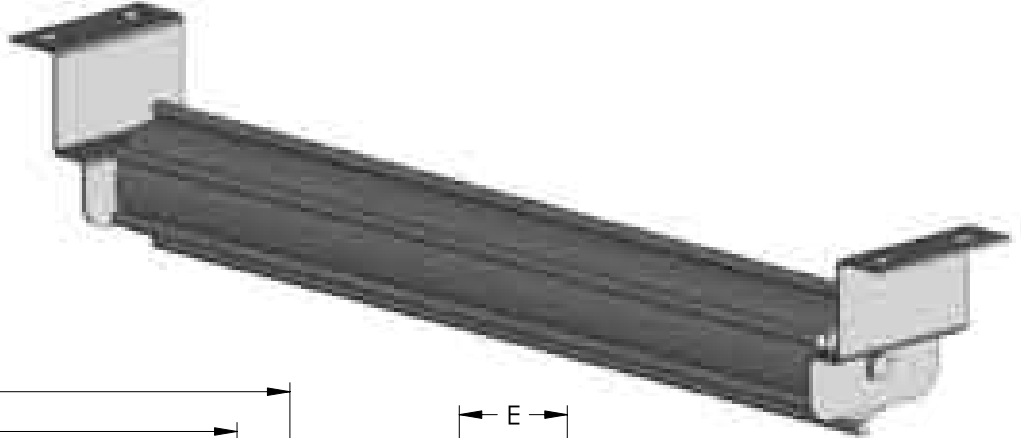
**Heavy 20mm (.787") Precision, Permanent Sealed Bearings  
 Only Effective Belt Cleaner for Side Wall and Cleated Belts  
 For Best Results Install Immediately Behind Head Pulley**

- Irregular roll face causes beating action dislodging material on belt

**DOUGLAS IDLER  
 IDENTIFICATION**

BRI - 05 - 18

Beater Rolls Idler | Roll Diameter | Belt Width



MATERIAL CONTROL

## Beater Rolls 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | D | E | MOUNTING BOLT |
|------------|-----------------|-----|----|----|----|---|---|---------------|
| 18         | BRI-05-18       | 17  | 27 | 21 | 29 | 4 | 6 | 1/2           |
| 20         | BRI-05-20       | 18  | 29 | 23 | 31 | 4 | 6 | 1/2           |
| 24         | BRI-05-24       | 21  | 33 | 27 | 35 | 4 | 6 | 1/2           |
| 30         | BRI-05-30       | 24  | 39 | 33 | 41 | 4 | 6 | 1/2           |
| 36         | BRI-05-36       | 27  | 45 | 39 | 47 | 4 | 6 | 1/2           |
| 42         | BRI-05-42       | 34  | 51 | 45 | 53 | 4 | 6 | 1/2           |
| 48         | BRI-05-48       | 37  | 57 | 51 | 59 | 4 | 6 | 1/2           |
| 54         | BRI-05-54       | 40  | 63 | 57 | 65 | 4 | 6 | 1/2           |

## Beater Rolls 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | D | E | MOUNTING BOLT |
|------------|-----------------|-----|----|----|----|---|---|---------------|
| 18         | BRI-06-18       | 22  | 27 | 21 | 29 | 4 | 6 | 1/2           |
| 20         | BRI-06-20       | 23  | 29 | 23 | 31 | 4 | 6 | 1/2           |
| 24         | BRI-06-24       | 26  | 33 | 27 | 35 | 4 | 6 | 1/2           |
| 30         | BRI-06-30       | 32  | 39 | 33 | 41 | 4 | 6 | 1/2           |
| 36         | BRI-06-36       | 36  | 45 | 39 | 47 | 4 | 6 | 1/2           |
| 42         | BRI-06-42       | 41  | 51 | 45 | 53 | 4 | 6 | 1/2           |
| 48         | BRI-06-48       | 45  | 57 | 51 | 59 | 4 | 6 | 1/2           |
| 54         | BRI-06-54       | 48  | 63 | 57 | 65 | 4 | 6 | 1/2           |

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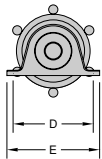
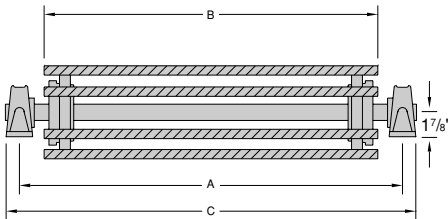
# Heavy-Duty Squirrel Cage Rolls 5" & 6" Diameter

Includes 1 7/16" Diameter Shaft and Ball Bearing Pillow Blocks

**DOUGLAS IDLER IDENTIFICATION**

SCH - 24 - 05

Squirrel Cage Belt Width Roll Diameter  
 Heavy-Duty



### Benefits

- No material build up
- Belt cleaning from belt vibration
- Use as a return idler for horizontal cleated belting
- 7" Diameter is available
- Ball bearing pillow blocks supplied

### Squirrel Cage Roll 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | D | E     | MOUNTING BOLT |
|------------|-----------------|-----|----|----|----|---|-------|---------------|
| 24         | SCH-24-05       | 22  | 33 | 27 | 35 | 4 | 5 1/2 | 3/8           |
| 30         | SCH-30-05       | 24  | 39 | 33 | 41 | 4 | 5 1/2 | 3/8           |
| 36         | SCH-36-05       | 27  | 45 | 39 | 47 | 4 | 5 1/2 | 3/8           |
| 42         | SCH-42-05       | 35  | 51 | 45 | 53 | 4 | 5 1/2 | 3/8           |
| 48         | SCH-48-05       | 37  | 57 | 51 | 59 | 4 | 5 1/2 | 3/8           |
| 54         | SCH-54-05       | 41  | 63 | 57 | 65 | 4 | 5 1/2 | 3/8           |
| 60         | SCH-60-05       | 45  | 69 | 63 | 71 | 4 | 5 1/2 | 3/8           |
| 72         | SCH-72-05       | 51  | 81 | 75 | 83 | 4 | 5 1/2 | 3/8           |

### Squirrel Cage Roll 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | D | E     | MOUNTING BOLT |
|------------|-----------------|-----|----|----|----|---|-------|---------------|
| 24         | SCH-24-06       | 24  | 33 | 27 | 35 | 4 | 5 1/2 | 3/8           |
| 30         | SCH-30-06       | 26  | 39 | 33 | 41 | 4 | 5 1/2 | 3/8           |
| 36         | SCH-36-06       | 30  | 45 | 39 | 47 | 4 | 5 1/2 | 3/8           |
| 42         | SCH-42-06       | 38  | 51 | 45 | 53 | 4 | 5 1/2 | 3/8           |
| 48         | SCH-48-06       | 40  | 57 | 51 | 59 | 4 | 5 1/2 | 3/8           |
| 54         | SCH-54-06       | 45  | 63 | 57 | 65 | 4 | 5 1/2 | 3/8           |
| 60         | SCH-60-06       | 49  | 69 | 63 | 71 | 4 | 5 1/2 | 3/8           |
| 72         | SCH-72-06       | 55  | 81 | 75 | 83 | 4 | 5 1/2 | 3/8           |

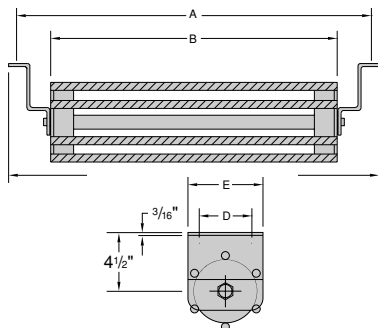
# Medium-Duty Squirrel Cage Rolls 5" & 6" Diameter

Heavy 20mm (.787") Precision, Permanent Sealed Bearings

**DOUGLAS IDLER IDENTIFICATION**

SCM - 18 - 05

Squirrel Cage Belt Width Roll Diameter  
 Medium-Duty



### Benefits

- No material build up
- Belt cleaning from belt vibration
- Use as a return idler for horizontal cleated belting

### Squirrel Cage Roll 5" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | D | E | MOUNTING BOLT |
|------------|-----------------|-----|----|----|----|---|---|---------------|
| 14         | SCM-14-05       | 15  | 23 | 17 | 25 | 4 | 6 | 1/2           |
| 16         | SCM-16-05       | 16  | 25 | 19 | 27 | 4 | 6 | 1/2           |
| 18         | SCM-18-05       | 17  | 27 | 21 | 29 | 4 | 6 | 1/2           |
| 20         | SCM-20-05       | 19  | 29 | 23 | 31 | 4 | 6 | 1/2           |
| 24         | SCM-24-05       | 22  | 33 | 27 | 35 | 4 | 6 | 1/2           |
| 30         | SCM-30-05       | 24  | 39 | 33 | 41 | 4 | 6 | 1/2           |

### Squirrel Cage Roll 6" Diameter

| BELT WIDTH | IDLER MODEL NO. | WT. | A  | B  | C  | D | E | MOUNTING BOLT |
|------------|-----------------|-----|----|----|----|---|---|---------------|
| 14         | SCM-14-06       | 18  | 23 | 17 | 25 | 4 | 6 | 1/2           |
| 16         | SCM-16-06       | 20  | 25 | 19 | 27 | 4 | 6 | 1/2           |
| 18         | SCM-18-06       | 22  | 27 | 21 | 29 | 4 | 6 | 1/2           |
| 20         | SCM-20-06       | 24  | 29 | 23 | 31 | 4 | 6 | 1/2           |
| 24         | SCM-24-06       | 27  | 33 | 27 | 35 | 4 | 6 | 1/2           |
| 30         | SCM-30-06       | 32  | 39 | 33 | 41 | 4 | 6 | 1/2           |

CAUTION: IF USED ON BELT WITH HORIZONTAL CLEATS CHECK FOR CLEARANCE ON CLEAT LENGTH AND HEIGHT.

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MATERIAL CONTROL

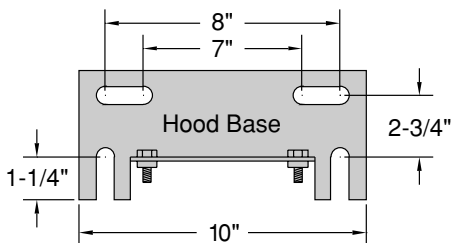
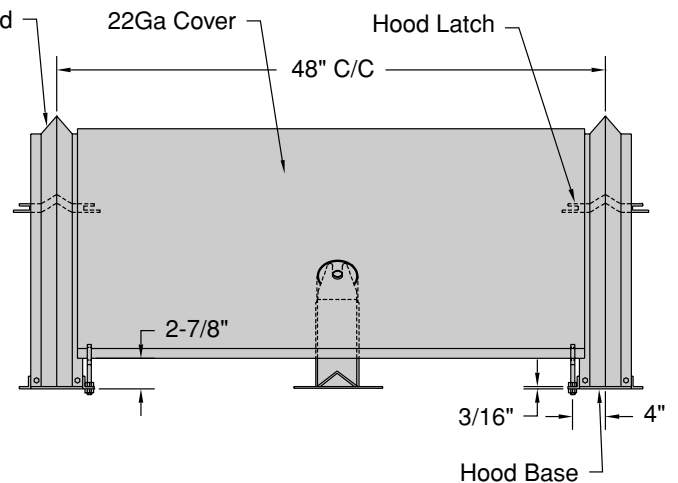
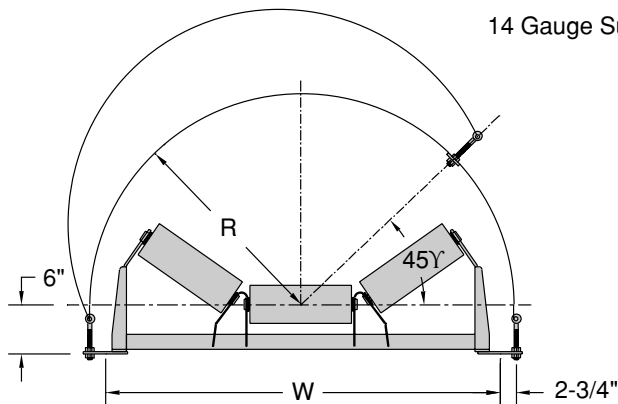


# Galvanized Conveyor Covers

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

## Benefits

- Helps decrease operating expenses
  - Protects conveyed material from natural elements
  - Protects idlers, belts and other components from natural elements
- Offers increased safety factor to personnel
- Special design allows for hoods to be secured in two different positions to allow easy access for maintenance and inspection
- Suitable for practically all environmental conditions
- Shipped complete with mounting bolts



**3/4**  
COVERS  
AVAILABLE

| DOUGLAS COVER IDENTIFICATION |            |
|------------------------------|------------|
| CVR - 24                     |            |
| Cover                        | Belt Width |
| <hr/>                        |            |
| CSB - 24                     |            |
| Support Band                 | Belt Width |

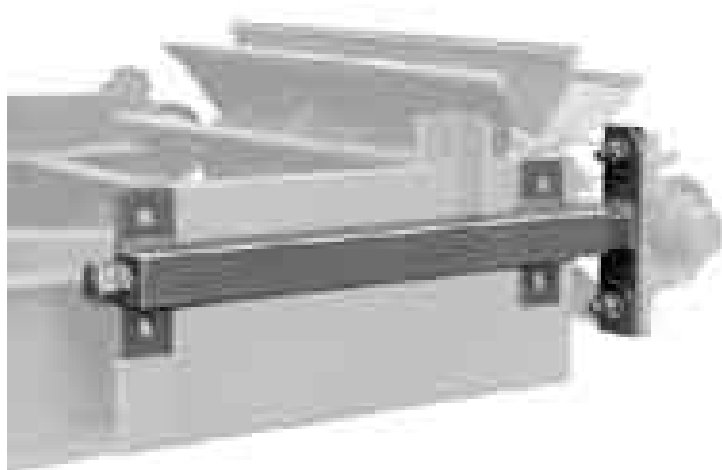
## Galvanized Conveyor Cover Dimensions

| MODEL NO. | MODEL NO. | BELT WIDTH | R      | W  | MOUNTING BOLT | WT. |
|-----------|-----------|------------|--------|----|---------------|-----|
| CVR-18    | CSB-18    | 18         | 16-1/4 | 27 | 5/8           | 53  |
| CVR-20    | CSB-20    | 20         | 17-1/4 | 29 | 5/8           | 55  |
| CVR-24    | CSB-24    | 24         | 19-1/4 | 33 | 5/8           | 59  |
| CVR-30    | CSB-30    | 30         | 22-1/4 | 39 | 5/8           | 66  |
| CVR-36    | CSB-36    | 36         | 25-1/4 | 45 | 5/8           | 72  |
| CVR-42    | CSB-42    | 42         | 28-1/4 | 51 | 5/8           | 79  |
| CVR-48    | CSB-48    | 48         | 31-1/4 | 57 | 5/8           | 85  |
| CVR-54    | CSB-54    | 54         | 34-1/4 | 63 | 5/8           | 91  |
| CVR-60    | CSB-60    | 60         | 37-1/4 | 69 | 5/8           | 98  |
| CVR-72    | CSB-72    | 72         | 43-1/4 | 81 | 5/8           | 110 |

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MATERIAL CONTROL

# Belt Tensioning Systems



|   |     |
|---|-----|
| Slide Tube Take-Ups™ .....                      | 106 |
| Top Angle Protected Screw Take-Ups .....        | 107 |
| Heavy Duty Top Mount Take-Ups .....             | 108 |
| Heavy Duty Center Pull Take-Ups .....           | 109 |
| Scissor Pivot™ Gravity Take-Up Assemblies ..... | 110 |

# Slide Tube Take-Ups™

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

### Benefits

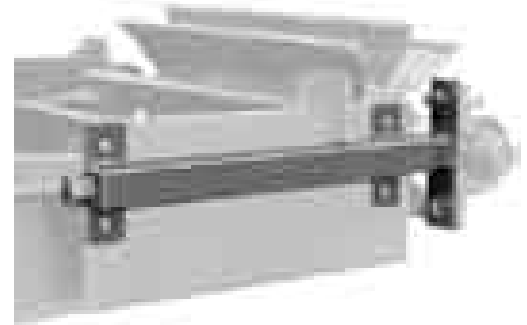
- Eliminates the need for additional take-up frame supports
- Even load distribution
- Use in conjunction with easy to find and inexpensive pillow block assemblies
- Cuts labor time in half
- Easiest frame to retrofit
- Space saving

### Construction

- Enclosed housing helps prevent material from fouling the threaded rod
- Increased strength and performance resulting from design features
- Standard construction to accept ball bearing pillow block
- ACME square threaded rod in all models
- Consult factory if roller bearing pillow blocks are used

### Options

- Optional grease zerk fitting available
- Ball or roller bearing pillow blocks



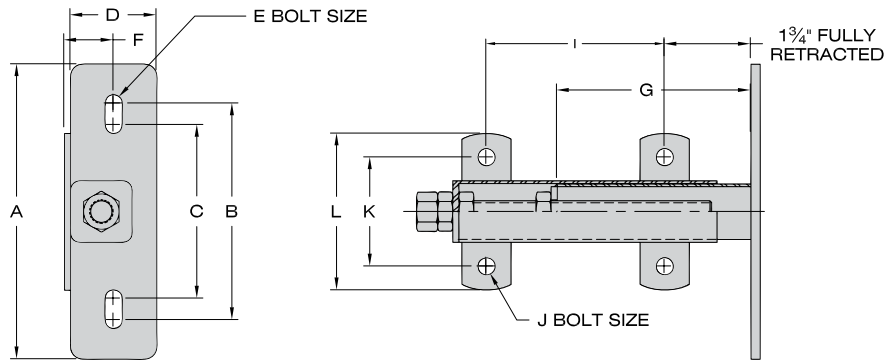
**DOUGLAS OPTIONAL  
PILLOW BLOCK  
IDENTIFICATION**

|  |  |
|--|--|
| PBB – 1 <sup>15</sup> / <sub>16</sub><br> <br>Ball Bearing    Shaft Size | PBR – 2 <sup>15</sup> / <sub>16</sub><br> <br>Roller Bearing    Shaft Size |
|--|--|

