# TECHNICAL BULLETIN

**Subject:**

# High Level Sensor Added to Purge Central Vac

| Bulletin #: | Rev: | Created by: | Date: |
|---|---|---|---|
| 00-121499-0 | D | RZV | 2020-04-14 |

**ECR #** 65330

**Product Lines:** Production: X Service: X Sales: X
Transportation Equipment: - Pneumatic Equipment: X

A potential issue with the explosion protection burst disk on the Central Vac with filter purge has become apparent. The Walinga supplied starter panels are designed to allow the compressed air purge to run for two cycles after shut down. This is accomplished with a time delay that should be set for 4 min. The intent is to have the system clean the filters while they are not under vacuum, so they can be ready when the unit is used next.

*Figure 1: Balluff Sensor*

If the user should run into a situation where the receiver and 4" product inlet are plugged, the XP burst disk can be damaged (rupture). When the 80psi of compressed air has no where to vent it can build up sufficient pressure in the receiver to burst the disk. Since the receiver outlet typically plugs due to a lack of attention to the product level in the dumpster, the best way to avoid this situation is to install a high level sensor (82-117086-6 - CAP SENSOR, 18mm, BALLUFF,110V) (see figure 1). This sensor has been made a standard feature for all purge central vac receivers. When properly installed this will shut the unit down if the product in the dumpster reaches the airlock discharge. In the event of a failure the cost of a replacement disk is roughly four times the cost of this sensor.



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*Figure 2: Plugged Sensor Port*

*Figure 3: Sensor Installed*



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To install the sensor in the outlet:

- Ensure that the Central-Vac starter and airlock are powered off and locked out.
  - *Failure to do so could result in serious injury and death.*
- Remove the plug from the sensor port located in the airlock outlet (see figure 2).
- Insert the sensor into the port.
- Install the plastic sensor nut onto the sensor inside and outside of the discharge (see figure 3).
  - Ensure that the sensor is protruding approximately 3/4” into the discharge area, but is still covered by the grain shedder.
- Tighten both nuts to ensure the sensor is securely positioned.
- Wire the sensor into the 'BIN SENSOR' terminals found in the Central-Vac starter panel.
  - See wiring diagram provided with the supplied panel for terminal numbers.




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Calibration:

- With the sensor installed in the airlock discharge tube and product fully submerging the sensor, complete the following steps with a small flat head screwdriver:
  - Turn the sensor's potentiometer clockwise (higher sensitivity) until the LED and output signal have switched on.
  - Turn the sensors potentiometer counter clockwise (lower sensitivity) until the LED and output signal have switched off.
  - Turn the potentiometer clockwise again (higher sensitivity) Just enough until the LED and output signal have switched on again. Then turn another 1/4 turn clockwise (90 degree rotation) clockwise.
  - Clear product blockage in front of sensor and run the machine, until sensor becomes submerged again. Confirm that the machine initiates shut down sequence when product reaches sensor.

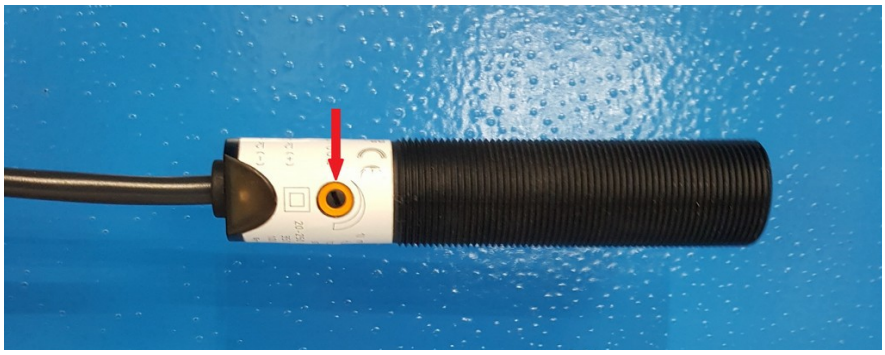

*Figure 4: Sensor Calibration Screw*




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