**Issue**

Loss of vacuum pull at the suction cups can be caused by extreme wear to the rigid sucker nipple. This can prevent the quick-disconnect’s auto-close feature from disengaging when the rigid sucker is inserted, and keep the disconnect sealed closed.

When the vacuum valve is energized or manually forced on, with no carton present against the vacuum cups, the normal vacuum gauge reading should be around 5 Inches HG, because the auto-close seal should be wide open.

If the vacuum gauge reading is higher, such as 10 - 15 Inches HG or higher, this would prevent vacuum from reaching the cup, and adversely affect carton pulling.

The wear will appear as bearing-ball shaped gouges or groove marks in the rigid sucker’s nipple end, at the edge of the radial groove. *(See Picture Below.)*

**Recommendation**

1. Verify that the vacuum system is not clogged by carton dust.
   
   Separate the vacuum hose from the venturi, and blow compressed air into the hose. This should cause carton dust trapped in the hose, the sucker manifold & arms, or the quick-disconnects, to be expelled out through the vacuum cups.
   
   Blow compressed air into the bottom of the venturi, or silencer. This should expel trapped carton dust out through the venturi’s vacuum orifice.
   
   **BE SURE TO WEAR ADEQUATE EYE PROTECTION, SUCH AS SAFETY GLASSES, GOGGLES, OR A FACE SHIELD.**

2. Replace the rigid sucker nipple(s). *(Large # 250685, Medium # 320027, Small # 320028)*

![Wear shown here.](image1.png)

![Wear shown here.](image2.png)