

## **ASHWORTH ENGINEERING**

Committed to on-time delivery of defect-free products and services, fit for use, exactly as promised, every time.



# TECHNICAL BULLETIN

## **OMNI-GRID**®

#### **BEFORE INSTALLING BELT**

- 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 Oxygen acetylene rig.

- Tools required to break or separate the belt: Hacksaw or large bolt cutters Hand grinder
- Use proper safety equipment, including face and eye protections, during all grinding or welding operations *as mandated by your company's safety policy.*

#### **INSTALLING DRIVE COMPONENTS**

For Omni-Grid and Reduced Radius Omni-Grid, locate sprockets in inside and outside link rows.

For Small Radius Omni-Grid, locate sprockets only in the two inside link rows. Use a flanged idler roll of matching diameter at the outside edge.

For Space Saver Omni-Grid, locate a dual tooth sprocket in the pair of inside links. Use a flanged idler roll of matching diameter at the outside edge.

### **INSTALLING BELT**

There is no top or bottom side to the belt - either side can be up. Exception: For Omni-Lite overlay, the plastic modules are snapped onto the topside of the belt and Omni-Grid with lane dividers.

Direction of Travel - Ensure that the links lead the connector to which it is welded.

Inside Edge

Inside Edge

Inside Edge

Inside Edge

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**OMNI-GRID®** 

SMALL RADIUS OMNI-GRID®

SPACE SAVER OMNI-GRID®



**REDUCED RADIUS OMNI-GRID®** 

TECH-001B

Ensure the inside edge of the belt is positioned at the inside edge of all turns. All Reduced Radius, Small Radius, and Space Saver Omni-Grid belts have a required inside edge (see diagrams).

Standard Omni-Grid is the only construction that may not have a required inside edge. If the links along both belt edges are identical, then either edge may be positioned at the inside of turns. However, if an Omni-Grid belt has a standard link on one edge and a heavy-duty link on the other, the standard link must be positioned at the inside edge of all turns. A standard link is made of thinner strip thickness than a heavy-duty link.

#### **SPLICING BELT ENDS TOGETHER**

Placing the ends of the belt sections together. Nest the trailing end of one belt length with the leading end of the length following.

If a balanced mesh overlay is present, ensure that the spirals to be joined are of opposite turnings. If a unilateral mesh overlay is present, the spirals to be joined will be of the same turning. Match the spiral loops across full belt width, avoiding double loops.

Insert threaded connector rod through the links and mesh

(if applicable) with the **preformed buttonhead on the inside edge of the belt**. If the belt has mesh overlay, be sure that the rod is inserted through all the spirals, including the pigtails.

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.

Make sure that the open ends of the links have not been squeezed together or apart. Check this by pushing several links together at the splice to be sure the links collapse (nest) and open without interference.

With both edges lying flat, weld the nut and the buttonhead on the other end of the rod to the belt links. No welding is necessary at the center row of links on Small Radius belts. <u>CAUTION</u>: Take care not to (weld) two links together.

File or grind in direction the welds made while splicing the belt 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.









**Double Loop** 



#### **REMOVING A SECTION OF BELT**

If possible, separate the belt at an original splice. Always remove the links at the leading end of the section to be removed. Do not cut, remove, or damage the links at the trailing end. If the belt has a mesh overlay, be careful not to cut or damage the spirals.

At the end of the section to be removed, cut the links welded to the connector to be removed through the leading slots. Cut the connector rods and remove. If the belt is double welded (connector is welded to both the inside and outside of the link), cut the rods between the inside leg of the link and the leading edge of the proceeding link on each side of the belt. When removing a section of Small Radius Omni-Grid belt, select a rod that does not have a dimple weld near the center link.

The leading end at this separation is ready for re-splicing. The trailing end will need to have a connector. Be careful not to damage the links.

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

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