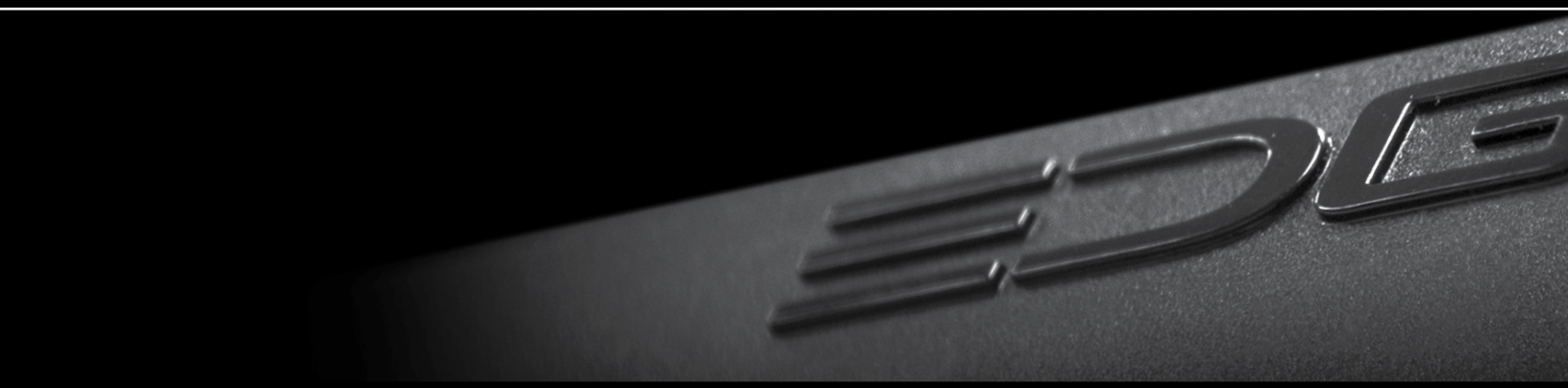
THE NEXT GENERATION OF CONTROLLERS

DESIGNED TO EVOLVE AND EXPAND WITH YOUR OPERATION

EDGE

CONTROLLER



MONITORING & MANAGEMENT

EDGE is a single platform that is versatile and intuitive, allowing it to handle all control applications, including breeding, gestation, farrowing, nursery and finishing. The unique design makes EDGE the only controller on the market that can be configured to match your operation's specific requirements. It is also flexible enough to be adapted to new construction or existing system upgrades. Throughout your animals' growth stages, you and EDGE are in control, managing and monitoring the ventilation, cooling, heating, feeding and watering systems.

INFORMATION AT A GLANCE

Navigation is easy with the large, 15" color touchscreen. Everything is right in front of you for quick, easy navigation. The buttons are large enough to be touched even when wearing gloves. Color-coded notifications give you real-time status of your entire operation. Site-wide conditions can also be monitored from the touchscreen.

Large 15" Color Touchscreen Interface

DATA ANALYSIS

Manage all of your sites at www.gsiedge.com. The data your system collects and generates is an extremely valuable business management tool. With the DataAnalysis upgrade, you will be able to set benchmarks from room to room, produce customized reports and graphs, view historical data and alarms, and ultimately discover those areas that are costing your money and resources.

SELF-DIAGNOSTICS

Should anything go wrong, the built-in self-diagnostics make troubleshooting easy. Before you go flipping through a manual or calling tech support, self-diagnostics can identify a number of issues. The system can tell you when a sensor is disconnected or incorrectly wired, if a piece of equipment is drawing too much or too little current, or if internet connectivity is down. It will pinpoint exactly where the problem is and what you need to do to fix it.

CURRENT SENSORS

Each variable output and relay is equipped with a current sensor, which allows the system to monitor electrical current. By monitoring the power usage, the system will check to see if a configured device, such as a fan, is drawing too much current due to a motor or wiring problem, or too little current because the fan is not running or has been disconnected.

INTRODUCING EDGE™

REMOTE CONNECTIVITY

Plug in an Ethernet cable and you are ready to take control of the system from the comfort of your truck, office, couch, and anywhere in between. EDGE gives you the freedom to leave the farm while knowing you are only one touch or click away.

