

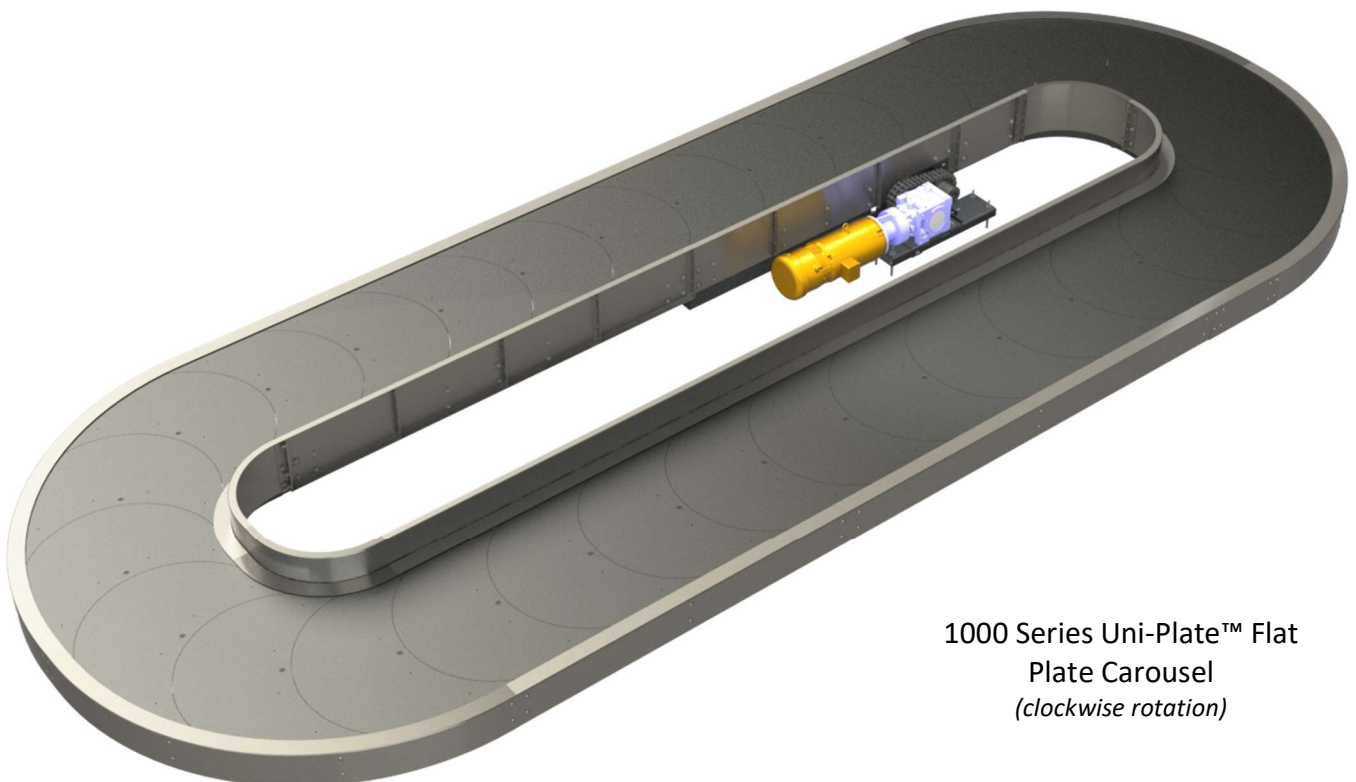


MADE IN USA

## 1000 Series Uni-Plate Technical Specifications

### Design Elements:

- The 1000 Series Uni-Plate™ Flat Plate Carousel has been designed with the optimum use of common fasteners, materials, finishes, and drive components. Many components and fasteners are shared with the Unified Supply incline slope plate 7000 Series Uni-Claim™. Guide wheel assemblies are of the same components, enabling the stocking of just one wheel assembly type for spares.
- The carousel curve radius frame design allows the unit to fit the footprint of any existing carousel while utilizing the maximum amount of usable conveying surface in the tightest radius.
- Maintenance issues are reduced with the use of sealed bearings in the guide wheel assemblies, as well as oil impregnated bronze bushings in the link assemblies. The unique link design allows for easier access to crucial components compared to similar units.
- Guide wheels are much larger than alternative units for better load handling, lower RPMs, less wear, and are spaced optimally for cost effectiveness and stability. Caster support wheels allow for quiet operation and a reduction of required wheels compared to alternative units.