**DOUGLAS TAKE-UP  
IDENTIFICATION**

STT – A2018

Slide Tube Take-Up    Model #    Travel



SLIDE TUBE® TAKE-UP DIMENSIONS

### Slide Tube Take-Up™ Dimensions

| MODEL | TRAVEL | BORE       | PART NO.  | A      | B        | C       | D     | E   | F      | G      | I      | J   | K       | L     | WT. |
|-------|--------|------------|-----------|--------|----------|---------|-------|-----|--------|--------|--------|-----|---------|-------|-----|
| 20    | 9      | 1-3/16"-2" | STT-A2009 | 9      | 6-1/16   | 4-9/16  | 2-1/4 | 1/2 | 1-3/16 | 10     | 8-1/4  | 5/8 | 3-11/16 | 5-5/8 | 11  |
|       | 12     |            | 13        |        |          |         |       |     |        | 11-1/4 | 12     |     |         |       |     |
|       | 18     |            | 19        |        |          |         |       |     |        | 17-1/4 | 14     |     |         |       |     |
| 30    | 9      | 2-3/16"-3" | STT-A3009 | 12     | 8-13/16  | 4-1/16  | 3     | 3/4 | 1-5/8  | 14     | 9-1/4  | 5/8 | 4-7/16  | 6-3/8 | 12  |
|       | 12     |            | 17        |        |          |         |       |     |        | 12-1/4 | 16     |     |         |       |     |
|       | 18     |            | 20        |        |          |         |       |     |        | 18-1/4 | 20     |     |         |       |     |
|       | 24     |            | 26        |        |          |         |       |     |        | 24-1/4 | 24     |     |         |       |     |
| 35    | 12     | 3-7/16"    | STT-A3512 | 14     | 11-11/16 | 8-9/16  | 3-1/2 | 7/8 | 1-7/8  | 14     | 11-3/4 | 3/4 | 5-13/16 | 8-1/8 | 28  |
|       | 18     |            | 20        |        |          |         |       |     |        | 17-3/4 | 36     |     |         |       |     |
|       | 24     |            | 26        |        |          |         |       |     |        | 23-3/4 | 44     |     |         |       |     |
|       | 36     |            | 32        |        |          |         |       |     |        | 29-3/4 | 50     |     |         |       |     |
| 40    | 12     | 3-15/16"   | STT-A4018 | 15-1/2 | 13       | 10-7/16 | 4     | 1   | 2-3/16 | 20     | 17-3/8 | 3/4 | 8       | 11    | 36  |
|       | 18     |            | 26        |        |          |         |       |     |        | 23-3/8 | 44     |     |         |       |     |
|       | 24     |            | 32        |        |          |         |       |     |        | 29-3/4 | 50     |     |         |       |     |
|       | 36     |            | 38        |        |          |         |       |     |        | 35-3/4 | 56     |     |         |       |     |
| 45    | 18     | 4-7/16"    | STT-A4518 | 14     | *        | *       | *     | *   | *      | 20     | 17-3/8 | 3/4 | 8       | 11    | 48  |
|       | 24     |            | 26        |        |          |         |       |     |        | 23-3/8 | 52     |     |         |       |     |
|       | 30     |            | 32        |        |          |         |       |     |        | 29-3/4 | 56     |     |         |       |     |
|       | 36     |            | 38        |        |          |         |       |     |        | 35-3/4 | 60     |     |         |       |     |
| 55    | 18     | 4-15/16"   | STT-A5518 | 16-1/2 | *        | *       | *     | *   | *      | 21     | 18-3/8 | 3/4 | 11      | 14    | 68  |
|       | 24     |            | 27        |        |          |         |       |     |        | 24-3/8 | 72     |     |         |       |     |
|       | 30     |            | 33        |        |          |         |       |     |        | 30-3/4 | 76     |     |         |       |     |
|       | 36     |            | 39        |        |          |         |       |     |        | 36-3/4 | 80     |     |         |       |     |
|       | 48     |            | 51        |        |          |         |       |     |        | 48-3/4 | 84     |     |         |       |     |

\*Bearing plate hole pattern made to order – 2 or 4 hole.

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# Top Angle Protected Screw Take-Ups

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

### Benefits

- Protected screw allows for smooth adjustment in most applications
- Bolted top angle protects threaded rod and allows for simple bearing removal and replacement



**DOUGLAS TAKE-UP IDENTIFICATION**

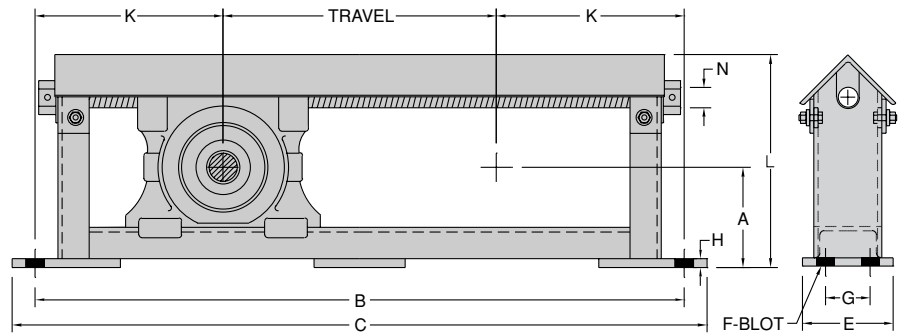
Frame TAF - 200 - 12  
 Top Angle Model # Travel  
 Frame

---

TPR - 2<sup>7/16</sup>  
 Top Angle Take-Up Bore  
 Roller Bearing

---

TPB - 1<sup>15/16</sup>  
 Top Angle Take-Up Bore  
 Ball Bearing



\*\* Note: Models 200-207 have one mounting bolt on each end of the frame.

### Top Angle Protected Screw Take-Ups Dimensions

| MODEL      | TRAVEL | BORE    | PART NO.   | A       | B      | C      | E | F   | G  | H   | K     | L       | N     | WT. |
|------------|--------|---------|------------|---------|--------|--------|---|-----|----|-----|-------|---------|-------|-----|
| <b>200</b> | 12     | 1-15/16 | TAF-200-12 | 3-15/16 | 26-1/2 | 28-1/2 | 4 | 5/8 | ** | 3/8 | 7-1/4 | 8-1/4   | 3/4   | 35  |
|            | 18     |         | TAF-200-18 |         | 32-1/2 | 34-1/2 |   |     |    |     |       |         |       | 40  |
|            | 24     |         | TAF-200-24 |         | 38-1/2 | 40-1/2 |   |     |    |     |       |         |       | 46  |
|            | 30     |         | TAF-200-30 |         | 44-1/2 | 46-1/2 |   |     |    |     |       |         |       | 52  |
|            | 36     |         | TAF-200-36 |         | 50-1/2 | 54-1/2 |   |     |    |     |       |         |       | 58  |
| <b>203</b> | 12     | 2-3/16  | TAF-203-12 | 4-3/16  | 27-1/2 | 29-1/2 | 4 | 5/8 | ** | 3/8 | 7-3/4 | 8-5/8   | 3/4   | 39  |
|            | 18     |         | TAF-203-18 |         | 33-1/2 | 35-1/2 |   |     |    |     |       |         |       | 44  |
|            | 24     |         | TAF-203-24 |         | 39-1/2 | 41-1/2 |   |     |    |     |       |         |       | 50  |
|            | 30     |         | TAF-203-30 |         | 45-1/2 | 47-1/2 |   |     |    |     |       |         |       | 55  |
|            | 36     |         | TAF-203-36 |         | 51-1/2 | 53-1/2 |   |     |    |     |       |         |       | 60  |
| <b>207</b> | 12     | 2-7/16  | TAF-207-12 | 4-3/8   | 28-1/2 | 30-1/2 | 4 | 3/4 | ** | 3/8 | 8-1/4 | 9-3/8   | 7/8   | 40  |
|            | 18     |         | TAF-207-18 |         | 34-1/2 | 36-1/2 |   |     |    |     |       |         |       | 45  |
|            | 24     |         | TAF-207-24 |         | 40-1/2 | 42-1/2 |   |     |    |     |       |         |       | 50  |
|            | 30     |         | TAF-207-30 |         | 46-1/2 | 48-1/2 |   |     |    |     |       |         |       | 55  |
|            | 36     |         | TAF-207-36 |         | 52-1/2 | 54-1/2 |   |     |    |     |       |         |       | 60  |
| <b>300</b> | 12     | 2-15/16 | TAF-300-12 | 4-15/16 | 30-1/2 | 32-1/2 | 5 | 5/8 | 2  | 1/2 | 9-1/4 | 10-7/16 | 1     | 42  |
|            | 18     |         | TAF-300-18 |         | 36-1/2 | 38-1/2 |   |     |    |     |       |         |       | 48  |
|            | 24     |         | TAF-300-24 |         | 42-1/2 | 44-1/2 |   |     |    |     |       |         |       | 53  |
|            | 30     |         | TAF-300-30 |         | 48-1/2 | 50-1/2 |   |     |    |     |       |         |       | 60  |
|            | 36     |         | TAF-300-36 |         | 54-1/2 | 56-1/2 |   |     |    |     |       |         |       | 65  |
| <b>307</b> | 12     | 3-7/16  | TAF-307-12 | 5-7/16  | 32     | 34-1/4 | 5 | 3/4 | 2  | 1/2 | 10    | 12-9/16 | 1-1/8 | 73  |
|            | 18     |         | TAF-307-18 |         | 38     | 40-1/4 |   |     |    |     |       |         |       | 83  |
|            | 24     |         | TAF-307-24 |         | 44     | 46-1/4 |   |     |    |     |       |         |       | 92  |
|            | 30     |         | TAF-307-30 |         | 50     | 52-1/4 |   |     |    |     |       |         |       | 102 |
|            | 36     |         | TAF-307-36 |         | 56     | 58-1/4 |   |     |    |     |       |         |       | 111 |

**TAKE-UPS**

\*Based on availability.

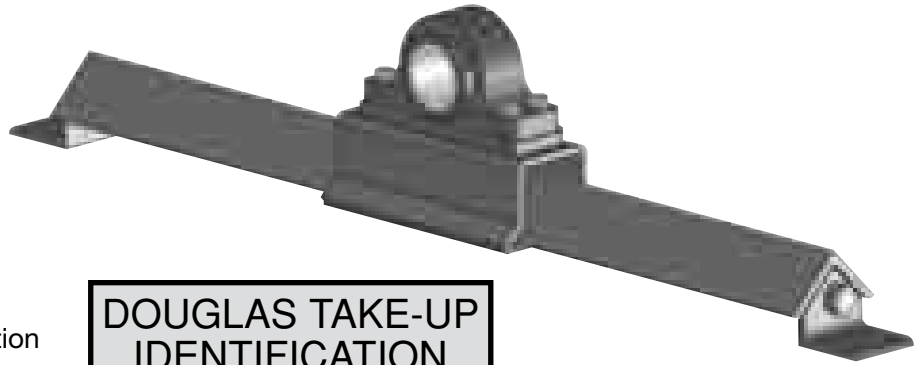
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# Heavy Duty Top Mount Take-Ups

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

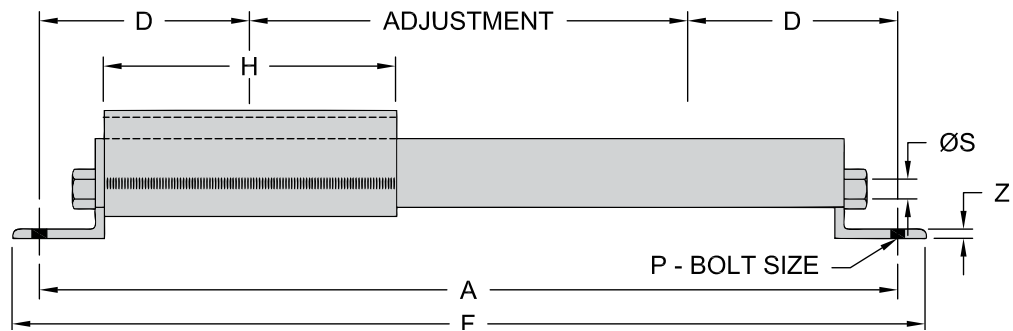
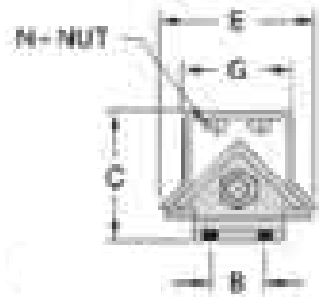
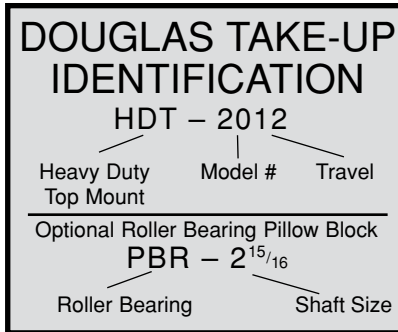
## Benefits

- Engineered for severe applications
- Mounting plate designed for most major manufacturers' bearings. Please specify bearing style. Other hole punch patterns available (bearing optional)



## Construction

- Extra heavy welded steel construction allows for high tensions and impact loading
- Designed with ACME threaded rod to allow smooth adjustment under high tension applications
- Custom designed frames available for specific applications



## Heavy Duty Top Mount Take-Ups

| MODEL | TRAVEL | BRG. BORE | PART NO. | A        | B      | C     | D      | E       | F      | G      | H      | N      | P   | S     | Z     | WT. |
|-------|--------|-----------|----------|----------|--------|-------|--------|---------|--------|--------|--------|--------|-----|-------|-------|-----|
| 20    | 12     | 1 31/42   | HDT-2012 | 28       | 2      | 5 1/4 | 8      | 6 3/4   | 31     | 4      | 11     | 5/8    | 5/8 | 1     | 3/8   | 48  |
|       | 18     | 1 15/16   | HDT-2018 | 34       |        |       |        | 37      |        |        |        |        |     |       |       | 54  |
|       | 24     | 2 3/16    | HDT-2024 | 40       |        |       |        | 43      |        |        |        |        |     |       |       | 60  |
|       | 30     |           |          | 46       |        |       |        | 49      |        |        |        |        |     |       |       | 66  |
|       | 36     |           |          | 52       |        |       |        | 55      |        |        |        |        |     |       |       | 72  |
| 25    | 18     | 3 3/16    | HDT-2518 | 38 1/4   | 3      | 6 1/4 | 10 1/8 | 8 1/4   | 41 1/4 | 5      | 13 1/4 | 3/4    | 3/4 | 1 1/4 | 1/2   | 93  |
|       | 24     | 2 7/16    | HDT-2524 | 44 1/4   |        |       |        | 47 1/4  |        |        |        |        |     |       |       | 104 |
|       | 30     | 3         | HDT-2530 | 50 1/4   |        |       |        | 53 1/4  |        |        |        |        |     |       |       | 115 |
|       | 36     |           | HDT-2536 | 56 1/4   |        |       |        | 59 1/4  |        |        |        |        |     |       |       | 126 |
|       | 30     | 18        | 2 15/16  | HDT-3018 | 39 1/4 | 3     | 7      | 10 5/8  | 8 1/8  | 42 1/4 | 6      | 14 1/4 | 3/4 | 3/4   | 1 1/4 | 1/2 |
| 24    |        |           | HDT-3024 | 45 1/4   |        |       |        | 48 1/4  |        |        |        |        |     |       |       | 107 |
| 30    |        |           | HDT-3030 | 51 1/4   |        |       |        | 54 1/4  |        |        |        |        |     |       |       | 116 |
| 36    |        |           | HDT-3036 | 57 1/4   |        |       |        | 60 1/4  |        |        |        |        |     |       |       | 125 |
| 48    |        |           | HDT-3048 | 69 1/4   |        |       |        | 72 1/4  |        |        |        |        |     |       |       | 134 |
| 35    | 18     | 3 7/16    | HDT-3518 | 41       | 3      | 7     | 11 1/2 | 8 1/2   | 44     | 6      | 16     | 3/4    | 3/4 | 1 1/4 | 1/2   | 102 |
|       | 24     | 3 1/2     | HDT-3524 | 47       |        |       |        | 50      |        |        |        |        |     |       |       | 111 |
|       | 30     |           | HDT-3530 | 53       |        |       |        | 56      |        |        |        |        |     |       |       | 120 |
|       | 36     |           | HDT-3536 | 59       |        |       |        | 62      |        |        |        |        |     |       |       | 129 |
|       | 48     |           | HDT-3548 | 71       |        |       |        | 74      |        |        |        |        |     |       |       | 138 |
| 40    | 18     | 3 15/16   | HDT-4018 | 45       | 3 1/2  | 7     | 13 1/2 | 10 3/16 | 48     | 7      | 20     | -      | 7/8 | 1 1/2 | 1/2   | 144 |
|       | 24     | 4 1/2     | HDT-4024 | 51       |        |       |        | 54      |        |        |        |        |     |       |       | 157 |
|       | 30     |           | HDT-4030 | 57       |        |       |        | 60      |        |        |        |        |     |       |       | 170 |
|       | 36     |           | HDT-4036 | 63       |        |       |        | 66      |        |        |        |        |     |       |       | 183 |
|       | 48     |           | HDT-4048 | 75       |        |       |        | 78      |        |        |        |        |     |       |       | 196 |

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TAKE-UPS

# Heavy Duty Center Pull Take-Ups

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

**DOUGLAS TAKE-UP IDENTIFICATION**

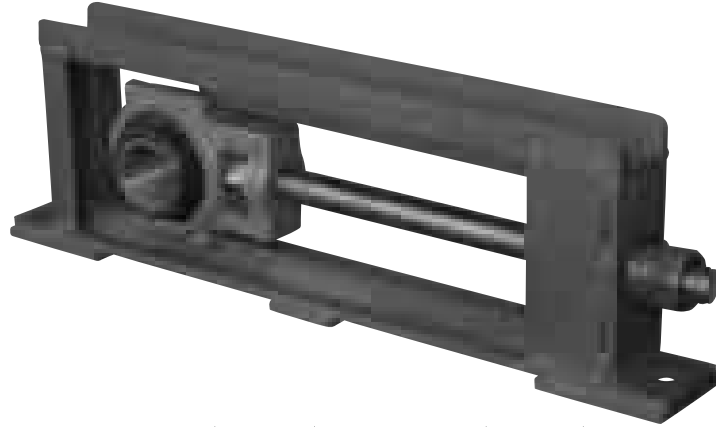
CPT - 200 - 12

Center Pull      Model #      Travel  
 Take-Up Frame

---

Bearing CPR - 2<sup>7</sup>/<sub>16</sub>

Center Pull      Bore  
 Take-Up Bearing

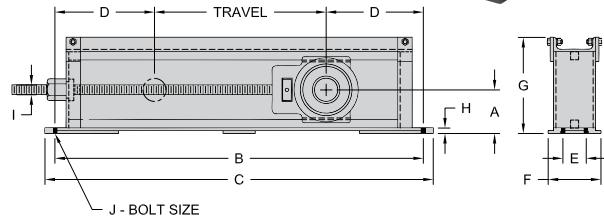


### Benefits

- Simple bearing removal and replacement design

### Construction

- Standard unit includes wide slot take-up roller bearing



### Heavy Duty Center Pull Take-Ups

\*\*Note: Models 200-208 have one mounting bolt on each end of the frame.

