

# ASHWORTH ENGINEERING

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# PRODUCT TECHNICAL BULLETIN

# **OMNI-FLEX**<sup>®</sup>

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# <u>BEFORE INSTALLING BELT</u>

- Care should be used in uncrating to prevent damage. If damage occurs, remove the affected sections of belt before proceeding.
- Tools required to connect belt sections and make the belt endless: 5/16" wrench
  - Vice grips MIG welder or Oxy
  - MIG welder or Oxygen acetylene rig. Tools required to break or separate the belt:
  - Hacksaw or large bolt cutters
- Use proper safety equipment, including face and eye protection, during all grinding or welding operations as mandated by your company's safety policy.

## **INSTALLING DRIVE COMPONENTS**

For Omni-Flex belts, position sprockets across the full belt width. For Small Radius Omni-Flex, position sprockets across the inside section only. Support the outside section with toothless idlers.

Position sprockets no more than 6 inches [152 mm], (5 inches [127 mm] for Mega-Flex® 125), center-to-center. Orient sprocket hubs in the same direction to ensure teeth are aligned.

Locate drive sprockets in odd numbered openings. Ensure the outside drive sprockets are located in the third opening from each belt edge.

Locate idler sprockets in even numbered openings. Ensure the outside idler sprockets are located in the second opening from each belt edge.

If heat is present, lock only the middle sprockets onto the shaft, allowing the outer sprockets to float along the shaft to accommodate belt expansion and contraction. Insure the lock collars are in place next to the sprockets to prevent excessive movement and ensure key remains in place.

## **INSTALLING BELT**

There is no top or bottom side to the belt - either side can be up. Exceptions: Small Radius belts turn in one direction only the shorter pitch must is the inside edge. If special attachments are present (pinups, lane dividers, flights, etc.), these attachments are affixed to the topside of the belt. Insure the picket cutoff trails the leading face of the picket.

Insure the inside edge of the belt is positioned at the inside edge of all turns.









If both edges of an Omni-Flex belt are identical, there is no inside edge.

### No Required



#### E1 OMNI-FLEX®

If reinforcing bar links are assembled on only one belt edge of an Omni-Flex belt, position the bar links along the outside edge of all turns.

#### Inside Edge

R	A	A	A	A	A	A	A	
	Д	$\square$			Д	Π	Д	
	h	+	h	h	h	h	h	
								<i>ا</i> #b

### E1 DOUBLE BAR LINKS ONE EDGE

# No Required



## E1 WITH DOUBLE BAR LINKS BOTH EDGES



## E2 WITH DOUBLE BAR LINKS BOTH EDGES



E3 WITH DOUBLE BAR LINKS BOTH EDGES

### No Required Inside Edge



# E4 (MEGA-FLEX® 125) WITH DOUBLE BAR LINKS BOTH EDGES

For all Small Radius Omni-Flex belts, position the edge having the shorter pitch along the inside edge of all turns.

#### Inside Edge



### G1 SMALL RADIUS OMNI-FLEX®



## G3 SMALL RADIUS OMNI-FLEX®

ASSEMBLY INSTRUCTIONS

## <u>SPLICING BELT ENDS TOGETHER</u>

Place the ends of the belt sections together so that the holes for the connector pins coincide. Match the picket openings across the full belt width. Insure link pattern is consistent.

Insert threaded connector rod through the pickets with the preformed button head on the inside edge of the belt.

Place nut on the threaded end of the rod and tighten the nut to the bottom of the thread. Cut off any excess rod. Weld or solder the nut to the connector rod. *CAUTION: Take care not to (weld) the nut to the bar links or pickets.* 

File or grind the splice to a smooth finish. Sharp corners and weld spatter will damage plastic wear strips. Buff welds and remove <u>all</u> sharp edges or burrs.

Make sure that the open ends of the pickets have not been squeezed together or apart. Check this by pushing several pickets together at the splice to be sure the pickets collapse (nest) and open without interference. Adjust as necessary until collapsing freely.

### Inside Edge



## **REMOVING A SECTION OF BELT**

To separate the belt, cut the connector rods at the desired breaking points and remove. If possible, separate the belt at an original splice. Always remove the pickets at the leading end of the section to be removed. Do not cut, remove, or damage the pickets at the trailing end. The leading end at this separation is ready for re-splicing. The trailing end will need to have a connector.

Re-splice the belt as described under "Splicing Belt Ends Together".

Reference: Product Technical Bulletin "021 Conveyor Design Guidelines".

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