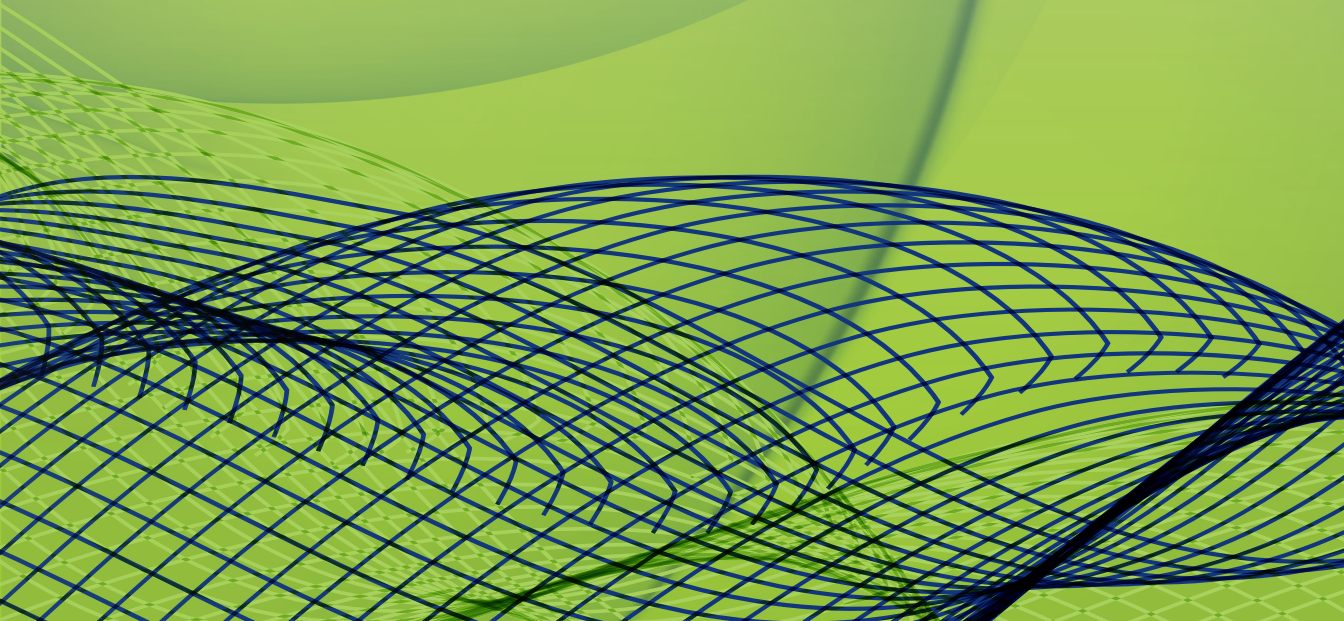


# **AKURATE DYNAMICS**

The Science In Spray Foam

## **Introducing the Akurate Dynamics Delta CPS**

*A fundamental change in spray foam processing technology*







## The All Around Best System

Akurate Dynamics innovators solved a chemical processing problem to create the best spray foam chemical processing system in the industry, providing consistent, high quality results and an excellent return on investment.

Our technology is not the previously used piston pump technology nor did we simply build a new reactor. Instead, our system is a total innovation of spray foam chemical handling, processing, application, and reporting.

**Take a look at the future of spray foam technology with Akurate Dynamics.**

## Innovation with Purpose

Akurate Dynamics Delta CPS™\* is the next generation in chemical processing systems designed for the spray foam industry. We specifically designed this system to address the most important aspects in the application of plural component polyurethanes and polyureas. Our engineering and manufacturing teams design and produce all spray foam equipment in-house, and our innovations enable and ensure the following benefits:

- Ease of Use & Application
- Safe & Efficient Chemical Handling
- All Work Aligned with Manufacturer Specifications
- Automated On-Ratio Spraying
- Enterprise Reporting
- System Reliability & Ease of Maintenance
- Customer Satisfaction
- Increased Profitability
- Designed for Regulatory Compliance

\* Patent Pending





## Ease of Use & Application

### Generator Set Improvements

- Reduction in Overall Power: This improvement reduces overall weight of the unit and operating expenses.
- Elimination of Pulsation at the Guns: By utilizing a rotary screw air compressor, we have eliminated the issue of pulsation reaching the guns as is commonly seen in rigs using reciprocating compressors. This stability allows for consistently even spray pattern diffusion and ease of use and application.

### Process Control: Consistency & Yield Improvements

Controlling chemical viscosity is the key to improved foam consistency and greater yields. Akurate achieves this by controlling hose heat and dynamic pressure automatically, which makes it easy for your teams to do their jobs well.

#### Hose Heat Control

- Each section of hose is independently heated for each chemical. This allows for differences in viscosities for both the isocyanates and resin.
- Controlling temperatures along hose sections eliminates the potentially damaging impact of sunlight and cold. Heaters can turn on or off as required by in-hose temperature sensors. These sensors, placed in multiple locations, ensure the viscosities are matched down the entire length of the hose.
- Internal hose heating provides tightly controlled heating of the chemicals, and significantly reduces hose bulk and weight.

#### Dynamic Pressure Control

- Pressure sensors are placed at multiple locations to provide accurate data of balanced hose viscosities.
- By controlling pressure at the gun, correct atomization will occur resulting in maximum yields of the chemical product.