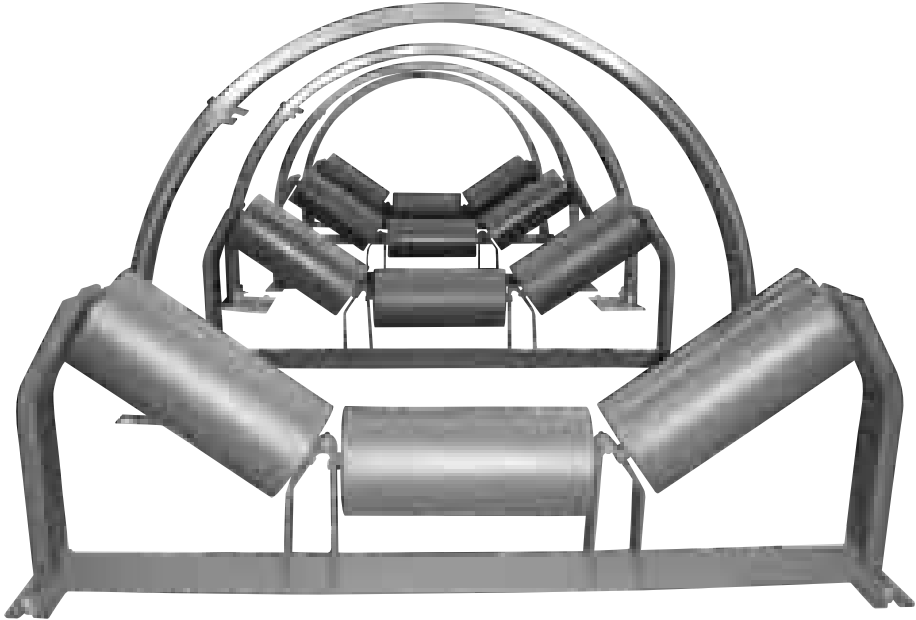
| MODEL | TRAVEL | BRG. BORE | PART NO.   | A       | B      | C      | D      | E     | F  | G        | H   | I     | J     | WT. |
|-------|--------|-----------|------------|---------|--------|--------|--------|-------|----|----------|-----|-------|-------|-----|
| 200   | 12     | 1 15/16   | CPT-200-12 | 3 15/16 | 27 1/2 | 29 1/2 | 7 3/4  | **    | 4  | 8 13/16  | 5/8 | 1     | 5/8   | 56  |
|       | 18     |           | 33 1/2     |         | 35 1/2 | 66     |        |       |    |          |     |       |       |     |
|       | 24     |           | 39 1/2     |         | 41 1/2 | 76     |        |       |    |          |     |       |       |     |
|       | 30     |           | 45 1/2     |         | 47 1/2 | 86     |        |       |    |          |     |       |       |     |
|       | 36     |           | 51 1/2     |         | 53 1/2 | 96     |        |       |    |          |     |       |       |     |
| 203   | 12     | 2 3/16    | CPT-203-12 | 4 7/16  | 27 1/2 | 29 1/2 | 7 3/4  | **    | 4  | 9 1/16   | 3/4 | 1 1/4 | 5/8   | 63  |
|       | 18     |           | 33 1/2     |         | 35 1/2 | 74     |        |       |    |          |     |       |       |     |
|       | 24     |           | 39 1/2     |         | 41 1/2 | 84     |        |       |    |          |     |       |       |     |
|       | 30     |           | 45 1/2     |         | 47 1/2 | 94     |        |       |    |          |     |       |       |     |
|       | 36     |           | 51 1/2     |         | 53 1/2 | 103    |        |       |    |          |     |       |       |     |
| 208   | 12     | 2 7/16    | CPT-208-12 | 4 3/8   | 28 1/2 | 30 1/2 | 8 1/4  | **    | 4  | 9 3/8    | 3/4 | 1 1/4 | 3/4   | 59  |
|       | 18     |           | 34 1/2     |         | 36 1/2 | 69     |        |       |    |          |     |       |       |     |
|       | 24     |           | 40 1/2     |         | 42 1/2 | 79     |        |       |    |          |     |       |       |     |
|       | 30     |           | 46 1/2     |         | 48 1/2 | 89     |        |       |    |          |     |       |       |     |
|       | 36     |           | 52 1/2     |         | 54 1/2 | 99     |        |       |    |          |     |       |       |     |
| 300   | 12     | 2 15/16   | CPT-300-12 | 5 1/8   | 30 1/2 | 32 1/2 | 9 1/4  | 2     | 5  | 10 3/4   | 7/8 | 1 1/2 | 5/8   | 88  |
|       | 18     |           | 36 1/2     |         | 38 1/2 | 103    |        |       |    |          |     |       |       |     |
|       | 24     |           | 42 1/2     |         | 44 1/2 | 118    |        |       |    |          |     |       |       |     |
|       | 30     |           | 48 1/2     |         | 50 1/2 | 123    |        |       |    |          |     |       |       |     |
|       | 36     |           | 54 1/2     |         | 56 1/2 | 128    |        |       |    |          |     |       |       |     |
| 308   | 12     | 3 7/16    | CPT-308-12 | 5 5/8   | 32     | 34 1/4 | 10     | 2     | 5  | 11 13/16 | 7/8 | 1 3/4 | 3/4   | 108 |
|       | 18     |           | 38         |         | 40 1/4 | 126    |        |       |    |          |     |       |       |     |
|       | 24     |           | 44         |         | 46 1/4 | 143    |        |       |    |          |     |       |       |     |
|       | 30     |           | 50         |         | 52 1/4 | 160    |        |       |    |          |     |       |       |     |
|       | 36     |           | 56         |         | 58 1/4 | 177    |        |       |    |          |     |       |       |     |
| 400   | 12     | 3 15/16   | CPT-400-12 | 6 15/16 | 36     | 38 1/2 | 12     | 2 1/2 | 6  | 14 3/8   | 7/8 | 2     | 3/4   | 165 |
|       | 18     |           | 42         |         | 44 1/2 | 185    |        |       |    |          |     |       |       |     |
|       | 24     |           | 48         |         | 50 1/2 | 205    |        |       |    |          |     |       |       |     |
|       | 30     |           | 54         |         | 56 1/2 | 225    |        |       |    |          |     |       |       |     |
|       | 36     |           | 60         |         | 62 1/2 | 245    |        |       |    |          |     |       |       |     |
| 408   | 12     | 4 7/16    | CPT-408-12 | 7 1/2   | 40 3/4 | 45 3/4 | 14 3/8 | 5     | 9  | 16 3/8   | 7/8 | 2     | 1 1/8 | 231 |
|       | 18     |           | 46 3/4     |         | 51 3/4 | 261    |        |       |    |          |     |       |       |     |
|       | 24     |           | 52 3/4     |         | 57 3/4 | 291    |        |       |    |          |     |       |       |     |
|       | 30     |           | 58 3/4     |         | 63 3/4 | 321    |        |       |    |          |     |       |       |     |
|       | 36     |           | 64 3/4     |         | 69 3/4 | 351    |        |       |    |          |     |       |       |     |
| 500   | 12     | 4 15/16   | CPT-500-12 | 8 1/2   | 44 1/2 | 49 1/2 | 16 1/4 | 5 1/2 | 10 | 16 13/16 | 1   | 2 1/4 | 1 1/8 | 265 |
|       | 18     |           | 50 1/2     |         | 55 1/2 | 295    |        |       |    |          |     |       |       |     |
|       | 24     |           | 56 1/2     |         | 61 1/2 | 325    |        |       |    |          |     |       |       |     |
|       | 30     |           | 62 1/2     |         | 67 1/2 | 355    |        |       |    |          |     |       |       |     |
|       | 36     |           | 66 1/2     |         | 73 1/2 | 385    |        |       |    |          |     |       |       |     |

TAKE-UPS

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# Conveyor Accessories and Information



Original Guardian™ Premium Return Roll Guard ..... 112  
Nexgen Guardian™ Premium Return Roll Guard ..... 113  
Screen Tube Covers (Vibrating Screens) ..... 114  
The Negotiator™ Self Aligning Return Idler ..... 115



# Original Guardian™ Premium Return Roll Guard

Call Douglas (205) 884-1200 or Fax (205) 884-1206  
 for engineered solutions to your special applications

## Benefits

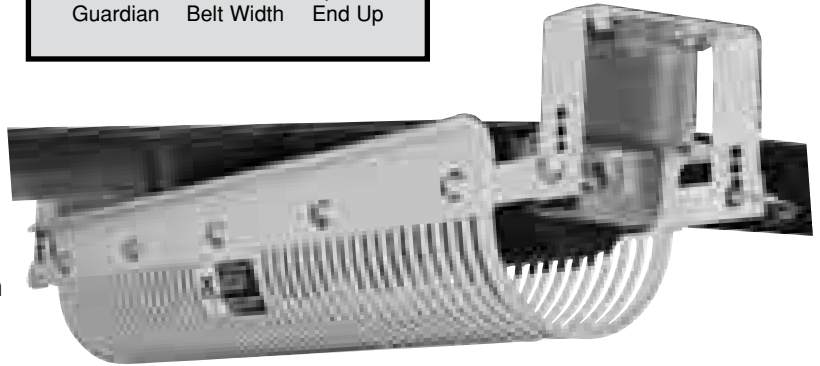
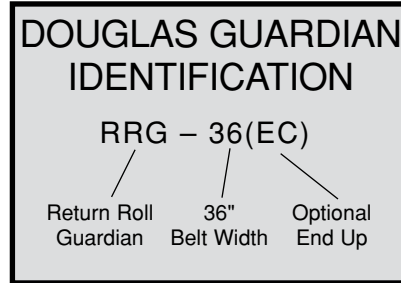
- Enhance safety on belt conveyor
- 180 design helps to protect personnel from the front and back of roller and catches the roll if it should fall from the return bracket
- Specially designed slotted steel cage helps prevent material build-up
- Hinged design allows either end to be dropped for easy cleaning
- Can be used with CEMA\* B, C & D idlers
- Can be used with other CEMA\* manufacturers' return idlers

## Construction

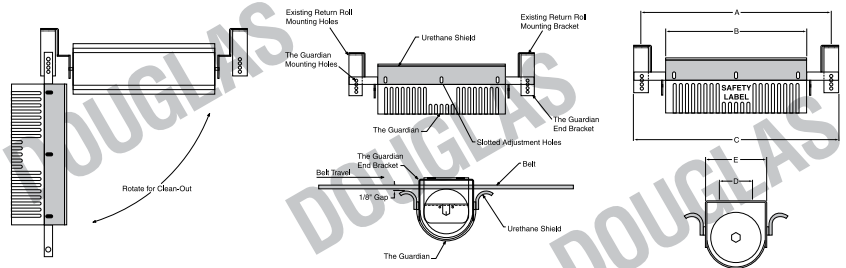
- Hitchpin clip design allows simple installation and easiest possible clean-out
- Universal mounting brackets work with 4", 5" and 6" idlers for 1 1/2" to 4 1/2" drop brackets
- Comes complete with safety warning labels, easy to install instructions and special mounting brackets
- Profiled urethane to rubber contact points help ensure long life and enhance safety

## Options

- Optional End Shield available
- Bolts available where clips are not desired



## General Arrangement and Location of the Guardian™



## Guardian™ Return Roller

| MODEL NO. | BELT WIDTH in (mm) | WT. lb | A in (mm) | B in (mm)      | C in (mm) | D in (mm) | E in (mm)   | MOUNTING BOLT |
|-----------|--------------------|--------|-----------|----------------|-----------|-----------|-------------|---------------|
| RRG-18    | 18 (457)           | 12     | 27 (686)  | 21-5/16 (541)  | 29 (737)  | 4 (102)   | 7-3/8 (187) | 1/2"          |
| RRG-24    | 24 (610)           | 14     | 33 (838)  | 27-5/16 (694)  | 35 (889)  | 4 (102)   | 7-3/8 (187) | 1/2"          |
| RRG-30    | 30 (762)           | 15     | 39 (991)  | 33-5/16 (846)  | 41 (1041) | 4 (102)   | 7-3/8 (187) | 1/2"          |
| RRG-36    | 36 (914)           | 17     | 45 (1143) | 39-5/16 (999)  | 47 (1194) | 4 (102)   | 7-3/8 (187) | 1/2"          |
| RRG-42    | 42 (1067)          | 18     | 51 (1295) | 45-5/16 (1151) | 53 (1346) | 4 (102)   | 7-3/8 (187) | 1/2"          |
| RRG-48    | 48 (1219)          | 20     | 57 (1448) | 51-5/16 (1303) | 59 (1499) | 4 (102)   | 7-3/8 (187) | 1/2"          |
| RRG-54    | 54 (1372)          | 21     | 63 (1600) | 57-5/16 (1456) | 65 (1651) | 4 (102)   | 7-3/8 (187) | 1/2"          |
| RRG-60    | 60 (1524)          | 23     | 69 (1753) | 63-5/16 (1608) | 71 (1803) | 4 (102)   | 7-3/8 (187) | 1/2"          |

**IMPORTANT:** Designed to be installed with a 1/8 inch gap between the guard and the belt. ALWAYS FOLLOW OSHA, STATE AND OWNER REQUIRED SAFETY GUIDELINES/REGULATIONS DURING THE INSTALLATION OR OPERATION OF A CONVEYOR SYSTEM. Douglas Manufacturing Co., Inc. strongly recommends that any safety program be supplemented by the use of ANSI B20 that refers to conveyor systems. Never operate, adjust or install equipment on a moving conveyor. Always follow lock out and tag out procedures when working on conveyor systems. Personnel who work on or around conveyor systems must be safety trained and familiar with conveyor systems. The Guardian™ must be inspected periodically to determine if the unit is in proper working order by inspecting and replacing the urethane seal, inspecting to see if material build-up has occurred and ensuring proper adjustment and tightness of all adjustable bolts. Failure to do so may result in serious injury or death. No idler guard can protect against potential danger in all situations or against all hazards. The Guardian™ is designed to help minimize the potential for danger but cannot guarantee protection in all situations or applications. If you have questions or need assistance please call 205-884-1200 or fax 205-884-1206.

The Guardian™ is a trademark of Douglas Mfg. Co., Inc. All Rights Reserved.

The Guardian™ Patent No. 6,318,545.

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# Nexgen Guardian™ Premium Return Roll Guard

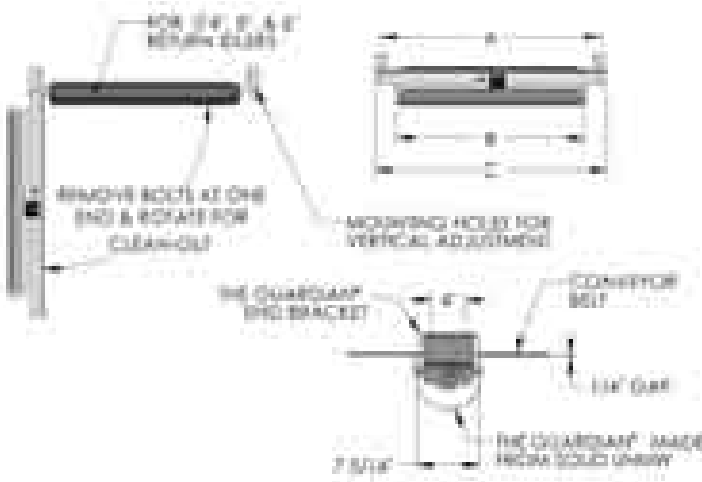
*The Most Comprehensive Guard Available*



## The Second Generation Guardian Premium Return Roll Guard

- Lower Cost
- Solid UHMW Construction

- Patented 180° design helps to protect personnel from the pinch point and catches the roll if it should fall from the return bracket
- Patented solid UHMW slotted cage is durable, safe, helps prevent material build-up and is relatively maintenance free
- Can be used with CEMA B, C, D & E idlers
- Universal slotted steel mounting brackets are simple to install, retrofit to most CEMA return idler bolt patterns and are engineered to work with 4", 5" & 6" idlers and will accommodate 1-1/2" and 4-1/2" drop brackets
- Can be used with most other idler manufacturers' return rolls
- Optional end cap available
- Comes complete with safety warning labels, easy three step mounting instructions and special patented mounting brackets
- Corrosion & impact resistant polymer cage for long life
- Light weight for quicker and easier installation
- High visibility yellow cage



**DOUGLAS GUARDIAN IDENTIFICATION**

RRG – 36U

Enhanced Return Roll Guardian      36" Belt Width

## Enhanced Guardian™ Return Roller

| MODEL NO. | BELT WIDTH | WT. | A  | B       | C  | MOUNTING BOLT |
|-----------|------------|-----|----|---------|----|---------------|
| RRG-18U   | 18         | 5.6 | 27 | 21 5/16 | 29 | 1/2           |
| RRG-20U   | 20         | 5.8 | 29 | 23 5/16 | 31 | 1/2           |
| RRG-24U   | 24         | 6.0 | 33 | 27 5/16 | 35 | 1/2           |
| RRG-30U   | 30         | 6.5 | 39 | 33 5/16 | 41 | 1/2           |
| RRG-36U   | 36         | 6.8 | 45 | 39 5/16 | 47 | 1/2           |
| RRG-42U   | 42         | 7.3 | 51 | 45 5/16 | 53 | 1/2           |
| RRG-48U   | 48         | 7.6 | 57 | 51 5/16 | 59 | 1/2           |
| RRG-54U   | 54         | 8.1 | 63 | 57 5/16 | 66 | 1/2           |

**IMPORTANT:** Designed to be installed with a 1/4 inch gap between the guard and the belt. ALWAYS FOLLOW OSHA, STATE AND OWNER REQUIRED SAFETY GUIDELINES/REGULATIONS DURING THE INSTALLATION OR OPERATION OF A CONVEYOR SYSTEM. Douglas Manufacturing Co., Inc. strongly recommends that any safety program be supplemented by the use of ANSI B20 that refers to conveyor systems. Never operate, adjust or install equipment on a moving conveyor. Always follow lock out and tag out procedures when working on conveyor systems. Personnel who work on or around conveyor systems must be safety trained and familiar with conveyor systems. The Guardian™ must be inspected periodically to determine if the unit is in proper working order by inspecting and replacing the UHMW body, inspecting to see if material build-up has occurred and ensuring proper adjustment and tightness of all adjustable bolts. Failure to do so may result in serious injury or death. No idler guard can protect against potential danger in all situations or against all hazards. The Guardian™ is designed to help minimize the potential for danger but cannot guarantee protection in all situations or applications. If you have questions or need assistance please call 205-884-1200 or fax 205-884-1206.