If a problem occurs and an alarm is triggered, you will be immediately notified via text message or e-mail, instead of finding out hours later or the next day, when it might be too late to correct the issue. You can then remotely connect via any web-enabled device – computer, tablet, smart phone – to see what is wrong, correct the problem or determine if you need to go to the site.

TRIPLE LAYER PROTECTION

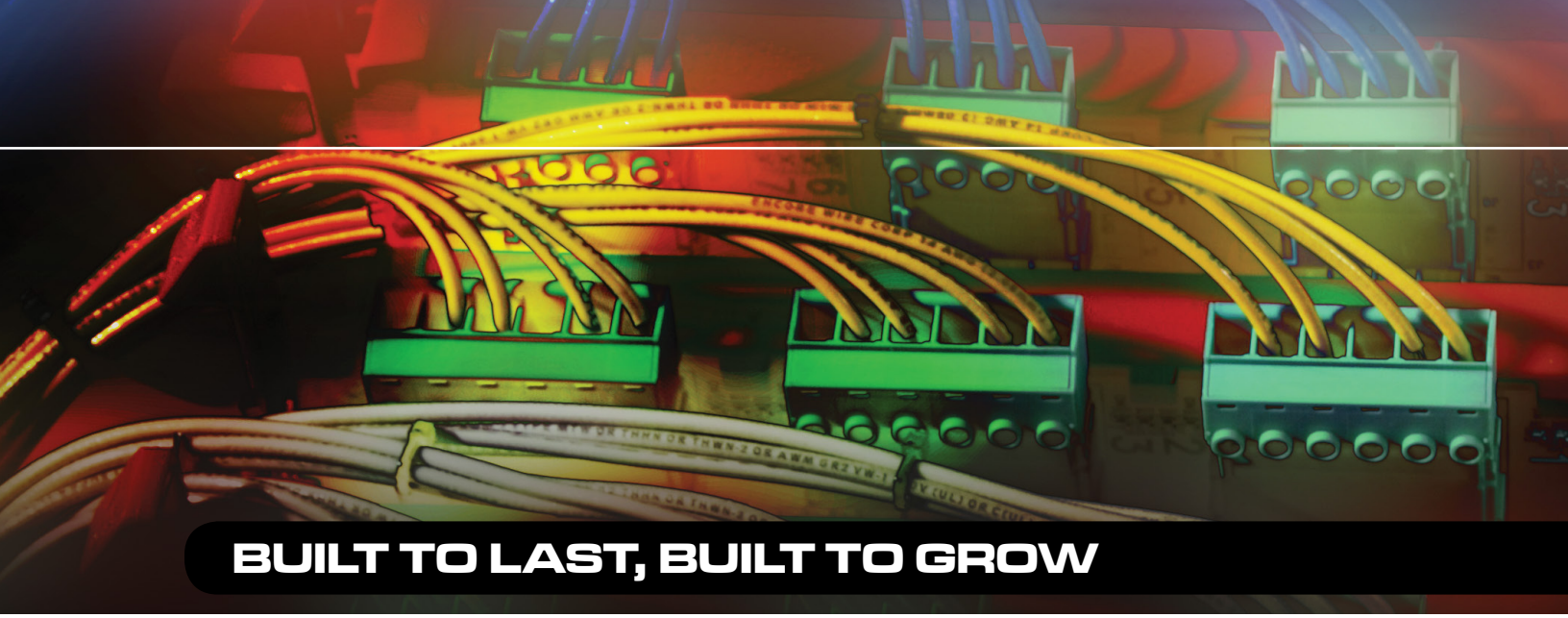
Triple layers of protection, with fail-safe redundancy to control mission-critical functions

MULTI-ROOM / MULTI-BARN CONTROL

With EDGE, you have the power to control multiple barns or rooms from a single controller using one interface. Consider a typical sow farm operation with breeding and gestation, farrowing and gilt development facilities. Historically, each room would require a separate controller. EDGE reduces management complexity and offers you considerable cost savings by eliminating the need to have a separate controller for each individual room. One EDGE System can easily do what up to 64 individual controllers used to do.

Optional remote display boxes give producers the ability to view and modify control settings from any barn, regardless of the main controller location.

