



Gravimetric & Volumetric Feeders



Engineered to Increase Productivity
and Built to Last



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The Best Weighing Accuracy of Fine Powders

Young Industries STINGER® feeder is a gravimetric loss-in-weight, gain-in-weight, or volumetric feed system designed for handling fine and cohesive powders. The STINGER® feeder solves common feeding problems that occur when handling these powders including no flow, flooding, rat holing, limited discharge rate, and product separation.

Unlike other gravimetric feeders that use brute force to make fine materials flow, the STINGER® feeder uses energy efficient TransFlow® Technology. This technology conditions the powders with a layer of air making it easy for them to flow and eliminates the expensive maintenance cost of the high horsepower motorized drives.

The STINGER® feeder design was originally developed for handling TiO₂ and other pigment powders

The Young Industries, Inc. has been designing compounding and batch weighing systems for over 50 years. In the past when we supplied these systems, we purchased feeders from other manufactures and incorporated them into our system design. These feeders use vibration or flexible hoppers and motor drive agitation to force fine powders to flow. We experienced the same problems with these feeders that everyone has including frequently repairing flexible hoppers and replacing damaged screws due to overloading by the high horsepower motorized drives. Our development of TransFlow® Technology produced an improved manner to handle and control the feeding of fine powdered materials.

The STINGER® feeders are most appropriate for feeding cohesive, fine and ultra-fine particle materials

The majority of fine powders are difficult-to-handle materials

that tend to pack, cake, smear, break apart, flush or bridge. The STINGER® feeder accurately feeds titanium dioxide, zinc oxide, iron oxide, carbon black, pigments, clays and other difficult-to-handle materials.

TransFlow® Technology makes it easy for the material to flow

The unique feature of all STINGER® feeders is the use of TransFlow® aeration media technology. This technology is used in the weigh hopper and the feed tube components. Transflow® is a porous 316 stainless steel construction media with an ultra smooth finished contact surface. This media produces an evenly distributed layer of air or gas that conditions the product above it. This layer of air and product makes it easy for the material to move and slide.

Two Feed Methods for exclusive application advantages

STINGER® Feeder is available in two distinct feed method configurations as described below. In short, the difference between the two feed configurations are related to the feed method.

- Model STS STINGER® feeder tube uses an auger to regulate materials. The speed of the feed is limited to the capacity of the screw.
- Model ST STINGER® feeder tube feeds material without an auger so the feeder is not limited by the capacity of the auger. Feed rates of a Model ST feeder are generally much faster than that of a Model STS feeder. However with the high rate of feed, accuracy with a model ST Feeder is often less than that which can be achieved when using an auger to regulate flow.

Features	Model "STS" Feeder Tube	Model "ST" Feeder Tube
Feeder Tube Feed Method	TransFlow + Auger	TransFlow Only
Feed Applications	Batch, Rate, Volumetric	Batch
Feed Control Range	100:1	500:1
Feed Rate	Standard up to 800 cu. ft. per hr., Options available up to 9,000 cu. ft. per hr.	Model 1 up to 30,000 lbs. per hr. Model 2 up to 300,000 lbs. per hr.
Batch Accuracy	+/- .1% or better	Up to +/- .1 lb
No. of moving parts in product area	1	0
Length of Feeder Tube	Max. 6 ft.	Model 1 max.10 ft. Model 2 max.20 ft.
Ability to feed around corners	No	Yes - Max. 90° per turn
Ability to feed up hill	Max. 10 degrees	Max. 90 degrees

Model 1 Advantages

The "STS-1 and ST-1" feeder tubes are used with Model 1 Square STINGER® Feeders. The Model 1 is designed with economy and space-savings in mind. The compact hopper is usually recommended for handling the lower feed rates on batch weighing, continuous gravimetric loss-in weight and volumetric applications.



STS-1 STINGER® Feeder
Model 1

Model 2 Advantages

The "STS-1 and ST-1" feeder tubes are used with Model 2 Round STINGER® Feeders. The Model 2 Feeder is designed for high throughput capacity applications. The standard hopper is usually recommend for feed rates greater than 800 cu. ft. per hour on batch weighing, continuous gravimetric loss-in-weight and volumetric applications.