1000 Series Uni-Plate™ Flat  
Plate Carousel  
*(clockwise rotation)*

### General Information:

All straight and curve frames are welded assemblies and can be ordered from Unified Supply as complete units. Carousels can be specified to operate in clockwise or counterclockwise directions.

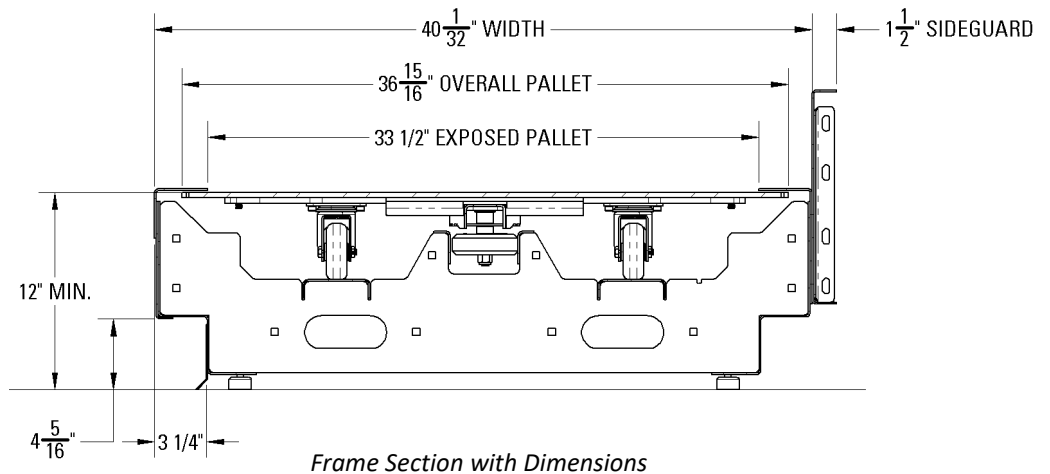
1.) Minimum Height to Top of Pallet = 12"

2.) Width of Straight Frames = 40 1/32"

3.) Minimum Overall Outside Width = 116 1/4"

4.) Minimum Inside Width = 36"

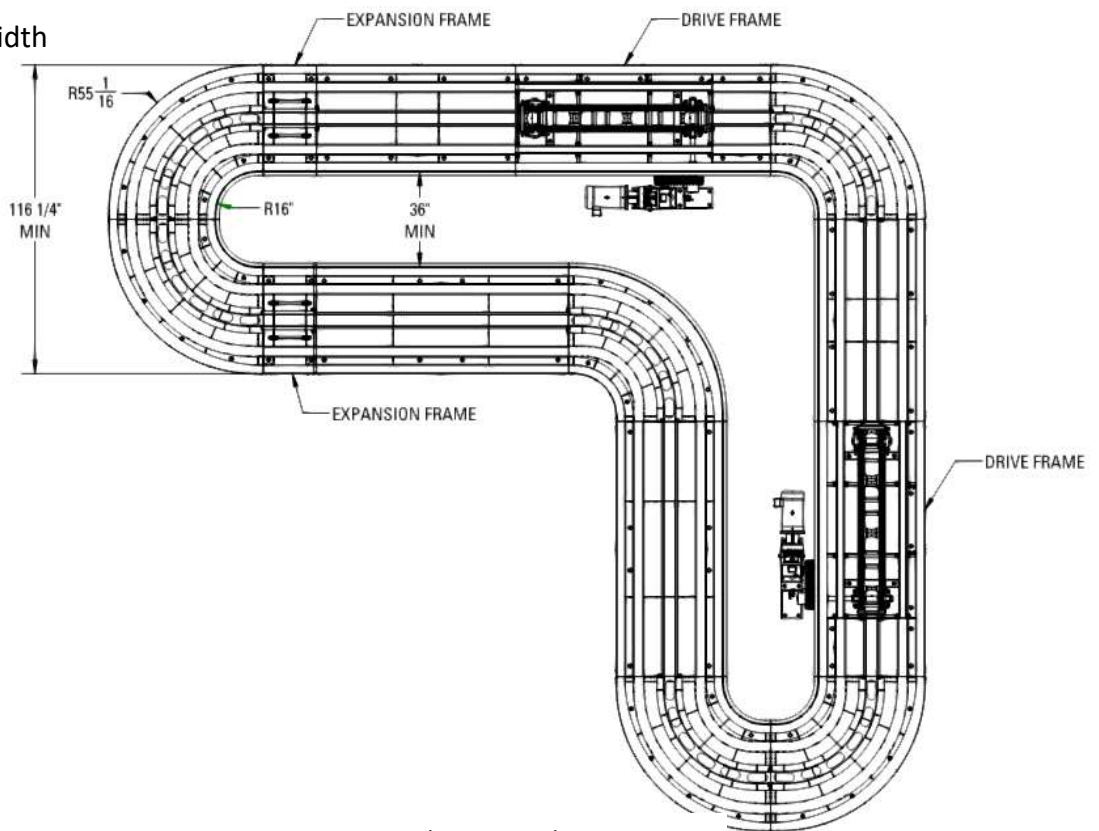
5.) Toe Kick Area = 4 5/16" MIN. x 3 1/4"



