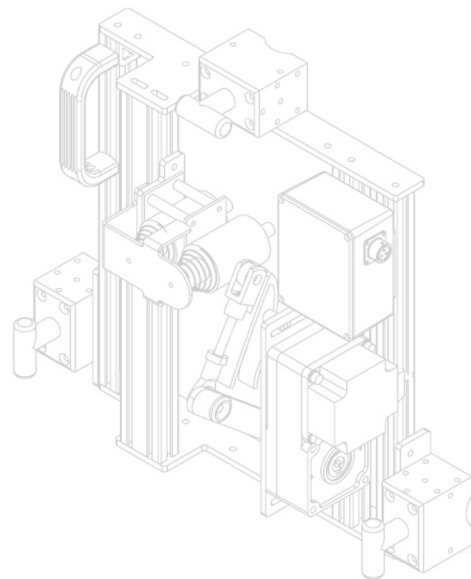


Case Study

Remote Switching

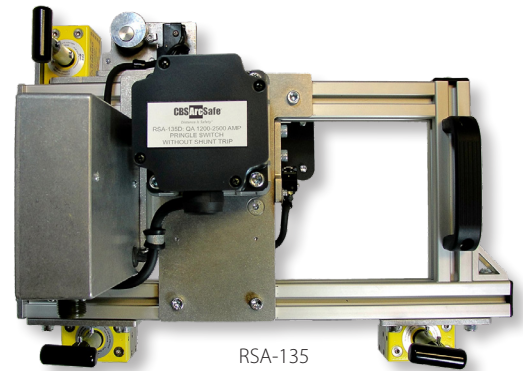
How CBS ArcSafe's Remote Switching
Saved a Major Distributor More Than
\$240,000 per Day by Reducing Downtime,
Restoring Power in Hours



Providing Arc-Flash Protection
With Remote Circuit Breaker Racking Devices
and Remote Switch Actuators, Operators & Kits

Case Study: E-commerce/Logistics

When industrial plant downtime can cost more than **\$10,000 per hour**, companies must have emergency plans in place.



Unexpected electrical outages can wreak havoc on businesses of all types. In warehousing and distribution centers, for example, companies operate on narrow margins, so keeping products flowing is a top priority. Emergency outages create scenarios that can put people into extremely dangerous situations when it comes to manually reenergizing main breakers. When disaster strikes, companies must act quickly — but safely. And CBS ArcSafe can help.

Saved From a Storm

When a hurricane caused an unexpected electrical outage at a distribution center in the United States in August of 2020, operations came to an abrupt halt. While the local utility service provider usually responds quickly to restore power, they were backed up and the customer was unable to reset the main breaker due to high incident energy. The utility's estimate on restoration was a minimum of a few days.

A Costly Downtime

This distributor's procedures correctly prohibit unqualified personnel from operating potentially dangerous electrical equipment, so the distribution center had to wait. But a few days is a long time to pause operations of a facility that fulfills hundreds of orders per hour. In this busy environment, every minute counts.



Case Study: E-commerce/Logistics

A report from Honeywell Intelligrated shows that the cost of unplanned downtime for a distribution center can be more than \$10,000 per hour. The distributor needed a fast, effective, and safe method for getting the power back on.

With the utility company backed up and the distributor unable to turn the main breaker back on, the only option was finding a device to remotely operate the main breakers from a safe distance. The company's electric subcontractor had previously done work with CBS ArcSafe and reached out to explain the issue. The contractor sent a picture of the circuit breaker at the facility to see if a solution could be found. After the call, CBS ArcSafe's technicians immediately began building a RSA-73 remote switch actuator, which delivers the ability to charge, close, and trip a GE high pressure contact switch breaker remotely while stationed up to 300 feet away, well outside the arc-flash hazard zone. When it comes to operating power distribution equipment, distance is safety.



"...the cost of unplanned downtime for a distribution center can be more than \$10,000 per hour."