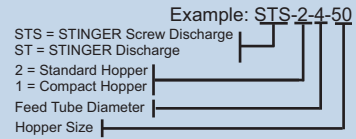


STS-2 STINGER® Feeder
Model 2



Typical STINGER® Feeder Models

- STINGER® Feeder Model No. STS-2-6-100
- STINGER® Feeder Model No. STS-2-4-50
- STINGER® Feeder Model No. STS-2-1.5-3
- STINGER® Feeder Model No. STS-1-1.5-1.5
- STINGER® Feeder Model No. STS-1-2-4
- STINGER® Feeder Model No. STS-1-3-13



Standard STINGER® Feeders are shown on the right.

All feeders can be custom designed and configured beyond options listed below.

Contact us for more information.



Model 1 Stinger® Feeder



Model 2 Stinger® Feeder

Options Available	Model 1 Feeder Hopper	Model 2 Feeder Hopper
Standard Hopper Size	9", 12", 18", 24", 36" Square	18", 24", 36", 48", 60", 72", 96" Diameter,
Standard Hopper Capacity	.33 cu. ft. to 30 cu. ft.	3 cu. ft. to 500 cu. ft.
Custom Hopper Size	Minimum - .33 cu. ft. Maximum size - 40 cu. ft.	Minimum - 2 cu. ft. Maximum - As needed
Scale Capacity	30 lbs. to 5,000 lbs	Minimum - 100 lbs. Maximum - As needed
Feed Tube Size - Standard	1.00" to 6.00"	1.00" to 6.00"
Feed Tube Size - Custom	As needed	As needed
Electrical Requirements	110v to 220v, 50-60 hz, 1 ph. input	110v to 220v, 50-60 hz, 1 ph. input
Materials of Construction	Painted Carbon Steel 304 Stainless Steel WPC 316 Stainless Steel	Painted Carbon Steel 304 Stainless Steel WPC 316 Stainless Steel

Design Features		
Feed hopper & Feeder Tube	Single piece uni-body construction for economical low-headroom design	Modular construction to allow maximum number of hopper & feed tube configurations
Feed hopper pressure range	Standard -5 to +0.5 psi Custom -3 to +5 psi	Standard -1 to +3 psi Custom -30 to +150 psi



The STINGER® gravimetric and volumetric feeders are controlled by the Touchstone™ Control Systems. This system is complete with a 10.4" color touch screen display assembled in a NEMA 4 enclosure with a copyrighted software program designed for full control of any of the STINGER batch and continuous feeders.

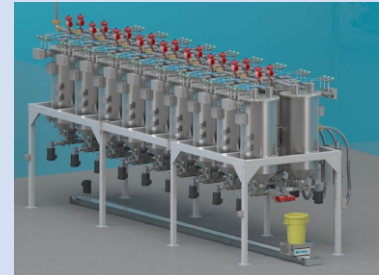
Hazardous area control packages are also available.

Young Industries has been designing, engineering, building and installing turnkey batch weighing system for over 50 years.

These batching systems range from large PVC compounding and chemical processing facilities to individual paper bag loss-in-weigh one ingredient systems.

The Young Industries Batching Systems handles difficult-to- handling products like titanium dioxide and other pigments.

If you are looking for highly accurate, efficient and reliable equipment and systems, contact us at mktinfo@younginds.com.



Fine tune your process with product testing

Complete product testing facilities are available at our Muncy plant. Tests are conducted on your material by our trained Bulk Materials Handling Engineers and Technicians. You are welcome to view the demonstration of equipment at work on your own product.

For more information, call 570-546-3165 or fax 570-546-1888 or e-mail mktinfo@younginds.com

SEEING IS BELIEVING Mobil STINGER® Test System Now Available for a Visit to Your Plant



Mobile demonstration trailers are located throughout the United States making it easy to provide first hand knowledge about how the STINGER® handles your materials. A unit can be quickly set up in any convenient plant location (Even in your parking lot). This will enable your key personnel to see the STINGER® handle your powder products; providing immediate answers. Demonstrations are free.

Give us a call at 800-546-3165 or email us at mktinfo@younginds.com to contact our Area Representative to schedule a visit.