

AUTOMATED CARGO TRANSPORT SYSTEMS



REDUCE EXPENSES | INCREASE PRODUCTIVITY | MAXIMIZE PROFITS

THE COMPANY

The Automated Cargo Transport System was developed and patented by Andy Hynick, a veteran of the dry goods transportation industry. As the owner of Hynick Trucking, he operated a fleet of 50 tractors and 50 trailers serving the ready mix concrete industry in Florida. In this highly competitive market he was constantly searching for ways to make his company more competitive.

Andy's vision was to automate the cargo delivery system to eliminate the time spent waiting to off-load and the need to have a driver present while off-loading. He reviewed all mechanical components in the delivery system and carefully documented the process of off-loading. He then spent two intensive years developing and testing a reliable hardware and software platform. He also required the cooperation of one of his visionary customers, who realized that they would gain significant benefits with this system.

After installing the system on a portion of his fleet, both Andy and his customer quickly determined that the system operated as intended. It proved to be rugged, reliable, and economically advantageous for implementation across the entire fleet. This patented automated cargo system has now been in operation on the entire fleet since 2001 and has dramatically improved the business model for Andy and his customers.

Andy formed a new company, Automated Cargo Transport Systems (**ACTS**) with strategic business partners, who are leaders in the design, manufacture, marketing, and servicing of instrumentation and control systems. These partners have over 80 years of relevant and recognized experience in level controls, automated valve systems, and electronic control systems. **ACTS** has reviewed Andy's patented system and has enhanced it by applying the latest digital and Internet communication technologies.

ACTS offers this advanced system with an investment that will result in a one-year (or less) payback. We look forward to presenting all the details and benefits of this system to you; especially the reliability and economic benefits, which we are certain your business will realize.



WHAT THE ACTS AUTOMATED SYSTEM WILL DO FOR YOU

TRANSPORT OWNERS

A Proven and Reliable Automatic Unloading System

Owners are assured that the **ACTS** system will provide them with consistent off-loading procedures and significant benefits with respect to efficiency. It has been in successful continuous operation over hundreds of thousands of delivery cycles since 2001.

Improved Delivery Schedules and Customer Satisfaction

Tankers can be delivered prior to silo reaching low-level, providing tremendous flexibility in scheduling and dispatch.

Reduction in Capital Expense

One driver can handle multiple tankers thereby increasing the number of deliveries per day and reducing number of tractors and drivers required.

Reduction in Annual Expenses

Fewer tractors means lower annual maintenance, insurance, salary and training costs. Consistent off-loading procedures eliminates occasional and costly driver off-loading errors.

Increased Driver Loyalty and Satisfaction

Reduce unpleasant off-loading tasks and responsibilities, spend more time driving, less time waiting. Attract and retain the best drivers.

Increased Sales and Profits

Handle more deliveries more efficiently and provide a fast return on investment.

READY MIX PLANT OWNERS

Improved Deliveries

Tankers can be delivered or be on hand prior to reaching silo low-level alarm.

Additional Storage Capacity

Multiple tankers can be delivered and utilized as portable silos providing competitive advantage on high volume continuous pour projects.

Better Quality Control

Positive identification of tanker contents and correct silo minimizes the potential for silo contamination with incorrect cargo.

Silo Level Control

Automatic silo level control eliminates potential shortages and overflows.

Improved Off-loading Procedures

Pressures and silo levels are continuously monitored to eliminate problems associated with plugged lines and bridging. Eliminates human errors and oversights.

Internet and/or Cell Phone Notification Option

Automatically monitor silo levels and unloading status to provide immediate Internet and/or cell phone notification.

