

SMART SOLUTIONS For Pollution & Solids Handling

Jim Robbins and Associates, Inc.

Bulk Solids Handling and Pollution Control Equipment

Visit our web site: <u>www.RobbinsAssoc.com</u>

Jim Robbins: Middle TN (423) 756-4052 • Mike Murdock: Eastern TN (423) 756-4052 • Walker Robbins: Western TN, AR, MS (901) 726-1234



Mike Murdock

Mike Murdock Joins JRA Team

Jim Robbins & Associates is pleased to announce the addition of Mike Murdock to the JRA team as Sales Manager for East Tennessee. Mike has been trained by all our principal manufacturers and will manage sales & marketing in the East Tennessee region, located out of the Chattanooga, Tennessee JRA office.

Please welcome Mike to our team. You can contact Mike at 423-756-4052 or 423-326-9602, or send an e-mail to mike@robbinsassoc.com.

Cyclonaire Gets You Moving in the Right Direction



Offering Dense, Semi-Dense, and Dilute Phase Vacuum and Pressure Pneumatic Conveying, <u>Cyclonaire has selected JRA as reps in TN, AR and MS.</u> As the leading manufacturer of state-of-the-art pneumatic conveying systems, components and accessories, Cyclonaire has what it takes to get you moving in the right direction.

Through more than 40 years of service, Cyclonaire has successfully designed and developed innovative pneumatic conveying solutions for a variety of industries and unique applications, from bulk material transfer to railcar unloading, carbon black and cement conveying or dust collection. Cyclonaire can find a solution that optimizes the efficiency of your operation and meets your exact needs. In addition to complete pneumatic systems, Cyclonaire also offers a full line of components, parts and accessories to create the exact solution for your application.



Cyclonaire DPV-B Conveyor

Ventilex Offers Creative Solutions In Drying Technology



Ventilex Fluid Bed Dryer/Cooler



Ventilex and JRA have partnered to offer the smartest selection in Fluid Bed Dryers and Coolers, static or dynamic.

- · Versatility in residence time up to 2 hours
- Flexibility in bed thickness from 2" to 24" to dry or cool or all in one
 Choice of construction materials, from carbon and stainless steel to hastelloy or titanium
- Dry or cool from 5°F to 1112°F!
- Engineered systems with environmental controls always available
- Exclusive written warranty including Fluid Bed Energy Consumption
- Complimentary testing for qualified applications in USA
 These are the reasons we think Ventilex is the smartest solution.

 Call for a free analysis!

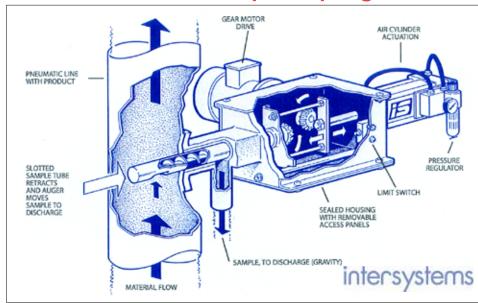
InterSystems PS Sampler Provides ASTM Strip Sampling

There are many reasons for sampling, and InterSystems PS Pneumatic Line Sampler is designed and built for your individual application.

Why Sample?

- · Chemical Analysis
- · Particle Size Analysis
- · Physical Appearance Review
- · Raw Material Verification
- · Production Control
- · Shipment Confirmation
- · Customer requests documentation
- · History or Retained Sample
- Safety = Insurance
- Impossible to get Representative Sample Sample materials ranging from microscopic powders to large granules and pellets, or heavy viscosity liquids with solid suspensions. I/S samplers can comply with ASTM standards.

I/S collects accurate samples from gravity or pneumatic conveying systems (positive or negative, dense or dilute phase) and may be mounted in vertical or horizontal



InterSystems PS Sampler

lines, spouts or chutes.

InterSystems also offers samplers for

chutes, pits, tanks, belt conveyors, and almost any other application.

Auburn Systems Introduces Model U3300™ Bag Leak Detector With RS-485 Communication

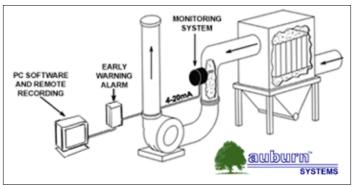
Auburn Systems announces the TRIBO.dsp $U3300^{\text{TM}}$ for flow or emissions applications.