Frame Section with Dimensions

6.) Overall Pallet Width = 36 15/16"

7.) Exposed Pallet Width = 33 1/2"



Carousel Layout with Dimensions

Center-to-Center Link Hole Distance = 20"

Minimum Static Load Capacity = 200 lbs/Linear Foot

Speed = 90 FPM

Minimum Dynamic Load Capacity = 85 lbs/Linear Foot

**Crescent Pallets:**

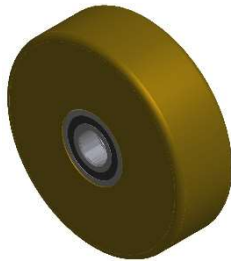
Crescent pallets consist of 5/16" steel plate, powder coated black. Optional textured coating for public area use is available.



*Crescent Pallets and Pallet Link Assemblies  
(Crescent Pallets Shown Transparent for Clarity)*

**Pallet Links:**

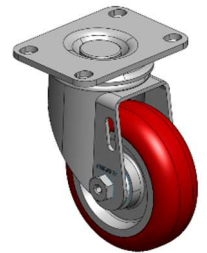
Links are formed from 10ga sheet with a 3/8" cross bar supporting the pallet and come equipped with replaceable oil impregnated bronze flange bearings and UHMW wear pads.



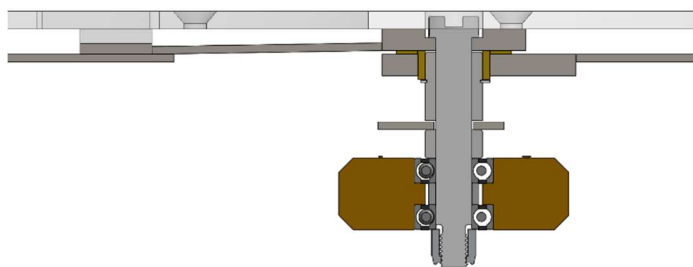
*Ø4" Wheel*

**Casters and Guide Wheels:**

Two Ø3 1/2" x 1 1/4" wide swivel casters support each link for smooth tracking along the support wheel tracks. Guide wheels are heavy duty, polyurethane, Ø4" x 1 1/4" wide with two sealed roller ball bearings per wheel.



*Ø3 1/2" Caster*



*Guide Wheel Installation with  
Shoulder Bolt and Bronze Flange*

Guide wheel fastening shoulder bolts are Ø5/8" with 1/2-13 threads. (Some competing units use smaller than Ø2" x 9/16" wide wheels with 7/16" hardware.)

Nylon locking nuts are used to prevent loosening over time.



*Drive Assembly*

**Drives:**

Drive assemblies are caterpillar style, utilizing four No. 100 sprockets, and two No. 100 roller chains (1 1/4" pitch) with spool-shaped drive rollers connected across them. (Some competing units have only 3/4" pitch with 3/4" drive rollers). UHMW tracking is utilized for chain alignment and quiet, low maintenance operation. Adjustment screws are provided on the idler shaft bearings for chain tensioning.

A minimum of three pallet links are engaged with this drive at any time, while many other manufacturer's devices will only have two pallet links engaged.

A sprag clutch enables redundant drives to automatically disengage for smooth operation without the additional drag of an unpowered drive. This also removes the need for high-slip motors in a dual-drive configuration. The clutch is located outside the body of the drive frame for easy maintenance.