Bag House Alarm Option

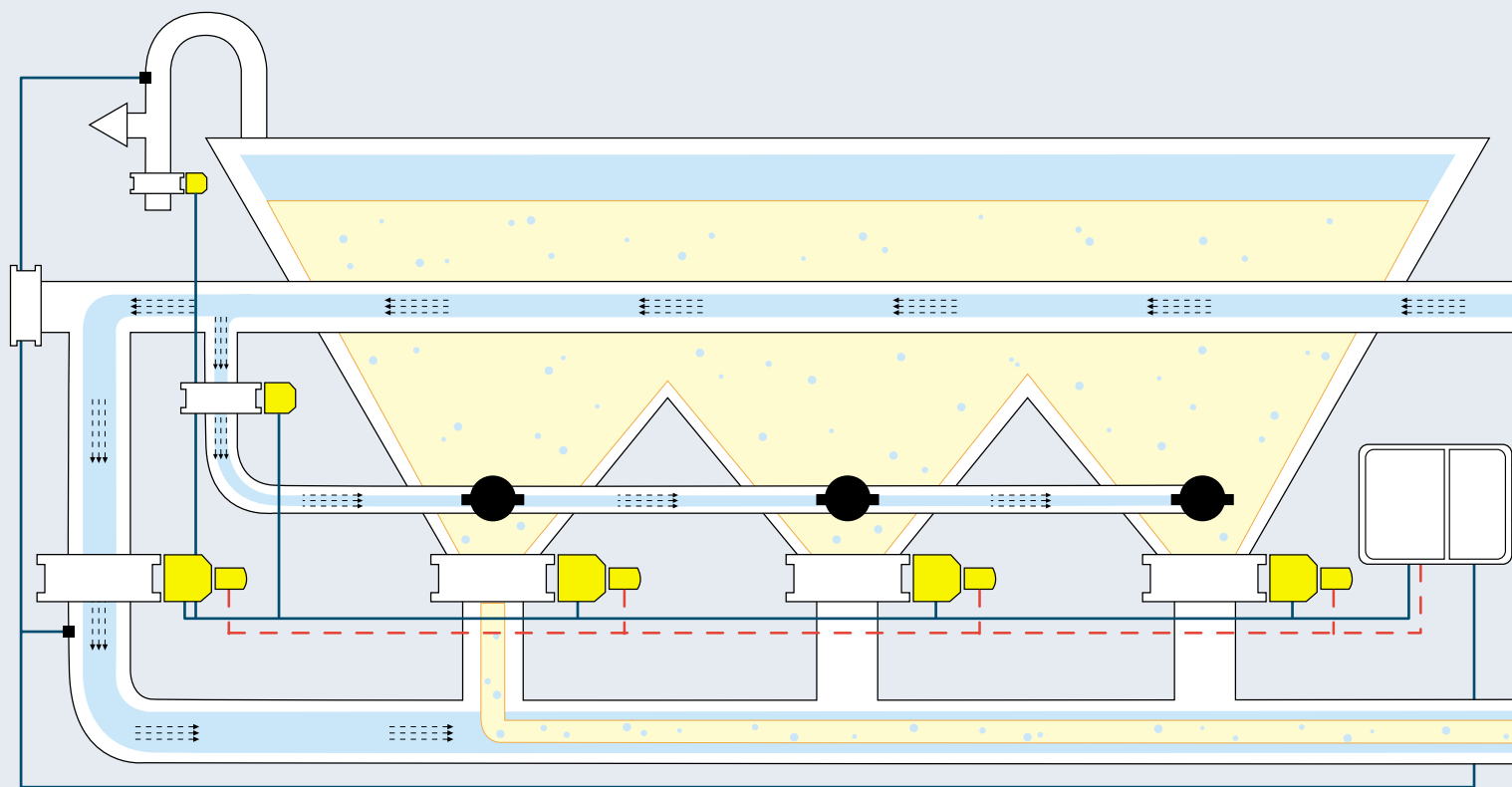
Automatically monitor pressure drop across bag house filter system to provide notice when filter maintenance is required.