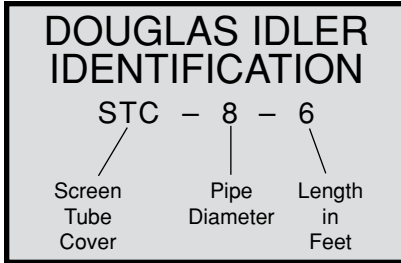
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The Guardian™ Patent No. 6,318,545.

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# Screen Tube Covers (Vibrating Screens)

Screen Tube Cover



## Benefits

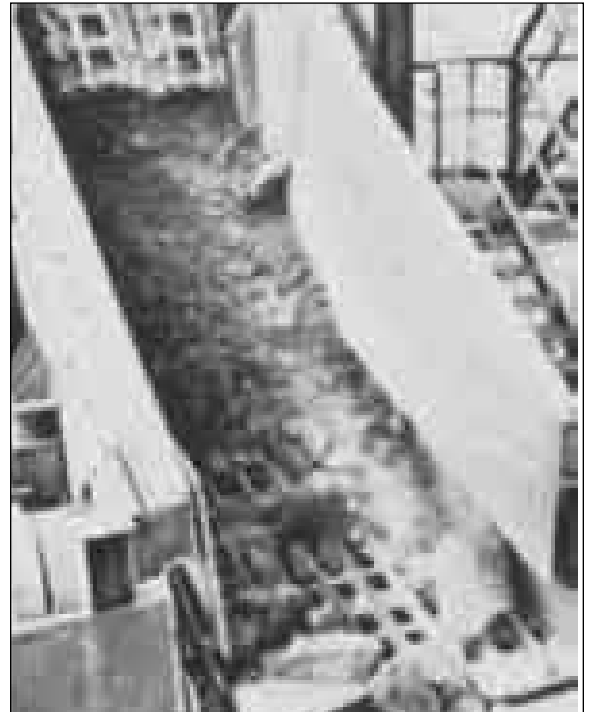
- Helps prevent damage to eccentric shafts, shaft casings and bearings
- Fits easily on top of the shaft pipe casing by either tack welds or the use of clamps (not furnished) (ground required if welding)
- Rugged design is suitable for the toughest of applications
- Field tested and proven in years of reliable service

## Construction

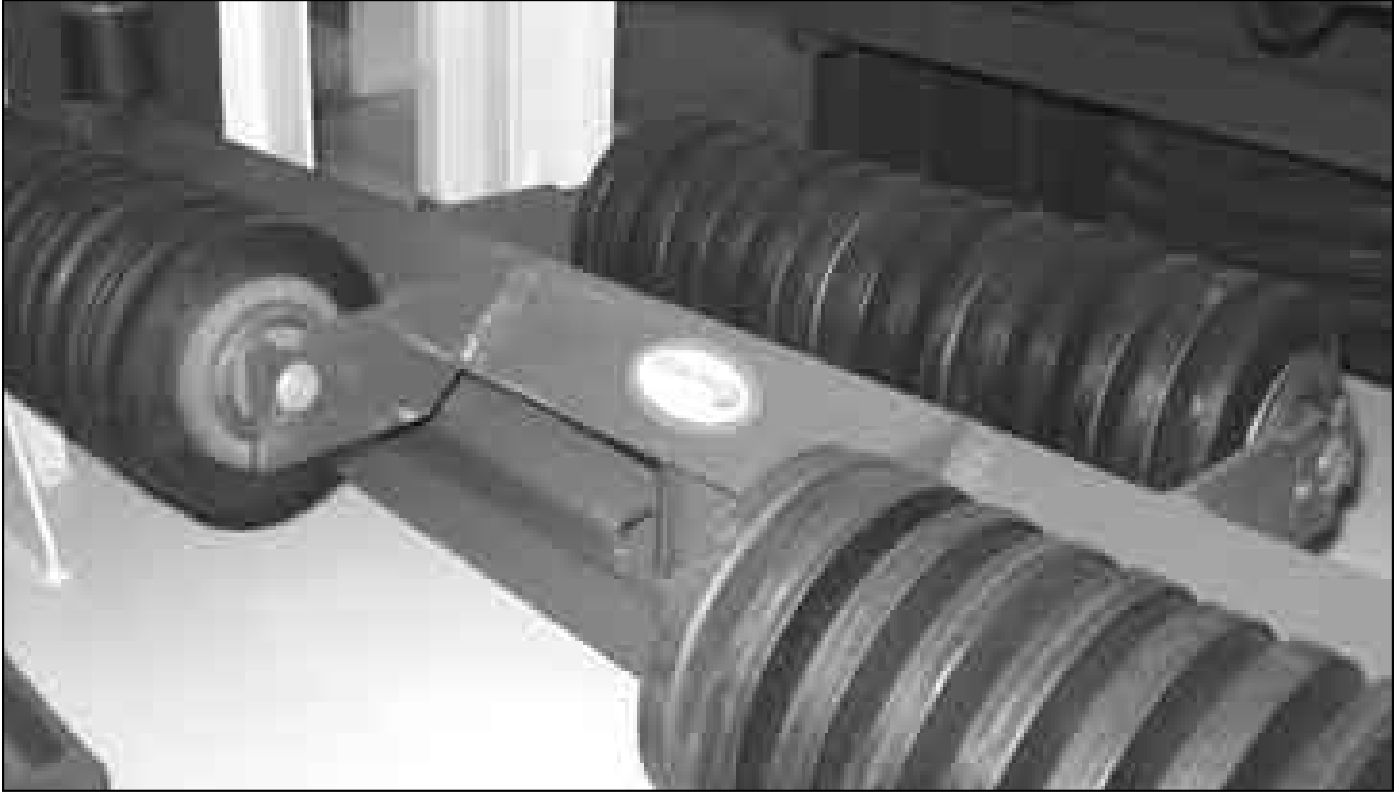
- Full length one piece heavy steel backing plate
- $\frac{3}{4}$ " 60 durometer "impact absorbing" rubber, cushions and protects
- Available in a variety of diameters:  $8\frac{5}{8}$ ",  $10\frac{3}{4}$ ",  $12\frac{3}{4}$ ", 14" and 16"



Vibrating Screen



## The **NEGOTIATOR**<sup>™</sup> Self Aligning Return Idler



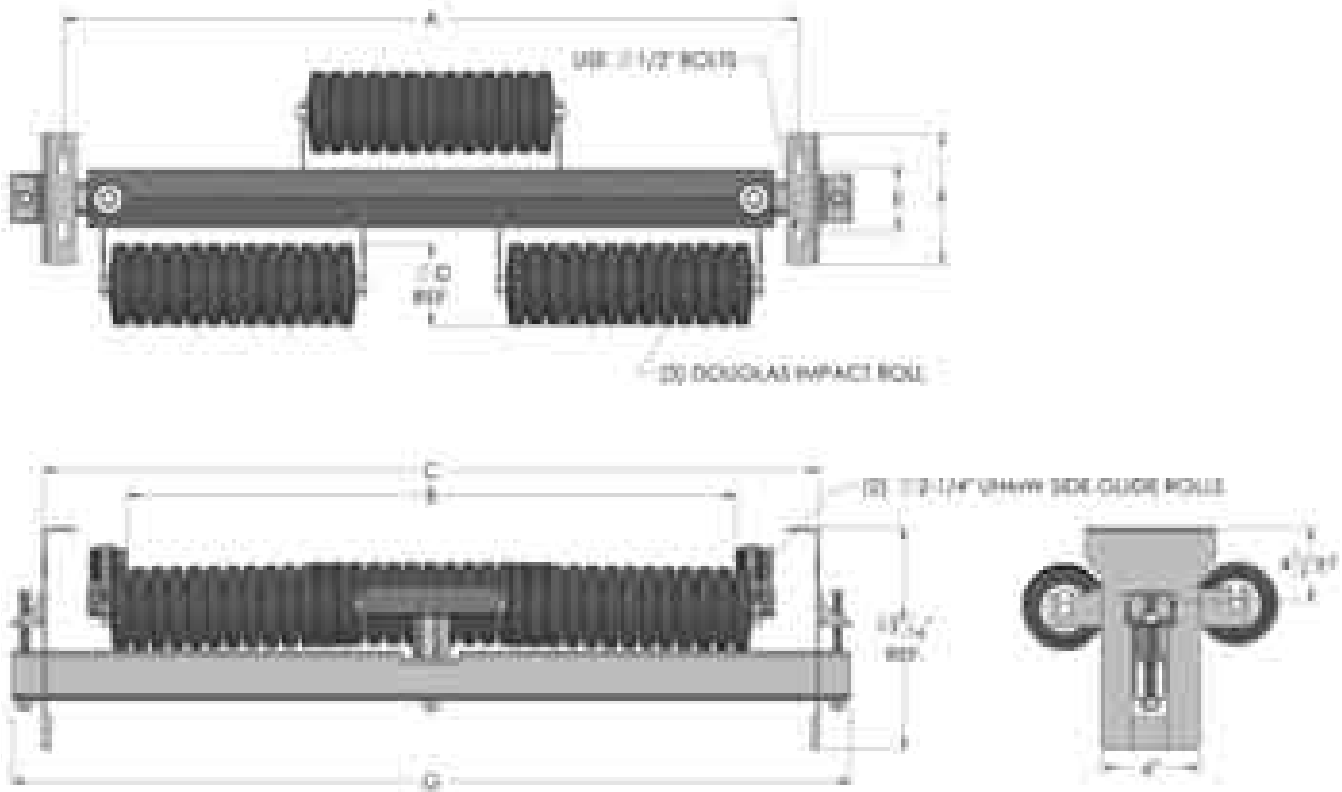
The Negotiator<sup>™</sup> Self Aligning Return Idler is an innovative concept in self aligning return roll design. The cutting edge design is for the most difficult belt training applications where conventional self aligning idlers have not been able to help with belt tracking.

### **DESIGN FEATURES INCLUDE:**

- Unique crowned roller design helps center the belt better than conventional rolls
- Self cleaning frame design helps to prevent material build up by shedding carry-back from the return side of the belt
- Three roll design offers a support bed that cradles the belt and more efficiently reacts to the pressure of the side guide rolls
- Rubber discs help to shed material and prevent material build up on the rolls
- Can be used for bi-directional belts
- UHMW side guide rolls have the lowest possible coefficient of friction and help to prevent belt damage
- Side guide rolls are strategically positioned to help prevent the belt from contacting the brackets
- Lower profile design is ideal for those tight to fit applications
- The mounting brackets are vertically adjustable  $\pm 1$ " providing an additional tracking aid.
- Side guide rolls engineered to help prevent belt contact with drop brackets

**See page 116 for specifications.**

# The NEGOTIATOR™ Self Aligning Return Idler



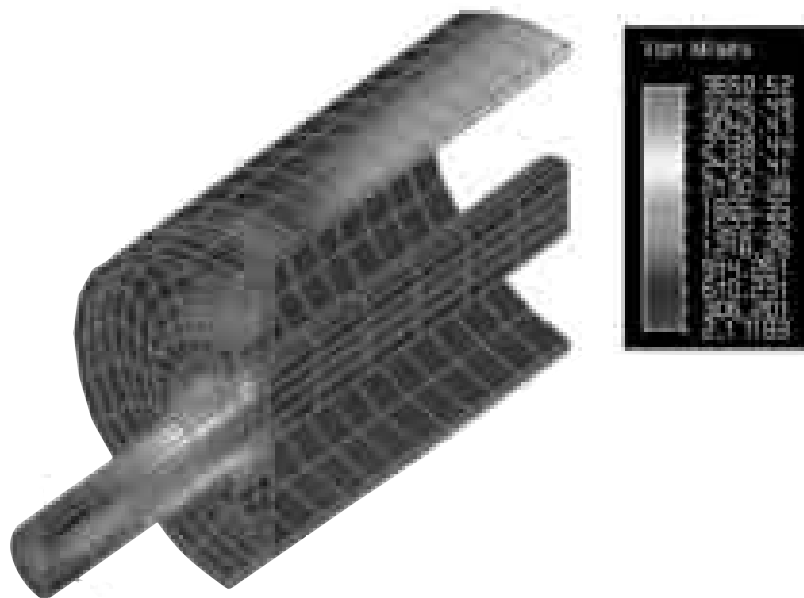
| NEGOTIATOR™ SELF ALIGNING RETURN IDLER 5" RUBBER DISCS |             |     |    |        |        |   |   |   |        |                |
|--|-------------|-----|----|--------|--------|---|---|---|--------|----------------|
| BELT WIDTH   | PART NUMBER | WT. | A  | B      | C      | D | E | F | G      | MOUNTING BOLTS |
| 24   | DTA-24-05R  | 125 | 33 | 25 1/4 | 35 1/2 | 5 | 4 | 8 | 39 1/4 | 1/2            |
| 30   | DTA-30-05R  | 138 | 39 | 31 1/4 | 41 1/2 | 5 | 4 | 8 | 45 1/4 | 1/2            |
| 36   | DTA-36-05R  | 148 | 45 | 37 1/4 | 47 1/2 | 5 | 4 | 8 | 51 1/4 | 1/2            |
| 42   | DTA-42-05R  | 164 | 51 | 43 1/4 | 53 1/2 | 5 | 4 | 8 | 57 1/4 | 1/2            |
| 48   | DTA-48-05R  | 177 | 57 | 49 1/4 | 59 1/2 | 5 | 4 | 8 | 63 1/4 | 1/2            |
| 54   | DTA-54-05R  | 190 | 63 | 55 1/4 | 65 1/2 | 5 | 4 | 8 | 69 1/4 | 1/2            |
| 60   | DTA-60-05R  | 203 | 69 | 61 1/4 | 71 1/2 | 5 | 4 | 8 | 75 1/4 | 1/2            |

FOR STEEL CAN OPTION REPLACE "R" WITH "S" IN THE PART NUMBER

| NEGOTIATOR™ SELF ALIGNING RETURN ROLL WITH 6" RUBBER DISCS |             |     |    |        |        |   |   |   |        |                |
|--|-------------|-----|----|--------|--------|---|---|---|--------|----------------|
| BELT WIDTH   | PART NUMBER | WT. | A  | B      | C      | D | E | F | G      | MOUNTING BOLTS |
| 24   | DTA-24-06R  | 131 | 33 | 25 1/4 | 35 1/2 | 6 | 4 | 8 | 39 1/4 | 1/2            |
| 30   | DTA-30-06R  | 146 | 39 | 31 1/4 | 41 1/2 | 6 | 4 | 8 | 45 1/4 | 1/2            |
| 36   | DTA-36-06R  | 161 | 45 | 37 1/4 | 47 1/2 | 6 | 4 | 8 | 51 1/4 | 1/2            |
| 42   | DTA-42-06R  | 175 | 51 | 43 1/4 | 53 1/2 | 6 | 4 | 8 | 57 1/4 | 1/2            |
| 48   | DTA-48-06R  | 190 | 57 | 49 1/4 | 59 1/2 | 6 | 4 | 8 | 63 1/4 | 1/2            |
| 54   | DTA-54-06R  | 204 | 63 | 55 1/4 | 65 1/2 | 6 | 4 | 8 | 69 1/4 | 1/2            |
| 60   | DTA-60-06R  | 219 | 69 | 61 1/4 | 71 1/2 | 6 | 4 | 8 | 75 1/4 | 1/2            |

FOR STEEL CAN OPTION REPLACE "R" WITH "S" IN THE PART NUMBER

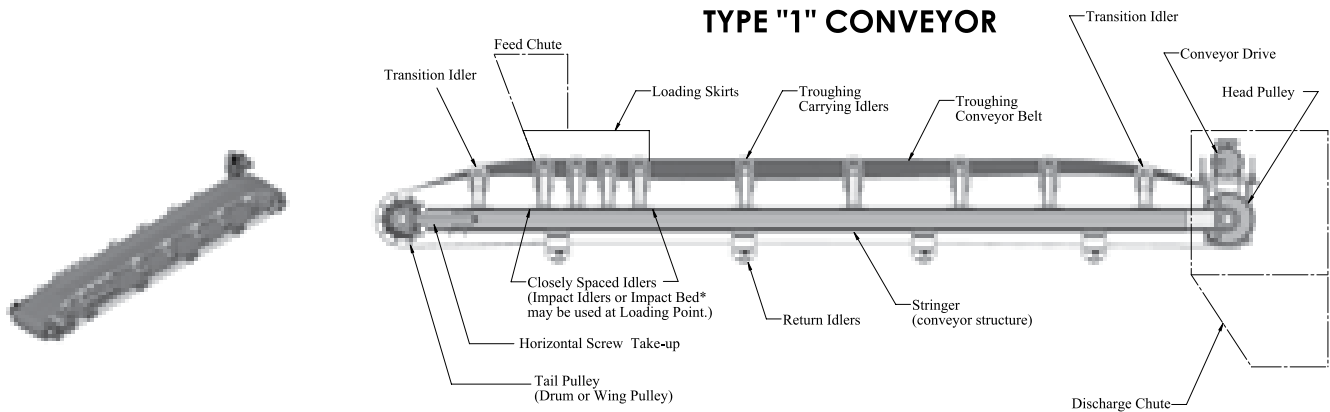
# Engineering & Technical Information



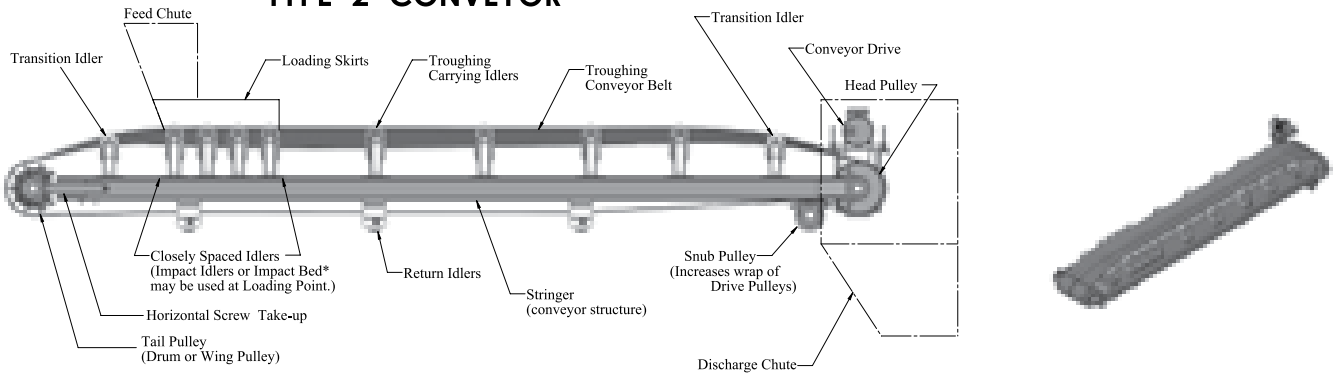
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# Conveyor Arrangements

