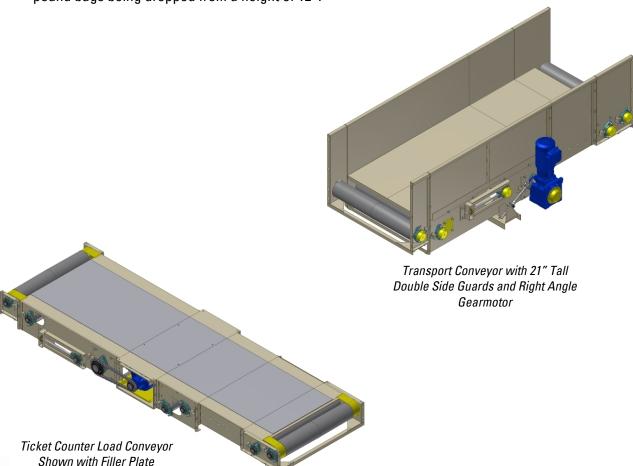




# 9000 Series Uni-Belt™ Technical Specifications

### **Design Elements:**

- The 9000 Series Uni-Belt<sup>™</sup> conveyor is designed and engineered to meet specific requirements for load, unload, and transport needs of the baggage handling industry. Rugged and versatile, the 9000 Series can also be easily expanded for customers' growing needs.
- The Uni-Belt™ is a modular design with a variety of drives, ends brackets, roller assemblies and support systems to fulfill airport and rail terminal applications. Heavy-duty drives assure virtually trouble-free service.
- Optional compact drive designs allow for installation at ticket counters with a low loading height of 12", and can be trimmed in stainless steel.
- With 11 gauge steel construction and full-sized end rollers, the Uni-Belt<sup>™</sup> can easily sustain 120pound bags being dropped from a height of 12".







## 9000 Series Uni-Belt™ Technical Specifications

### **General Dimensions and Capacities:**

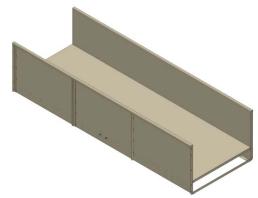
- 1.) Width of Belting Surface = 24" to 48" (27" BF to 51" BF)
- 2.) Minimum Length of Belt Conveyor = 42"
- 3.) Conveying Speed (Varies) 30 FPM minimum
- 4.) Load Capacity 60 lbs/ft Live Load



End View of Bed Frame with 21" Tall
Double Side Guards

#### **Bed Frames:**

Conveyor bed frames are of welded steel construction. Bed channels are formed from 11 gauge steel, braced with welded  $3/16" \times 11/4" \times 11/4"$  steel angle stiffeners to the underside, spaced on maximum 3'-4" centers. The width of the bedplate channel is three inches wider than the width of the conveyor belting. 12 gauge steel filler plates are available to enable shrouding with HRS or stainless steel trim.



Standard 120" Long Bed Frame with 21" Tall Integrated Double Side Guards

#### Side Guards:

Side guards are fabricated of 12 gauge steel, with 3/16" x 1 1/4" x 1 1/4" steel angle welded on the outside, spaced on maximum 3'-4" centers for transport conveyors, and maximum 2'-6" centers for load conveyors. The side guards and conveyor bedplate channel form an integral welded frame for bed sections.



21" Tall Bolt-On Side Guard for End Brackets

Bolt-on side guards are used for drive assemblies, and available for end brackets. Typical side guard heights are 12" or 21" tall, with 1 1/2" wide top flanges and 1" tall return flanges for strength.





