Gravimetric & Volumetric Feeders

Model 2 STINGER® Feeder with STS Feeder Tube

APPLICATION:

Loss-in-weight, Gain-in-weight Batch Feeding, Continuous Gravimetric Feeding or Volumetric Feeding of fine cohesive powders and difficult to handle materials.

DESIGN FEATURES:

- Modular design provides easy, economical configurations that best suits your needs
- Conveys materials without the high horsepower needs often found with other feeders
- Batch Accuracy up to +/- .1% typ. at 2 sigma.
- Standard inlet to discharge lengths up to 96".
- Feed rates up to 800 cubic feet per hour
- Feeder Tube features Young Industries' Patented STINGER® Screw Technology
- STINGER® Feed Hopper features a built in Young Industries SilentFlow® Bin Discharger that conditions material without any moving parts or vibration
- Available in NEMA 4 or Explosion Proof designs

- **UNIQUE DESIGN QUALITIES:**
- Quick auger removal in minutes without the need for any tools
- Bearing housing includes a purged, double-lip shaft seal which separates material from bearings and provides maximum bearing life
- Young Industries STINGER® Feeder tube conditions material after it leaves the feed hopper
- STINGER® Feed Hopper features Young Industries SilentFlow® Bin Discharger conditions material without any moving parts or vibration

A FEW OF THE COMMON MATERIALS HANDLED:

- Adipic Acid	- Carbon Black	- Fly Ash	- Metal Powders	- Powdered Sugar
- Aluminum Oxide	- Ceramic Powders	- Fumed Silica	- Sodium Bicarbonate	- Pigments
- Antomite	- Corn Flour	- Iron Oxide	- Powdered Minerals	- Spices
- Borax	- Clays	- Lime	- Polymers	- Titanium Dioxide (all grades)

FEED RATES:

Note: Feed rates will vary based on feeder configuration and material properties.
Approximate capacities listed below

Feeder Tube Size		Capacity	
Inches	mm	ft^3/hr	Liters/hr
1.00	25	.08 - 4.3	2.3 - 121
1.50	38	8 - 11	28.3 - 312
2.00	51	2 - 30	57 - 850
3.00	76	7 - 100	198 - 2,832

Feeder Tube Size		Capacity	
Inches	mm	ft^3/hr	Liters/hr
4.00	102	17 - 250	481 - 7,080
5.00	127	26 - 400	736 - 11,330
6.00	152	50 - 800	1,416 - 22,654

Easily removable auger and drive assy

FEED HOPPER:

STINGER® Feed Hopper with built in SilentFlow® bin discharger conditions material and discharges it into the Feeder Tube without the use of any moving parts or vibration

Features:

- Standard hopper capacities range from 1 cubic foot to 500 cubic feet
- Standard diameters range from 18" diameter to 96" diameter
- Low headroom designs available
- Sizes 18" diameter to 36" diameter feature removable covers
- Removable covers are available in carbon steel or stainless steel
- Sizes 48" - 72" diameter feature optional manway/access hatch

SUPPORT FRAME:

- Standard support frame with three rigid support legs provide sure footed design and maximum scale accuracy

Note: Hanging mount frames are available as a special option

SCALE:

- Consists of three modules centered under load for stable accurate weighments
- Available in carbon steel or stainless steel
- Standard scale capacities range from 300 lbs. to 60,000 lbs. (136 kg. to 27,000 kg.)

