Acrison®

Water and Wastewater Treatment Equipment and Systems

Product Line Overview

Quality built, total performance products to satisfy your dry and liquid chemical feeding and handling needs.

Acrison®

Superior Quality, Rugged-Duty Equipment For Dry Chemicals

Storage - Hoppering - Metering - Dissolving

From a wide range of dry chemical feeders and feeder/dissolving assemblies to advanced dry and liquid polymer preparation systems, to the design and implementation of product storage silos and the dependable removal, metering and dissolving of the chemicals contained within, Acrison manufacturers such equipment, and much more, to meet the growing needs of the various Water and Wastewater Treatment Industries.

And aside from heavy-duty Volumetric and Gravimetric Feeders, including product supply systems for these Feeders, Acrison also manufactures Bin Dischargers, Bulk Bag Unloaders, Bin Vent Filters, Dust Collectors, Dust Collector Bag-Dump Stations, ancillary products to operate in conjunction with its equipment, including leading-edge Controllers and Control Systems.

Headquartered in Moonachie, New Jersey, Acrison's two facilities, totaling over 140,000 square feet, house a staff of professionals conducting marketing and sales, research and development, mechanical and electrical engineering, manufacturing, equipment operational demonstrations, and customer services. Acrison's basic philosophy is to produce the most viable and reliable equipment encompassing innovative, exceptionally functional rugged-duty designs, and to provide strong user support.

Acrison is proud of its innovations and products, and their contribution to the Water Treatment Industries. Acrison is also proud of its people and most of all, Acrison is most appreciative of its customers.

Acrison's various Products are fully described in individual Bulletins or Equipment Specifications. For additional information, please visit Acrison's Website at www.acrison.com

A Model W-105Z Volumetric Feeder configured to meter a chemical into an Acrison Low Capacity Wetting Cone. The Feeder's hopper includes a Low Level Probe.

Volumetric Feeders

Model W-105 Series

Designed to handle various dry chemicals, the Models W-105 and W-105Z Volumetric Feeders are usually supplied as part of a package for water and wastewater treatment processes. These rugged-duty feeders employ Acrison's dissimilar speed, Double Concentric Auger Metering Mechanism for unequalled performance and trouble-free operation. And they are available with either AC or DC variable speed drives.

Typical metering accuracies range between ± 1 to 2 percent or better (error) based on a given number of consecutive one minute samples.

Model W-105

Used for semi-free flowing materials, this model features a six inch diameter Intromitter or 'conditioning' auger. Output capacities range between 0.0015 and 7 cubic feet per hour.

Model W-105Z

Used for non-free flowing materials, this model features a ten inch diameter Intromitter or 'conditioning' auger. Output capacities range between 0.14 and 101 cubic feet per hour.