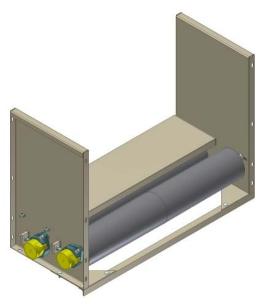




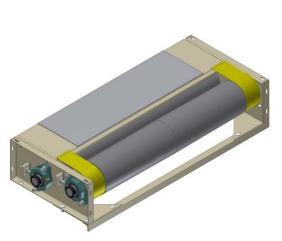
# 9000 Series Uni-Belt™ Technical Specifications

#### **End Brackets:**

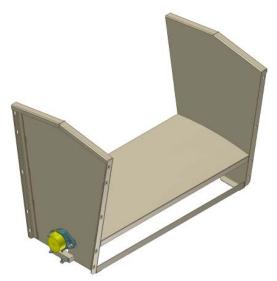
End bracket filler beds are fabricated from 11 gauge steel, reinforced by 3/16" x 1 1/4" x 1 1/4" steel angle welded on the bottom. For load/unload conveyor configurations, 14 gauge steel finger guards are available for shrouding the ends of the pulleys. End and snub pulleys are equipped with minimum Ø1 7/16" CRS shafts mounted in eccentric locking collar, Dodge SXR ball bearing units. Square head set screws and jam nuts are provided for pulley adjustment and tensioning.



End Bracket with 21" Tall Integrated Double Side Guards



End Bracket with Finger Guards and Filler Plate



18° Radius Break Over Assembly with Five Foot Radius

### Radius Break Overs (RBOs):

RBO beds are fabricated from 11 gauge steel, reinforced by 3/16" x 1 1/4" x 1 1/4" steel angle welded on the bottom. Snub pulleys are equipped with minimum Ø1 7/16" CRS shafts mounted in eccentric locking collar, Dodge SXR ball bearing units. Square head set screws and jam nuts are provided for pulley adjustment.

RBOs are available in either a five foot or ten foot radius. Standard slope ranges are 18°, 20° and 22°, with 18° as industry design objective.





# 9000 Series Uni-Belt™ Technical Specifications

### Supports:

All transport conveyor supports are spaced on a maximum distance of ten foot centers. Load and unload conveyor supports are spaced on a maximum distance of five foot centers.



Floor mounted conveyors are supported on formed 10 gauge steel channel leg "H" style assemblies. Each assembly is adjustable in height by means of slotted channels and galvanized brackets.

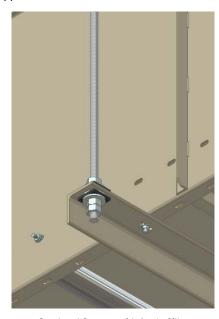
Low profile conveyors utilized short individual floor mounted support assemblies, formed from 10 gauge galvanized steel brackets.



Short Floor Support Assembly

"H" Style Floor Support Assembly

Ceiling mounted conveyors are supported by 3/4-10 all-thread rod, 1/4" steel hat bracket assemblies, and 1/4" x 3" x 3" steel angle. Ø2" Schedule 80 steel pipe is used for decline portions. Ceiling mounted conveyor supports are available with 1/4" thick rubber vibration isolators.



Overhead Support with Angle Sill



Overhead Decline Support with Pipe Sill





## 9000 Series Uni-Belt™ Technical Specifications

### Belting:

For conveyors not exposed to public view that are load, unload, transport or inclines/declines less than 7°, belting is composed of PVC 120 FS x FS, or as specified by customer.

For conveyors exposed to level public view that are load, unload, transport or inclines/declines less than 7°, belting is composed of black PVC 120 COS x FS, or as specified by customer.



For incline/decline conveyors greater than 7°, belting is composed of a 2-Ply 150 lb. synthetic fabric black rough top belt, with 1/8" black SBR rough top x bare bottom surface (poly-nylon), or longitudinal grooved, or as specified by customer.

Belting lacing is Clipper No. 2 with nylon coated wire cable. Longitudinal grooved belting uses Clipper UX-1 with nylon coated wire cable.



Ø8 3/4" Drive Pulley with 3/8" Lagging

#### Pulleys:

Drive, end, snub and take-up pulleys are of steel construction, manufactured by Chantland.

Drive pulleys are equipped with taper bushed hubs and CRS shafts. Pulley diameters range from  $\emptyset6~3/4"$ ,  $\emptyset8~3/4"$ ,  $\emptyset10~3/4"$  and  $\emptyset12~3/4"$  overall, with 3/8" vulcanized lagging. Shaft sizes range from  $\emptyset1~7/16"$ ,  $\emptyset1~11/16"$ ,  $\emptyset1~15/16"$  and  $\emptyset2~3/16"$ .