## TYPE "1" CONVEYOR

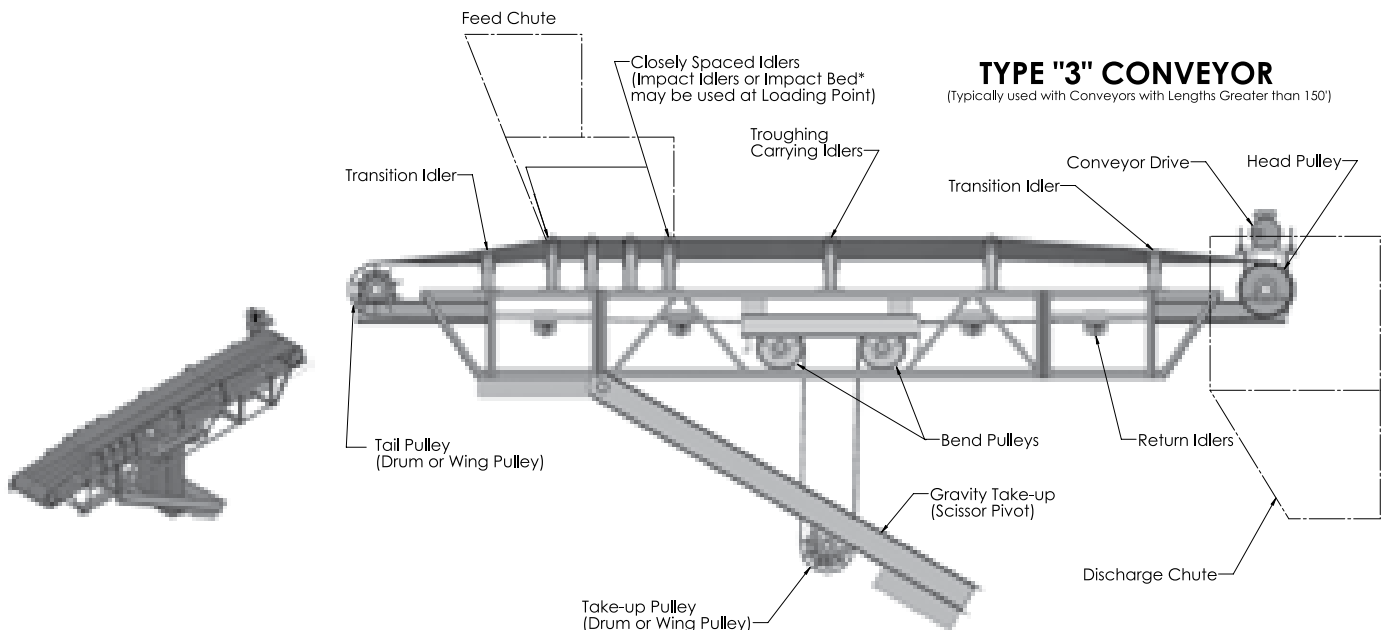


## TYPE "2" CONVEYOR



## TYPE "3" CONVEYOR

(Typically used with Conveyors with Lengths Greater than 150')



\* If an impact bed is selected a steel can idler should be used within 6" of the leading and trailing edge of the impact bed. The center roll should be 1/2" to 3/4" higher than the center of the impact bed. Shimming of idlers or impact bed may be required.

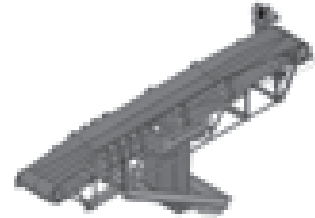
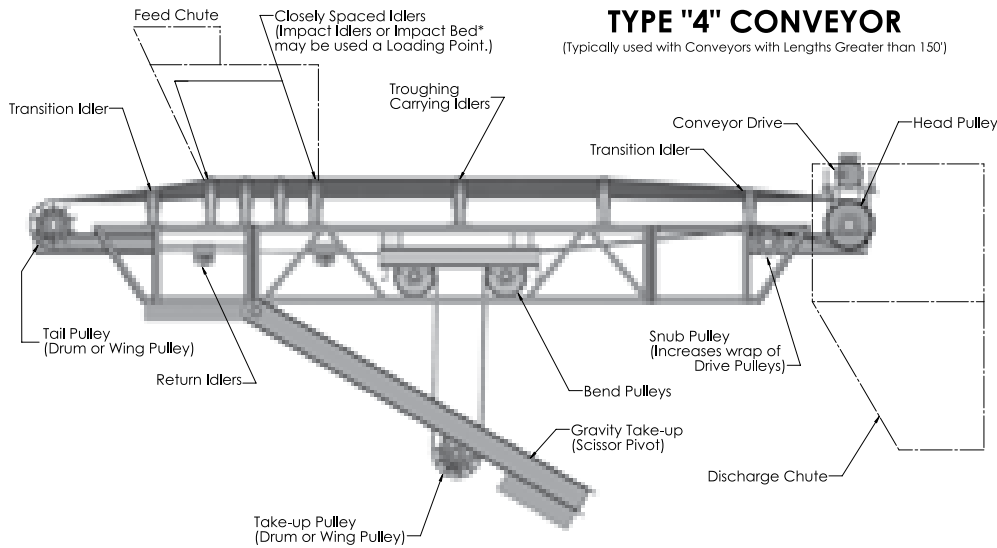
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ENGINEERING & TECHNICAL INFORMATION

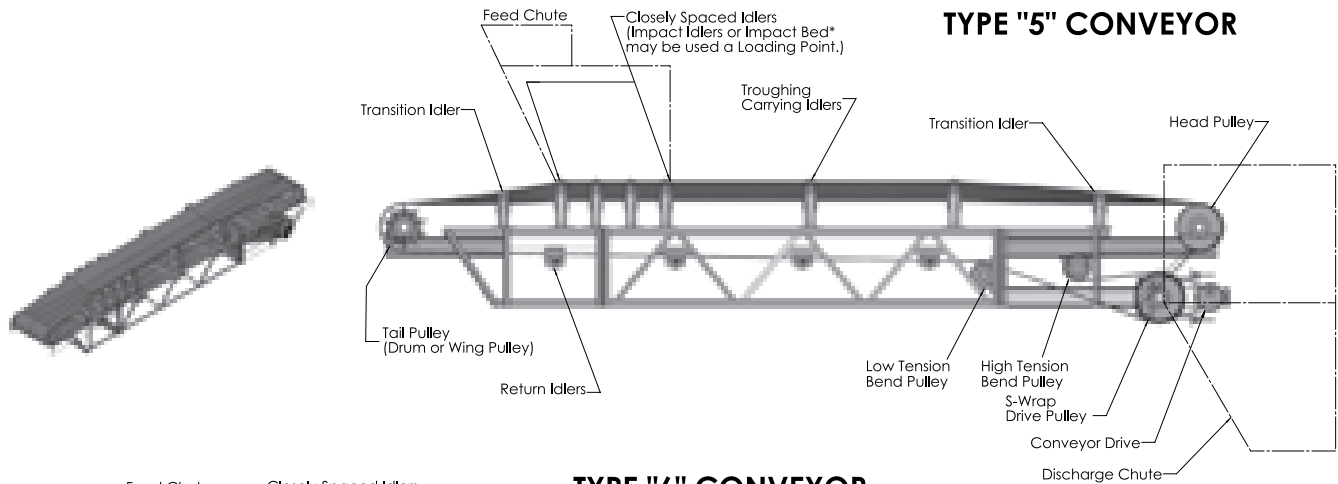
# Conveyor Arrangements

## TYPE "4" CONVEYOR

(Typically used with Conveyors with Lengths Greater than 150')

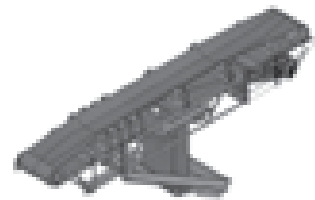
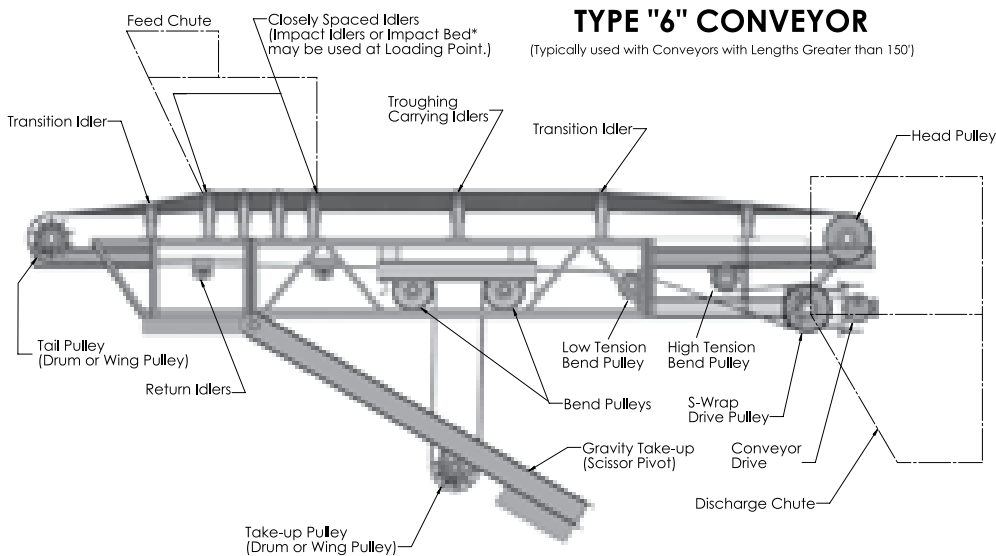


## TYPE "5" CONVEYOR



## TYPE "6" CONVEYOR

(Typically used with Conveyors with Lengths Greater than 150')



\* If an impact bed is selected a steel can idler should be used within 6" of the leading and trailing edge of the impact bed. The center roll should be 1/2" to 3/4" higher than the center of the impact bed. Shimming of idlers or impact bed may be required.

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# Engineering Data for Douglas Pulleys

Table 1.8 Factors

| Type of Drive     | Factor | Standard Take-Up |        | Maximum Take-Up |        |
|-------------------|--------|------------------|--------|-----------------|--------|
|                   |        | Free             | Loaded | Free            | Loaded |
| Power             | 100    | 1.10             | 1.10   | 1.1             | 1.1    |
|                   | 110    | 1.21             | 1.21   | 1.2             | 1.2    |
|                   | 120    | 1.32             | 1.32   | 1.2             | 1.2    |
|                   | 130    | 1.43             | 1.43   | 1.3             | 1.3    |
| Power or Traction | 150    | 1.54             | 1.54   | 1.4             | 1.4    |
|                   | 200    | 2.05             | 2.05   | 1.5             | 1.5    |

Table 2.8 Maximum Belt Tension (Wing Pulley)

| diameter | 1/2" dia | 3/4" dia | 1" dia |
|----------|----------|----------|--------|
| 6        | 100      | 110      | 120    |
| 7        | 120      | 135      | 150    |
| 8        | 140      | 160      | 180    |
| 10       | 180      | 210      | 240    |
| 12       | 220      | 260      | 300    |

Table 2.9 Maximum Belt Tension for Drive Pulley (Provide For Each of Widths)

| Belt Width | Pulley Diameter (mm) |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------------|----------------------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
|            | 6                    | 8   | 10  | 12   | 14   | 16   | 18   | 20   | 22   | 24   | 26   | 28   | 30   | 32   | 34   | 36   |
| 100        | 60                   | 70  | 80  | 90   | 100  | 110  | 120  | 130  | 140  | 150  | 160  | 170  | 180  | 190  | 200  | 210  |
| 125        | 75                   | 90  | 105 | 120  | 135  | 150  | 165  | 180  | 195  | 210  | 225  | 240  | 255  | 270  | 285  | 300  |
| 150        | 90                   | 110 | 130 | 150  | 170  | 190  | 210  | 230  | 250  | 270  | 290  | 310  | 330  | 350  | 370  | 390  |
| 175        | 105                  | 130 | 155 | 180  | 205  | 230  | 255  | 280  | 305  | 330  | 355  | 380  | 405  | 430  | 455  | 480  |
| 200        | 120                  | 150 | 180 | 210  | 240  | 270  | 300  | 330  | 360  | 390  | 420  | 450  | 480  | 510  | 540  | 570  |
| 225        | 135                  | 170 | 205 | 240  | 275  | 310  | 345  | 380  | 415  | 450  | 485  | 520  | 555  | 590  | 625  | 660  |
| 250        | 150                  | 190 | 230 | 270  | 310  | 350  | 390  | 430  | 470  | 510  | 550  | 590  | 630  | 670  | 710  | 750  |
| 275        | 165                  | 210 | 255 | 300  | 345  | 390  | 435  | 480  | 525  | 570  | 615  | 660  | 705  | 750  | 795  | 840  |
| 300        | 180                  | 230 | 280 | 330  | 380  | 430  | 480  | 530  | 580  | 630  | 680  | 730  | 780  | 830  | 880  | 930  |
| 325        | 195                  | 250 | 305 | 360  | 415  | 470  | 525  | 580  | 635  | 690  | 745  | 800  | 855  | 910  | 965  | 1020 |
| 350        | 210                  | 270 | 330 | 390  | 450  | 510  | 570  | 630  | 690  | 750  | 810  | 870  | 930  | 990  | 1050 | 1110 |
| 375        | 225                  | 290 | 355 | 420  | 485  | 550  | 615  | 680  | 745  | 810  | 875  | 940  | 1005 | 1070 | 1135 | 1200 |
| 400        | 240                  | 310 | 380 | 450  | 520  | 590  | 660  | 730  | 800  | 870  | 940  | 1010 | 1080 | 1150 | 1220 | 1290 |
| 425        | 255                  | 330 | 405 | 480  | 555  | 630  | 705  | 780  | 855  | 930  | 1005 | 1080 | 1155 | 1230 | 1305 | 1380 |
| 450        | 270                  | 350 | 430 | 510  | 590  | 670  | 750  | 830  | 910  | 990  | 1070 | 1150 | 1230 | 1310 | 1390 | 1470 |
| 475        | 285                  | 370 | 455 | 540  | 625  | 710  | 795  | 880  | 965  | 1050 | 1135 | 1220 | 1305 | 1390 | 1475 | 1560 |
| 500        | 300                  | 390 | 480 | 570  | 660  | 750  | 840  | 930  | 1020 | 1110 | 1200 | 1290 | 1380 | 1470 | 1560 | 1650 |
| 525        | 315                  | 410 | 505 | 600  | 695  | 790  | 885  | 980  | 1075 | 1170 | 1265 | 1360 | 1455 | 1550 | 1645 | 1740 |
| 550        | 330                  | 430 | 530 | 630  | 730  | 830  | 930  | 1030 | 1130 | 1230 | 1330 | 1430 | 1530 | 1630 | 1730 | 1830 |
| 575        | 345                  | 450 | 555 | 660  | 765  | 870  | 975  | 1080 | 1185 | 1290 | 1395 | 1500 | 1605 | 1710 | 1815 | 1920 |
| 600        | 360                  | 470 | 580 | 690  | 800  | 910  | 1020 | 1130 | 1240 | 1350 | 1460 | 1570 | 1680 | 1790 | 1900 | 2010 |
| 625        | 375                  | 490 | 605 | 720  | 835  | 950  | 1065 | 1180 | 1295 | 1410 | 1525 | 1640 | 1755 | 1870 | 1985 | 2100 |
| 650        | 390                  | 510 | 630 | 750  | 870  | 990  | 1110 | 1230 | 1350 | 1470 | 1590 | 1710 | 1830 | 1950 | 2070 | 2190 |
| 675        | 405                  | 530 | 655 | 780  | 905  | 1030 | 1155 | 1280 | 1405 | 1530 | 1655 | 1780 | 1905 | 2030 | 2155 | 2280 |
| 700        | 420                  | 550 | 680 | 810  | 940  | 1070 | 1200 | 1330 | 1460 | 1590 | 1720 | 1850 | 1980 | 2110 | 2240 | 2370 |
| 725        | 435                  | 570 | 705 | 840  | 975  | 1110 | 1245 | 1380 | 1515 | 1650 | 1785 | 1920 | 2055 | 2190 | 2325 | 2460 |
| 750        | 450                  | 590 | 730 | 870  | 1010 | 1150 | 1290 | 1430 | 1570 | 1710 | 1850 | 1990 | 2130 | 2270 | 2410 | 2550 |
| 775        | 465                  | 610 | 755 | 900  | 1050 | 1200 | 1350 | 1500 | 1650 | 1800 | 1950 | 2100 | 2250 | 2400 | 2550 | 2700 |
| 800        | 480                  | 630 | 780 | 930  | 1090 | 1240 | 1390 | 1540 | 1690 | 1840 | 1990 | 2140 | 2290 | 2440 | 2590 | 2740 |
| 825        | 495                  | 650 | 805 | 960  | 1120 | 1270 | 1420 | 1570 | 1720 | 1870 | 2020 | 2170 | 2320 | 2470 | 2620 | 2770 |
| 850        | 510                  | 670 | 830 | 990  | 1150 | 1300 | 1450 | 1600 | 1750 | 1900 | 2050 | 2200 | 2350 | 2500 | 2650 | 2800 |
| 875        | 525                  | 690 | 855 | 1020 | 1180 | 1330 | 1480 | 1630 | 1780 | 1930 | 2080 | 2230 | 2380 | 2530 | 2680 | 2830 |
| 900        | 540                  | 710 | 880 | 1050 | 1210 | 1360 | 1510 | 1660 | 1810 | 1960 | 2110 | 2260 | 2410 | 2560 | 2710 | 2860 |
| 925        | 555                  | 730 | 905 | 1080 | 1240 | 1390 | 1540 | 1690 | 1840 | 1990 | 2140 | 2290 | 2440 | 2590 | 2740 | 2890 |
| 950        | 570                  | 750 | 930 | 1110 | 1270 | 1420 | 1570 | 1720 | 1870 | 2020 | 2170 | 2320 | 2470 | 2620 | 2770 | 2920 |
| 975        | 585                  | 770 | 955 | 1140 | 1300 | 1450 | 1600 | 1750 | 1900 | 2050 | 2200 | 2350 | 2500 | 2650 | 2800 | 2950 |
| 1000       | 600                  | 790 | 980 | 1170 | 1330 | 1480 | 1630 | 1780 | 1930 | 2080 | 2230 | 2380 | 2530 | 2680 | 2830 | 2980 |