You can also add an additional controller to act as a backup, for additional security and reliability. Competing systems may not offer this redundancy; if a controller fails, even with a backup system, there can be a loss of performance and communication. With EDGE, if a controller fails, you still have 100% functionality and communication. No single failure can affect the system.



BUILT TO LAST, BUILT TO GROW

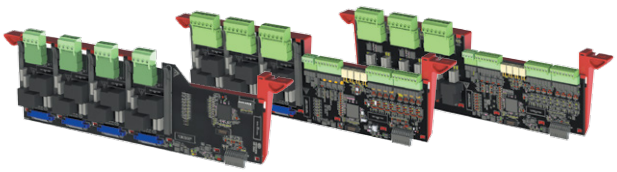
MODULAR ARCHITECTURE

Modular architecture allows the system to be built exactly to your needs. Whether you run a large operation with dozens of sites or a smaller facility with one or two barns, EDGE scales with the appropriate number of inputs and outputs and becomes more economical as your operation expands.

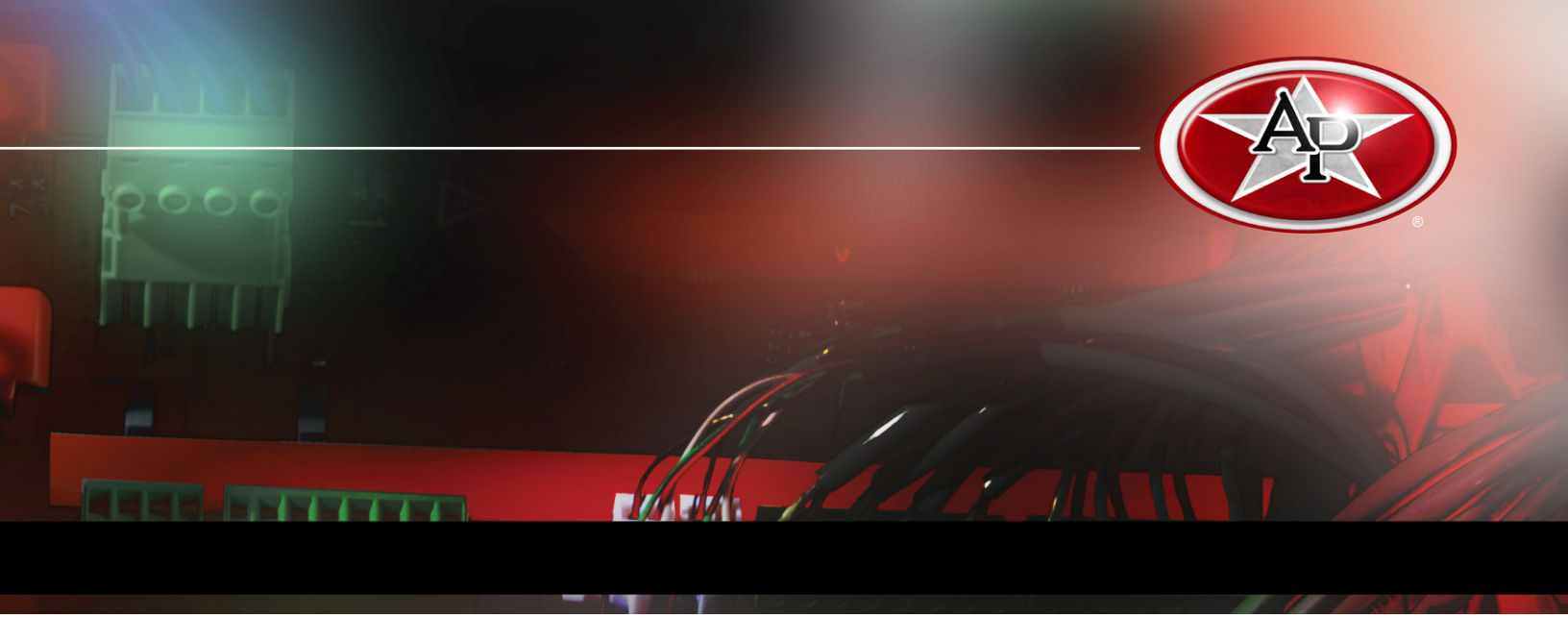
The system's modular plug-and-play architecture consists of a main controller similar to an industrial tablet. Separate from the controller are two styles of expansion boxes that can each hold either three or six plug-in modules. Ready to expand? Add additional expansion boxes and you're ready to go.

