

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 Chemical...

Hoppering - Metering - Dissolving

Headquartered in Moonachie, New Jersey, Acrison's North American facilities total over 140,000 square feet and accommodate a staff of several hundred employees conducting marketing and sales, research and development, mechanical and electrical engineering, manufacturing, customer support services and equipment operational demonstrations. Additional facilities serve markets outside of North America.

Acrison offers equipment to meet the growing needs of the various water and wastewater treatment industries by applying its industrially designed equipment to water treatment processes. From simple chemical feeding and dissolving packages, to advanced dry and liquid polymer preparation systems, Acrison's heavy-duty dry solids metering equipment is widely specified for water treatment applications.

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 builds equipment to satisfy the needs of its customers. Acrison is proud of its innovations and products, and their contribution to the municipal industries. Acrison is proud of its people, and most of all, Acrison is very proud of its customers.

Each of Acrison's various products is fully described in individual bulletins. Acrison welcomes the opportunity to make equipment recommendations, demonstrate the selected model, and in general, assist with any of your dry solids (and liquid) handling requirements, usually without charge or obligation.

For additional information, please visit Acrison's website at www.acrison.com



A Model W-105Z Feeder with a Dust Collector Bag Loading Station metering product into a 100 gallon Dissolving Tank.



A custom designed Model 500 Polymair System for a large wastewater treatment plant.

Volumetric Feeders

Water and Wastewater Treatment

Model W-105 Volumetric Feeder 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 capacity ranges between 0.03 and 57.5 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 capacity ranges between 0.03 and 110 cubic feet per hour.

Optional and Accessory Equipment

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



A Model W-105Z Volumetric Feeder metering into a 50 gallon Dissolving Tank.



A Model W-105Z Volumetric Feeder metering into a high capacity Wetting Cone.

Wetting Cones

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

The Wetting Cone is constructed of 316 stainless steel and includes a PVC eductor that ensures both complete wetting of the chemical and transport of the solution. The Wetting Cone includes an overflow port as standard and is available with an optional high level probe.

Dissolving Tanks

Available in various sizes, Acrison Dissolving Tanks are used to produce solutions or slurries by efficiently mixing dry materials (chemicals) with water. An Acrison Feeder is used to meter a dry chemical into a Dissolving Tank.

Equipment Specifications 1-200-0011



A Model W-105Z Volumetric Feeder metering into a low capacity Wetting Cone.

Vibrating Bin Dischargers with integral Storage Hoppers and Feeders for Dry Solid Materials

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 four sizes (18", 26", 32" and 36"), all of which are furnished with integral Storage Bins (or Hoppers) that, depending upon the size of the Vibrating Bin Discharger, range in capacity from 3 to 150 cubic feet to operate in conjunction with Acrison Feeders as a standard factory-assembled package. Larger Storage Bins are also available, equipped with larger Vibrating Bin Dischargers.

Standard materials of construction are carbon steel, 304 stainless steel and 316 stainless steel. Electrical requirements are 115/230/1/60 or 230/460/3/60.



A Model W-105Z Volumetric Feeder mounted beneath a 50 cubic foot Storage Bin equipped with a Vibrating Bin Discharger and Level Probes. The Feeder discharges into a 200 gallon Dissolving Tank.



A Model VBDSB-60-W-105Z.

The Vibrating Bin Discharger is suspended from the hopper above by three or four suspension rods equipped with vibration isolators specially designed to virtually eliminate transfer of vibration to the Supply Hopper and its integral structure. Vibration is produced by a totally enclosed, permanently lubricated, adjustable motor-driven vibrator.

Equipment Specifications 1-200-0296

Bulk Bag Unloader

Model 810 Bulk Bag Unloader

For Dry Solid Materials

Acrison's Model 810 Bulk Bag Unloader provides a clean, efficient and effective means for discharging a wide assortment of dry solid materials, especially those that do not flow freely, contained within various size and type Bulk Bags. Designed to empty the entire contents of a Bulk Bag, typically into an Acrison metering mechanism, the ruggedly constructed Model 810 Bulk Bag Unloader will handle bags weighing up to 2 tons; the bags can be disposable, reusable and/or lined.

Equipment Specifications 1-200-0806



A Model 810 Bulk Bag Unloader designed for hoist and trolley loading.



A Basic Model 810 Bulk Bag Unloader designed for forklift loading.



Dry/Liquid Polymer Preparation Modules/Systems

Model 500 Polymair® Preparation System

The Model 500 Polymair Preparation System automatically prepares a homogeneous and precise 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 shipped separately.

Equipment Bulletin 500



Model 512 Polymair® Preparation Module

The Model 512 Polymair Preparation Module automatically prepares a homogeneous and precise polymer solution at moderate capacities by means of a unique atomizing/wetting system. The Model 512 Module can also be furnished to handle both dry and liquid polymers. To accomplish this, both 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. Prepared solution is immediately transferred (pumped) to a separate mixing/aging or holding tank(s). Different size modules provide a wide range of polymer metering capacities and solution concentrations.

The Model 512 Polymair Preparation Module is provided as a complete packaged assembly mounted onto a “skid” type base. A mixing/aging tank (or tanks), when furnished, is shipped separately.

Equipment Bulletin 512



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. Different size modules provide a wide range of polymer metering capacities and solution concentrations.

Equipment Bulletin 515



Liquid Polymer Preparation Modules

Water and
Wastewater
Treatment

Model 580 Polymer Preparation Module

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

The Model 580 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 combines with water. The output of the Dispersion-Injector discharges directly into an "Activation Chamber" where the polymer and water solution is 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 580 Preparation Module is furnished in a durable packaged assembly. Different capacity systems provide a wide range of polymer metering capabilities and solution concentrations.