Table 3 Maximum Pulley Diameter for Multiple Pt. Belt

| No. of pulleys | 10        |     |     |     | 15        |     |     |     | 20        |     |     |     | 25        |     |     |     | 30        |     |     |     |
|----------------|-----------|-----|-----|-----|-----------|-----|-----|-----|-----------|-----|-----|-----|-----------|-----|-----|-----|-----------|-----|-----|-----|
|                | Tension % |     |     |     | Tension % |     |     |     | Tension % |     |     |     | Tension % |     |     |     | Tension % |     |     |     |
|                | 100       | 125 | 150 | 175 | 100       | 125 | 150 | 175 | 100       | 125 | 150 | 175 | 100       | 125 | 150 | 175 | 100       | 125 | 150 | 175 |
| 2              | 15        | 18  | 21  | 24  | 18        | 21  | 24  | 27  | 21        | 24  | 27  | 30  | 24        | 27  | 30  | 33  | 27        | 30  | 33  | 36  |
| 3              | 20        | 24  | 28  | 32  | 24        | 28  | 32  | 36  | 28        | 32  | 36  | 40  | 32        | 36  | 40  | 44  | 36        | 40  | 44  | 48  |
| 4              | 24        | 28  | 32  | 36  | 28        | 32  | 36  | 40  | 32        | 36  | 40  | 44  | 36        | 40  | 44  | 48  | 40        | 44  | 48  | 52  |
| 5              | 28        | 32  | 36  | 40  | 32        | 36  | 40  | 44  | 36        | 40  | 44  | 48  | 40        | 44  | 48  | 52  | 44        | 48  | 52  | 56  |

Table 4 Pulley Face Width

| Belt Width    | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 |
|---------------|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Minimum Width | 4 | 6 | 8  | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 |

Table 5, 6, and 7 No. 17 Drawing Corner - Pulley Face Widths

| Dimension      | 1.000   | 1.125   | 1.250   | 1.375   | 1.500   | 1.625   | 1.750   | 1.875   | 2.000   | 2.125   | 2.250   | 2.375   | 2.500   | 2.625   | 2.750   | 2.875   | 3.000   |
|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| R <sub>1</sub> | .0075   | .0100   | .0125   | .0150   | .0175   | .0200   | .0225   | .0250   | .0275   | .0300   | .0325   | .0350   | .0375   | .0400   | .0425   | .0450   | .0475   |
| R <sub>2</sub> | No. 17A | No. 17B | No. 17C | No. 17D | No. 17E | No. 17F | No. 17G | No. 17H | No. 17I | No. 17J | No. 17K | No. 17L | No. 17M | No. 17N | No. 17O | No. 17P | No. 17Q |
| Radius         | 4.750   | 5.375   | 6.000   | 6.625   | 7.250   | 7.875   | 8.500   | 9.125   | 9.750   | 10.375  | 11.000  | 11.625  | 12.250  | 12.875  | 13.500  | 14.125  | 14.750  |
| R <sub>3</sub> | .0075   | .0100   | .0125   | .0150   | .0175   | .0200   | .0225   | .0250   | .0275   | .0300   | .0325   | .0350   | .0375   | .0400   | .0425   | .0450   | .0475   |
| A              | No. 17A | No. 17B | No. 17C | No. 17D | No. 17E | No. 17F | No. 17G | No. 17H | No. 17I | No. 17J | No. 17K | No. 17L | No. 17M | No. 17N | No. 17O | No. 17P | No. 17Q |

Table 6, 7

| Steel              | Profiled Keyway | Steel Hammer Keyway |
|--------------------|-----------------|---------------------|
| Annealed           | 0.43            | 0.77                |
| Quenched and Drawn | 0.50            | 0.63                |

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ENGINEERING & TECHNICAL INFORMATION

# CEMA Load Ratings for Drum Pulleys and Shafts

(Standard Duty)

Table T.A Load Rating (Pounds) for Douglas Drum Pulley and Shaft Combinations

| Drum Diameter (in) | Shaft Diameter (in) | 2000 rpm | 1750 rpm | 1500 rpm | 1250 rpm | 1000 rpm | 750 rpm | 500 rpm | 250 rpm |
|--------------------|---------------------|----------|----------|----------|----------|----------|---------|---------|---------|
| 12                 | 1 1/2               | 10,000   | 12,500   | 15,000   | 17,500   | 20,000   | 22,500  | 25,000  | 27,500  |
| 18                 | 2                   | 15,000   | 18,750   | 22,500   | 26,250   | 30,000   | 33,750  | 37,500  | 41,250  |
| 24                 | 2 1/2               | 20,000   | 25,000   | 30,000   | 35,000   | 40,000   | 45,000  | 50,000  | 55,000  |
| 30                 | 3                   | 25,000   | 31,250   | 37,500   | 43,750   | 50,000   | 56,250  | 62,500  | 68,750  |
| 36                 | 3 1/2               | 30,000   | 37,500   | 45,000   | 52,500   | 60,000   | 67,500  | 75,000  | 82,500  |
| 42                 | 4                   | 35,000   | 43,750   | 52,500   | 61,250   | 70,000   | 78,750  | 87,500  | 96,250  |
| 48                 | 4 1/2               | 40,000   | 50,000   | 60,000   | 70,000   | 80,000   | 90,000  | 100,000 | 110,000 |
| 54                 | 5                   | 45,000   | 56,250   | 67,500   | 78,750   | 90,000   | 101,250 | 112,500 | 123,750 |
| 60                 | 5 1/2               | 50,000   | 62,500   | 75,000   | 87,500   | 100,000  | 112,500 | 125,000 | 137,500 |
| 66                 | 6                   | 55,000   | 68,750   | 82,500   | 96,250   | 110,000  | 123,750 | 137,500 | 151,250 |
| 72                 | 6 1/2               | 60,000   | 75,000   | 90,000   | 105,000  | 120,000  | 135,000 | 150,000 | 165,000 |
| 78                 | 7                   | 65,000   | 81,250   | 97,500   | 113,750  | 130,000  | 146,250 | 162,500 | 178,750 |
| 84                 | 7 1/2               | 70,000   | 87,500   | 105,000  | 122,500  | 140,000  | 157,500 | 175,000 | 192,500 |
| 90                 | 8                   | 75,000   | 93,750   | 112,500  | 131,250  | 150,000  | 168,750 | 187,500 | 206,250 |
| 96                 | 8 1/2               | 80,000   | 100,000  | 120,000  | 140,000  | 160,000  | 180,000 | 200,000 | 220,000 |
| 102                | 9                   | 85,000   | 106,250  | 127,500  | 148,750  | 170,000  | 191,250 | 212,500 | 233,750 |
| 108                | 9 1/2               | 90,000   | 112,500  | 135,000  | 157,500  | 180,000  | 202,500 | 225,000 | 247,500 |
| 114                | 10                  | 95,000   | 118,750  | 142,500  | 166,250  | 190,000  | 213,750 | 237,500 | 261,250 |
| 120                | 10 1/2              | 100,000  | 125,000  | 150,000  | 175,000  | 200,000  | 225,000 | 250,000 | 275,000 |

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# CEMA Load Ratings for Wing Pulleys and Shafts

## (Standard Heavy Duty)

Table 2: CEMA Load Rating (Pounds) for Douglas Wing Pulley and Shaft Combinations

| CEMA Class | CEMA Size | CEMA 250 | CEMA 315 | CEMA 375 | CEMA 450 | CEMA 540 | CEMA 630 | CEMA 720 | CEMA 825 | CEMA 945 | CEMA 1080 | CEMA 1230 | CEMA 1395 | CEMA 1575 | CEMA 1770 | CEMA 2000 |     |
|------------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|
| 1.00       | 1.5       | 100      | 100      | 100      | 100      | 100      | 100      | 100      | 100      | 100      | 100       | 100       | 100       | 100       | 100       | 100       | 100 |
|            | 2.0       | 150      | 150      | 150      | 150      | 150      | 150      | 150      | 150      | 150      | 150       | 150       | 150       | 150       | 150       | 150       | 150 |
|            | 3.0       | 200      | 200      | 200      | 200      | 200      | 200      | 200      | 200      | 200      | 200       | 200       | 200       | 200       | 200       | 200       | 200 |
| 1.25       | 1.5       | 150      | 150      | 150      | 150      | 150      | 150      | 150      | 150      | 150      | 150       | 150       | 150       | 150       | 150       | 150       | 150 |
|            | 2.0       | 225      | 225      | 225      | 225      | 225      | 225      | 225      | 225      | 225      | 225       | 225       | 225       | 225       | 225       | 225       | 225 |
|            | 3.0       | 300      | 300      | 300      | 300      | 300      | 300      | 300      | 300      | 300      | 300       | 300       | 300       | 300       | 300       | 300       | 300 |

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# Load Ratings for Idlers

## Load Ratings for CEMA Idlers - Rigid Frame (Lbs)

| IDLER CLASS   | BELT WIDTH (INCHES) | TROUGH ANGLE |       |       | SINGLE ROLL RETURN | TWO ROLL VEE |
|---|---------------------|--------------|-------|-------|--------------------|--------------|
|   |                     | 20°          | 35°   | 45°   |                    |              |
| CEMA B IDLERS   | 18                  | 410          | 410   | 410   | 220                |              |
|   | 24                  | 410          | 410   | 410   | 190                |              |
|   | 30                  | 410          | 410   | 410   | 165                |              |
|   | 36                  | 410          | 410   | 396   | 155                |              |
|   | 42                  | 390          | 363   | 351   | 140                |              |
|   | 48                  | 380          | 353   | 342   | 125                |              |
| Ratings Based on Min L10 of 30,000 Hours at 500 RPM   |                     |              |       |       |                    |              |
| CEMA C IDLERS   | 18                  | 900          | 900   | 900   | 475                |              |
|   | 24                  | 900          | 900   | 900   | 325                |              |
|   | 30                  | 900          | 900   | 900   | 250                | 500          |
|   | 36                  | 900          | 837   | 810   | 200                | 500          |
|   | 42                  | 850          | 791   | 765   | 150                | 500          |
|   | 48                  | 800          | 744   | 720   | 125                | 500          |
|   | 54                  | 750          | 698   | 675   | *                  | 500          |
|   | 60                  | 700          | 650   | 630   | *                  | 500          |
|   | 66                  |              |       |       | *                  | 500          |
| Ratings Based on Min L10 of 30,000 Hours at 500 RPM<br>* Use CEMA "D" Return Idlers   |                     |              |       |       |                    |              |
| CEMA D IDLERS   | 24                  | 1,200        | 1,200 | 1,200 | 600                |              |
|   | 30                  | 1,200        | 1,200 | 1,200 | 600                |              |
|   | 36                  | 1,200        | 1,200 | 1,200 | 600                | 850          |
|   | 42                  | 1,200        | 1,200 | 1,200 | 500                | 850          |
|   | 48                  | 1,200        | 1,200 | 1,200 | 425                | 850          |
|   | 54                  | 1,200        | 1,116 | 1,080 | 375                | 850          |
|   | 60                  | 1,150        | 1,070 | 1,035 | 280                | 850          |
|   | 66                  |              |       |       | 215                | 850          |
|   | 72                  | 1,050        | 977   | 945   | 155                | 850          |
|   | 78                  |              |       |       | 125                | 850          |
| Ratings Based on Min L10 of 60,000 Hours at 500 RPM   |                     |              |       |       |                    |              |
| CEMA E IDLERS (SEE NOTE # 4)  | 36                  | 1,800        | 1,800 | 1,800 | 1,000              | 1,300        |
|   | 42                  | 1,800        | 1,800 | 1,800 | 1,000              | 1,300        |
|   | 48                  | 1,800        | 1,800 | 1,800 | 1,000              | 1,300        |
|   | 54                  | 1,800        | 1,800 | 1,800 | 925                | 1,300        |
|   | 60                  | 1,800        | 1,800 | 1,800 | 850                | 1,300        |
|   | 66                  |              |       |       | 775                | 1,300        |
|   | 72                  | 1,800        | 1,800 | 1,800 | 700                | 1,300        |
|   | 78                  |              |       |       | 625                | 1,300        |
|   | 84                  | 1,674        | 1,674 | 1,650 | 550                | 1,300        |
|   | 90                  |              |       |       | 475                | 1,300        |
| 96  | 1,750               | 1,628        | 1,575 | 400   | 1,300              |              |
| 102   |                     |              |       | 250   | 1,300              |              |
| Ratings Based on Min L10 of 60,000 Hours at 500 RPM<br>Rigid Frame and Catenary Where Applicable  |                     |              |       |       |                    |              |
| CEMA F IDLERS (SEE NOTE # 4)  | 60                  |              | 3,000 | 3,000 | 1,500              | **           |
|   | 72                  |              | 3,000 | 3,000 | 1,200              | **           |
|   | 84                  |              | 3,000 | 3,000 | 900                | **           |
|   | 96                  |              | 2,800 | 2,800 | 600                | **           |
| Ratings Based on Min L10 of 60,000 Hours at 500 RPM<br>Rigid Frame and Catenary Where Applicable<br>** For Vee Returns Consider Using CEMA "E" Series |                     |              |       |       |                    |              |

**NOTES FOR TABLE:**

1. TROUGHING IDLER LOAD RATINGS ARE FOR THREE EQUAL LENGTH ROLLS.
2. LOAD RATINGS ALSO APPLY FOR IMPACT ROLLS.
3. TROUGHING IDLER LOAD RATINGS ARE BASED ON A LOAD DISTRIBUTION OF 70% ON CENTER ROLL AND 15% ON EACH END ROLL FOR ALL TROUGH ANGLES.
4. DOUGLAS MANUFACTURING DOES NOT MANUFACTURE "CEMA E" or "CEMA F" CLASS IDLERS AS OF AUGUST 2008.

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### Picking Idler Load Ratings (Lbs.)

| BELT WIDTH | CEMA C | CEMA D | CEMA E |
|------------|--------|--------|--------|
| 24         | 475    | 600    |        |
| 30         | 475    | 600    |        |
| 36         | 325    | 600    | 1,260  |
| 42         | 250    | 600    | 1,200  |
| 48         | 200    | 530    | 1,000  |
| 54         | 150    | 440    | 1,000  |
| 60         | 125    | 400    | 1,000  |
| 72         |        | 280    | 925    |
| 84         |        |        | 775    |
| 96         |        |        | 625    |

### Picking Idler Load Ratings (Lbs.)

| BELT WIDTH | CEMA C | CEMA D | CEMA E |
|------------|--------|--------|--------|
| 18         | 1,200  |        |        |
| 24         | 1,200  | 1,400  | 2,100  |
| 30         | 1,200  | 1,400  | 2,100  |
| 36         | 1,200  | 1,400  | 2,100  |
| 42         | 1,100  | 1,400  | 2,100  |
| 48         | 1,000  | 1,275  | 2,100  |
| 54         | 875    | 1,150  | 2,100  |
| 60         | 780    | 1,000  | 2,100  |
| 72         |        | 850    | 2,100  |
| 84         |        |        | 1,825  |

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# Belt Capacity Chart

*The Following conveyor belt capacity charts show tons per hour (TPH) based on material weighing 100 lbs. per cubic foot, 20° material surcharge angle with three equal length rolls on troughing idlers.*

CAPACITY (TPH) = .03 x Belt Speed (FPM) x material weight (lb. per cu. ft.) x load cross section (sq. ft.)

