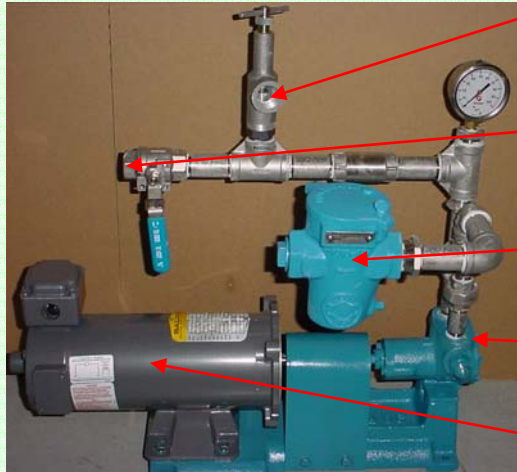


Fat to Mixer

Pump Station



By-pass Relief Valve

Out to flow meter manifold

Basket Strainer – 40 mesh

Gear Pump

Motor, 180VDC,
 variable speed

Flow Meter Manifold



“IN” from Pump Station
 Flow Meter

OUT” to nozzle and/or
 Calibration Port

Note: Flow meter cabinet can be mounted in
 any direction except it cannot be laying flat.

The system includes nozzles, and quick close solenoid valve at the mixer.

Anti-Mold to Mixer

- Link to AutoPilot4Feed included



Calibration Cylinder

To Nozzles

Calibration Back to

Flow Meter Stainless

Bypass relief valve

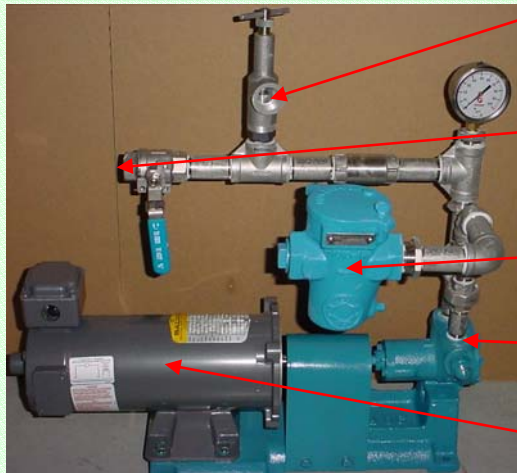
Stainless Steel Check
and
Stainless Steel Pump

The system includes nozzles, and quick close solenoid valve at the mixer.

Fat System posting Pelleting

Fat System (The following will be integrated into the AutoPilot4Feed Control System)

System Supply – Comco Design



By-pass Relief Valve

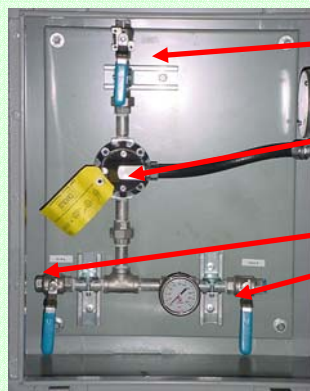
Out to flow meter manifold

Basket Strainer – 40 mesh

Viking, Gear Pump

Motor, 180VDC,
 variable speed

Flow Meter Manifold (1 per line)



“IN” from Pump Station

Flow Meter, Positive
 Displacement

OUT” to nozzle and/or
 Calibration Port

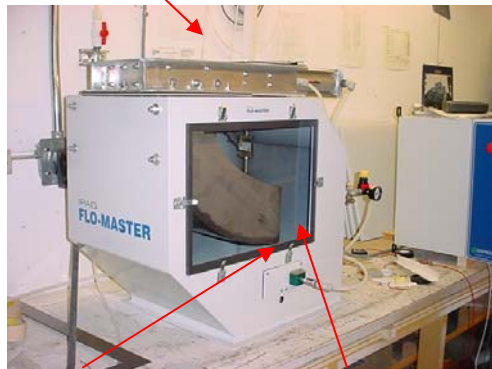
DRY FLOW SYSTEM

To proportion fat and enzyme accurately the system must know the dry material flow rate. For this application the dry flow rate is determined by weight using a proven system. This system uses a chute to direct the flow over a load cell and by use of a gate provides a stable, controlled dry flow rate. A surge hopper (not supplied) is attached directly above the dry flow device. This hopper is required to smooth the flow and allow for continuous runs preventing starting and stopping of the liquid pumps. 3 level switches for stopping and starting the system are located in the hopper. The level switches are included with the dry flow system.

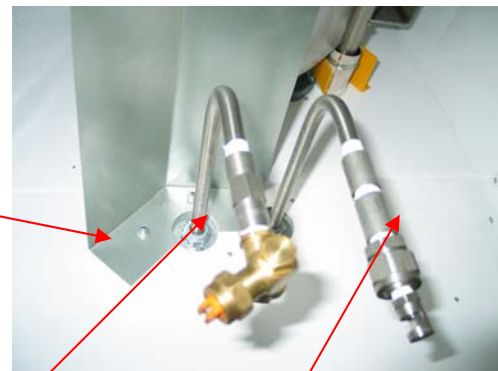
The following is supplied;

- In-Line Weigher
- Stainless-Steel weight chute
- Flange for inlet (mounting to surge bin)
- Control Head (mounted with base controls)
- 3 capacitance level indicators
- Calibration weights
- Manuals and full documentation

FEED INLET (require hopper above)



DISCHARGE NOZZLES



Enzyme Nozzle

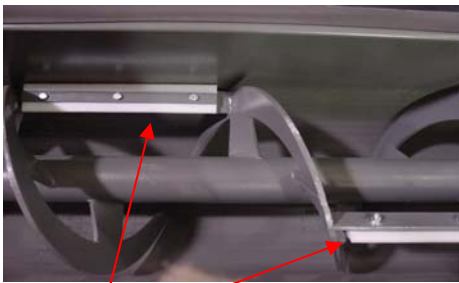
Fat Nozzle

Fat applied to feed crumbles @ 20 TPH.
 Please note the perfect flat curtain.