The U3300 features the widest performance available in dust and particulate emissions monitors. The U3300 incorporates an easily-expandable design, suitable for small or large multi-channel dust monitoring applications.

Uniquely designed for minimal installation and implementation costs, the U3300 requires no field set-up or periodic adjustments. Virtually maintenance free, the U3300 is easily integrated into PLCs, HMI Screens, or PCs. In addition, the U3300 can be used as a stand-alone system or integrated into an existing data management system.

Other features include

- Remote control via RTU communication field bus
- No operator drift or zero adjustments required



Auburn's TRIBO.dsp U3300

- Automatic probe contamination check
- Detects both AC and DC triboelectric signals for maximum performance

Do You Maintain / Replace The Same Valve More Than Once Yearly?



Everlasting Bulk Material Valve

It may be time to consider Everlasting's Bulk Materials Valves.

Everlasting, with over 1,000,000 successes in 100+ years, has conceived this performance-proven valve specifically for gravity feed and/or pneumatic conveying of abrasives in dry processes.

The rotating shearing discs are self-lapping, rotating to polish away scratches that develop on the wide shearing surfaces.

Able to proportion, modulate or shift "on the fly," the size range of these long lasting, low maintenance valves range from 2" to 14", pressures up to100 psig; ambient to 750°F; standard construction of cast iron and carbon steel; ANSI flanged.

Also available, Everlasting's Process Valves are built to meet application requirements through 1500°F, and 10,000 PSIG, with a full range of options and materials of construction.

BACT's Efficient, Versatile Scrubber With Guaranteed Performance!



BACT Multi-Element Scrubber

The Multi-Element Scrubber by BACT Engineering has been successfully proven in many installations for the removal of particulate and gaseous contaminants. Combining scrubbing elements and mist eliminators in a single shell,



this scrubber provides an economical solution to air pollution control regulations.

Additional features of the BACT Multi-Element Scrubber include:

- · High efficiency over a wide pressure drop range
- Versatile design choice with multiple configurations
- Low liquid to gas ratio
- · Low maintenance, easily accessible interior
- · Compact modular design for low installation cost and time
- · Wide choice of construction materials
- Turn down is practically infinite, either manually or automatically
- · Easily upgrade performance on new or existing scrubbers

BACT offers a full range of air pollution control services, from equipment to turnkey systems. Performance is guaranteed in writing!

Magnetic Products, Inc. Now Offers Cost Effective X-Ray At Metal Detector Pricing

Recognized as the world standard for design, ease of use and reliability, Magnetic Products, Inc.'s magnets, metal detection and X-Ray systems provide the most dependable contaminant detection and removal available.

MPI's new Hi-Q X-Ray Inspection System inspects for a full range of possible contaminants, including metallic and non-metallic. Inspection is not affected by temperature, humidity, salt content or any other product effects.

Providing safe, reliable security, the Hi-Q X-Ray delivers up to eight grade image processing technology to achieve the best product applicability and stability. Other Hi-Q X-Ray features are

- · Easy operation with touch screen display
- · Simple maintenance
- · Environmental adaptability



MPI Hi-Q X-Ray Inspection System



Acrison's Bin Discharger Feeders Designed For Difficult-To-Feed Materials



Acrison BDF-1.5-2Triple Auger/Agitator

Acrison's BDF-1.5-2 Volumetric Feeder is specifically designed to produce positive flow and feed of even the most difficult handling dry solid ingredients. This rugged heavy duty dry solid feeder features a dissimilar speed, triple auger/agitator mechanism for optimum metering and hoppering performance.

This unique metering mechanism conditions the material to a very consistent state while efficiently and reliably filling the metering auger from a minimum of 320°. Even the most difficult handling materials are ensured smooth, gentle and unrestricted movement.

Acrison's BDF-1.5-2 Volumetric Feeder features standard all-steel construction and is equipped with a single variable speed AC or DC gear motor drive.

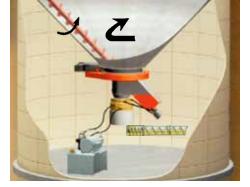
Complimentary full scale testing available for almost all models to prove performance before purchase.