A Swift Response

Within a few hours, CBS ArcSafe packaged the required RSA-73 and RSO-IIID rechargeable 24 DC power supply, which when used in conjunction with remote switch actuators will remotely operate any electrical device needing to be charged, closed, and/or tripped. After receiving the call at 11 o'clock that morning, CBS ArcSafe built, tested, and delivered the device to the local airport for transport by 4:30 p.m. Once the devices made it to the customer that evening, they were able to quickly attach the equipment and get the power back on swiftly—and safely.



Case Study: E-commerce/Logistics

Partnerships, Not Transactions

After seeing how CBS ArcSafe's equipment maximizes safety and minimizes downtime, the major distributor quickly chose to roll CBS ArcSafe solutions to its sites across the country. Not only do CBS ArcSafe RSAs handle emergency outage and unplanned downtime scenarios but planned downtime as well.



The relationship expanded to the point where the distributor told CBS ArcSafe that it does not want just a supplier relationship but a partnership, and the feeling was reciprocated. Sometimes this might mean taking 2 a.m. phone calls, but in other situations it goes much further. For example, the company was persistent in wanting to ensure that its employees had the available resources to use the equipment as soon as possible, so CBS ArcSafe developed a QR code system to simplify any potential troubleshooting questions.

Solutions at a Glance

Built from the ground up, this system places a unique and readily available QR code

somewhere near the device, such as the switchgear. An operator scans the QR code, which leads directly to a YouTube page with training and troubleshooting videos that provide valuable operation information. To date, the company has registered more than 2,000 scans.

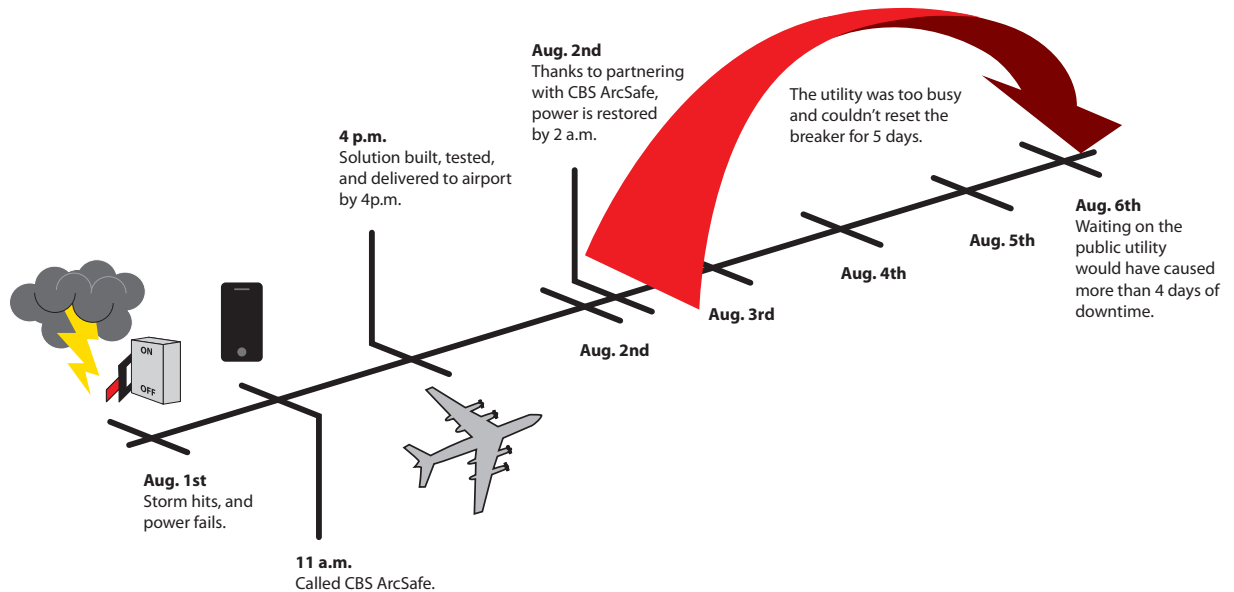
Assembled and Tested in Two Hours

After the first save and then the companywide rollout, the distributor experienced another emergency outage beyond their control in July 2021. This time, a utility loss caused an undercurrent that tripped the main breakers,

Timeline of unplanned outage:

- August 1st storm hit
- Utility power failed
- Entire facility without power
 - 500,000 square-foot facility
- Main breaker to plant tripped
- Utility brought power back to site, but the main breaker had been tripped. So power was on, but the breaker needed to be reset.
- The utility was too busy managing outages and could not visit facility for 5 days
- Client needed to re-set the main breaker, but the power registered 192 calories, enough to create an arc-flash to kill a person
- Client called CBS ArcSafe at 11 a.m.
- CBS ArcSafe had a solution for the main breaker installed for client
- CBS built, tested, and delivered the RSA-73 to DFW airport by 4 p.m.
- Product installed and was operating by 2 a.m.