Note: Actual scale capacity needed is based on material bulk density and feeder configuration

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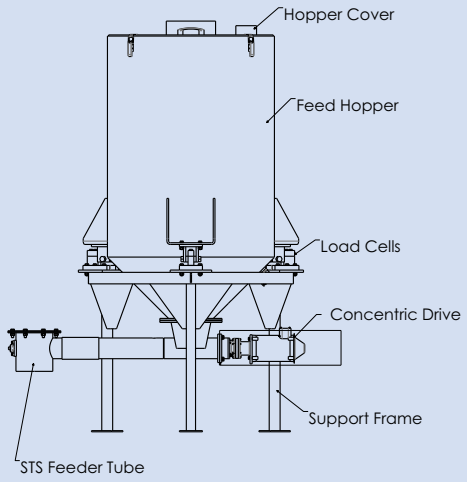


Model 2 STINGER® Feeder with STS Feeder Tube

TECHNICAL DATA:

MATERIALS OF CONSTRUCTION:
Per customer order requirements, available options include:
Feed Hopper:
Option 1: Painted Carbon Steel Exterior with bare metal interior
Option 2: 304 Stainless Steel
Option 3: 316 Stainless Steel

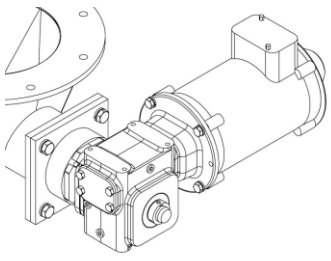
Standard Hopper Cover:
- 18" to 36" dia. hopper sizes:
- 48" to 96" dia. Sizes: Fixed, welded cover with optional access hatch

Support Frame:
- Option 1: Painted Carbon Steel
- Option 2: 304 Stainless Steel

Feeder Tube:
- Standard: 304 Stainless Steel Housing with 316 Stainless TransFlow Fluidizing Media
- Option 1: 316 Stainless Steel Housing with 316 Stainless Steel TransFlow Fluidizing Media

Auger:
- Option 1: Replaceable High Density Polyethelyne flighting on rigid 304 Stainless Steel Hex Shaft
- Option 2: 304 Stainless Steel
- Option 3: 316 Stainless Steel

Assembly Hardware: 8-18 Stainless Steel



Right Angle Drive Option

TEMPERATURE RANGE:
Scales are temperature compensated from 14º F to 104º F (10º C to 40º C)

COMPRESSED AIR/GAS USAGE
Pressure: 10 to 30 psig

Feeder Size	Air Volume
18"	4 - 11 SCFM
24"	8 - 21 SCFM
36"	20 - 50 SCFM
48"	35 - 90 SCFM

Feeder Size	Air Volume
60"	56 - 150 SCFM
72"	80 - 200 SCFM
96"	140 - 400

Air or gas volume dependents on feeder hopper, tube size and materials handled.

CONTROLS:
The Young Industries Model STS-2 Feeder is suitable for either Batch Feeding, Continuous Gravimetric Feeding, or Volumetric Feeding.The controls package set up determines the actual feeder package operation. Our family of Young Industries TOUCHSTONE™ controllers are designed to work seamlessly with each of our STINGER® Feeders. Customers may choose a suitable Batch, Continuous, or Volumetric control system to meet your specific application needs.

Standard TOUCHSTONE™ features include:
- Ships pre-configured for quick setup
- NEMA 4 enclosure with optional upgrade to explosion proof enclosure
- Features Quick Disconnect Electrical Fittings for quick and easy maintenance
- See Product Specification Sheet No. 270-405-1 for more information

ELECTRICAL AREA CLASSIFICATIONS:
- Standard NEMA 4
- Optional NEMA 4X, NEMA 7/9

POWER REQUIREMENTS:
- TOUCHSTONE™ controls: Universal Input Voltage accepts 120-220 V/50-60hz, single phase electrical supply.
- Instrument power: Standard 120V/60hz: Optional 24DC

DRIVE:
- Motor:
- Option 1: 1/8 - 5 HP, 230/460 Volts,3 ph, 50 -60 Hz.
- Option 2: 1/16 - 2 HP, 90 or 180 Volts, DC Motor.
- Option 3: Stepper Motor, NEMA 4 or NEMA 7.

** Explosion proof and wash down rated motors are also available as special options. Contact Young Industries for further information.

Gear Reducer Orientation:
- Option 1: Right Angle Drive
- Option 2: Concentric Drive

Standard features - Neither drive is orientation specific and can be located where needed in 90 degree increments

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