

## **Getting the most out of the SmartPAC 2 Counters system.**

Many companies have made the decision to invest in Wintriss SmartPAC Automation Controls to help reduce expensive failures on presses. Unfortunately, many of the built in features the controls have are under utilized.

The SmartPAC 2 Press Automation system has a very potent counter system that can be used to help eliminate the need to stop the press under normal batch runs. The SmartPAC counter program is made up of a stroke counter, good parts counter, 3 batch counters and a total hits counter. The stroke counter will increment each time the ram position passes a predetermined angle position, the factory default setting is 270 degrees. The good parts counter will increment each time the press strokes and the control does not register either a Die-Protection fault or a Tonnage Monitor fault (if installed). Both counters have presets that will top stop the press when the programmed count is reached. Batch Counters can be made to increment by the Stroke Counter or the Good Parts Counter. Unlike the Stroke and Goods Parts the Batch counters have 3 programmable events that can occur when the preset is reached:

1. Top Stop Mode the press will simply stop at the top of the stroke when the preset is reached
2. Toggle Mode changes the state of a ProCamPAC relay output when preset is reached
3. Pulse output mode will turn a relay on for a programmed amount of time up to 9999 msec.

Common applications for batch output toggle and pulse are part deflectors and control of lubrication as we will discuss below. The total hits counter keeps track of cumulative hits on an individual tool basis.

In our Toggle Batch output application let's say we have a job that calls for 1000 parts to make. The bin used to collect the parts is capable of holding 100 parts. Under normal circumstances the operator would program his good parts counter preset to 1000 parts, the Batch counter would be programmed to 100 parts, after the 100 parts are made and the press will top stop, the full bin will need to be removed and an empty bin moved into position before the press can be put back into operation. Utilizing a batch output that is programmed to toggle a Cam output and controlling a two-way air operated solenoid valve acting as a part deflector can reduce this unnecessary downtime. When setting up the job the operator will place empty bins at the exit end of the press. The part deflector is mounted on an exit chute or part out conveyor and directs the parts into an empty bin when the batch count preset is reached the Cam relay toggles from its current off state to on, the solenoid valve energizes and the arm of the part deflector changes position and now guides the parts into a second empty bin. The press never needs to shutdown and the operator or fork lift driver now has time to come and remove the full bin and replace it with an empty bin. After the next 100 strokes the relay now toggles back to its original off state, the solenoid de-energizes and the parts are now directed to the replacement bin.