

Bringing food safety and energy savings into convenience food processing

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Date: September 10, 2018
Bulletin No: HIA 1-18



Heat Exchanger:

APV PHE Q055 DuraFlow Plus
 APV PHE N35 DuoSafety

Industry:

Food Segment

Application:

Convenience food – Batch processing

Challenge:

Processors running batch applications are often challenged to produce greater varieties of convenience foods containing fibers and spices. These applications tend to cause performance degradations in traditional narrow-gapped plate heat exchangers (PHE's) which often require them to be manually opened and washed due to the accumulation of fibers on internal contact points. There are also general concerns about cross contamination between service water and process fluids if a plate failure occurs. In addition, traditional batch systems generally do not recover energy well which results in higher utility costs.

Solution:

SPX FLOW offers packaged solutions that help contribute to increased energy savings, lower labor costs and reduced risk of cross contamination. Equipped with advanced PLC technology, these units are capable of running a large number of products, can reverse process flow, offer CIP and make an intermediate flush whenever required by a recipe.

SPX FLOW automated skid processing units are built with robust heat transfer technology and come with multiple PHE plate options, including:

- **APV Plate Heat Exchangers with Q055 DuraFlow Plus plates:** An easy flow plate pattern designed for handling approx. 3-5% of 2mm particles and, depending on conditions, fibers up to 20mm long. The plate design allows particles and fibers to pass without accumulating excessively inside the PHE. During processing, fibers at the plate contact points can be removed by a reverse flow system. An additional benefit is seen through significant energy savings which is created by heating recovery water via a closed water loop.
- **APV Plate Heat Exchangers with N35 DuoSafety plates:** The DuoSafety plates provide an additional early detection system against cross contamination because of the double-wall air break plate skins separating refrigerant from the loop cooling water. Leakages are isolated between the plates and can be visually seen exiting the unit.

Contact SPX FLOW to learn more about how our [plate heat exchangers](#) and other fluid handling equipment can enhance your convenience food process.