PLUG-IN MODULES

Similar to the input/output expansion slots in a computer, plug-in modules serve different functions, allowing you to customize the system based on your specific configuration. Once the module is plugged in, it identifies itself and tells the system its functionality.



As you expand, or new technologies and applications are introduced, add new modules to reflect new functionality allowing you to integrate a wide variety of components into a single, efficient system.



MULTIPLE TYPES OF INPUTS

Want to measure inputs such as temperature, static pressure, humidity, wind speed, wind direction, precipitation, water usage or feeding run time? Now you can do all that with EDGE. How about incorporating sensors for CO2, feed usage, ammonia, effective environmental temperature (EET), inlet positions, tachometers or current transformers? It's all coming soon to EDGE. There is no limit to what EDGE can do for your operation.

VARIABLE LIGHTING

Without the need for any other external power boxes, EDGE can dim any type of bulb, up to 8KW of lighting, with flicker free operation.

SECURE WIRE CONFIGURATION

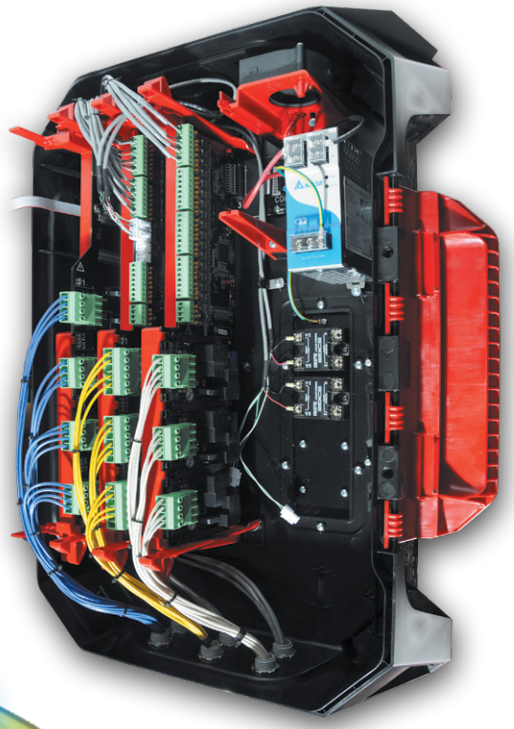
The wire management system is designed for easy access, with the main high voltage wires physically separated from the low voltage wires.

RUGGED FOR THE ENVIRONMENT

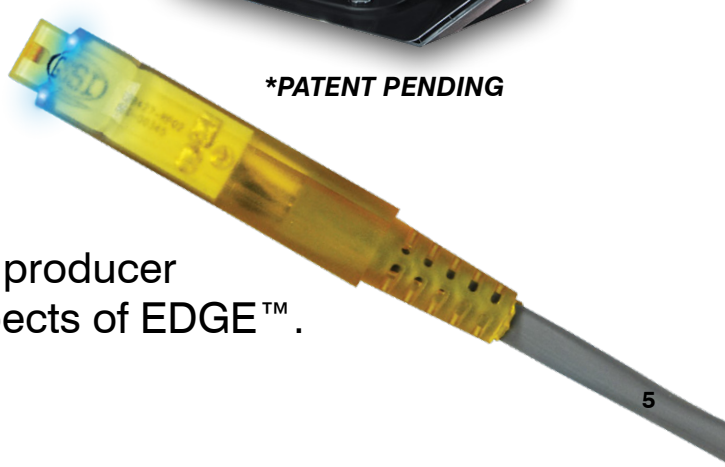
High humidity, wide temperature swings, and corrosive gases such as ammonia can wear down products, causing premature failure of equipment. Designed to tolerate temperatures from -20°C to +50°C (-4°F to +122°F), and a relative humidity range of 0-95%, EDGE performs in the toughest environments.

LED TEMPERATURE PROBES*

A new start-up can be extremely time-consuming. We developed our patent pending LED temperature probes to simplify installation and take the hassle out of individually identifying the location of each probe.



