

# EVO® Combination Cradle



Installed under a belt conveyor loading zone, the [EVO® Combination Cradles](#) absorb the force of falling material to prevent damage to the belt and structure. The impact cradles stabilize the belt line to prevent material escape.

## BENEFITS

- **Adjustable Supports Make Installation Easy**  
Wings adjust to match any standard trough angle.
- **Allows Compensation for Wear**  
Eccentrics in wing supports allow outer bars five degrees of wear adjustment.
- **Simple Bar Replacement**  
Impact bars are each secured with two bolts.
- **Engineered to Fit Your Conveyor**  
The EVO® Combination Cradle is available for belts from 24 to 72 inches (500 to 2000 mm) wide.
- **Rugged Structure Stands Up to Abuse**  
Sturdy cradle base is constructed from four formed channels.
- **Available with Center Rolls**  
Center rolls reduce friction and require less conveyor drive horsepower than bars.
- **Accommodates Most Belt Speeds**  
Suitable for use with belts traveling up to 1000 ft/min (5 m/s).

## NOTES

EVO® Combination Cradles are installed so that bars in the center of the cradle are set slightly below—1/2 in. (13 mm)—the unloaded belt’s line of travel. This allows the belt to absorb impact while avoiding continuous friction and wear if the belt is running empty. The wing bars on the sides of the cradle are installed in line with the idlers to allow effective sealing of the transfer point.

When installing one or more EVO® Combination Cradles, it is necessary to verify there is adequate power in the conveyor drive to compensate for the additional frictional drag. Consult Martin Engineering for additional information.

Standard base stringer width is the belt width plus 12 in. (305 mm).

Mounting centers width is the belt width plus 9 in. (229 mm).  
Wide base stringer width is the belt width plus 18 in. (457 mm).  
Mounting centers width is belt width plus 15 in. (381 mm).

## NOMENCLATURE — UCGBX-XX X XX X X X X X

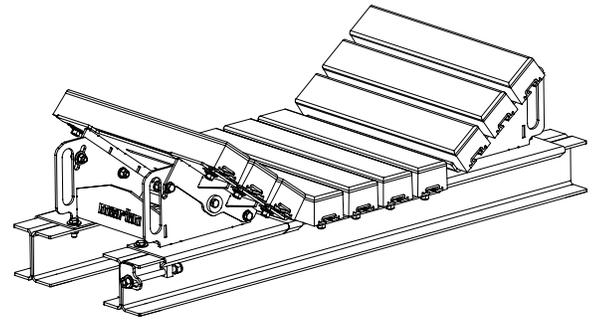
- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. Part Number Prefix:<br/>UCGBB = Cradle with Impact Bars<br/>UCGBR = Cradle with Center Rolls</li> <li>2. The first XX indicates belt width.</li> <li>3. The next X indicates stringer spacing:<br/>S = Standard Base<br/>W = Wide Base</li> <li>4. The next XX indicates trough angle:<br/>20 = 20 degree<br/>35 = 35 degree<br/>45 = 45 degree</li> <li>5. The next X indicates duty rating:<br/>M = Medium-Duty</li> </ol> | <ol style="list-style-type: none"> <li>6. The next X indicates bar type:<br/>U = Urethane</li> <li>7. The next X indicates material type:<br/>P = Painted</li> <li>8. The next X indicates shipping options:<br/>A = Fully Assembled</li> <li>9. The next X indicates stringer type:<br/>E = EVO®<br/>S = Standard</li> </ol> |
|--|---|