# All Work Aligned with Chemical Manufacturing Specifications

## Enterprise Reporting

Akurate Dynamics is the first and only spray foam company to provide our customers the ability to produce detailed close-out documents. We provide documented proof that foam was sprayed to chemical manufacturer specifications. This reduces liabilities for builders and contractors and provides a record that can be stored for later use.

Our customers have the ability to produce a Certificate of Compliance including:

- Job Number (with the ability to store and retrieve all job data)
- Customer
- Date Sprayed
- Chemical Manufacturer
- Chemical Ratio Sprayed in Accordance to Manufacturer Specifications



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Certificate of Compliance

Job #: 15

Customer: Sprayfoam Inc

Address: 21 East Rd.

Chemical Used: Chemical/Manufacturer


Applicator Name: John Doe

Average Ratio = 99.88

\*Note: Ratio must be greater than 90% or less than 100% per Chemical Manufacturer's specification.

The certificate of conformity is based on data recorded during application of spray foam at the above customer address location. This certificate guarantees the product was applied per the chemical manufacturer's specification. This certificate does not imply an evaluation of a sample of the above mentioned product and does not permit the use of the Akurate Dynamics logo.

Field Supervisor: \_\_\_\_\_ Date: 09-18-17



job Status: Standby 09/18/17 12:16

Chemical: Chemical/Manufacturer job #: 15

|                      |                                 |               |
|----------------------|---------------------------------|---------------|
| Standby              | Warm Up                         | Run           |
| Start                | Save Settings                   | Pause         |
| ISO 957 PSI          | Gun Pressure Setpoint (PSI) 950 | RESIN 962 PSI |
| 284 RPM              | Pump Speed (0%-100%) 70         | 274 RPM       |
| 106                  | Temperature Setpoint (F) 112    |               |
| 108 F                | Actual Temperature (F) 112 F    |               |
| Gallons ISO: 11.61   | Ratio % 99.88                   |               |
| Gallons RESIN: 11.63 |                                 |               |

Time Occurred Mode Alarm Time Cleared

Diag

Manage Chemical

Job Status

Logs

Alarms

Akurate Dynamics Delta CPS Dashboard





## All Work Aligned with Chemical Manufacturer Specifications

### Automated On-Ratio Spraying

Spray insulation proportion is always a concern for both operators and builders. Many chemical manufacturer specifications require spraying foam at a 1:1 ratio with a 2% margin of tolerance. Too often, the success of on-ratio spraying is not known until after a job is complete. If off-ratio spray begins to occur, it is unclear when, how, and if it can be corrected.

In the past, foam sprayers have relied on a highly subjective visual inspection to estimate foam quality. This can be extremely inaccurate and often leads to large areas being sprayed with off-ratio isocyanates or resin rich foam.

## Safe & Efficient Chemical Handling

### On-Board Chemical & Storage Improvements

- Dual chemical storage units eliminate the time-consuming labor and safety risk of moving heavy drums onto the rig.
- Onboard Nitrogen generation ensures the isocyanate is moisture-free and arrives at the work site having maintained factory specifications.
- The automated mixing system yields a thorough mixing of Appendix X materials by both circulating and blending the chemical without introducing agitated air pockets.
- The fill system directly feeds into each drum, improving safety and speed.
- The closed chemical system means hazardous material is never exposed to the environment, ensuring compliance with regulatory requirements.
- The system includes automated meters to constantly monitor levels in the tanks, preventing empty or overfilled chemical containers.
- The meters also ensure that chemical never runs dry during the spraying process.

## Get Rid of the Guess Work

Selecting a chemical using our computer controlled system will load the appropriate presets for the chemical. This allows your team to focus on application of foam and eliminates the risk of off-balance pressure and off-ratio spraying. The system also has a fail-safe that will shut down the system before any off ratio foam is applied.

The Akurate computer controlled system takes care of on-ratio monitoring accurately and continuously, adjusting the system components automatically to keep the foam on-ratio at all times.





## Regulatory Compliance

At Akurate Dynamics we design our spray foam equipment with safety and environmental protection in mind. Our state of the art spray foam system is designed for compliance with regulatory agencies.

Current industry practice involves transporting chemicals in heavy drums and moving stick pumps from barrel to barrel as chemicals are used. This is difficult, time consuming, and dangerous.

Akurate Dynamics has designed a new system that outperforms its industry competitors. Our Delta CPS system includes several innovations optimized for environmental and worker safety as well as efficiency:

- Closed loop chemical handling and storage: Instead of barrels, our system includes two chemical tanks on each rig unit, which are loaded by our fill system. Worker and environmental exposure to chemicals is minimized.
- Internal hose heating provides tightly controlled heating of the chemical and is mechanically and electrically protected from the environment. Additional GFCI (Ground Fault Circuit Interruption) protection means no risk of electrical shock if the hoses get wet.
- Enterprise reporting tools provide written assurance of manufacturer and regulatory compliance to your customer which provides them with greater peace of mind.

## System Reliability & Ease of Maintenance

The goal of the new Akurate system is to provide the best, most reliable spray foam insulation system on the market. While ease of repair and maintenance is always a consideration, the quality of the design and engineering of Akurate systems is optimized to prevent failures. In fact, so confident are we in the superior performance of our systems that we do not include revenues from repairs and replacement parts in our business model.

With our innovative system, our customers can, in turn, provide excellent service to their customers. It's this focus on providing the best to you and to your customers that drives us to engineer, design, and manufacture the most innovative and efficient spray foam system available with the greatest return on investment.





## Akurate Dynamics

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