***PATENT PENDING**



The idea of making things simpler for the producer has been incorporated throughout all aspects of EDGE™.

THREE LEVELS OF PROTECTION

FULL REDUNDANCY*

Operate multiple barns with a single, main controller. Redundant power supplies and communication paths provide uninterrupted operation in the event of a power supply failure. For additional safety, add a second main controller to maintain operation should the primary main controller have an issue.

BACKUP MODE*

Should the main controller fail due to lightning, faulty wiring, etc., or if both controllers in a redundant system fail, EDGE has a second level of safety built in to the system. In Backup Mode, the individual cards that are plugged into the expansion boxes in the system have intelligent processors built in. When they are unable to communicate with the main controller(s), they take over and act as a mini stand-alone controller, continuing to read temperature probes and operate equipment appropriately. This allows the system to operate indefinitely without a main controller, which adds an additional layer of security and operational capacity on top of a redundant main controller.

FAIL SAFE MODE*

In the rare event that a main controller malfunctions, and the even rarer event of a complete power loss to the controllers, EDGE has a third level of safety and security: fail safe relays. These relays have special contacts that allow “de-energize to trip” functionality, which means that in a total power loss, the system can drop curtains to ensure fresh air is available to the animals. Or in another scenario, if the controller loses power but power is still available to the barn, the fail safe relays can activate tunnel fans to keep air moving.