Drive assemblies run at 90 FPM and require an electronic soft start device located in the MCP.

- Sprag clutch by Formsprag
- Drive and idler shaft bearings are Dodge SXR
- Standard gear reducers are Sumitomo BBB4 shaft mount.
- Standard motors are Baldor or Sumitomo.
- Other reducer and motor combinations are available upon request.



*Straight Frame Assembly*

**Straight Frames:**

Straight frames are rib style constructions consisting of 3/16" ribs on 40" centers maximum. Guide wheel and support wheel angles are made from 12ga formed sheet metal. All straight frames are welded in-shop as a complete unit. Height adjusting support bolts consist of 3/4-10 hardware, and utilize individual rubber isolation pads.

- Standard straight frame dimensions = 96" Long x 40" Wide



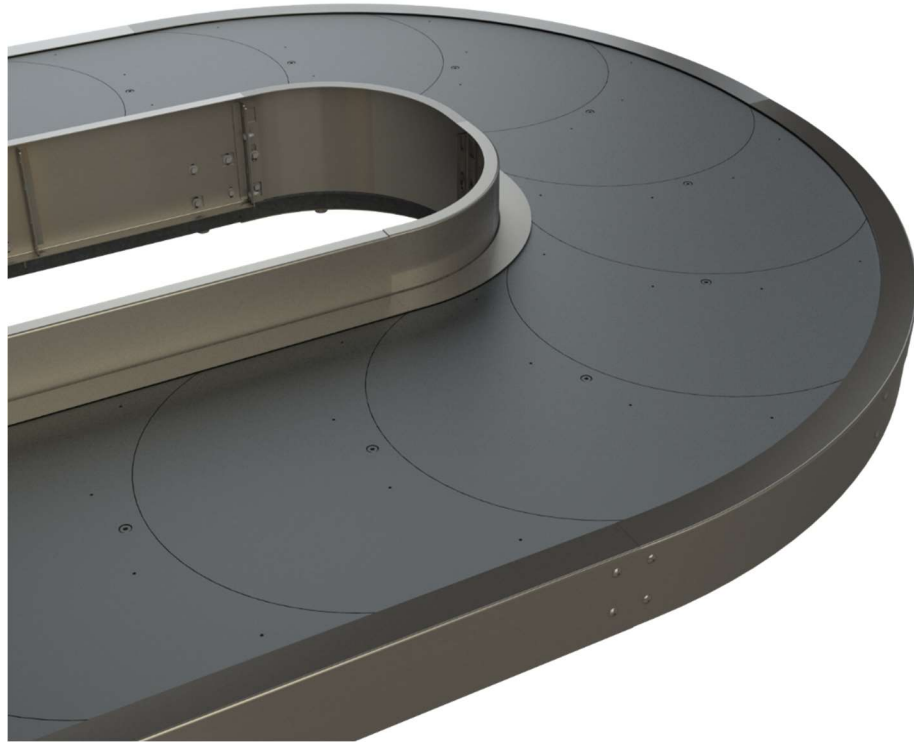
*Curve Frame Assembly*

**Curve Frames:**

Curve frame construction uses similar 3/16" ribs as the straight frame with rolled HRS members. Guide tracks are rolled 1/4" HRS reinforced with 1/4" gussets for a durable guiding surface. Support tracks are 10ga HRS with rolled flanges underneath. Curve frames are also welded in-shop as one piece.

- Inside radius = 16"    Outside radius = 56"

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*Carousel with S.S. Trim and S.S. Deck Trim*

**Finish, Trim and Side Guards:**

All HRS is protected with a powder coat finish. Trim is constructed of 12 Ga. HRS for non-public areas, or 12 Ga. 304 stainless steel with a No. 4 brush finish for public areas. Visible trim fasteners in the public area are stainless steel. Stainless steel deck trim is 6" tall with a 1 1/2" wide top flange. HRS side guards are typically 21" tall, with 1-1/4" x 1-1/4" x 3/16" vertical stiffeners.



*Expansion Frame Assembly*

**Expansion Frames:**

Provision for the unit to be adjusted for break-in and wear is accomplished using expansion frames. The expansion frames feature heavy duty 3/4-10 jacking bolts for adjustment. Once the unit is tensioned, the provided track pieces can be cut to size and welded in place.