

Acrison[®]

Volumetric Feeders Models 105 and 140 Series

For Dry Solid Materials



*Advanced Materials-Handling Technologies Combined with
Strong Mechanical Designs for Superior Metering Performance
and Equipment Reliability*

Volumetric Feeders Models 105 and 140 Series *For Dry Solids*

Introduced in 1965, the Models 105 and 140 Series of Volumetric Feeders, designed with Acrison's unique Dissimilar Speed, Double Concentric Auger Metering Mechanism, operate in virtually every conceivable process where dry solids metering is a requirement. This extremely effective, time-proven metering concept possesses the inherent ability to accurately and reliably feed an unparalleled variety of dry solid ingredients.

Operation

Acrison's Double Concentric Auger Metering Mechanism consists of a large 'Conditioning Auger' (Intromitter) concentrically mounted around a smaller 'Metering Auger', independently driven at dissimilar speeds in a 'fixed proportion' to each other by a single variable speed gearmotor.

Rotation of the Intromitter produces unidirectional movement of material within the feeder's feed chamber that very effectively 'conditions' the material to a consistent state (density), while efficiently and reliably filling the Metering Auger from a full 360 degrees for accurate and highly dependable product delivery (feed). **Clearly, no other method for filling the metering auger of a dry solids feeder is as positive or effective.**

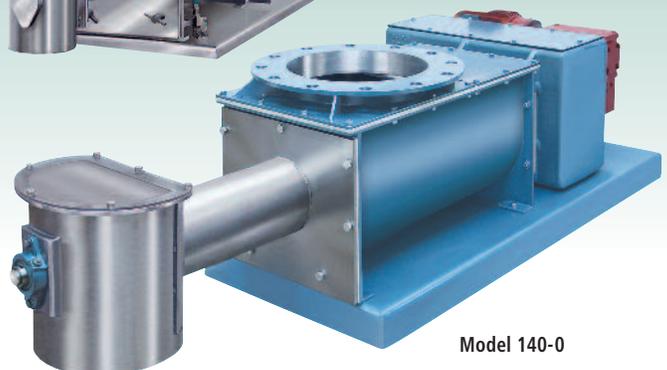
The Intromitter (or Conditioning Auger) operates at a slower speed than the smaller Metering Auger, with the 'ratio' between the two augers factory selected based on the physical characteristics of the product or products being handled, and feed rate requirements.

Acrison's Models 105 and 140 Series of Feeders are ruggedly constructed for long, dependable service in the typically adverse industrial environments. Maintenance requirements are minimal, and long-term operating costs are the lowest in the industry. Longevity is exceptional.

Volumetric metering accuracies generally range between ± 1 to 2 percent or better (error) for the majority of products. Accuracy is based on a given number of consecutive one minute samples.



*Acrison's Dissimilar Speed, Double Concentric Auger Metering Mechanism (Single Common Drive)
Models 105 and 140 Series*



Model 105 Series of Volumetric Feeders



Standard Features

Model 105

- Feed rates range from 0.0012 to 14 cubic feet per hour in the utilization of different size metering augers.
- Furnished with a one cubic foot supply hopper, a flanged feed chamber, or a flanged feed chamber with a cover having a circular inlet up to 6 inches in diameter.
- Equipped with a 6 inch OD Intromitter.
- Powered by a 1/2 HP, totally enclosed, variable speed AC or DC gearmotor with a 10:1, 20:1, 30:1 or 50:1 speed range.

Model 105X

- Feed rates range from 0.0012 to 51 cubic feet per hour in the utilization of different size metering augers.
- Furnished with a one cubic foot supply hopper, a flanged feed chamber, or a flanged feed chamber with a cover having a circular inlet up to 9 inches in diameter.
- Equipped with an 8 inch OD Intromitter.
- Powered by a 3/4 HP, totally enclosed, variable speed AC or DC gearmotor with a 10:1, 20:1, 30:1 or 50:1 speed range.