Laidig's Reclaim Systems Help Solve Silo Bridging Problems



Laidig Systems is recognized as an industry leader in bulk storage and reclaim. Laidig's custom-engineered systems offer proven performance and reliability that is second to none.

- Rugged, high-quality systems
- Innovative, effective storage/ reclaim designs
- · Meets special handling needs
- Customized systems for structure or



Laidig's Cone-Bottom Silo Reclaim System

open-pile

 Specifically designed to accommodate dynamic-load requirements unique to Laidig's bottom reclaimers

Laidig's pioneering efforts, combined with the Laidig formula of innovation, quality, commitment, and relentless drive, continue to meet with success. With thousands of Laidig storage and reclaim systems installed worldwide, new designs are continuously introduced to meet new challenges.

Laidig is proud to be setting the standards of the storage and reclaim industry.

Jaygo Offers Efficient Conical Processors

JRA is proud to represent Jaygo Incorporated, a leader in the manufacture of conical screw processors for highly efficient mixing, drying and reactor applications.

This Conical Screw Processor is a space-saving, maintenance-free, thoroughly dependable system that establishes new standards in solids handling. Backed by years of experience in conical screw engineering and manufacturing, the Saturn delivers new levels of operating flexibility, production efficiency and cost-effective operation. Features quicker and smarter mixing that is both fast and efficient, with testing for little or no cost.

The Jaygo Mixer is today's high performance production mixer for a variety of industrial applications, including pharmaceuticals, chemicals, petrochemicals, food, cosmetics, plastics and rubber.

With working capacities up to 2,650 cubic



Jaygo Saturn Conical Screw Processor feet available, Saturn processors offer numerous options, and so the unit you order is virtually customized to meet the needs of



your operation. Options include:

- Vacuum drying unit for removal of solvents from powder and granules
 - · Sampling during operation
 - · Continuous product level readings
- Central dispersion tool for delumping and dispersing
- Spray systems for liquid additions or coating powders
 - CIP systems (clean-in-place)
 - Nitrogen purging
 - Various discharge valves
 - · Steam sterilization of vessel and seals
- Fully equipped test facility/pilot plant available for customers' testing at little cost
- Maintenance/rebuilding services for all conical screw equipment

Industrial Explosion Protection Partners With Combustion Research For Testing



Prevent Fires and Explosions with Systems From IEP Technologies

Is your dust explosive?

Want to get accurate answers now from a seasoned testing service?

Do you want to manage your plant's safety and control the risk of explosion potential? Can you invest less than \$2000 for a simple test to receive Kst and Pmax?

Now Industrial Explosion Protection, backed with 50 years experience and 8000 successes in North America, has partnered with the Combustion Research Center (CRC) to offer testing to provide your smartest solution.

CRC offers first and foremost:

- Dust Cloud Combustibility for Pmax (how big) and Kst (how fast)
- Dust Classification for OSHA Explosion Severity
- Testing for 35+ years in accordance with ASTM, OSHA, US DOT standards
- Confidential reports
- Fast, accurate solutions

Startup service onsite is standard with all IEP Systems solutions. Contact Walker, Mike or Jim at our website, www.robbinsassoc.com, for help or to test. An IEP video is also available at our website.

Vortex Loading Solutions For Dust-Free Truck, Ship or Rail Filling

Vortex is pleased to announce the addition of dust-free loadout equipment with its slide gates and diverter valves. Vortex Loading Solutions offers spouts, filters, positioners and more, all engineered to handle dry bulk solids like powders, pellets and granules.

Ideal for loading rail cars, trucks, tankers, barges and ships, Vortex's loading spout can be used in <u>open</u> or <u>closed</u> loading. Engineering out the traditional weak spots, it features an industry first four-cable lifting design, with CNC machined lifting pulleys. This unique design reduces cable wear and extends the service life of the loading spout. <u>Guaranteed 10 years.</u>



Vortex's CNC Machined Lifting Pulley

Vortex Loading Solutions allow facilities to meet EPA standards while preventing waste. Positioners are used to guide loading spouts to multiple

vehicles, which remain stationary while the spout distributes the material evenly. Vortex's loadout products are engineered to be dust tight in dry bulk applications.