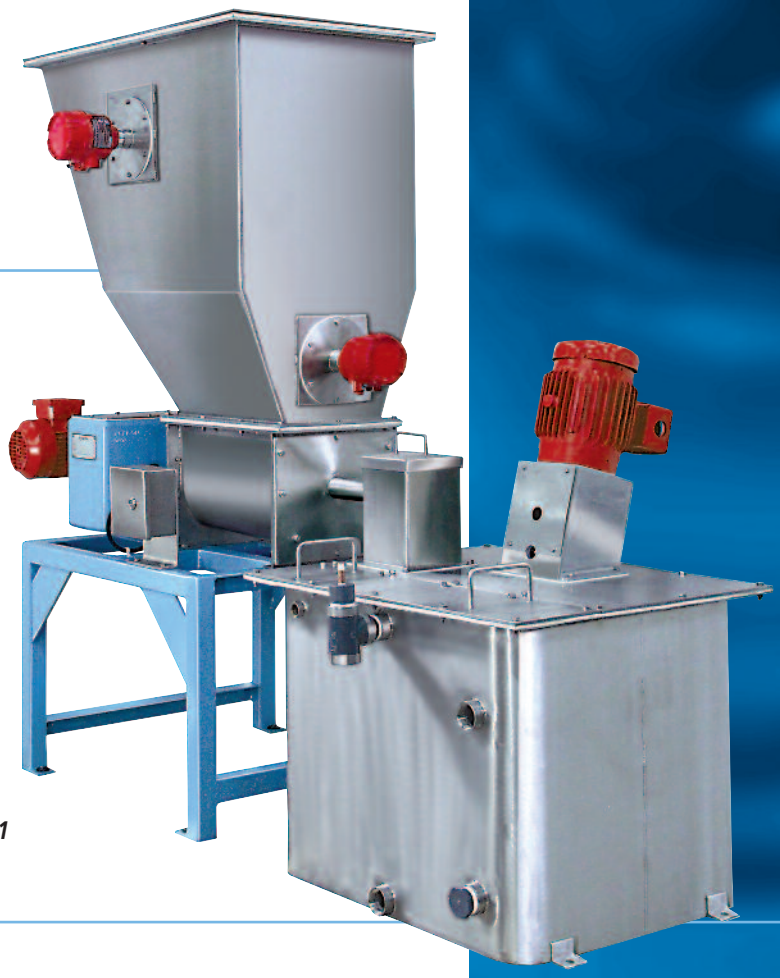
Optional and Accessory Equipment

To operate in conjunction with its metering equipment, Acrison provides various size feeder supply hoppers, bag loading hoppers, dust collectors, dust collector bag dump stations, vacuum hopper loaders, bulk bag unloaders, associated controls, etc.

Model W-105Z Volumetric Feeder

Dissolving Tanks

Acrison Dissolving Tanks are used to produce solutions or slurries by effectively and efficiently mixing dry solids (chemicals) with water. Typically, a dry chemical is metered into the Dissolving Tank by an Acrison Volumetric Feeder as shown.



A Model W-105Z Volumetric Feeder configured to meter a chemical into a standard Acrison 50 gallon Dissolving Tank. The Feeder's hopper includes High and Low Level Probes.

Reference Equipment Specifications 1-200-0011

Wetting Cones

Operating in conjunction with Acrison Model W-105 Series of Volumetric Feeders, Acrison 'Wetting Cones' have been specifically designed for 'wetting' activated carbon, potassium permanganate, and certain other dry chemicals.

Chemical metered into the Wetting Cone is captured by rapidly swirling water discharging into an eductor that ensures both complete 'wetting' of the chemical and transport of the solution. The Wetting Cone is 316 stainless steel in construction and available with a High Level Probe.

An Acrison Model DCBDS-400 (Dust Collector Bag Dump Station) mounted onto the hopper of a Model W-105Z Volumetric Feeder; the hopper includes a Low Level Probe. The Feeder is configured to meter a chemical into a Low Capacity Wetting Cone.

Reference Equipment Specifications 1-200-0011

Vibrating Bin Dischargers

With Integral Storage Hoppers and Feeders, and Dissolving Tanks

A Model W-105Z Volumetric Feeder mounted beneath a 50 cubic foot Storage Bin equipped with a Vibrating Bin Discharger. A Low Level Probe in the Feeder's Supply Hopper controls operation of the Bin Discharger. The Feeder is configured to meter a chemical into an Acrison 200 gallon Dissolving Tank.

Acrison's Vibrating Bin Dischargers promote continuous positive discharge of dry solid products from within integral storage hoppers into Acrison Feeders. Product discharge is on a first-in/first-out basis, accomplished without compaction, degradation or attrition.

Acrison manufactures Vibrating Bin Dischargers in two sizes (32" and 36"), which are furnished with integral Storage Bins (or Hoppers) that, depending upon the size of the Vibrating Bin Discharger, range in capacity from 20 to 150 cubic feet to operate in conjunction with Acrison Feeders as a standard factory-assembled package.

Standard materials of construction are carbon steel, 304 and 316 stainless steel.

Reference Equipment Specifications 1-200-0296

Weigh Feeders

'Weight-Loss'

For accurately and reliably metering dry solids (and liquids).

Designed and manufactured by Acrison, these Weigh Feeders feature precision, exceptionally durable weighing systems that are built to last. They are also permanently calibrated and virtually maintenance-free.

Models 405, 402 and 402X

For metering dry solids such as hydrated lime, powdered activated carbon, soda ash, boric acid, fluoride, alum, diatomaceous earth, etc.).

- Continuous metering accuracy typically ranges between ± 0.25 to 1 percent (error) at two sigma, based on a consecutive number of one minute weighments.
- Compact, heavy-duty 'platform' type weighing systems that do not require calibration, adjustment or re-zeroing.
- Wide range of feed rate capacities.
- Operated by advanced, highly reliable Acrison Multiprocessor Controllers
- Five year warranty on the entire weighing system of the weigh feeder, including its Digital Weight Resolver (weight sensor) and associated electronics.