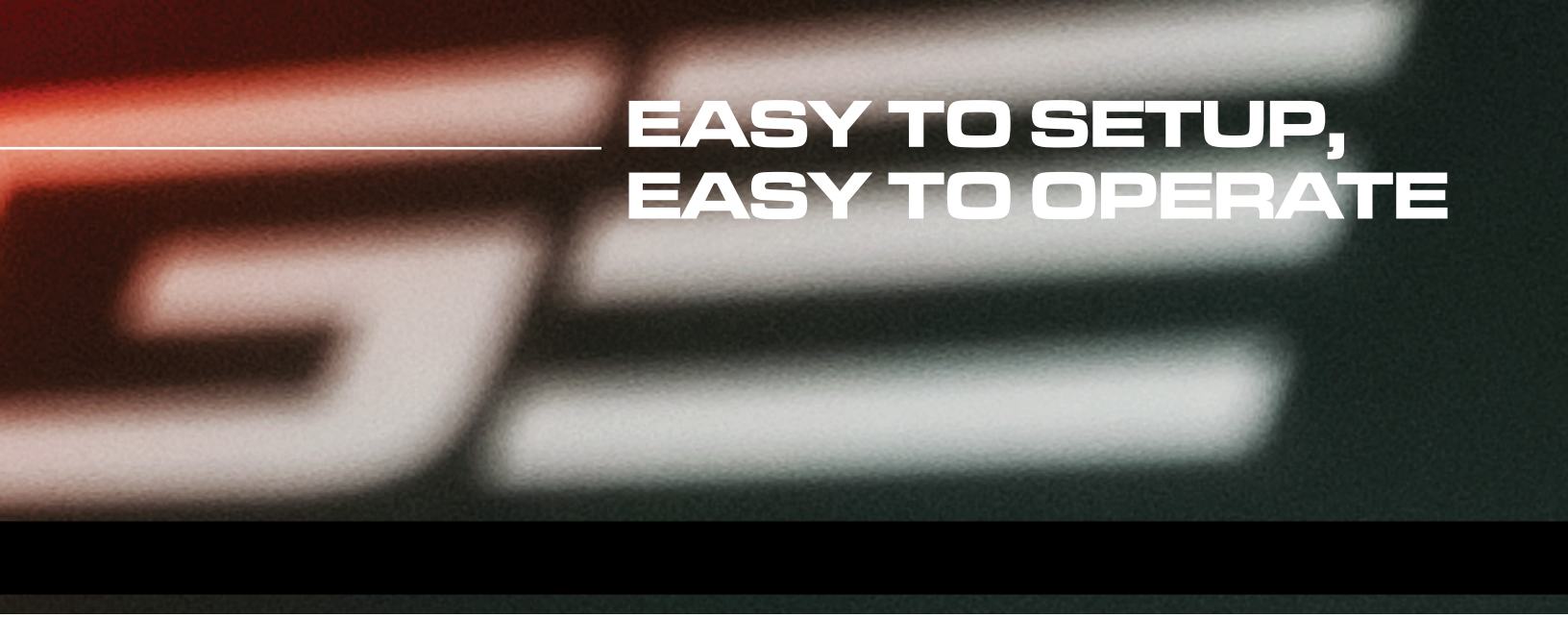
FAULT-CORRECTION*

Have peace of mind that your operation is always protected. EDGE isn’t just protective, it’s proactive. Traditional controllers will sound an alarm if a problem with equipment is detected. Here’s the difference with EDGE: alarms will still sound, but where possible, corrective action will also be automatically initiated.

For example, if EDGE detects a fan that is not operating properly, it will select a comparable fan to use until the original fan can be fixed. Because EDGE knows each piece of equipment in a facility, its capabilities (like CFM) and its location, it can choose a backup to take over. EDGE not only identifies the issue, it also recovers from the problem until you determine a long-term solution.

More than a product, EDGE™ is the next generation of controller, a platform designed to evolve and expand with you and your operation for years to come.

PATENT PENDING



EASY TO SETUP, EASY TO OPERATE

WIRELESS SETUP

Installing the EDGE system couldn't be easier. The EDGE™ Controller communicates wirelessly† with the expansion boxes greatly reducing wiring time and expense.

†Optional wifi cards required.

CONFIGURATION WIZARD

The built-in Configuration Wizard is designed to guide you through the initial set-up by prompting you with questions about each of the specific applications that have been installed. Simply input the fans, inlets, temperature probes, and other equipment you have, where they are located, and the production type (breeding, gestation, farrowing, nursery, finishers). Based on this information, EDGE will automatically configure run settings to operate at optimal conditions.

Because all AP-manufactured products come pre-loaded, the settings will self-populate automatically which saves you valuable set-up time. Following the initial set-up, you can always go back and modify the settings. Set-up is easy and intuitive – you'll be up and running in no time.

VENTILATION BASED ON CFM PER HEAD

Determining the necessary ventilation typically requires producers using complicated calculations to convert CFM per head into ventilation stages. With EDGE in control, you can say goodbye to confusing formulas and arbitrary ventilation settings. Ensure you are accurately controlling the environment by inputting CFM per head values and the number of animals in a particular building/room. The revolutionary EDGE controller takes it from there, automatically determining the proper inlet settings and fan stages.

GLOBAL SUPPORT

MULTI-LANGUAGE SUPPORT

Switching between languages is as simple as using a button on the main screen. The system supports all major languages for the region in which it is installed so you can customize for global operations. This is ideal for integrators and multi-national corporations. Regardless of the language, you can train your employees on one system and it will work the same way anywhere in the world.

MULTI-REGION CERTIFICATION

As with languages, EDGE has the appropriate certifications for the regions in which it is sold so it can be deployed in all markets. For North America, EDGE is UL/CSA certified, and in the European Union, it is CE-approved.

SERVICE & SUPPORT

All AP products are backed by our expansive network of dealers and support teams. With the purchase of EDGE, you have a dedicated team available to answer your questions and provide the technical support you need to keep your operation running around the clock.

WHY AP?

At AP, we believe that healthy pigs make for a healthy business. More than an equipment supplier, we're a team, working alongside pork producers for over 25 years. From feeding and ventilation to alarms and controls, we have what you need to maximize the growth potential of every animal and every aspect of your business. Our products are inspired by your needs and made to work as hard as you do. Our solutions are designed for producers like you who aren't afraid to get their hands dirty, and are built by people who share the same philosophy.

Designed to last and built to grow, our products are made right here in North America at our three manufacturing plants. We also have a global footprint, supplying producers around the world to fulfill the growing demand for pork.

Together with our local dealer partners, we provide expert product support to keep your operations running at peak efficiency around the clock. Whether you are building new or looking to retrofit your current facilities, AP has the proven and dependable solution to meet your needs. Performance, protection and peace of mind. That's why AP.

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For more information on AP's many products and services, contact your local AP representative or visit us online at:

www.automatedproduction.com

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