The Perfect Temperature. Every Time.
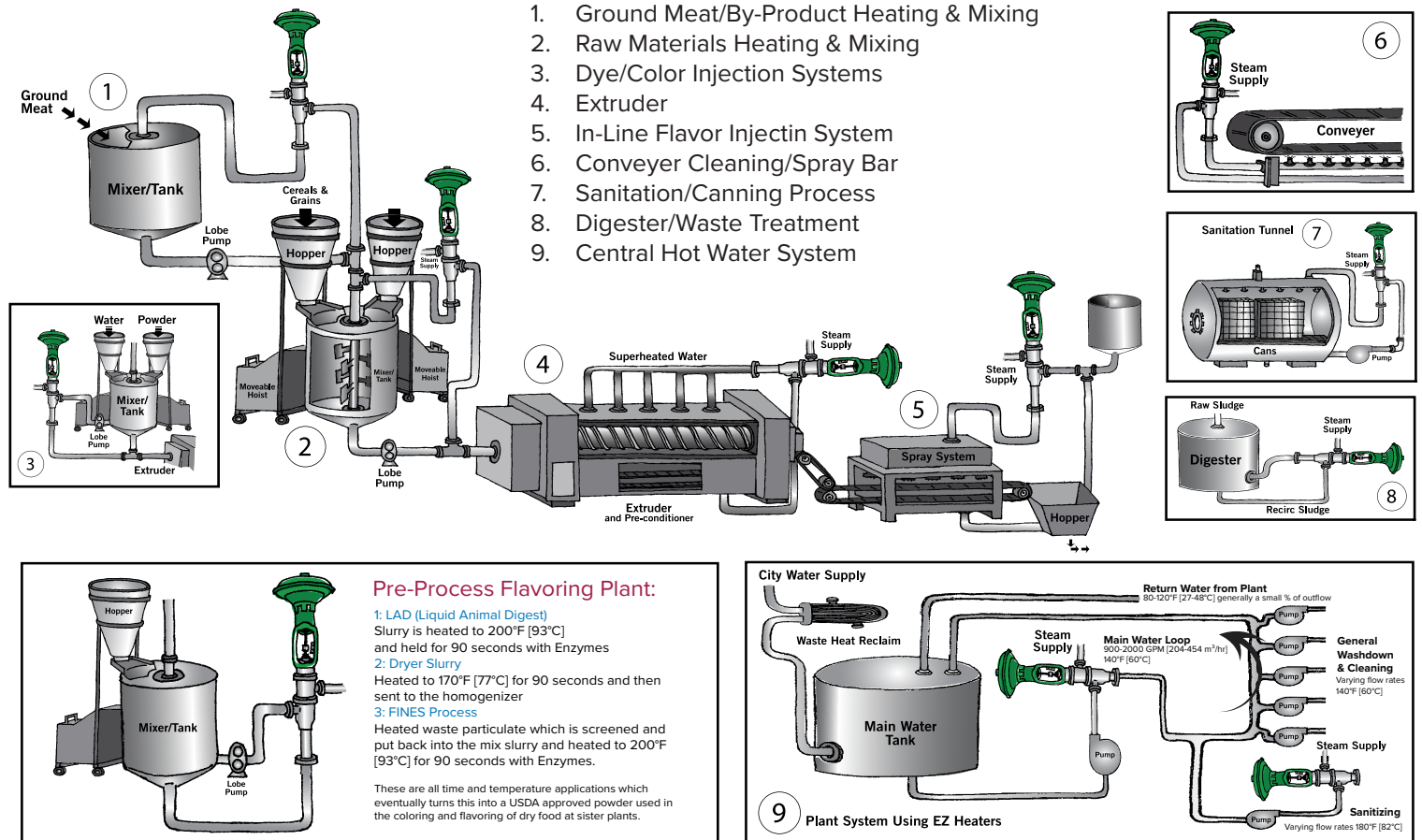
**hydro THERMAL**®

# FLUID HEATING
## in PET FOOD PROCESSING

# The Perfect Temperature for Pet Food Processors

Hydro-Thermal Corporation is the global leader in Direct Steam Injection (DSI) fluid heating systems for pet food processing. We harness the power of steam to deliver ultra-precise and dependable heating solutions that optimize temperature control, increase energy efficiency, and minimize maintenance costs. Backed by our 100% performance guarantee, we help you achieve the perfect temperature every time.