HOW THE ACTS SYSTEM OPERATES

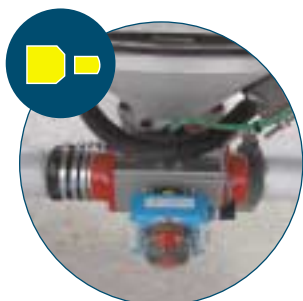
WHAT DOES IT DO?

ACTS provides the dispatch terminal and/or ready mix operator an option to automatically be notified when the silo is reaching a low-level order point. Tankers are dispatched to the ready mix plant and upon arrival the driver utilizes industrial quick connectors to attach blower and communication lines. Driver does not need to wait for silo capacity, he simply unhooks the loaded tanker and picks up an empty tanker on his way back to the load-out

terminal for his next load. The tanker will automatically be off-loaded at the appropriate time; no supervision or monitoring is required. Electronic data from a silo continuous level sensor, silo control panel and tanker control panel is automatically monitored. The data is analyzed and the ACTS system sends the appropriate command signals to control the blower, compressed air supply and tanker valve positions.



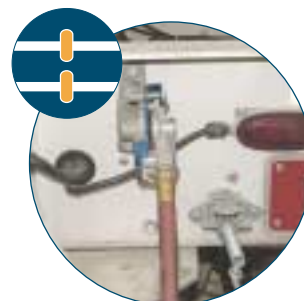
Tanker Equipment



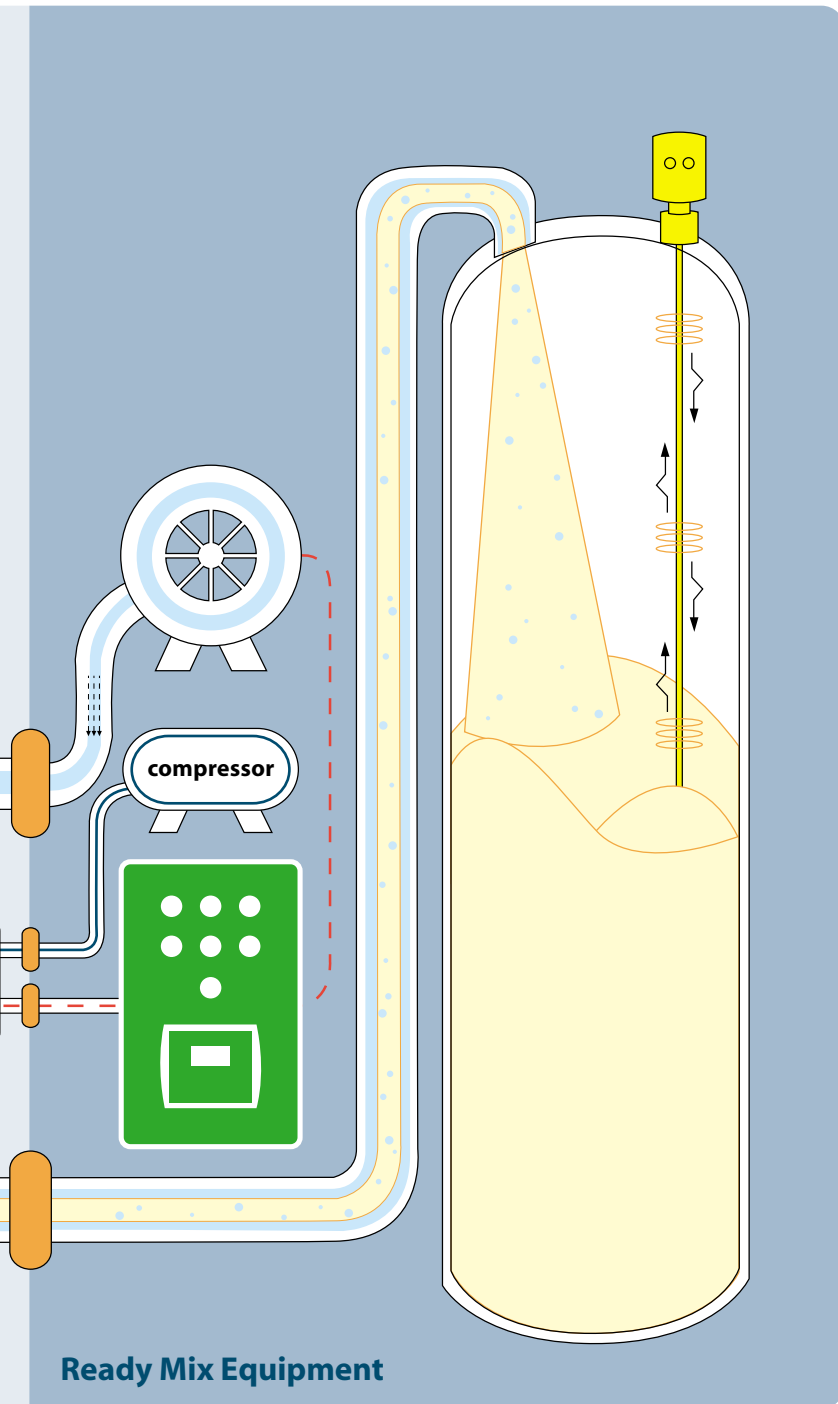
Automated Valves
Located on tanker
Control tanker pressure and flow of tanker cargo.