Vortex Loading Spout, Loading Solutions For Dust Free Loadout



C.P.E. Filters' 5-Module Baghouse

C.P.E. Filters, Inc. Guarantees Dust Control With Wide Range Of Containment Solutions!



With over 42 years of experience, C.P.E. Filters, Inc. offers a broad assortment of dust collectors, bin-vents, baghouses, cyclones and cartridge filters from 2 to 200,000 CFM. Available from 17" Hg to 60" W.G. and higher pressure vessel design collectors, CPEF offers standard and custom designs for a full range of industrial applications.

C.P.E. Filters determine proper air-to-cloth ratios, the right

filter media and can velocities required to efficiently collect and retrieve dust. CPEF takes an innovative approach to provide high-quality, maintenance-friendly, stout solutions. Advantages of C.P.E. Filters include:

- Guaranteed minimum performance of at least 99.9+
- · Local start-up service at no charge
- Minimum freight housing shipments for faster, less costly installation
- Heavy-duty industrial steel welded construction, no internal moving parts to maintain or replace
 - · Complimentary analysis.

Vortex Titan Gate Valve Seals Tight For Abrasive Products

The Titan Gate from Vortex addresses handling requirements for abrasive minerals or combined mineral/stone products where materials escaping to the atmosphere may be an issue.

Features include:

- Displacement end pocket -- blade does not pack material upon closing
- Replacement bonnet seals (may be maintained without taking the gate out of place)
 - Abrasion resistant blade
- Abrasion resistant interior liner that protects recessed blade support rollers
- Optional solid bonnet covers; bonnet may be purged to prevent material escape without the added stake up height a return pan would create

Vortex also offers a full line of other valves for dry solids.



Vortex Titan Gate Valve Features:

- (1) Optional bonnet purge
- (2) Abrasion resistant liner
- (2) Abrasion resistant liner
 (3) Abrasion resistant blade
- (4) Polymer side seals
- (5) Displacement end pocket
- (6) Carbon steel frame
- (7) Externally greased rollers
- (8) Replaceable bonnet seals



Taylor IBC 3000 Packer Designed For Flexibility, Variety Of Materials

Taylor Products, exclusively represented by JRA, offers complete bulk automation with simplicity and flexibility. Taylor's systems are designed to handle a variety of materials and weights, from free-flowing granules to fragile powders.

Taylor's IBC 3000 Packers are engineered for many kinds of materials and containers. The IBC's modular design allows complete flexibility, from a freestanding manual operation to a fully-integrated and automated packaging process system.

Constructed of heavy tubular steel in a compact footprint, the IBC 3000 can be easily modified with any of its multiple options in order to handle specific requirements.

- 100 lbs. to 5,000 lbs. capacity
- · Handles granules, powders and pellets
- Fills drums, bags, boxes, metal containers
- Compact modular design

Popular options include stainless steel construction, bag liner inflator, automatic bag strap and neck seal release, drum hood, box hood, lift platform, scale, pallet dispenser, conveyor system, electronic controls and more.



UWT Now Offers Leading RF/Capacitance Technology With RFnivo®



UWT Level Control is proud to introduce the new RFnivo® 3000 capacitive level limit switch. Certified for hazardous locations, the RFnivo provides limit detection for nearly all types of bulk material.

Features include:

- · Quick, easy setup; automatic calibration
- · Maintenance free
- Suitable or high pressure applications -- up to 25bar, temperatures up to 500°C
- · Standard for heavy duty models
- Two-year guarantee
- Same day shipping from Memphis

The RFnivo is certified for all bulk solids applications such as flour, grain, sugar, cement, granulate, carbon black and also for slurry and liquids.

UWT's RFnivo® 3000 Level Limit Switch

Vac-U-Max Tube Hopper Eliminates Bridging In Vacuum Receivers

In-plant vacuum transfer systems are synonymous with Vac-U-Max, a highly respected name in every processing industry.



The straight-through tubular design is an exclusive feature of the Vac-U-Max Tube Hopper material receiver. The straight wall configuration provides rapid passage of even the most difficult-to-handle non-free flowing material. With no angular surfaces where material can bridge or hang up, discharge is positive and normally does not require additional vibration.

