Capacity Model for Food Production Line

Problem: A customer needed to install a new food processing production line in order to keep up with demand. The customer hired Project Technologies & Services (PTS) to determine if the existing facility would support an additional production line, and if so, what modifications, if any, would be required to the facility.

Solution: PTS provided the customer with support by first visiting the facility. Field measurements were taken of the facility and documented all existing equipment.

With all required measurements, PTS created a CAD drawing of the facility and was then able to layout the proposed equipment into the CAD drawing. From this, PTS was able to inform the customer of all necessary spatial changes.

In addition, PTS gathered information from the various equipment in the facility including production equipment, makeup air units, air compressors, electrical equipment and ingredient storage equipment. PTS received information from the equipment manufacturers of the various new pieces of equipment required for the new production line.

PTS then brought on a trusted roofing expert to inspect the roof to determine what repairs, if any, would be needed to ensure the roofing was meeting code standards. This information was forwarded directly to the customer.
PTS used the information about the new and existing equipment, along with the information gathered from the facility and utility bills, to compare the future requirements of the system with the existing capabilities of the building. PTS took into consideration ingredient requirements, waste water, incoming water, natural gas, makeup air, compressed air, packaging additions, and fire suppression. From this information, PTS created an easy to follow summary of all building upgrades required for the addition of a new snack production line.

PTS took the upgrades required for the addition of the new snack production line to create a cost estimate to upgrade the facility. All of the information was provided to the customer. The information showed the existing plant was the best option for an additional production line in lieu of a new building. The customer used this information to determine capital requirements to increase production.