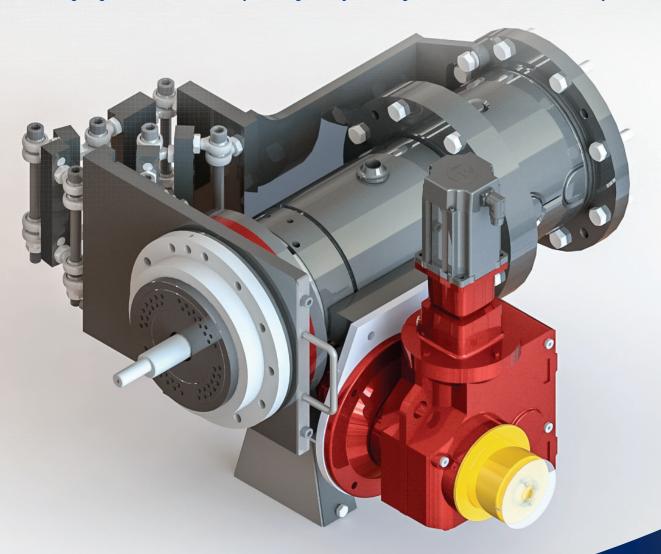


Extru-Tech Energy Management Valve (EMV)

The newest tool from Extru-Tech to compliment your existing Food Safety System and complete your journey towards FSMA compliance





The Name Says It All

Engineered Food Safety Benefits

- Seamless integration into the only "Validated" Food Safety system
- Variable control of 'Reject Mode' for accelerated acquisition of CCP temperature/pressure
- Full SSOP Integration
- Redundant temperature/pressure instrument wells to facilitate CCP monitoring
- No dead zone where residual product can harbor pathogens

Importance of Density and SME Control

Whether the end product is aquatic feeds or pet food, additional density control and SME adjustment via the Extru-Tech EMV are of immense value. By managing these variables with the EMV, system operators now have an intuitive system to manage:

- Shape and size of pellets and pellet appearance
- Size and uniformity of cell structure
- Pellet durability, which affects handling and transportation
- · Starch gelatinization
- Floating and sinking properties of aquatic feeds
- Fat and/or water absorption characteristics
- · Pellet texture and quality

Product Diversion

The integrated diversion valve allows for variable rejection of under-processed product prior to the die.

- Permits full rejection of product for initial startup and shutdown
- Upon execution of initial startup, the divert valve can be modulated to restrict rejection open area to emulate die restriction; this allows for quicker acquisition of target CCPs and reduction in startup waste
- Also provides the ability to seal both the barrel and the die for SSOP/CIP

The Extru-Tech Energy Management Valve (EMV) is just one more next generation tool to help you control the extrusion process. The EMV replaces your existing final head and allows for high resolution manipulation/control of product density. It also provides increased flexibility with products that have any type of inclusion (fresh meat, stabilized protein slurries, and all types of liquids (fat, oil, humectants, or slurries thereof).

With proper installation and process guidance, you can expect the following performance enhancements over traditional single screw and typical industry solutions:

- Products
 - o Premium Meat-Add inclusion levels
 - o Exotic Protein Inclusions
 - o Elevated Limits of Moisture and Fat/Oils
 - o LID and Grain-Free Diets
 - o Improved Product Durability (off the die)
- Operations
 - o Reduced Changeover Times
 - o Improved Barrel Wear Cost
 - o Small Footprint

Key System Benefits

- Consumes significantly less space than competitive brands
- Quicker reaction times than competitive systems
- No mounting post or over-head rail system required like other industry options
- All components are mechanically integrated with no need for a 'loose plate'
- Cost effective design utilizing carbide wear components
- Can be incorporated as stand-alone with existing manual extrusion system or integrated into existing automated extrusion system