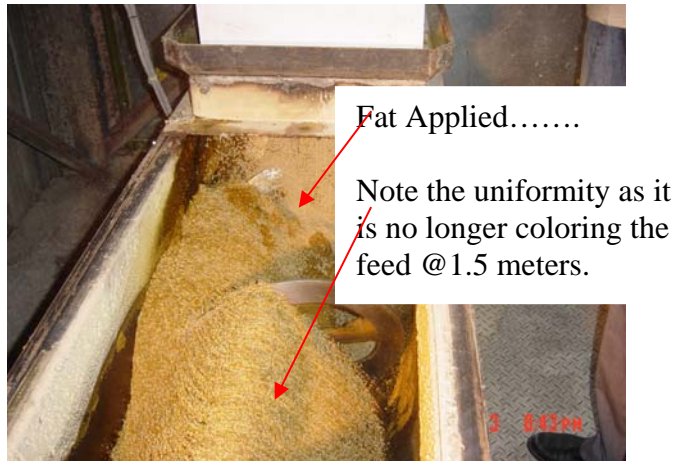
FINAL MIXING & BLENDING

After spraying, the blending screw provides uniform coverage of the fat and enzyme. The blending screw has the following features;

1. Zero Speed switch input to control system
2. Downstream plug switch at the discharge end. (24VDC)
3. Sufficient retention time to provide the needed mixing. Lifting bars are located every second flight.
4. Low RPM to prevent pellet damage (30-40 RPM)
5. Complete with motor and drive (Belt type or direct drive)



Lifting Bars



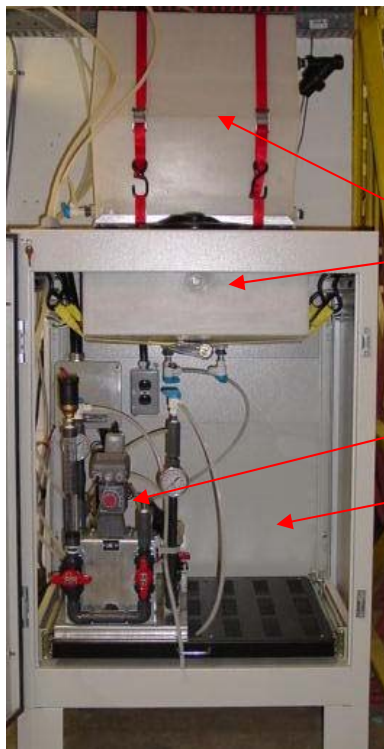
Enzyme Addition Post Pelleting

1. Pump Station

The pump station contains the positive displacement pump and pump hardware requirements. For this application a solenoid pump is used with an integral drive motor. The pump station is fully assembled and tested by Comco prior to shipment. All components are pre-wired as practical and terminated on a terminal strip, ready for interconnect wiring in the field to terminal blocks in the main panel. All components are installed in a dust-tight cabinet. All piping located in the cabinet is high-density poly.

The system is accurate to +/- 2% of required liquid amount. The following are standard components for the pump station;

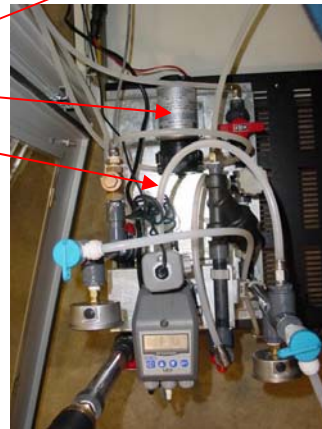
- 5 LPH pump capacity (pump supply based on required flow rate)
- 75 kg. work tank with low level switch
- up to 35 meters head pressure and 100 meters total distance
- Calibration Cylinder for quick calibration and system check
- Dust-Tight Enclosure with all components pre-installed
- Includes all required shut-off valves and check valves
- Flow emulator and flow switch



Assembled Pump Station



Water Tank
 75 Kg Enzyme Tank



Down View Pump Station

Low Level Switch
 Water Pump
 Pump Station
 Pump Station for Line #2

2. Water Booster System (Incorporated in Base system)

Because water is required at the application point a booster pump is advised to provide the necessary pressure to the system. The water booster is incorporated into

the pump station for electrical connection and ease of installation. The booster pump is pre-assembled and wired and includes the following components

- 75 kg Break Tank with fill valve
- DC pump for controlled flow rate requirement
- Dust-Tight enclosure, pre-wired
- Assembled system for ease of installation

3. Application Manifold

The application manifold is fully assembled and must be installed as close as practical to the dry flow System. Easy adjustments can be made if required based on the dry flow rate and final operating pressure. The manifold includes a pressure regulator for the water for dilution. A flow monitor is installed for the water. Should the water not be flowing, an alarm will advise the operator. All components are pre-wired to terminal blocks for ease of inter-connection to the base controls. Comco will allow the addition for the second liquid in the manifold panel for future installation.

The application manifold also contains a static mixer to mix the enzyme with water. The manifold requires 3 bar water pressure. The complete add rate will be approximately 1kg per tonne. The amount of dilution is adjustable. The following shows the panel and features;

Static mixer for
Mixing water
/Enzyme

**Completely
Assembled.**



Water Enzyme

- Pre-assembled components
- Injector for water / enzyme converging
- 24 cm of static mixer for uniformity of the blending
- Includes shut-off valves and check valves
- Check valve for discharge end
- Dust-tight enclosure