Model 580-00 - 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 580-0 - 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 580-1 - 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 580-2 - 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 580-3 - 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 580-4 - 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.

Equipment Specifications 1-200-0552



A Model 580-2 Polymer Preparation Module with secondary dilution.

Model 530 Polymer Preparation Module

The Model 530 Polymer Preparation Module has the same features and performance capabilities of the Model 580, except that it has a motorless Activation Chamber.

Equipment Specifications 1-200-0558



Series 400 Weigh Feeders

“Weight-Loss-Differential”

For reliable dry solids or liquid metering... featuring exceptionally durable weighing systems that are permanently calibrated and virtually maintenance-free.

Equipment Bulletins 897 and 893

Model 407 Series Weigh Feeders

- Dry material or liquid metering (typically for fluoride, alum, potassium permanganate, etc.)
- Continuous metering accuracy typically ranges between ± 0.25 to 1 percent or better (error), at two sigma, based on a given number of consecutive one minute weighments
- Compact platform type weighing systems
- Wide range of output capacities
- “Acric-Lok” Scale disturbance protection
- Various hopper capacities
- Various multiprocessor controllers
- Weighing system does not require calibration, adjustment and/or re-zeroing
- Five year warranty on the entire weighing system, including the Digital Weight Resolver (Sensor)



Model 407X-105X



Model 407-105

Model 402 Series Weigh Feeders

- Dry material or liquid metering (typically for hydrated lime, soda ash, powdered activated carbon, etc.)
- Continuous metering accuracy typically ranges between ± 0.25 to 1 percent or better (error), at two sigma, based on a given number of consecutive one minute weighments
- Compact platform type weighing systems
- Wide range of output capacities
- “Acric-Lok” Scale disturbance protection
- Various hopper capacities
- Various multiprocessor controllers
- Weighing system does not require calibration, adjustment and/or re-zeroing
- Five year warranty on the entire weighing system, including the Digital Weight Resolver (Sensor)



Model 402X-BDF-1.5



Model 402-105Z

Acrison Controllers

Model 060 Variable Speed SCR/DC Controller

For use with Acrison Volumetric 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.

Equipment Specifications 1-200-0437

NOTE: Optional AC variable speed drives are also available.



Model SBC-2000-DSP Controller

For use with Acrison Weigh Feeders

The Model SBC-2000-DSP Controller operates a single Acrison Weigh Feeder. It consists of a single circuit board (module) designed primarily for applications that require a local operator interface. The SBC-2000-DSP Controller is supplied with a dust-tight/water-tight monochrome LCD graphic Keyboard/Display Unit (KDU), designed for panel mounting.

Normally, this particular Controller is supplied in a NEMA enclosure sized and selected for the particular application, or it can be supplied loose for user mounting in an existing enclosure. The Model SBC-2000-DSP Controller has full certification to UL, CSA and IEC specifications, and includes a built-in feeder emulator for training and/or testing purposes.

Equipment Specifications 1-200-0601



Model SBC-2000-DSP/C Controller

For use with Acrison Weigh Feeders

Utilizing leading-edge multiprocessor logic encompassing highly perfected, time-proven functional algorithms, Acrison's Model SBC-2000-DSP/C Weigh Feeder Controller has been designed to operate a single Acrison Weigh Feeder in a batching or continuous mode. The user-friendly Controller consists of a single circuit board with an integral color TFT Graphic Display typically for panel mounting on the outer surface of a control enclosure. In addition, the Controller includes an assortment of standard and optional features, including broad interfacing capabilities.

Normally, this particular Controller is supplied in a NEMA enclosure sized and selected for the particular application, or it can be supplied loose for user mounting in an existing enclosure. The Model SBC-2000-DSP/C Controller has full certification to UL, CSA and IEC specifications, and includes a built-in feeder emulator for training and/or testing purposes.

Equipment Specifications 1-200-0601



Silo Systems

For Storing, Feeding and Dissolving Dry Chemicals

Acrison Silo Systems

Over the years, Acrison developed and perfected a number of unique and innovative metering mechanisms for feeding dry bulk solid materials... mechanisms that revolutionized the industry because of their inherent ability to feed more dry solid ingredients more accurately and reliably than any other. And with bare minimal maintenance requirements and unsurpassed longevity, the viability of Acrison dry solids metering and handling equipment has been proven time and time again in many thousands of successfully operating installations worldwide, strongly surviving the brutal test of time.

Today, 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.

Reference Bulletin 924 for additional information.

- Various height and diameter Silos
- Various materials of construction
- Skirted Silos
- Leg-supported Silos
- Single discharge Silos
- Dual discharge Silos
- Two-level storage rooms
- Dust collectors (bin vents)
- Volumetric and 'Weight-Loss' dry chemical feeding equipment
- Equipment pre-installation
- Specialized control panels
- Custom Designs



A typical Skirted Silo installation with the applicable Acrison metering equipment inside.

Demonstration Facilities

Water and Wastewater Treatment

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.



A Model 500 Polymair Preparation System.



A Model 580-1 Polymer Preparation Module with secondary dilution.

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 905-14 Volumetric Feeder
- Bin Discharger Feeders
- Model 200 Series Weigh Belt Feeders
- Model 203B Series Weigh Auger Feeders
- Model 270 Series of In-Line Weigh Feeders
- Models 402, 404, A405, 406, 407 and 410 Series ("Weight-Loss-Differential") Weigh Feeders
- Model Series 403 ("Weight-Loss-Differential") 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 Dischargers
- Model 170-BD-30 Bin Discharger
- Model 800 Series Bulk Bag Unloaders
- Model 500 Series 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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