Model 105Z

- Feed rates range from 0.0012 to 202 cubic feet per hour in the utilization of different size metering augers.
- Furnished with a one cubic foot supply hopper, a flanged feed chamber, or a flanged feed chamber with a cover having a circular inlet up to 12 inches in diameter.
- Equipped with a 10 inch OD Intromitter.
- Powered by a 1 HP, totally enclosed, variable speed AC or DC gearmotor with a 10:1, 20:1, 30:1 or 50:1 speed range.

Standard Features Common To All Models

- Product contact surfaces are 304 stainless steel, including the feeder's drive shafts and seal components. The metering auger is 316 stainless steel.
- The Intromitter is flange-attached to its drive shaft.
- The metering auger threads onto its drive shaft.
- Heavy-duty, dust-tight construction.
- Silent when operating.
- Temperature: Ambient . . . - 20 to 140 degrees F.
Product . . . - 20 to 200 degrees F.

Optional/Accessory Equipment

- Various materials of construction
- Integral supply hoppers with the size dependent upon the feeder model and product handling characteristics.
- Various AC and DC variable speed motor controllers and control modes.
- Quick disconnect construction for easy/thorough cleaning.
- Sanitary construction to satisfy USDA and FDA regulations (includes quick disconnect construction).
- High temperature construction (product).
- Pressure construction.

MODEL 105 FEEDER SERIES CAPACITY CHART

(Capacities shown in cubic feet per hour)

Model Size	Minimum Output		Maximum Output
	30:1 Speed Range	50:1 Speed Range	
105-A	0.002	0.0012	0.06
105-B	0.005	0.003	0.15
105-BC	0.0127	0.0076	0.38
105-BB	0.018	0.0108	0.54
105-C	0.03	0.018	0.9
105-CC	0.047	0.028	1.4
105-D	0.08	0.048	2.4
105-DD	0.14	0.084	4.2
105-E	0.2	0.12	6
105-EE	0.29	0.174	8.7
105-EF	0.38	0.23	11.4
105-F	0.47	0.28	14
* 105-FF	0.63	0.38	19
* 105-G	0.97	0.58	29
* 105-GG	1.4	0.84	42
* 105-H	1.7	1.02	51
** 105-HH	2.4	1.4	72
** 105-K	3.2	1.9	96
** 105-KK	3.9	2.4	118
** 105-M	5.3	3.2	160
105-N	6.7	4.0	202

* Available on the Models 105X and 105Z only.

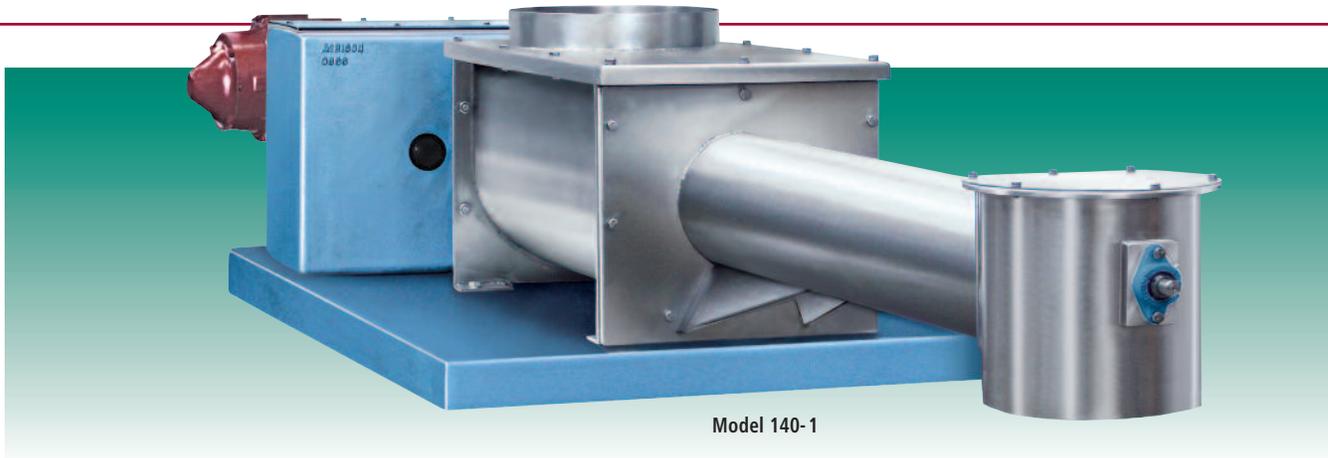
** Available on the Model 105Z only.

