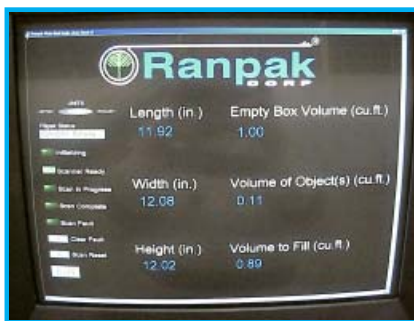




AccuFill™ - a breakthrough in protective packaging technology for high volume, high speed operations requiring top and side voidfill

Ranpak's proprietary new AccuFill voidfill measurement system revolutionizes in-the-box packaging by removing the variable of packer judgment from the equation. The AccuFill system automatically determines how much packing material is needed to fill a void in the top of a box and then signals FillPak™ (or PadPak®) to generate the exact amount of material to fill that void. AccuFill can be used with either of Ranpak's patented converter systems, PadPak or the FillPak high speed voidfill system.

AccuFill uses a sensor array that mounts over a conveyor line. As boxes come down the line, AccuFill sensors scan the box to determine its size, measure the volume of the objects inside the box and compute the amount of packaging material needed to fill the void. It then signals FillPak to dispense the exact amount and stores the calculations so that the user can later recall the cost associated with a shift, a week or a month of production.



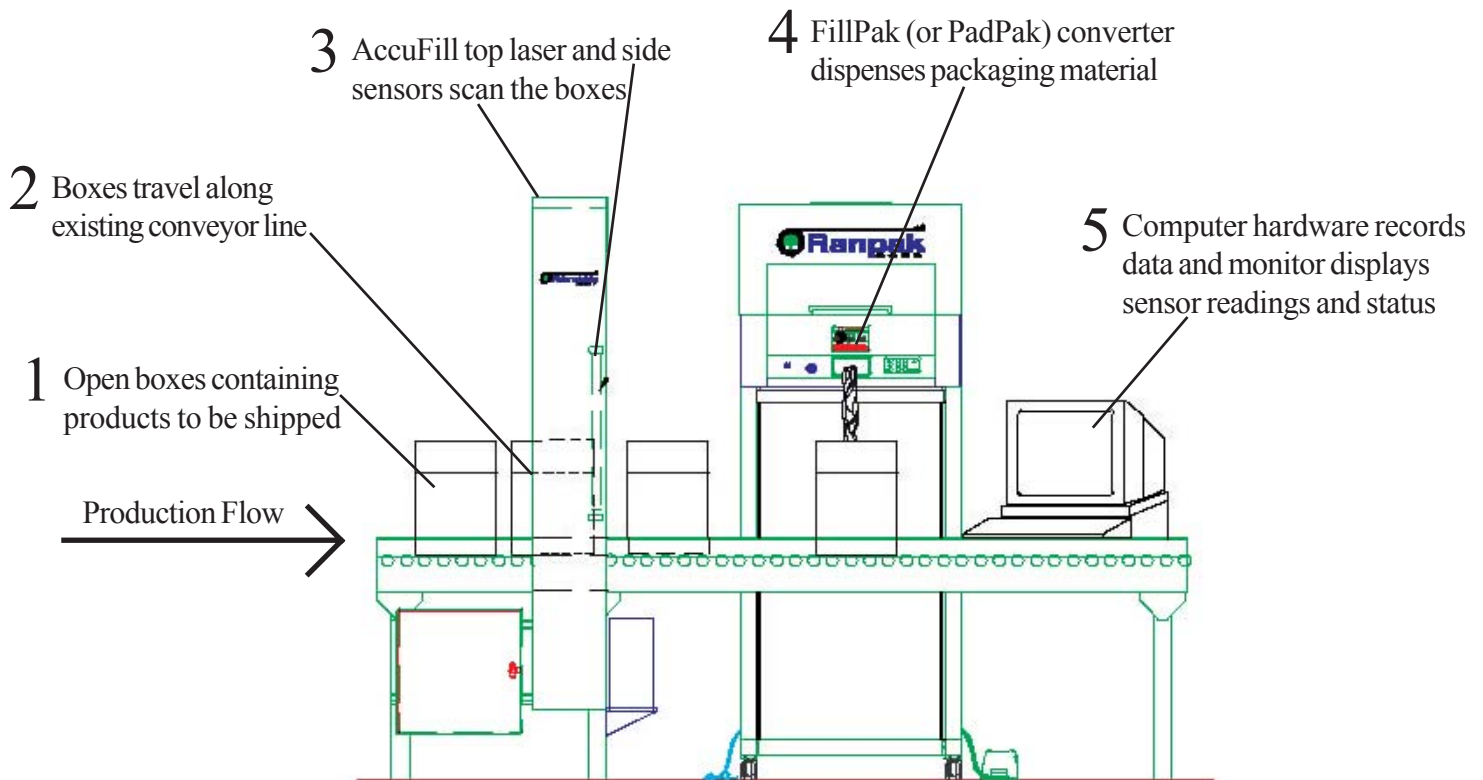
Benefits

- Optimizes use of FillPak (or PadPak) paper to avoid using too much paper
- Scientific control of trade off between damage of goods shipped and protective packaging materials used
- Can be integrated into an existing conveyor line
- Controls material usage- takes cost decision away from packers and places it in management's hands for material savings
- Prove cost savings versus competitive materials without re-packing boxes
- Tracks productivity of packing process





AccuFill Controls the Packing Process



1. Product to ship is put into boxes upstream at picking or packing stations. Open boxes to be shipped arrive at the AccuFill packing area.
2. The boxes on the existing customer conveyor line move through the AccuFill System.
3. As the boxes move through the AccuFill System, AccuFill sensors and laser scan the box to determine its size, measure the volume of the objects inside the box and compute the amount of packaging material needed to fill the void. Side proximity sensors measure the box dimensions - length, width and height. The top mounted laser scanner measures distance ranges inside the box.
4. The computer program sends a signal to the FillPak (or PadPak) system to automatically index the correct length of paper to efficiently fill the box. The operator presses down on the foot pedal, and the predetermined amount of packaging material needed to fill the void is dispensed. The operator fills the box and sends on to the case sealer.
5. The computer monitor displays the information, which was read by the AccuFill sensors and the status of the AccuFill process from beginning to end. "Scanner Ready" indicates that the cycle is complete and the process can be continued. The computer hardware records the data for management analysis and reporting.



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