## Fluid heating solutions throughout the production process:



1. Ground Meat/By-Product Heating & Mixing
2. Raw Materials Heating & Mixing
3. Dye/Color Injection Systems
4. Extruder
5. In-Line Flavor Injectin System
6. Conveyer Cleaning/Spray Bar
7. Sanitation/Canning Process
8. Digester/Waste Treatment
9. Central Hot Water System

### Pre-Process Flavoring Plant:

**1: LAD (Liquid Animal Digest)**
Slurry is heated to 200°F [93°C] and held for 90 seconds with Enzymes

**2: Dryer Slurry**
Heated to 170°F [77°C] for 90 seconds and then sent to the homogenizer

**3: FINES Process**
Heated waste particulate which is screened and put back into the mix slurry and heated to 200°F [93°C] for 90 seconds with Enzymes.

These are all time and temperature applications which eventually turns this into a USDA approved powder used in the coloring and flavoring of dry food at sister plants.

Our seasoned engineers deeply understand these processes and will help configure solutions for improving production quality while saving energy, money, time, and maintenance in your plant.

## MEAT SLURRY/GROUND MEAT/BY-PRODUCT HEATING

Our proven technology reaches the proper temperature for a consistent and uniform cooking process in a single pass. By heating/cooking ground product to final temperature, we can make this a continuous, smooth process eliminating batch variation and optimizing consistent quality. When optimized, there is virtually no burn on or plugging of the system, resulting in less maintenance and cleaning time. We know that consistent, good-tasting pet food that alleviates food safety concerns is your #1 priority.

## DYE/COLOR INJECTION SYSTEMS

The color of the product is carefully controlled – for the humans buying the pet food, not their pets. To manufacture the correct pet food color, pet food processors utilize a Hydro-Thermal sanitary solution for heating their dye mixture. Our accurate temperature control ensures consistent formulations for quality and consistency.

## STARCHES AND GRAVY COOKING

With the ability to accurately control shear and temperature, we ensure an optimum gelatinization of the starches to get perfect viscosity and yield. Therefore the starch operation is efficient and repeatable, meeting all quality standards.
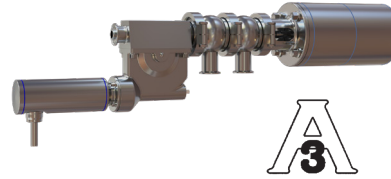
## MIX AND HOLD TANK HEATING

Use direct steam injection for cooking and mixing ingredients. Control cook temperature precisely and on-demand while avoiding product burn on and reserving flavor. Besides, maintain temperature for the enzymatic digestion process. Whether heating the fluid going into the tank or recirculating the tank to maintain a specific temperature, Hydro-Thermal's solution can be used for utility or sanitary, 3A ingredient water

## POINT OF USE/CONVEYOR CLEANING/SPRAY BARS

Replace multiple heating stations and mix T's with just one central EZ Skid system for your existing central hot water, removing the need for steam piping to each hose drop. This eliminates employees' exposure to hot steam and leaking equipment from faulty hose stations. Unlike other heating systems, our central heating systems optimize your operation by providing consistent flow rates and precisely heated water. Our turn-down capabilities are flexible enough to provide hot water instantaneously at your desired temperature during production or plant wash down anytime.

# Hydro-Thermal Products for Pet Food Processing



## EZ Heater®
- Instant hot water on demand
- Central hot water systems

## EZ Skid™
- Turn-key system — simply plumb in water, steam and air
- Pre-engineered or made to highly complex specifications

## Hydron® Sanitary Hydroheater
- Ideal for light-to-medium duty applications
- 3A Certified

## Solaris®
- Ideal for thick stocks up to 13% consistency
- In-line mounting Straight-through design
- Up to 25,000 GPM [5,678 m³/h]



## SilverLine Smart Cooking System
- Stainless Steel system for starch, slurry and high solids
- 3A Certified



## Research & Development Testing Facilities

Our on-site testing lab provides the perfect opportunity to evaluate real-world process parameters and conditions for your unique applications. Customers have full access to our lab facilities and skid systems available for trials.

**Need more information about Hydro-Thermal products?**
Go to www.hydro-thermal.com or
contact us at info@hydro-thermal.com

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