Case Study: E-commerce/Logistics



preventing the company from safely reclosing the main circuit breaker. Company leadership contacted CBS ArcSafe directly this time, explaining that they needed a remote switch actuator for their facility in the Southeast. After receiving a picture that provided additional details, CBS ArcSafe once again got to work.

Exceeding Expectations

CBS ArcSafe had the device the company needed — an RSA-73C remote switch actuator — already partially assembled. Before the device could leave the building, however, it required full assembly and acceptance testing. Needing the device urgently, the company told CBS ArcSafe to assemble the product and have an employee fly with it several states over to get the equipment installed at the facility as soon as possible.

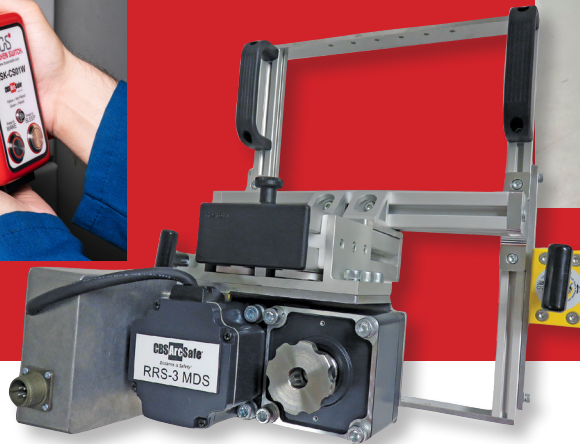
In two hours, the CBS ArcSafe technician had the device assembled and tested and then flew with it to hand deliver to the company. Shortly thereafter, the facility was once again up and running. Instead of experiencing days

of downtime, the company was able to limit it to several hours through its established partnership with CBS ArcSafe.

Easy Installation for Facilities of All Types

In this partnership, most of the sites that CBS ArcSafe worked with had new infrastructure. But in some cases — such as where the company took over an existing building — the equipment and preexisting infrastructure was more antiquated. CBS ArcSafe offers a range of different remote racking and switching products, including extraction and rotary-type as well as motor controls and similar power distribution equipment to get power back on at all types of facilities, whether old or new, a 50-amp molded case circuit breaker or a 5,000-amp insulated case circuit breaker. From the lightweight remote switching kit (RSK) line, portable application specific racking devices (RRS-3), to universal racking systems (RRS), CBS ArcSafe helps workers operate potentially dangerous equipment from a safe distance, eliminating the need for hot and heavy personal protective equipment (PPE).

“CBS ArcSafe aims to make all its devices as universal as possible.”



Universal Products

Additionally, CBS ArcSafe products generally do not require an end user to modify the switchgear for installation. Instead, the devices use switchable magnets that attach to the switchgear or other nearby ferrous metal and maintain the hold for the device, which also allows operators to easily move the remote switch actuator from

one breaker to another. CBS ArcSafe aims to make all its devices as universal as possible. The vast majority of products do not require the use of shoulder bolts, brackets, or anything else that detracts from ease of installation. When a customer receives equipment from CBS ArcSafe, they should be able to pull it out of the box, put it on the switchgear, attach the magnets, hook it up, and walk away within two minutes. ■

CBS ArcSafe Competencies Leveraged in This Solution:

✓ Engineering

Test Solutions
Test Services
Field Service

Service Shop

✓ Manufacturing

Equipment
Life Extension

Retrofit/Retrofill

✓ Remote Racking

✓ Remote Switching

Partial Discharge

For more information, contact
CBS ArcSafe at 877-4-SAFETY,
or visit www.CBSArcSafe.com.

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