Output Capacities

The above Chart indicates the typical maximum output capacity for each size metering auger available with the Model 105 Series of Feeders. Capacities are based on feeding a dry, amorphous material. In addition, the Chart shows the minimum output feed rate for each size metering auger based on a 30:1 and 50:1 speed range (10:1 and 20:1 speed ranges - not shown). The speed range is a function of the selected variable speed motor and controller.

Since the physical properties of a given product often affect the exact output, the stated capacities could vary.

Model 140 Series of Volumetric Feeders



Model 140-1

Standard Features

Model 140-0

- Feed rates range from 4.8 to 600 cubic feet per hour in the utilization of different size metering augers.
- Furnished with a flanged feed chamber, or a flanged feed chamber with a cover having a circular inlet up to 12 inches in diameter.
- Equipped with a 12 inch OD Intromitter.
- Powered by a 2 HP, totally enclosed, variable speed AC or DC gearmotor with a 10:1, 20:1, 30:1 or 50:1 speed range.

Model 140-1

- Feed rates range from 18 to 1800 cubic feet per hour in the utilization of different size metering augers.
- Furnished with a flanged feed chamber, or a flanged feed chamber with a cover having a circular inlet up to 15 inches in diameter.
- Equipped with a 15 inch OD Intromitter.
- Powered by a 3 HP, totally enclosed, variable speed AC or DC gearmotor with a 10:1, 20:1, 30:1 or 50:1 speed range.

Model 140-2

- Feed rates range from 48 to 3400 cubic feet per hour in the utilization of different size metering augers.
- Furnished with a flanged feed chamber, or a flanged feed chamber with a cover having a circular inlet up to 18 inches in diameter.
- Equipped with an 18 inch OD Intromitter.
- Powered by a 5 HP, totally enclosed, variable speed AC or DC gearmotor with a 10:1, 20:1, 30:1 or 50:1 speed range.

Standard Features Common To All Models

- Product contact surfaces are available in mild steel and 304 stainless steel. The Intromitter and metering auger are constructed of the same material as that of the feeder. The feeder's drive shafts and seal components are 304 stainless steel.
- The Intromitter is flange-attached to its drive shaft.
- The metering auger threads onto its drive shaft.
- Heavy-duty, dust-tight construction.
- Silent when operating.
- Temperature: Ambient . . . - 20 to 140 degrees F.
Product . . . - 20 to 200 degrees F.

Optional/Accessory Equipment

- Various materials of construction
- Integral supply hoppers with the size dependent upon the feeder model and product handling characteristics.
- Various AC and DC variable speed motor controllers and control modes.
- Quick disconnect construction for easy/thorough cleaning (certain models).
- Sanitary construction to satisfy USDA and FDA regulations (includes quick disconnect construction when applicable).
- High temperature construction (product).
- Pressure construction.

MODEL 140 FEEDER SERIES CAPACITY CHART (Capacities shown in cubic feet per hour)			
Model Size	Minimum Output		Maximum Output
	30:1 Speed Range	50:1 Speed Range	
140-0-NN	8	4.8	240
140-0-P	11	6.4	320
140-0-R	20	12	600
140-1-S	30	18	900
140-1-T	40	24	1200
140-1-U	60	36	1800
140-2-V	80	48	2400
140-2-W	113	68	3400

Output Capacities

The above Chart indicates the typical maximum output capacity for each size metering auger available with the Model 140 Series of Feeders. Capacities are based on feeding a dry, amorphous material. In addition, the Chart shows the minimum output feed rate for each size metering auger based on a 30:1 and 50:1 speed range (10:1 and 20:1 speed ranges - not shown). The speed range is a function of the selected variable speed motor and controller.