The short discharge cycle assures virtually continuous conveying for high transfer rates. The conveying operation is quiet, even with tough materials.

Vac-U-Max Tube Hoppers are designed for fast, easy interchange of components. Quick-acting clamps simplify customization, cleaning or product change. Call to qualify for a complimentary witness test.

The Vac-U-Max Tube Hopper is furnished in 316 stainless or carbon steel and in standard or sanitary construction. Call for a test!



Vac-U-Max Tube Hopper



Prater PAV Airlock Valve

Prater Offers Best PriceMatch™ Guarantee For Rotary Airlocks



Prater has completed third-party testing and now offers the only NFPA-69 Certified rotary airlock valves commercially available in the USA for explosive dust isolation.

Prater's best PriceMatch guarantee applies to:

- Rotary locks
- · Fine grinders
- · Air classifiers & mills
- Hammermills
- · Lump breakers

Call for details on PriceMatch and NFPA-69 compliant valves.

Hi-Vac's Can Pay For Themselves In Under A Year

Hi-Vac industrial vacuum systems clean up aggregates, powders, liquids, slurries -- any material that will flow through a hose. With a long reach -- up to 2,000' -- and powerful suction up to 18" of mercury, a Hi-Vac industrial vacuum system cleans out deep pits, dust collectors, catwalks, holds, conveyors, ducts, elevators and other hard-to-reach areas.

Most Hi-Vacs pay for themselves in less than six months. With a Hi-Vac, cleanup jobs can be completed in hours instead of days.

As indoor air quality requirements get more robust, a well-designed vacuum system is integral to improving and maintaining indoor air quality at many facilities. Further, facility dust abatement strategies are a key factor in prevention of potentially dangerous explosive levels of dust accumulation.

Hi-Vac takes pride in delivering the best value featuring:

- Innovative and cost-effective products
- Robust and reliable components
- · Operator friendly designs
- · High performing reliable systems
- · Local complimentary startup service





Hi-Vac Easily Transportable Model 310/320 Allows Vacuuming of Dry or Liquids

Champion Fan Specializes in Custom Industrial Fans



Champion Fan has over 100 years of experience serving the industrial community with their highly-engineered fan systems. They guarantee fan designs which will meet the highest quality control standards and work within any welding specifications.

Champion's industrial fans are used locally in various applications:

- Forced draft and induced draft fans for boilers, kilns, calciners, incinerators, VOC abatement systems and foundries
- Swingout centrifugal, quick access tubulars
- · Dust control
- Scrubbers





Rapat Flexwall Conveyor Moves Product At Almost Any Angle!

Do you need to move materials at steep angles without losing capacity? The Rapat Flexwall Conveyor is uniquely suited for your application -- moving product at angles up to 90°!

Rapat's FLX Conveyor is ideal where space is limited and high incline angles are required. Available in configurations ranging from horizontal to vertical operation, each FLX Conveyor is custom engineered to its specific use.

The protective corrugated sidewall handles a wide variety of products and materials, in nearly any application. Adjustable skirting helps contain product and reduce spillage.

Designed for long life and reduced maintenance, the Rapat FLX is available in either enclosed frame or open channel frame models.

SMICO's Custom Engineered Cost-Effective Vibrating Screeners

SMICO Manufacturing Company, now represented by JRA, has more than 70 years of experience in providing cost-effective vibrating screens to scalp, dedust, dewater and size your products.

Screens from SMICO are custom-engineered to fit your particular application, and excellent customer support is provided. The use of commercially available components makes it possible for SMICO screens to be maintained with minimal expense.

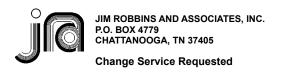
Many SMICO screens feature adjustable

stroke, enabling you to change products. SMICO will analyze and test your material free in its full-service lab and design a screen to provide you with the best balance of efficiency and output to meet your individual needs.

SMICO Screening Equipment is routinely custom fit to both the application and the installation. SMICO can provide inlets to match feed systems, outlets to match takeaway systems and legs or cables to meet height requirements.