# TECHNICAL DATA SHEET

## EVO® COMBINATION CRADLE

| Belt Width†<br>in. (mm) | # of Bars | Impact Cradle Part Number | Standard Base Cradle       |                              |
|-------------------------|-----------|---------------------------|----------------------------|------------------------------|
|                         |           |                           | Stringer Width<br>in. (mm) | Mounting Centers<br>in. (mm) |
| 24 (500-650)            | 6         | UCGBB-24SXXMPAX           | 36 (914)                   | 33 (838)                     |
| 30 (650-800)            | 7         | UCGBB-30SXXMPAX           | 42 (1066)                  | 39 (991)                     |
| 36 (800-1000)           | 7         | UCGBB-36SXXMPAX           | 48 (1219)                  | 45 (1143)                    |
| 42 (1000-1200)          | 9         | UCGBB-42SXXMPAX           | 54 (1317)                  | 51 (1295)                    |
| 48 (1200-1400)          | 10        | UCGBB-48SXXMPAX           | 60 (1529)                  | 57 (1448)                    |
| 54 (1400-1600)          | 12        | UCGBB-54SXXMPAX           | 66 (1676)                  | 63 (1600)                    |
| 60 (1600-1800)          | 13        | UCGBB-60SXXMPAX           | 72 (1829)                  | 69 (1752)                    |
| 72 (1800-2000)          | 16        | UCGBB-72SXXMPAX           | 84 (2133)                  | 81 (2057)                    |

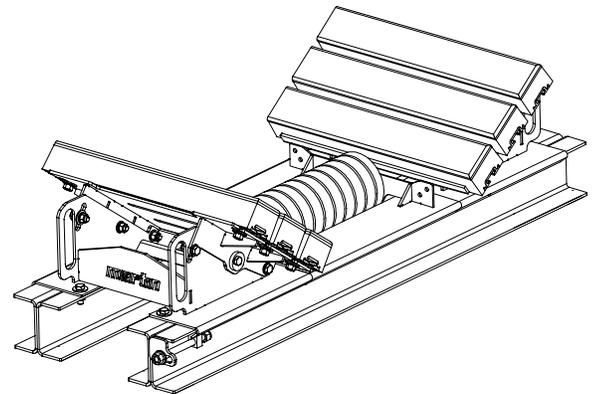
†Metric dimensions indicate industry standards for metric belting.



## EVO® COMBINATION CRADLE WITH CENTER ROLLS

| Belt Width†<br>in. (mm) | # of Bars | Impact Cradle Part Number | Standard Base Cradle       |                              |
|-------------------------|-----------|---------------------------|----------------------------|------------------------------|
|                         |           |                           | Stringer Width<br>in. (mm) | Mounting Centers<br>in. (mm) |
| 24 (500-650)            | 4         | UCGBR-24SXXMPAX           | 36 (914)                   | 33 (838)                     |
| 30 (650-800)            | 4         | UCGBR-30SXXMPAX           | 42 (1066)                  | 39 (991)                     |
| 36 (800-1000)           | 4         | UCGBR-36SXXMPAX           | 48 (1219)                  | 45 (1143)                    |
| 42 (1000-1200)          | 6         | UCGBR-42SXXMPAX           | 54 (1317)                  | 51 (1295)                    |
| 48 (1200-1400)          | 6         | UCGBR-48SXXMPAX           | 60 (1529)                  | 57 (1448)                    |
| 54 (1400-1600)          | 8         | UCGBR-54SXXMPAX           | 66 (1676)                  | 63 (1600)                    |
| 60 (1600-1800)          | 8         | UCGBR-60SXXMPAX           | 72 (1829)                  | 69 (1752)                    |
| 72 (1800-2000)          | 10        | UCGBR-72SXXMPAX           | 84 (2133)                  | 81 (2057)                    |

†Metric dimensions indicate industry standards for metric belting.



## IMPACT BAR MATERIALS AND SPECIFICATIONS

| Characteristics         | Urethane Bar               |
|-------------------------|----------------------------|
| Coefficient of Friction | 0.5                        |
| Service Temperature     | -20 to 160°F (-29 to 70°C) |
| Bearing Layer           | UHMW Polyethylene          |
| Absorption Layer        | Urethane 83A               |
| T-Slot                  | Aluminum                   |
| Fasteners               | 0.5-in. dia. Cap Screws    |



**Note:** When installing two impact cradles with center rolls back-to-back order Roller Cradle Roller Kit, P/N UC-001670-XX



**Martin Engineering USA**  
 One Martin Place  
 Neponset, IL 61345-9766 USA  
 800 544 2947 or 309 852 2384  
 Fax 800 814 1553  
 www.martin-eng.com

**COMPANY WITH  
 QUALITY SYSTEM  
 CERTIFIED BY DNV  
 = ISO 9001:2008 =**

**Problem Solved™ GUARANTEED!**

Form No. L3971-12/13  
 © Martin Engineering Company 2012, 2013