Tanker Control Panel
Located on tanker
Monitors tanker pressure, line pressure and control valve position.
Sends appropriate commands to tanker control valves.



Control Signal Quick Connector
Located on tanker
Allows tanker control panel and silo control panel to work together while controlling the off-loading process.



OPERATION SEQUENCE



Driver utilizes industrial quick connectors to attach:

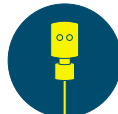
1. Line from ready mix blower to tanker inlet. Controls tank pressure.
2. Product line from tanker to silo. Allows product to be off-loaded to silo.
3. Air line from ready mix compressor to tanker control panel. Provides pneumatic power to butterfly valve operators.
4. Communication cable from silo control panel to tanker control panel. Allows the two control panels to monitor and control unloading pressures and silo levels.



Driver rotates silo control panel command knob to AUTOMATIC position and pushes green START button.



Driver unhooks loaded tanker and picks up an empty tanker from nearest location on his way back to load-out terminal.



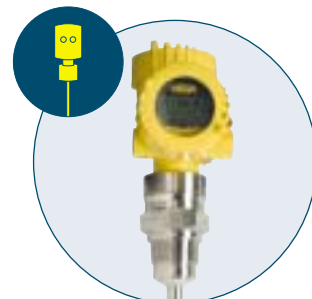
When sufficient silo capacity is available, silo control panel automatically starts blower and initiates off-loading process by sending information to the tanker control panel. Tanker control panel sends commands to open tanker valves to appropriate positions. Tanker control panel collects valve position information and pressure readings from tanker. This information is utilized to compute if tanker valve adjustments are required. When tanker has been fully emptied the silo control panel shuts the blower off and depressurizes the tanker.



Silo Control Panel
Located at ready mix plant
 Monitors silo level.
 Controls blower on/off.
 Option to send all data via internet or cell phone.



Blower
Located at ready mix plant
 Operates at constant RPM.



Level Sensor
Located on each silo
 Provides continuous reading of actual silo level.

ACTS SYSTEM VERSATILITY

The Automated Cargo Transport System can be applied to various applications including semi tankers, double tankers and pig/guppies. In addition, the manual override feature allows automated tankers to also be utilized for deliveries to ready mix plants that have not been automated.

Semi Tankers



Double Tankers



Pigs / Guppies



ACTS ALARM OPTIONS

Alarm Functions

A variety of alarm types are available. All alarms can be configured to be 100% automatic with no effort or action required by driver or ready mix employees.