Smico Topsoil Screener



Prsrt STD U.S. Postage PAID Permit #383 Chattanooga, TN



JRA Can Help You Find Smart Solutions With **Quality Products And Systems Listed Below**

ACRISON

- Gravimetric Feeders
- Volumetric Feeders
- **Batching Systems**
- Continuous Blending

AIRPRO FAN & BLOWER CO.

- Centrifugal Fans
- **Blowers**
- Exhausters

AUBURN SYSTEMS

- **Broken Bag Detectors**
- Particulate Emissions Monitors
- **Triboflow Flow Monitors**

BACT PROCESS SYSTEMS, INC. IEP TECHNOLOGIES

- Scrubbers
- Air to Air Heat Exchangers
- Air Pollution Control Systems

C.P.E. FILTERS, INC.

- Baghouses
- **Dust Collectors**
- Bin Vents
- Filter Receivers
- Cartridge Collectors

CYCLONAIRE

- Pneumatic Conveying Systems
- Rail Car Unloading Systems
- Bulk Bag Unloaders
- Pneumatic Conveying Components **EVERLASTING VALVE CO., INC.**
- Rotating Disc Valves
- Abrasion Resistant Valves
- **Diverter Valves**

HI-VAC CORPORATION

- Portable Vacuum Systems
- Central Vacuum Systems
- Vacuum Trucks

- **Explosion Suppression**
- **Explosion Isolation**
- Explosion Venting

INTERSYSTEMS

· Automatic Samplers

JAYGO INCORPORATED

- Ribbon, Vee and Cone Blenders
- Conical Screw Blenders
- **Turbulent Blenders**

- Vibratory Feeders & Screeners
- Vibratory Conveyors
- Vibratory Spiral Elevators

I AIDIG

- Silo and Dome Unloaders
- **Bulk Storage Reclaim Systems**
- Storage Systems

MAGNETIC PRODUCTS INC.

- Tramp Metal Removal Magnets
- Rare Earth and Ceramic Magnets
- X-ray Inspection
- Metal Detectors and X-Ray

PRATER STERLING

- Airlocks
- Hammermills/Fine Grinders
- Sifters
- Classifier Mills/Air Classifiers

- **Belt Conveyors**
- **Drag Conveyors**
- · Bucket Elevators

SALINA VORTEX

- Valves for Dry Solids
- Gate Valves
- **Diverter Valves**
- **Butterfly Valves**
- **Loading Spouts**

YLOR PRODUCTS

- Valve Bag Filling Systems
- Open Mouth Bag Filling Systems
- Bulk Bag IBC Systems Robotic Palletizing Systems
- Packaging Automation Systems **UWT LEVEL CONTROLS**
- Rotary Level Switches
- Vibratory Level Switches
- Plumb Bob Level Indicators

- Vacuum Pneumatic Conveying
- Aeromechanical Conveyors
- Flexible Screw Conveyors
- Bulk Bag Unloaders and Fillers **VENTILE**
- Fluid Bed Dryers
- Fluid Bed Coolers

Jim Robbins & Associates, With Three Locations To Serve You

East Tennessee Office

Phone 423-756-4052 Contact Mike Murdock

E-mail: mike@robbinsassoc.com

Middle Tennessee Office

Phone 423-756-4052 Contact Jim Robbins

E-mail: jim@robbinsassoc.com

West TN, North MS & AR Office

Phone 901-726-1234 Contact Walker Robbins

E-mail: walker@robbinsassoc.com

Please Help Us Improve **Our Mailing List!**

- · Has your address changed?
- · Should our newsletter be directed to

C	others in your Please mail, fa hanges, correct ddress. Thank	x or e-mail tions or addit	to us any
-			
-			

Jim Robbins & Associates, Inc., incorporated in 1980, has established itself with a solid reputation as problem solvers for air pollution control and bulk solids handling, with equipment and systems that are built to last.

JRA is committed to bringing the best possible reliable and cost effective solutions and service to our customers. We offer a full line of Bulk Solids Handling and Processing and Air Pollution Control Equipment. With a full line of exclusively represented manufacturers, we offer equipment and systems to make the best products, most efficiently, with the lowest possible operating cost and downtime. We offer training and testing facilities, service personnel, as well as installation and turnkey project capabilities. Note that not all companies may be represented in all territories.