**TPH with 20° Troughing Idlers**

| BELT WIDTH IN INCHES | BELT SPEED IN FEET PER MINUTE (FPM) |      |      |      |      |      |      |      |      |      |      |      |
|----------------------|-------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
|                      | 100                                 | 150  | 200  | 250  | 300  | 350  | 400  | 450  | 500  | 550  | 600  | 650  |
| 16                   | 42                                  | 63   | 84   | 105  | 125  | 147  | 168  | -    | -    | -    | -    | -    |
| 18                   | 54                                  | 80   | 110  | 135  | 160  | 190  | 218  | 243  | 270  | -    | -    | -    |
| 24                   | 100                                 | 150  | 200  | 250  | 300  | 350  | 400  | 450  | 500  | 550  | 600  | -    |
| 30                   | 160                                 | 240  | 320  | 400  | 480  | 560  | 640  | 720  | 800  | 880  | 960  | 1040 |
| 36                   | 235                                 | 350  | 470  | 585  | 700  | 820  | 935  | 1050 | 1170 | 1290 | 1400 | 1520 |
| 42                   | 330                                 | 495  | 660  | 825  | 980  | 1155 | 1320 | 1485 | 1650 | 1815 | 1980 | 2140 |
| 48                   | 440                                 | 660  | 880  | 1100 | 1320 | 1540 | 1760 | 1980 | 2200 | 2420 | 2640 | 2860 |
| 54                   | 570                                 | 855  | 1140 | 1420 | 1710 | 2000 | 2280 | 2560 | 2850 | 3130 | 3420 | 3700 |
| 60                   | 720                                 | 1080 | 1440 | 1800 | 2160 | 2520 | 2880 | 3240 | 3600 | 3960 | 4320 | 4680 |

**TPH with 35° Troughing Idlers**

| BELT WIDTH IN INCHES | BELT SPEED IN FEET PER MINUTE (FPM) |      |      |      |      |      |      |      |      |      |      |      |
|----------------------|-------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
|                      | 100                                 | 150  | 200  | 250  | 300  | 350  | 400  | 450  | 500  | 550  | 600  | 650  |
| 18                   | 66                                  | 100  | 135  | 170  | 200  | 235  | 270  | 305  | 338  | -    | -    | -    |
| 24                   | 125                                 | 187  | 250  | 310  | 380  | 435  | 500  | 560  | 625  | 685  | 750  | -    |
| 30                   | 200                                 | 300  | 400  | 500  | 600  | 700  | 800  | 900  | 1000 | 1100 | 1200 | 1300 |
| 36                   | 300                                 | 450  | 600  | 750  | 900  | 1050 | 1200 | 1350 | 1500 | 1650 | 1800 | 1950 |
| 42                   | 420                                 | 635  | 845  | 1060 | 1270 | 1480 | 1690 | 1900 | 2120 | 2320 | 2540 | 2750 |
| 48                   | 560                                 | 845  | 1125 | 1400 | 1690 | 1970 | 2250 | 2530 | 2810 | 3090 | 3370 | 3660 |
| 54                   | 740                                 | 1110 | 1480 | 1850 | 2220 | 2600 | 2960 | 3340 | 3700 | 4080 | 4450 | 4820 |
| 60                   | 935                                 | 1400 | 1870 | 2340 | 2800 | 3280 | 3740 | 4200 | 4680 | 5150 | 5610 | 6100 |

**TPH with 45° Troughing Idlers**

| BELT WIDTH IN INCHES | BELT SPEED IN FEET PER MINUTE (FPM) |      |      |      |      |      |      |      |      |      |      |      |
|----------------------|-------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
|                      | 100                                 | 150  | 200  | 250  | 300  | 350  | 400  | 450  | 500  | 550  | 600  | 650  |
| 24                   | 145                                 | 217  | 290  | 360  | 435  | 508  | 580  | 650  | 725  | 795  | 870  | -    |
| 30                   | 232                                 | 348  | 465  | 580  | 695  | 810  | 930  | 1040 | 1160 | 1270 | 1390 | 1500 |
| 36                   | 335                                 | 510  | 680  | 850  | 1020 | 1190 | 1360 | 1530 | 1700 | 1860 | 2040 | 2200 |
| 42                   | 478                                 | 720  | 960  | 1200 | 1440 | 1680 | 1910 | 2150 | 2390 | 2630 | 2870 | 3110 |
| 48                   | 640                                 | 955  | 1275 | 1600 | 1910 | 2230 | 2550 | 2870 | 3190 | 3500 | 3820 | 4150 |
| 54                   | 830                                 | 1240 | 1655 | 2070 | 2480 | 2900 | 3310 | 3720 | 4140 | 4550 | 4960 | 5380 |
| 60                   | 1040                                | 1570 | 2090 | 2610 | 3130 | 3660 | 4180 | 4700 | 5220 | 5740 | 6260 | 6800 |

| BELT WIDTH IN INCHES | MAXIMUM SIZE OF LUMPS * (INCHES) |                      | MAXIMUM BELT SPEEDS IN FEET PER MINUTE (FPM)                         |   |  |
|----------------------|----------------------------------|----------------------|--|---|--|
|                      | EQUAL SIZE LUMPS                 | MIXED WITH 90% FINES | LIGHT FREE FLOWING MATERIAL AS GRAIN, PULVERIZED COAL 50 LB./CU. FT. | AVERAGE MATERIAL AS SAND, GRAVEL, STONE, COAL, FINE ORE 100 LB./CU. FT. | ABRASIVE MATERIAL AS COAL, SCREENED LUMP COKE 30 TO 50 LB./CU. FT. |
| 16                   | 2                                | 4                    | 500  | 400   | 350  |
| 18                   | 3                                | 5                    | 500  | 500   | 400  |
| 24                   | 5                                | 8                    | 600  | 600   | 450  |
| 30                   | 6                                | 11                   | 700  | 650   | 500  |
| 36                   | 8                                | 15                   | 800  | 650   | 500  |
| 42                   | 10                               | 18                   | 800  | 650   | 500  |
| 48                   | 12                               | 21                   | 800  | 650   | 500  |
| 54                   | 14                               | 24                   | 800  | 650   | 500  |
| 60                   | 16                               | 28                   | 800  | 650   | 500  |

\* Based on 20° Troughing Idlers and 100 Lb. Per Cu. Ft. Material.

Conversion: Cu. Ft. = BPH x 1.25

Note: Capacities of belts are taken at one-half of those listed above.

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# Conveyor Application Formulas

Today many of these formulas are incorporated in available software that allows for the immediate analysis and generates a complete list of components either for a new conveyor or for problem resolution on existing conveyor systems. The following formulas may be helpful for quick analysis of limited applications. If additional advice is needed please contact Douglas Manufacturing with your specific need or problem.

| TO OBTAIN                          | HAVING  | FORMULA  |
|------------------------------------|---|--|
| Belt Speed in Feet per Minute      | Diameter (D) of Pulley in Inches & Rev. per Min. (RPM)          | $S = .2618 \times D \times \text{RPM}$           |
| Shaft Speed in Rev. per Min. (RPM) | Velocity (S) in Ft. per Min. & Diameter (D) of Pulley in Inches | $\text{RPM} = \frac{S}{.2618 \times D}$          |
| Diameter (D) of Pulley in Inches   | Velocity (S) in Ft. per Min. & Rev. per Min. (RPM)              | $D = \frac{S}{.2618 \times \text{RPM}}$          |
| Torque (T) in Inch Lbs.            | Force (W) in Lbs. & Radius (R) in Inches                        | $T = W \times R$                                 |
| Horsepower (HP)                    | Force (W) in Lbs. & Velocity (S) Ft. per Min.                   | $\text{HP} = \frac{W \times S}{33,000}$          |
| Horsepower (HP)                    | Torque (T) in Inch Lbs. & Rev. per Min. (RPM)                   | $\text{HP} = \frac{T \times \text{RPM}}{63,025}$ |
| Torque (T) in-lbs                  | Horsepower (HP) & Rev. per Min. (RPM)                           | $T = \frac{63,025 \times \text{HP}}{\text{RPM}}$ |
| Force (W) lbs.                     | Horsepower (HP) & Velocity (S) Ft. per Min.                     | $W = \frac{33,000 \times \text{HP}}{S}$          |
| Rev. per Min. (RPM)                | Horsepower (HP) & Torque (T) in Inch Lbs.                       | $\text{RPM} = \frac{63,025 \times \text{HP}}{T}$ |

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Figuring belt length : "Use common inch or foot dimensions"

When pulleys are same diameter "D<sub>1</sub>" head, "D<sub>2</sub>" tail :

$$\text{Length} = "D" \times 3.1416 + 2 (C_1 - C_2)$$

When pulleys are different size:

$$\text{Length} = \frac{("D_1" \times 3.1416) + ("D_2" \times 3.1416)}{2} + 2 (C_1 - C_2)$$

Bushel Per Hour (BPH) Conversion:

$$\text{___ ft}^3 = \frac{\text{BPH}}{1.25} \quad \text{BPH} = \text{___ ft}^3 \times 1.25$$

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# Conversion Table

| Common Fractions | Decimals | To 3 Places | To 2 Places | Millimeter Equivalents | Common Millimeters | Inch Equivalents |       |
|------------------|----------|-------------|-------------|------------------------|--------------------|------------------|-------|
| 1/8              | 1/64     | 0.015625    | 0.016       | 0.02                   | 0.397              | 1                | 0.039 |
|                  | 1/32     | 0.03125     | 0.031       | 0.03                   | 0.794              |                  |       |
|                  | 3/64     | 0.046875    | 0.047       | 0.05                   | 1.191              |                  |       |
|                  | 1/16     | 0.0625      | 0.063       | 0.06                   | 1.588              |                  |       |
|                  | 5/64     | 0.078125    | 0.078       | 0.08                   | 1.984              |                  |       |
|                  | 3/32     | 0.09375     | 0.094       | 0.09                   | 2.381              |                  |       |
|                  | 7/64     | 0.109375    | 0.109       | 0.11                   | 2.778              |                  |       |
|                  | 1/8      | 0.125       | 0.125       | 0.13                   | 3.175              |                  |       |
|                  | 9/64     | 0.140625    | 0.141       | 0.14                   | 3.572              |                  |       |
|                  | 5/32     | 0.15625     | 0.156       | 0.16                   | 3.969              |                  |       |
|                  | 11/64    | 0.171875    | 0.172       | 0.17                   | 4.366              |                  |       |
|                  | 3/16     | 0.1875      | 0.188       | 0.19                   | 4.763              |                  |       |
|                  | 13/64    | 0.203125    | 0.203       | 0.20                   | 5.159              |                  |       |
|                  | 7/32     | 0.21875     | 0.219       | 0.22                   | 5.556              |                  |       |
|                  | 15/64    | 0.234375    | 0.234       | 0.23                   | 5.953              |                  |       |
|                  | 1/4      | 0.25        | 0.250       | 0.25                   | 6.350              |                  |       |
| 3/8              | 17/64    | 0.265625    | 0.266       | 0.27                   | 6.747              |                  |       |
|                  | 9/32     | 0.28125     | 0.281       | 0.28                   | 7.144              |                  |       |
|                  | 19/64    | 0.296875    | 0.297       | 0.30                   | 7.541              |                  |       |
|                  | 5/16     | 0.3125      | 0.313       | 0.31                   | 7.938              |                  |       |
|                  | 21/64    | 0.328125    | 0.328       | 0.33                   | 8.334              |                  |       |
|                  | 11/32    | 0.34375     | 0.344       | 0.34                   | 8.731              |                  |       |
|                  | 23/64    | 0.359375    | 0.359       | 0.36                   | 9.128              |                  |       |
|                  | 3/8      | 0.375       | 0.375       | 0.38                   | 9.525              |                  |       |
|                  | 25/64    | 0.390625    | 0.391       | 0.39                   | 9.922              |                  |       |
|                  | 13/32    | 0.40625     | 0.406       | 0.41                   | 10.319             |                  |       |
|                  | 27/64    | 0.421875    | 0.422       | 0.42                   | 10.716             |                  |       |
|                  | 7/16     | 0.4375      | 0.438       | 0.44                   | 11.113             |                  |       |
|                  | 29/64    | 0.453125    | 0.453       | 0.45                   | 11.509             |                  |       |
|                  | 15/32    | 0.46875     | 0.469       | 0.47                   | 11.906             |                  |       |
|                  | 31/64    | 0.484375    | 0.484       | 0.48                   | 12.303             |                  |       |
|                  | 1/2      | 0.5         | 0.500       | 0.50                   | 12.700             |                  |       |
| 5/8              | 33/64    | 0.515625    | 0.516       | 0.52                   | 13.097             |                  |       |
|                  | 17/32    | 0.53125     | 0.531       | 0.53                   | 13.494             |                  |       |
|                  | 35/64    | 0.546875    | 0.547       | 0.55                   | 13.891             |                  |       |
|                  | 9/16     | 0.5625      | 0.563       | 0.56                   | 14.288             |                  |       |
|                  | 37/64    | 0.578125    | 0.578       | 0.58                   | 14.684             |                  |       |
|                  | 19/32    | 0.59375     | 0.594       | 0.59                   | 15.081             |                  |       |
|                  | 39/64    | 0.609375    | 0.609       | 0.61                   | 15.478             |                  |       |
|                  | 5/8      | 0.625       | 0.625       | 0.63                   | 15.875             |                  |       |
|                  | 41/64    | 0.640625    | 0.641       | 0.64                   | 16.272             |                  |       |
|                  | 21/32    | 0.65625     | 0.656       | 0.66                   | 16.669             |                  |       |
|                  | 43/64    | 0.671875    | 0.672       | 0.67                   | 17.066             |                  |       |
|                  | 11/16    | 0.6875      | 0.688       | 0.69                   | 17.463             |                  |       |
|                  | 45/64    | 0.703125    | 0.703       | 0.70                   | 17.859             |                  |       |
|                  | 23/32    | 0.71875     | 0.719       | 0.72                   | 18.256             |                  |       |
|                  | 47/64    | 0.734375    | 0.734       | 0.73                   | 18.653             |                  |       |
|                  | 3/4      | 0.75        | 0.750       | 0.75                   | 19.050             |                  |       |
| 7/8              | 49/64    | 0.765625    | 0.766       | 0.77                   | 19.447             |                  |       |
|                  | 25/32    | 0.78125     | 0.781       | 0.78                   | 19.844             |                  |       |
|                  | 51/64    | 0.796875    | 0.797       | 0.80                   | 20.241             |                  |       |
|                  | 13/16    | 0.8125      | 0.813       | 0.81                   | 20.638             |                  |       |
|                  | 53/64    | 0.828125    | 0.828       | 0.83                   | 21.034             |                  |       |
|                  | 27/32    | 0.84375     | 0.844       | 0.84                   | 21.431             |                  |       |
|                  | 55/64    | 0.859375    | 0.859       | 0.86                   | 21.828             |                  |       |
|                  | 7/8      | 0.875       | 0.875       | 0.88                   | 22.225             |                  |       |
|                  | 57/64    | 0.890625    | 0.891       | 0.89                   | 22.622             |                  |       |
|                  | 29/32    | 0.90625     | 0.906       | 0.91                   | 23.019             |                  |       |
|                  | 59/64    | 0.921875    | 0.922       | 0.92                   | 23.416             |                  |       |
|                  | 15/16    | 0.9375      | 0.938       | 0.94                   | 23.813             |                  |       |
|                  | 61/64    | 0.953125    | 0.953       | 0.95                   | 24.209             |                  |       |
|                  | 31/32    | 0.96875     | 0.969       | 0.97                   | 24.606             |                  |       |
|                  | 1        | 0.984375    | 0.984       | 0.98                   | 25.003             |                  |       |
|                  |          | 1           | 1.000       | 1.00                   | 25.400             |                  |       |

ENGINEERING & TECHNICAL INFORMATION

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# Conversion Factors

## Metric and English Conversion Table

### Linear Measure

|                               |                            |
|-------------------------------|----------------------------|
| 1 kilometer = 0.6214 miles    | 1 mile = 1.609 kilometers  |
| 1 meter = 39.37 inches        | 1 yard = 0.9144 meters     |
| 1 meter = 3.2808 feet         | 1 foot = 0.3048 meters     |
| 1 meter = 1.0936 yards        | 1 foot = 304.8 millimeters |
| 1 centimeter = 0.3937 inches  | 1 inch = 2.54 centimeters  |
| 1 millimeter = 0.03937 inches | 1 inch = 25.4 millimeters  |
| 1 mile = 5280 feet            |                            |

### Square Measurements

| <u>Surveyor's Square Measure</u>                  | <u>Square Measure</u>                                |
|---|--|
| 100 sq. meter (m <sup>2</sup> ) = 1 are (a)       | 1 acre = 4046.8 metre <sup>2</sup> (m <sup>2</sup> ) |
| 100 ares = 1 hectare (ha)                         | 1 acre = 40.48 ares                                  |
| 100 hectares = 1 sq. kilometer (km <sup>2</sup> ) | 1 acre = 43560 sq feet (ft <sup>2</sup> )            |
|   | 1 sq. mile = 640 acres                               |

### Cubic Measure

|   |                                       |
|---|---------------------------------------|
| 1000 cu. millimeter (mm <sup>3</sup> ) = 1 cu. centimeters (cm)           | 1 liter = 0.0353 cu. foot             |
| 1000 cu. centimeters (cm <sup>3</sup> ) = 1 cu. decimeter (dm)            | 1 liter = 61.023 cu. inches           |
| 1000 cu. decimeters (dm <sup>3</sup> ) = 1 cu. meter (m)                  | 1 liter = 0.2642 U.S. gallon          |
| 1 cu. decimeter (dm) = 1 liter  | 1 liter = 1.0567 U.S. quarts          |
| 1 cubic meter (m <sup>3</sup> ) = 35.315 cu. Feet (ft <sup>3</sup> )      | 1 cu. yard = 0.7646 cu. meter         |
| 1 cubic meter (m <sup>3</sup> ) = 1.308 cu. Yards (yd <sup>3</sup> )      | 1 cu. foot = 0.02832 cu. meter        |
| 1 cubic meter (m <sup>3</sup> ) = 264.2 U.S. gallons                      | 1 cu. foot = 28.317 liters            |
| 1 cu. centimeter (cm <sup>3</sup> ) = 0.061 cubic inch (in <sup>3</sup> ) | 1 cu. Inch = 16.38706 cm <sup>3</sup> |

### Dry and Liquid Measure

|  |  |
|--|--|
| 10 milliliters (ml) = 1 centiliters (cl) |  |
| 10 centiliters = 1 deciliters (dl)       |  |
| 10 deciliters = 1 liters (l)             |  |
| 100 liters = 1 hectoliter (hl)           |  |
| 1 liters = 1 cu. decimeter =             |  |
| the volume of 1 kilogram of pure water   |  |
| at a temperature of 39.2 degrees F       |  |

### Measures of Weight

|  |  |
|--|--|
| 10 milligrams (mg) = 1 centigrams (cg)   |  |
| 10 centigrams (cg) = 1 decigrams (dg)    |  |
| 10 decigrams (dg) = 1 grams (g)          |  |
| 10 grams (g) = 1 dekagrams (dag)         |  |
| 10 dekagrams (dag) = 1 hectograms (hg)   |  |
| 10 hectograms (hg) = 1 kilograms (kg)    |  |
| 1000 kilograms (kg) = 1 (metric) ton (t) |  |

### Weights

|                                  |  |
|----------------------------------|--|
| 1 metric ton = 0.9842 ton        |  |
| 1 metric ton = 2240 pounds       |  |
| 1 kilogram = 2.2046 pounds       |  |
| 1 kilogram = 35.274 ounce dupois |  |
| 1 gram = 0.03215 ounce troy      |  |
| 1 gram = 0.03527 oz. avoirdupois |  |
| 1 gram = 15.432 grains           |  |
| 1 short ton = 2000 pounds        |  |
| 1 short ton = 0.907 metric ton   |  |
| 1 ton = 2240 pounds              |  |
| 1 ton = 1.016 metric ton         |  |
| 1 pound = 0.4536 kilogram        |  |
| 1 pound = 453.6 gram             |  |
| 1 oz. avoirdupois = 28.35 grams  |  |
| 1 ounce troy = 31.103 grams      |  |
| 1 grain = 0.0648 gram            |  |

### Other Conversions

|   |  |
|---|--|
| 1 kilogram per sq. millimeter = 1422.32 pounds per sq. inch (psi) |  |
| 1 kilogram per sq. centimeter = 14.223 pounds per sq. inch (psi)  |  |
| 1 kilogram-meter = 7.233 foot-pounds                              |  |
| 1 pounds per sq. inch (psi) = 0.0703 kilogram per sq. centimeter  |  |
| 1 calorie = 3.968 B.T.U. (British thermal unit)                   |  |

### Temperature

|  |  |
|--|--|
|  | Degrees Fahrenheit = $\frac{9 \times (C^{\circ} + 32)}{5}$ |
|  | Degrees Celsius = $\frac{5 \times (C^{\circ} - 32)}{9}$    |



# Trouble Shooting

Solving the problems that can be experienced with a belt conveyor can be accomplished if the problem is analyzed carefully. To begin with proper installation is critical for efficient operation of the system. Proper maintenance and care are also highly important. Many problems result from these two issues and abuse of the system and related components. The following chart is provided to list some common problems associated with belt conveyors and the common ways to resolve these problems. If additional advice is needed please contact Douglas Manufacturing and we will attempt to assist in the resolution of these problems.