Reference Bulletin 893

Model 405-105X

Model 402X-BDF-1.5-2

Model 402-105Z

Dry/Liquid Polymer Preparation Modules/Systems

Model 500 Polymair® Preparation System

The Model 500 Polymair Preparation System automatically prepares a homogeneous polymer solution at moderate to high capacities via the use of a novel dry air atomizing and wetting system, especially effective for use with very fine dry polymers. Although usually furnished to handle only a dry polymer, the Model 500 System can also be furnished to handle both dry and liquid polymers. To accomplish this, a dry solids feeder and a liquid metering pump (and Dispersion-Injector) are included. Manual selection provides automatic transfer from dry to liquid or liquid to dry operation without the need for any equipment modifications. Different size systems provide a wide range of polymer metering capacities and solution concentrations.

The Model 500 Polymair Preparation System is completely assembled and mounted onto a 'skid' type base. An aging tank, when furnished, is provided separately.

Reference Bulletin 500

Model 515 Polymer Preparation Module

The Model 515 Polymer Preparation Module automatically prepares a homogeneous and precise solution from dry and/or liquid polymers at low to moderate capacities. To accomplish this, a dry solids feeder meters dry polymer into a wetting chamber, or a pump meters liquid polymer into a Dispersion-Injector, where it instantaneously mixes with water. Manual selection provides automatic transfer from dry to liquid and liquid to dry operation without the need for any equipment modifications. The prepared solution is then transferred (pumped) from the Model 515 Module to the required mixing/aging tank or tanks.

The Model 515 Polymer Preparation Module is provided as a complete packaged assembly mounted onto a 'skid' type base.

Reference Bulletin 515

Liquid Polymer Preparation Modules

Model 580X Polymer Preparation Module

For the efficient and precise activation of liquid polymers, using a novel two stage activation process.

The Model 580X Polymer Preparation Module automatically prepares a fully blended and active solution from liquid polyelectrolyte emulsions and solutions.

To accomplish this, a pump meters liquid polymer into Acrison's unique 'Dispersion-Injector' where the polymer initially and very effectively mixes and combines with water. The output of the Dispersion-Injector discharges directly into a motorized 'Activation Chamber' where the polymer and water solution are thoroughly and instantaneously mixed for final and complete activation.

The prepared solution immediately discharges from the Preparation Module either directly into the process, or through a retention vessel before being applied to the process. The Model 580X Preparation Module is furnished in a durable packaged assembly. Different capacity systems provide a wide range of polymer metering capabilities and solution concentrations.

Model 580X-00 - Rated for a maximum polymer flow of 0.6 gallons per hour and a maximum water flow of 3 gallons per minute. The minimum water flow is 0.5 gallons per minute.

Model 580X-0 - Rated for a maximum polymer flow of 1.5 gallons per hour and a maximum water flow of 8 gallons per minute. The minimum water flow is 2 gallons per minute.

Model 580X-1 - Rated for a maximum polymer flow of 5 gallons per hour and a maximum water flow of 14 gallons per minute. The minimum water flow is 4 gallons per minute.

Model 580X-2 - Rated for a maximum polymer flow of 10 gallons per hour and a maximum water flow of 18 gallons per minute. The minimum water flow is 7 gallons per minute.

Model 580X-3 - Rated for a maximum polymer flow of 15 gallons per hour and a maximum water flow of 28 gallons per minute. The minimum water flow is 9 gallons per minute.

Model 580X-4 - Rated for a maximum polymer flow of 30 gallons per hour and a maximum water flow of 50 gallons per minute. The minimum water flow is 15 gallons per minute.

Reference Equipment Specifications 1-200-0552

Model 580X with a Progressive Cavity Pump.

Bulk Bag Unloaders

Models 810, 821 and 822

Acrison Bulk Bag Unloaders provide a clean, safe and effective means for discharging a wide variety of dry materials contained within various size Bulk Bags, especially those products that do not flow freely. These ruggedly constructed Bulk Bag Unloaders typically discharge into an Acrison metering mechanism, or into a mechanical or pneumatic conveying system, and are capable of handling bulk bags weighing up to 2 metric tons.

The Models 810 and 821 are designed to empty the entire contents of a bulk bag whereas the Model 822 is also capable of removing a partically empty bag. The Models 821 and 822 are entirely dust-tight.

Reference Equipment Specifications 1-200-0806 for the Model 810, and 1-200-0088 for the Models 821 and 822.