All non-driven end pulleys are constructed of steel, crown faced or trapezoidal faced,  $\emptyset6''$ , and equipped with taper bushed hubs with  $\emptyset17/16''$  (minimum) CRS shafts.

All take-up pulleys are of steel construction, crown faced or flat faced, Ø4" and equipped with taper bushed hubs and Ø1 7/16" (minimum) CRS shafts.

All snub pulleys are  $\emptyset4$ ", crown faced or flat faced steel construction, with  $\emptyset1$  7/16" steel CRS welded shafts, or with optional taper bushed hubs.





# 9000 Series Uni-Belt™ Technical Specifications

#### **Return Rollers:**

For belt conveyor delivery speeds up to 150 FPM, return rollers are of 11 gauge steel,  $\emptyset$ 2 1/2" O.D. tubing with internally mounted sealed precision ball bearings and spring loaded 11/16" steel hex shafts.

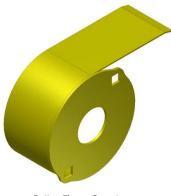
For belt conveyor speeds above 150 FPM, return rollers are of 9 gauge steel, Ø3 1/2" O.D. tubing with internally mounted sealed precision ball bearings and spring loaded 11/16" steel hex shafts.



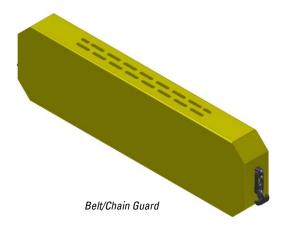
All return rollers mount between galvanized brackets on the inside portion of the conveyor bed.

### Safety guards:

Pulley finger guards are available for load/unload belt configurations. Finger guards and belt/chain guards are of 14 gauge steel. Belt/chain guards are powder coated safety yellow, feature slots for visual chain/belt inspection, and are available with a flexible T-handle style draw latch for easy top portion removal.



Pulley Finger Guard





#### Trim and Finish:

Trim and cladding consists of either powder coated 12 gauge HRS, or 12 gauge 304 stainless steel with #4 brush finish. Finishes for HRS conveyor frames, side guards and supports are powder coated to customer specified colors.





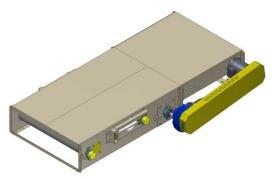
# 9000 Series Uni-Belt™ Technical Specifications

#### Drives:

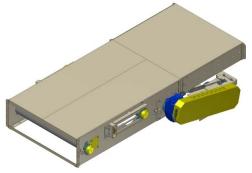
A variety of drive configurations are available:

- Chain and sprocket with inline helical reducer.
- V-belt and sheave with shaft mount reducer.
- Right angle shaft mount reducer.
- Motorized drive pulley.

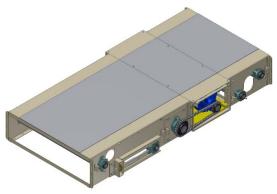
Below are just a few illustrated examples of available drive assemblies:



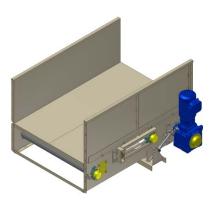
Standard Configuration Center Drive Assembly with V-Belts and Sheaves



Underslung Configuration Center Drive Assembly with V-Belts and Sheaves



Ticket Counter Style Drive Assembly with Chain and Sprockets, Double Snub Section and Filler Plate



Center Drive Assembly with Right Angle Shaft Mount Reducer

Reducer manufacturer applications:

- Dodge TXT ABHS, Tigear-2, Quantis
- Sumitomo HSM, Hyponic, Cyclo, BBB
- **SEW Eurodrive Gearmotors**
- Van der Graaf Drum Motors
- Rulmeca Drum Motors

End Drive Assembly