## Solutions to Problems

| #  | CAUSE  | SOLUTION  |
|----|--|---|
| 1  | Belt bowed   | Avoid telescoping belt rolls or storing them in damp locations. A new belt should straighten out when "broken in" or it must be replaced  |
| 2  | Belt improperly spliced or wrong fasteners                   | Use correct fasteners. Retighten after running for a short while. If improperly spliced, remove belt splice and make new splice. Set up regular inspection schedule.  |
| 3  | Belt Speed too fast  | Reduce belt speed.  |
| 4  | Belt strained on one side                                    | Allow time for new belt to "break in". If belt does not break in properly or is not new, remove strained section and splice in a new piece.   |
| 5  | Breaker strip missing or inadequate                          | When service is lost, install belt with proper breaker strip.   |
| 6  | Counterweight too heavy                                      | Recalculate weight required and adjust counterweight accordingly. Reduce take-up tension to point of slip, then tighten slightly.   |
| 7  | Counterweight too light                                      | Recalculate weight required and adjust counterweight or screw take-up accordingly.  |
| 8  | Damage by abrasives, acid, chemicals, heat, mildew, oil      | Use belt designed for specific condition. For abrasive materials working into cuts and between plies, make spot repairs with cold patch or with permanent repair patch. Seal metal fasteners or replace with vulcanized step splice. Enclose belt line for protection against rain, snow, or sun. Don't over-lubricate items. |
| 9  | Differential speed wrong on dual pulleys                     | Make necessary adjustments.   |
| 10 | Drive under-belted   | Recalculate maximum belt tensions and select correct belt. If line is overextended, consider using two-ight system with transfer point. If carcass is not rigid enough for load, install belt with proper exhibility when service is lost.  |
| 11 | Edge worn or broken  | Repair belt edge. Remove badly worn or out-of-square section and splice in a new piece.   |
| 12 | Excessive impact of material on belt or fasteners            | Use correctly designed chutes and baffles. Make vulcanized splices. Install impact idlers. Where possible, load fines first. Where material is trapped under skirts, adjust skirtboards to minimum clearance or install cushioning idlers to hold belt against skirts.  |
| 13 | Excessive tension  | Recalculate and adjust tension. Use vulcanized splice within recommended limits.  |
| 14 | Frozen idlers  | Free idlers. Lubricate. Improve maintenance. (Don't over-lubricate)   |
| 15 | Idlers or pulleys out-of-square with center line of conveyor | Realign. Install limit switches for greater safety.   |
| 16 | Idlers improperly placed                                     | Relocate idlers or insert additional idlers spaced to support belt.   |
| 17 | Improper loading, spillage                                   | Feed should be in direction of belt travel and at belt speed, centered on the belt. Control flow with feeders, chutes, and skirtboards.   |
| 18 | Improper storage or handling                                 | Refer to the manufacturer for storage and handling tips.  |
| 19 | Insufficient traction between belt and pulley                | Increase wrap with snub pulleys. Lag drive pulley. In wet conditions, use grooved lagging. Install correct cleaning devices for safety. See Item 7, above.  |
| 20 | Material between belt and pulley                             | Use skirt-boards properly. Remove accumulation. Improve maintenance.  |
| 21 | Material build-up  | Remove accumulation. Install cleaning devices, scrapers, and inverted "V" decking. Improve housekeeping.  |
| 22 | Pulley lagging worn  | Replace worn pulley lagging. Use grooved lagging for wet conditions. Tighten loose and protruding bolts.  |
| 23 | Pulleys too small  | Use larger-diameter pulleys   |
| 24 | Radius of convex vertical curve too small                    | Increase radius by vertical realignment of idlers to prevent excessive edge tension.  |
| 25 | Relative loading velocity too high or too low                | Adjust chutes or correct belt speed. Consider use of impact idlers.   |

Cont. on next page...

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# Trouble Shooting

**Solutions to Problems, cont.**

| #  | CAUSE   | SOLUTION   |
|----|---|--|
| 26 | Side loading  | Load in direction of belt travel, in center of conveyor.   |
| 27 | Skirts improperly placed or not maintained                  | Install skirtboards so that they do not rub against the belt.  |
| 28 | Wear liners missing, worn or improperly installed           | Replace wear liners so the bottom edge is lined up and gradually relieving in direction of belt travel.                                  |
| 29 | Belt overloaded   | Operate belt feed system at design capacity or less.   |
| 30 | Excessive belt sag  | Recalculate take up tension. Install belt support system or reduce idler spacing.  |
| 31 | Belt rolls back after shut down                             | Install or repair belt holdback or brake.  |
| 32 | Insufficient number of belt cleaners or lack of maintenance | Install additional belt cleaners or maintain existing cleaners more frequently.  |
| 33 | Bulk material properties have changed                       | If a permanent change in bulk materials, redesign chutes, belt cleaners and re-evaluate conveyor speed, tension and belt type.           |
| 34 | Emergency repairs or actions                                | Repair temporary fixes. Install accessory items to automatically activate. Avoid heating or hammering of hoppers, chutes and components. |
| 35 | Monitoring devices inoperable                               | Repair or activate monitoring devices.   |

| PROBLEM OR SYMPTOM   | REASON CODE IN PROBABLE ORDER OF OCCURRENCE |    |    |    |    |    |
|--|---|----|----|----|----|----|
|  | 7   | 15 | 14 | 17 | 21 | 34 |
| Belt runs off at tail pulley   | 7   | 15 | 14 | 17 | 21 | 34 |
| Entire belt runs off at all points of the line                           | 26  | 17 | 15 | 21 | 4  | 16 |
| One belt section runs off at all points on the line                      | 2   | 11 | 1  | 34 |    |    |
| Belt runs off at head pulley   | 15  | 22 | 21 | 16 | 34 |    |
| Belt runs to one side throughout entire length at specific idlers        | 15  | 16 | 21 | 34 |    |    |
| Belt slip  | 19  | 7  | 21 | 14 | 22 |    |
| Belt slip on starting  | 19  | 7  | 22 | 10 |    |    |
| Excessive belt stretch   | 13  | 10 | 21 | 6  | 9  |    |
| Belt breaks at or behind fasteners or fasteners tear loose               | 2   | 23 | 13 | 22 | 20 | 10 |
| Vulcanized splice separation   | 13  | 23 | 10 | 20 | 2  | 9  |
| Excessive belt wear including rips, gouges, ruptures and tears           | 12  | 25 | 17 | 21 | 8  | 5  |
| Excessive belt bottom cover wear   | 21  | 14 | 5  | 19 | 20 | 22 |
| Excessive belt edge wear, broken edges                                   | 26  | 4  | 17 | 8  | 1  | 21 |
| Belt cover swells in spots or streaks                                    | 8   |    |    |    |    |    |
| Belt hardens or cracks   | 8   | 23 | 22 | 18 |    |    |
| Belt cover becomes checked or brittle                                    | 8   | 18 |    |    |    |    |
| Longitudinal grooving or cracking of belt top cover                      | 27  | 14 | 21 | 12 |    |    |
| Longitudinal grooving or cracking of belt bottom cover                   | 14  | 21 | 22 |    |    |    |
| Belt Fabric decay, carcass cracks, ruptures, gouges (soft spots in belt) | 12  | 20 | 5  | 10 | 8  | 24 |
| Belt ply separation  | 13  | 23 | 11 | 8  | 3  |    |
| Build up on Bend Pulleys and return idlers                               | 32  | 33 | 8  | 22 |    |    |
| Spillage of fines and small particles in loading area                    | 27  | 28 | 17 | 12 | 30 |    |
| Spillage of larger particles and lumps along conveyor                    | 15  | 29 | 30 | 31 | 35 |    |
| Plugged Chutes   | 35  | 33 | 34 | 31 |    |    |
| Damage to accessories that come in contact with the belt                 | 31  | 2  | 11 |    |    |    |

See following chart for possible solutions

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**ENGINEERING & TECHNICAL INFORMATION**

# Material Characteristics

| MATERIAL                 | AVG. WT. LBS. PER CUBIC FOOT | ANGLE OF REPOSE (LOOSE) | RECOMMENDED MAX. ANGLE OF CONVEYING |
|--------------------------|------------------------------|-------------------------|-------------------------------------|
| Alum, Lumpy              | 50-60                        | 30°- 44°                | 18°                                 |
| Alum, Pulverized         | 45-60                        | 30°- 44°                | 20°                                 |
| Ashes, Dry               | 35-45                        | 45°                     | 22°                                 |
| Ashes, Wet               | 45-50                        | 45°                     | 25°                                 |
| Barley                   | 36-48                        | 25°                     | 16°                                 |
| Bauxite, Crushed, Dry    | 75-85                        | 35°                     | 20°                                 |
| Bentonite, Pulverized    | 50-60                        | 42°                     | 20°                                 |
| Boax, Powered            | 45-55                        | 30°- 44°                | 22°                                 |
| Cement, Bulk, In Binns   | 100                          |                         |                                     |
| Cement, Bulk, Conveying  | 65                           |                         | 20°                                 |
| Cement, Clinker          | 75-95                        | 35°                     | 18°                                 |
| Charcoal                 | 18-28                        | 35°                     | 20°                                 |
| Cinder, Coal             | 40-45                        | 35°                     | 22°                                 |
| Coal, Anthracite         | 52-60                        | 35°                     | 16°                                 |
| Coal, Bituminous         | 50                           | 38°- 45°                | 22°                                 |
| Coke, Breeze             | 25-34                        |                         | 22°                                 |
| Coke, Loose              | 23-32                        | 30°- 44°                | 20°                                 |
| Coke, Refiners           | 35-42                        |                         | 20°                                 |
| Concrete, Wet            |                              |                         |                                     |
| 6" Slump                 | 110-150                      |                         | 12°                                 |
| 2" Slump                 | 110-150                      |                         | 30°                                 |
| Copper Ore               | 120-150                      | 30°- 44°                | 20°                                 |
| Coral, Crushed           | 40-45                        |                         | 20°                                 |
| Corn, Shelled            | 45                           | 21°                     | 16°                                 |
| Cullet                   | 80-120                       | 30°- 44°                | 20°                                 |
| Dolomite, Crushed        | 80-100                       | 35°                     | 22°                                 |
| Earth, Common Loam, Dry  | 76                           |                         | 20°                                 |
| Earth, Common Loam, Wet  | 102-112                      | 45°                     | 20°                                 |
| Feldspar, Ground         | 65-70                        | 35°- 40°                | 18°                                 |
| Flue Dust, Blast Furnace | 110-125                      |                         | 18°                                 |
| Fluospar                 | 110                          | 45°                     | 20°                                 |
| Fullers Earth, Burnt     | 40                           |                         | 20°                                 |
| Fullers Earth, Raw       | 35-40                        | 23°                     | 20°                                 |
| Glass, Broken or Cullet  | 80-120                       | 10°                     | 20°                                 |
| Granite, Crushed         | 95-100                       |                         | 20°                                 |
| Gravel, Bank Run         | 90-100                       | 38°                     | 20°                                 |
| Gravel, Crusher Run      | 100                          |                         | 20°                                 |
| Gravel, Sharp            | 90-100                       | 30°- 44°                | 20°                                 |
| Gravel, Rounded          | 90-100                       | 30°                     | 15°                                 |
| Gypsum, Calcined         | 55-60                        |                         | 20°                                 |
| Gypsum, Crushed          | 90-100                       |                         | 20°                                 |
| Gypsum, Powered          | 60-80                        |                         | 23°                                 |
| Iron Ore                 | 100-200                      | 35°                     | 22°                                 |
| Kaolin Clay              | 63                           | 35°                     | 20°                                 |
| Lead Ore, Galena         | 465                          | 30°- 35°                | 22°                                 |
| Lignite, Air Dried       | 45-55                        | 35°                     | 20°                                 |
| Lime, Ground             | 60                           | 43°                     | 20°                                 |
| Lime, Pebble             | 53-56                        | 30°                     | 18°                                 |
| Lime, Quick, Lumps       | 53                           |                         | 18°                                 |
| Limestone, Agricultural  | 70                           | 30°- 44°                | 20°                                 |
| Limestone, Crushed       | 85-90                        | 38°                     | 20°                                 |

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ENGINEERING & TECHNICAL INFORMATION

# Material Characteristics

| MATERIAL                       | AVG. WT. LBS. PER CUBIC FOOT | ANGLE OF REPOSE (LOOSE) | RECOMMENDED MAX. ANGLE OF CONVEYING |
|--------------------------------|------------------------------|-------------------------|-------------------------------------|
| Limestone, Pulverized          | 75-85                        | 45°                     | 20°                                 |
| Limestone, Screenings          | 85-90                        |                         | 20°                                 |
| Magnesite, Screened            | 120                          |                         | 20°                                 |
| Magnesium Sulfate              | 70                           | 30°- 44°                | 18°                                 |
| Magnesium Oxide                | 120                          | 30°- 44°                | 20°                                 |
| Magnesium Ore                  | 125-140                      | 39°                     | 22°                                 |
| Marble, Crushed                | 80-95                        | 35°                     | 20°                                 |
| Mica, Flake                    | 17-22                        | 19°                     | 20°                                 |
| Mica, Powder                   | 13-15                        | 35°                     | 20°                                 |
| Milk, Dried, Flake             | 36                           | 30°- 44°                | 20°                                 |
| Phosphate Rock                 | 75-85                        | 25°- 29°                | 20°                                 |
| Phosphate Sand                 | 90-100                       |                         | 18°                                 |
| Pumice, Ground                 | 42-45                        | 45°                     | 18°                                 |
| Salt, Coarse                   | 40-45                        | 35°                     | 20°                                 |
| Salt, Fine                     | 70-80                        | 25°                     | 22°                                 |
| Sand, Bank, Damp               | 110-120                      | 45°                     | 22°                                 |
| Sand, Bank, Dry                | 90-110                       | 35°                     | 15°                                 |
| Sand, Foundry, Prepared        | 65-75                        | 30°- 44°                | 24°                                 |
| Sand, Foundry, Shakeout        | 90-100                       | 39°                     | 20°                                 |
| Sand, Silica, Dry              | 90-100                       | 20°- 29°                | 15°                                 |
| Sand, Saturated                | 110-130                      | 45°                     | 15°                                 |
| Sandstone, Quarried            | 82                           | 35°                     | 15°                                 |
| Shale, Crushed                 | 85-90                        | 39°                     | 20°                                 |
| Sinter                         | 110-135                      |                         | 18°                                 |
| Slag, Furnace, Crushed         | 80-90                        | 25°                     | 18°                                 |
| Slag, Furnace, Granulated, Dry | 60-65                        | 25°                     | 22°                                 |
| Slate, Crushed                 | 80-90                        | 28°                     | 20°                                 |
| Slate, Ground                  | 80                           | 45°                     | 20°                                 |
| Soapstone                      | 40-50                        |                         | 20°                                 |
| Soda Ash, Light                | 20-35                        | 37°                     | 20°                                 |
| Soda Ash, Heavy                | 55-65                        | 32°                     | 20°                                 |
| Sodium Nitrate                 | 70-80                        | 24°                     | 20°                                 |
| Stone, Crushed                 | 85-90                        |                         | 20°                                 |
| Stone, Screenings              | 85-90                        |                         | 18°                                 |
| Stone, Dust                    | 75-85                        |                         | 20°                                 |
| Sugar Beet Pulp, Dry           | 12-15                        | 20°- 29°                | 20°                                 |
| Sugar Beet Pulp, Wet           | 24-54                        | 20°- 29°                | 22°                                 |
| Sugar Cane, Knifed             | 15-18                        | 45°                     | 15°                                 |
| Sugar Cane, Unknifed           | 22-25                        |                         | 15°                                 |
| Sugar, Raw                     | 55-65                        |                         | 20°                                 |
| Sugar, Refined                 | 50-55                        | 30°- 44°                | 15°                                 |
| Sulphur, Crushed               | 50-60                        |                         | 20°                                 |
| Sulphur, Lumpy                 | 80-85                        | 35°                     | 20°                                 |
| Sulphur, Powered               | 50-60                        | 35°                     | 22°                                 |
| Talc                           | 50-60                        | 20°                     | 20°                                 |
| Trap Rock, Crushed             | 105-110                      | 30°- 44°                | 20°                                 |
| Vermiculite Ore                | 80                           |                         | 20°                                 |
| Wheat                          | 45-48                        | 28°                     | 16°                                 |
| Wood Chips                     | 15-32                        | 45°                     | 25°                                 |
| Zinc Ore, Crushed              | 160                          | 38°                     | 20°                                 |
| Zinc Oxide, Light              | 10-15                        | 45°                     | 20°                                 |
| Zinc Oxide, Heavy              | 30-35                        | 45°                     | 20°                                 |

\_\_\_\_\_ Ft. = BPH X 1.25

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