A Model 810 Bulk Bag Unloader discharging into the hopper of an Acrison Model 105Z Volumetric Feeder. A Maintenance Gate is provided above the Feeder's inlet. The Feeder is configured to meter a chemical into a Low Capacity Wetting Cone.

A Model 821 Bulk Bag Unloader (configured for Fork Truck loading) discharging into an Acrison Model BDF-1.5 Volumetric Feeder. The Feeder's supply hopper is equipped with two Level Probes.

Bulk Bag Unloaders

Model 822

Acrison's ultra-modern equipment demonstration facilities are the largest, most advanced and best-equipped in the industry. We'll be glad to demonstrate the operation of the selected equipment with your actual product, normally, without any charge or obligation. Test procedures are generally completely automatic.

We guarantee the equipment we offer will meet or exceed the performance specifications of your application.

In addition to equipment demonstration/materials testing, Acrison also offers comprehensive user training programs, focusing on equipment operation and maintenance. Acrison also offers customized seminars dealing with the application of Acrison products.

Close-up of a Model 84-SCM Bag Spout Clamping Mechanism associated with a Model 822 Bulk Bag Unloader.

Reference Equipment Specifications 1-200-0088

A Model 822 Bulk Bag Unloader configured for loading with a Fork Truck.

Acrison Controllers

For Volumetric and Gravimetric Feeders

Model 060 Variable Speed SCR/DC Motor Controller

For use with Acrison Volumetric and Gravimetric Feeders

Acrison's Model 060 is an industrial-duty, variable speed SCR/DC motor controller providing accurate and dependable speed control of direct current (DC) motors used primarily as variable speed drives for Acrison's various model feeders.

The Model 060 is available in two sizes. In one configuration, the Model 060 will control DC motors ranging from 1/8 to 1 horsepower (inclusive). In a second configuration, the Model 060 Controller will operate 2 to 5 horsepower DC motors. The standard enclosure for each configuration is dust-tight/water-tight. Optional mountings and enclosures are also available.

The Model 060 Controller will operate with either armature or tachometer feedback. Armature feedback provides a 30:1 speed range; tachometer feedback provides precision speed regulation and linearity, and a 50:1 speed range.

NOTE: AC variable speed drives are also available.

Reference Equipment Specifications 1-200-0437

Model SBC-3000® Weigh Feeder Controller

For use with Acrison Weigh Feeders

The Model SBC-3000 Controller operates a single Acrison Weigh Feeder. Its design integrates a single circuit module with a bright, state of the art TFT color-graphics display measuring 7 inches diagonally. The Controller is designed for panel-mounting in a dust-tight/water-tight assembly. The SBC-3000 Controller will operate with either Acrison specified AC variable frequency drives, or Acrison's Model 060 SCR/DC Motor Controller.

Model SBC-3000®-CM Weigh Feeder Controller

For use with Acrison Weigh Feeders

The Model SBC-3000-CM Controller operates a single Acrison Weigh Feeder. The Controller consists of a single circuit module designed for applications that utilize a central computer, PLC or DCS for monitoring and control, which do not require a local operator interface. A local Keyboard/Display unit is available as an option.

The SBC-3000-CM Controller is supplied in a card rack, the size of which depends upon how many Controllers will be required for a given application, and is frequently used in conjunction with Acrison's Acri-Data Multi-Feeder Supervisory Control System. This Controller will also operate with either Acrison specified AC variable frequency drives, or Acrison's Model 060 SCR/DC Motor Controller.

Reference Equipment Specifications 1-200-0601

Silo Systems

For Storing, Discharging, Feeding and Dissolving Dry Chemicals

To meet the growing needs of the various water and wastewater treatment industries, Acrison applies its in-depth expertise and experience to the design and implementation of product storage silos, and the dependable removal (discharge), metering and dissolving of the chemicals contained within.

- Various height and diameter Silos
- Various materials of construction
- Skirted Silos
- Single discharge Silos
- Dual discharge Silos
- Dust collectors (bin vents)
- Volumetric and 'Weight-Loss' Feeders for metering dry chemicals
- Equipment pre-installation
- Control panels

Reference Bulletin 924

The exterior and interior of a typical skirted Silo. A portion of the applicable Acrison Equipment can be seen installed inside the skirted bottom.

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

Joseph Street 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, and 580X 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

"Visibly Different... Measurably Better"

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300-0063/C/12-25/7004