

# Plugged Chute Detection

BinMaster offers several devices to detect plugged chutes in a process operation. The devices fall into two categories:

## 1. Flow/No Flow Sensor detects moving material:

A non-intrusive, flow detection sensor is installed on the chute to detect a flow or no flow condition. The BinMaster Flow Detect 2000 detects motion, but alone, will not differentiate between a plugged chute or empty chute. However, to detect a no flow status, the relay is interlocked with a slide gate, conveyor or other process equipment, and set so alarms will trigger only if material isn't flowing. This method is non-intrusive, but does require the extra PLC logic step to differentiate between plugged and empty.

-OR-

## 2. Use a point level sensor to detect a blockage:

A point level sensor must be mounted away from the flow stream so it detects the presence of material only during a plugged condition. This requires installing a Y section and mounting the device in the leg of the Y. Then a capacitance probe or vibrating rod can be used to detect when the chute is clogged. A flush mount capacitance probe can be used on square chutes. It doesn't require installation of a Y section, but does require a flat mounting surface. These sensors ignore normal flow of material but will detect a blockage. When material falls away from the sensor and the plugged chute condition is corrected, there is no longer an alarm condition.

