

## Application Case Study

### Returnable Packaging: Tray for valves

#### **Applications:**

Valves are placed in the tray manually and the tray moves over a conveyor to the next operation. The full trays are shipped from Michigan to Wisconsin where the valves are assembled.

#### **Problem:**

The trays were cracking in the corners from impacts during handling and shipping. The outer walls of the trays were warped and consequently parts were not fitting against the inner side wall of the tray. The competitor's tray is pictured below.



#### **Solution:**

PFP engineers designed a new style tray with superior strength and durability. Our new design eliminated the sharp corners of the previous tray design by adding radii in those areas. The radii added strength to the corners when impacted or handled roughly. A full lip was added to the top of the tray to assist the operator align the trays when stacking them. The full lip design help stabilize the trays when stacked. Finally, PFP added support ribs on the interior and exterior walls of the tray. This eliminated the warp of the walls, noticeable in the prior tray design.