Since the physical properties of a given product often affect the exact output, the stated capacities could vary.

Models 105 and 140 Series of Volumetric Feeders



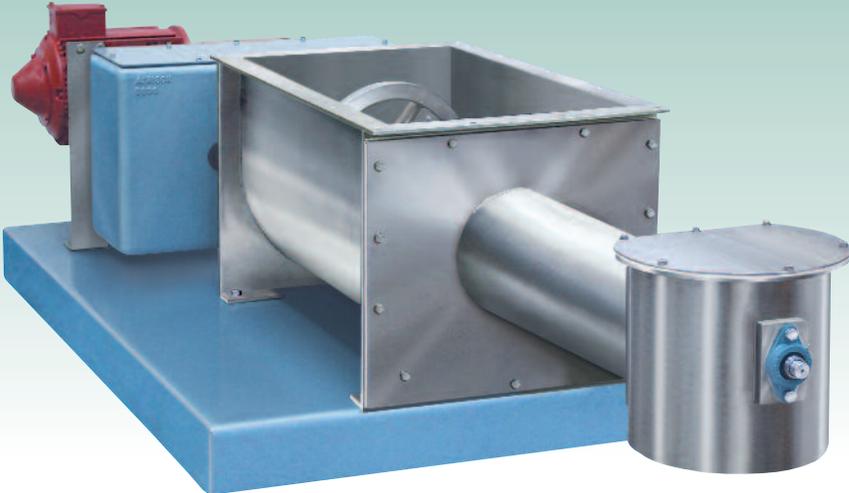
Model 105



Model 105X



Model 105Z



Model 140-1

Discover the difference!

We cordially invite you to witness a test in Acrison's state-of-the-art Customer Demonstration Facilities handling your actual product(s) with the specific equipment we recommend for the application. Usually, there is no cost or obligation for this service.

Discover the difference in technology, quality and performance of Acrison equipment.



Empire Boulevard Facility
Moonachie, NJ USA

Acrison products...

- Models 101 and 130 Volumetric Feeder Series
- Models V-101 and V-130 Volumetric Feeders
- Model 1015 Volumetric Feeder Series
- Model 105 Volumetric Feeder Series
- Model W-105 Volumetric Feeder Series
- Model 120 Volumetric Feeder
- Model 140 Volumetric Feeder Series
- Model 170 Volumetric Feeder Series
- Model 905-18 Volumetric Feeder
- Bin Discharger Feeders
- Model 200 Weigh Belt Feeder Series
- Model 203B Weigh Auger Feeder Series
- Model 270 In-Line Weigh Feeder Series
- Models 402 and 404 Series, 405, 406, 407X, 408 and 410 'Weight-Loss' Weigh Feeders
- Model Series 403 'Weight-Loss' Weigh Feeders
- Model 403B(D) Batch/Dump Weighing Systems
- Model 404BZ(BU) Bulk Bag Unloader Batch Weigher
- Models 350 and 301 Continuous Blenders and Blending Systems
- Multiple Auger Bin Dischargers and Multiple Auger Bin Discharger Hoppering Systems
- Vibratory Bin Discharger Hoppering Systems
- Model 170-BD-30 Bin Discharger
- Model 800 Series Bulk Bag Unloaders
- Models 500, 515, 530, and 580 Polyelectrolyte Preparation Systems
- Water and Waste Water Treatment Systems
- Volumetric and Gravimetric Feeder Controllers and Control Systems
- Silo Systems
- Accessory Equipment for Acrison Products
- Systems Engineering



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