Alarms can automatically notify maintenance employees, dispatchers and/or management.

Alarm Types

- 1 **Low Level** – when silo reaches the low-level order point the ready mix customer and/or hauler will be automatically notified.
- 2 **Wrong Silo** – if a tanker has inadvertently been connected to the wrong silo the offloading process will be automatically stopped and alarm notices will be sent.
- 3 **Bag House** – the pressure drop across the bag house filter system can be automatically checked at the beginning of each off-load cycle. An alarm will be triggered if reaches unacceptable levels.

Alarm Notification Methods

Any combination of the following methods can be implemented:

- Internet
- Ethernet
- Cell phone



ACTS FUNDAMENTALS

How do I update my tankers to utilize ACTS?

1. Existing butterfly valves on the tanker are modified by adding industrial pneumatic valve operators and feedback devices.
2. Pressure transducers are added to strategic locations on the tanker.
3. Tanker control panel is mounted to the tanker. This contains tanker and cargo identification equipment, control hardware and pressure gauges.
4. Blower from the tanker can be relocated, or a new blower can be installed at the ready mix plant.

How do I update the ready mix plants to utilize ACTS?

1. Ohmart/Vega industrial level sensors are installed on each silo.
2. Silo control panel is installed at the ready mix plant. Panel includes an industrial grade retractable cable to allow quick connection from the silo control panel to the tanker control panel.
3. Industrial grade compressed air line is installed to allow quick connection from the ready mix compressor to the tanker.
4. Optional Internet, Ethernet and/or cell phone notification system can be added at any time.

What happens if a line blockage occurs?

With traditional tanker off-loading a driver must manually monitor the process. When a blockage or bridge occurs, he performs a series of valve adjustments to correct the problem. With **ACTS** the monitoring of the pressures and the adjustment procedures are automatic. The potential for human error and oversight are eliminated.

How do I make deliveries to ready mix plants that have not been automated?

All tanker control panels provide the option to override the automated system. Rather than manually adjusting valve handle positions, the driver simply utilizes push buttons located in the tanker control panel.

Who co-ordinates equipment installation?

Automated Cargo Transport Systems will submit a detailed implementation plan and will coordinate all activities. The installation will be staged in a manner that best fits the owner's schedule. An appropriate combination of **ACTS** employees and contractors will do the work.

Who do I call if service is required?

Automated Cargo Transport Systems maintains a complete inventory of spare parts ready for immediate shipment. All components are designed to be "plug and play". Installation can be performed by **ACTS** service technicians, factory authorized distributors, or the owner/operator.

How do I take advantage of ACTS efficiency improvements?

Three options are available:

1. Reduce tractor fleet size by 30% while keeping same tanker fleet size.
2. Keep tractor fleet size at same level and add tankers to increase sales volume by as much as 50%.
3. Implement a strategy that blends option 1 with option 2.

Who prepares the financial justification?

A detailed site survey will be completed by Automated Cargo Transport Systems. The results of this survey will be utilized by **ACTS** to prepare the financial justification for both transportation and ready mix owners.

ACTS BUSINESS MODEL

Competitive Advantages

- Increased deliveries/day/tractor
- Reduce tractors by 30%
- Reduce overhead by 30%
- Increase sales by 50% to 70%
- Bottom line growth as high as 200%

Strategic Advantages

- Proactive to customer delivery requirements
- Unloading procedure is 100% consistent
- Correct product in correct silo
- Increased customer loyalty
- Increased driver loyalty

The *ACTS* Automated Cargo Transport System was developed by the owner of a dry goods transportation company and has proven to be effective over hundreds of thousands of delivery cycles. Contact your *ACTS* representative today to learn more about our patented system.

INCREASE CUSTOMER SATISFACTION

REDUCE CAPITAL EQUIPMENT

INCREASE PRODUCTIVITY

MAXIMIZE PROFITS



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