

## Modular Loss-in-Weight Feeder Application

The 570-E2 is designed to feed various materials into a process at a designated feedrate with gravimetric precision.

### Theory of Operation

The discharge device of the feeder is operated at a variable speed to deliver material from the feeder hopper into a process. A weight signal output is supplied for closed-loop process control (see MC<sup>3</sup> Specification Sheet).

### Materials of Construction

- 304 Stainless Steel on all Metal Components
- Glass Bead 2B Finish
- All Welds Continuous and Ground Smooth

### Hopper Capacities

- 1.5 Ft<sup>3</sup> Base Hopper
  - 0.75 Ft<sup>3</sup> Extension Hopper\*
  - 1.5 Ft<sup>3</sup> Extension Hopper\*
- \*Unit will support up to two (2) extensions

### Hopper Cover

- 4" (102 mm) Dia. Infeed Connection Stub
- 2" (51 mm) Dia. Vent Connection Stub
- LEXAN<sup>®</sup> Viewport
- Variable Cover Orientation
- Latex Flexible Connections for Infeed and Vent Stubs

### Discharge Devices

- Single Auger
  - Solid, Helix w/Center-Rod, Open Helix
  - 0.375" to 3.000" (10 - 76 mm) Dia.
  - Bayonet Mount with ¼ Turn Lock
- Twin Intermeshing Augers
  - Solid, Helix w/Center-Rod, Open Helix
  - 0.750" to 2.000" (19 - 51 mm) Dia.
  - Bayonet Mount with ¼ Turn Lock
- Vibratory
  - Flat, V-Tray or Tube
  - 2.000" to 6.000" (51 - 152 mm) Width

### Drive Components

- 0.25 HP DC, Washdown TENV Motor (AC Motor available)
- Feeder Mounted SCR Motor Speed Controller
- Lubricant-Free, Steel Reinforced, Polyurethane Drive Belt with Elastomer Tensioner



### Feed Rates

- Volumetric Throughput: 0.05 to 50 Ft<sup>3</sup>/Hr (0.0014 – 1.42 M<sup>3</sup>/Hr).  
(Multiply Volumetric Rate by Bulk Density of Material to Compute Gravimetric Feed Rate)
- Volumetric Feed Range 1000:1
- Gravimetric Control as Low as 1 Lb/Hr (0.45 Kg/Hr).

### Standard Features

- Auto-Locking, Quick Disconnect Latches on all Material Contact Parts
  - Hopper, Hopper Cover, Spool, Discharge, Spout and Gearbox
- Patented Auger Shaft Seal, Triple Labyrinth with Floating Rotor
- Certifiable Calibration Weights
- Removable Drive Belt Guard
- Adjustable Feeder Support Feet with Vibration Isolating Rubber Pads

## Weight Sensing Device

- Single Strain Gauge Load Cell
  - Stainless Steel, Hermetically Sealed, Temperature and Pressure Compensated
  - 350 Ohm Bridge
  - 2 or 3 mV/V Signal
  - 15 Volt Excitation Maximum

## Hopper Agitator (optional)

- Independently Driven, 0.5 HP DC, Washdown TENV Motor (AC Motor Available)
- Feeder Mounted SCR Motor Speed Controller
- Dual Hopper and Discharge Spool Rotating Blades

## Control

- MC<sup>3</sup> Touch Screen Microprocessor
- Continuous, Batching and Rate-Controlled Batching Loss-in-Weight Applications
- Communication Interfaces:
  - Merrick Serial Communications Protocol
  - Modbus ASCII, Modbus +
  - DeviceNET,
  - DF1, Data Highway +

## Power Requirements

- 115 Volts, 1 Phase, 60 Hertz
- 15 Amp Service

## Ambient Temperature Limits

- 0° to 77° C (32° to 170° F)

## Gravimetric Turndown

- 15:1 from Maximum Feedrate

## Shipping Weight

- 283 Lbs. (128 Kg.) Standard
- 373 Lbs. (169Kg.) with Agitator

## Accuracy

- +/- 0.5%

## Optional Accessories

- Manual Refill Hopper Cover
- Hazardous Location Electrical Components
- Chemical Duty or BISSC Certified Motors and Reducers
- Special Materials of Construction
- Hung-from-Above and Wall Support Structures Available
- Extended Discharge Spout Lengths
- Spout available with Vertical Discharge and End-Bearing Auger Support

