



## Fuse Control™

Your guide for how to:

- Improve workplace safety
- Reduce operating costs
- Achieve code compliance



# Get control with Ferraz Shawmut's Fuse Control™ program



Ferraz Shawmut's Fuse Control program is a powerful combination of circuit protection products and services designed to help you get control of your inventory, operating costs, code compliance and workplace safety.

Developed by Ferraz Shawmut and refined through extensive field research, Fuse Control is a simple program that packs a lot of muscle. It will give you the edge you need to mitigate arc flash hazards, achieve code compliance, eliminate obsolete fuse categories, reduce inventory by 25% or more and offer the highest grade overcurrent protection available. Discover Fuse Control and seize the benefits of fuse selection, training and consolidation to increase operating efficiencies and enhance workplace safety.

## How can one program deliver so many benefits?

It's easy! Let the fuses do the work. The key lies in consolidating your current inventory and installed overcurrent protective devices to one fuse line - Ferraz Shawmut's innovative Amp-Trap 2000® fuse family.

Amp-Trap 2000 fuses out-perform the traditional fuse. Opening in less than one-quarter cycle at fault currents up to 300kA, Amp-Trap 2000 fuses minimize the let-through currents and energies that flow downstream during faults. Prevent misapplications, mitigate arc flash hazard potential, minimize downtime that can diminish productivity and profit, and provide the best overcurrent protection available in the industry.

The Amp-Trap 2000 family includes the most common UL fuses used today: L, J, RK1, and CC. While being dimensionally interchangeable with common fuse links, all fuse classes are designed with time-delay characteristics to handle a variety of applications from service entrance to small motor protection. Time delay (dual-element) fuses can withstand high inrush currents of motors and transformers eliminating nuisance openings. Time-delay also simplifies selection and permits the use of smaller ampere ratings, providing better protection in case of overloads. When sized properly, Type 2 protection and easy 2:1 selectivity are additional safeguards included with Amp-Trap 2000 fuses. More details on Amp-Trap 2000 fuses can be found at the end of this guide.

**Ferraz Shawmut can also provide short circuit studies and Arc Flash Mitigation Analysis. Contact Electrical Services for more information at 978-465-4980.**

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## Fuse Control benefits a variety of industries

### Food & Bottling



### Metal Fabrication



### Oil & Gas



### Pulp & Paper



### Waste Water



## The five major benefits of Fuse Control™



### Improved workplace safety

The explosive energies reached during an arc flash – intense heat, thermoacoustic shock wave, molten metal, shrapnel, blinding light, toxic smoke – can cause severe, often fatal, injuries to workers even several feet away. The fuses we recommend for reducing arc flash energies are UL Listed branch circuit fuses with the highest degree of current limitation — Ferraz Shawmut Amp-Trap 2000® fuses. Amp-Trap 2000 fuses can isolate a faulted circuit before the fault current reaches its maximum value, enabling the fuses to:

- Limit the total energy delivered to an electrical fault
- Limit thermal and mechanical stresses created by the fault current
- Reduce both magnitude and duration of the fault current
- Be easily coordinated in both the overload and short circuit regions

Because this energy reduction lowers the amount of heat generated, the use of these fuses typically minimizes the level of personal protective equipment (PPE) required, allowing personnel to work more easily, efficiently and most importantly, safer.



### Decreased operating costs

The Fuse Control program saves you money in two ways: by streamlining inventory and alleviating product replacement costs with current-limiting Amp-Trap 2000 fuses. Based on user feedback and surveys, the average industry cost for maintaining a storeroom bin is approximately \$200 per year. Let's apply this figure to determine the annual cost savings that can be realized by implementing Fuse Control. For example, say a metal fabrication facility has 100 bins of fuse inventory and with Fuse Control they were able to reduce their inventory by 25%. By applying the following formula we can calculate the annual cost savings:

$$\text{Number of fuse bins} \times \text{Percentage of inventory reduced} \times \text{Cost to maintain fuse bin} = \text{Annual savings}$$
$$100 \text{ bins} \times 25\% \times 200 \text{ dollars} = \$5000 \text{ Annual savings!}$$

If sized properly Type 2 “No Damage” protection can be achieved when installing current limiting Amp-Trap 2000 fuses which prevents short circuits from destroying your critical equipment. What does this mean? Basically it means that your motor starter, contactor or variable frequency drive will remain in functional condition if an electrical fault were to occur, saving you product replacement costs and installation time. To make sure your equipment is Type 2 coordinated visit [us.ferrazshawmut.com](http://us.ferrazshawmut.com) and locate our Type 2 No Damage Coordination Guides.



### Reduced downtime associated with electrical failures

Ferraz Shawmut's innovative SmartSpot® open-fuse indicator is standard on the Amp-Trap 2000 Class J and Class RK1. SmartSpot uses a combination of advanced materials and a unique, solid-body design, which turns an eye-catching red to help you locate an open fuse quickly and safely. SmartSpot eliminates the guessing and allows you to locate the open fuse faster, helping you avoid even more costly downtime. When installed properly Amp-Trap 2000 fuses have a convenient 2:1 coordination ratio. A selectively coordinated system will localize a fault condition, restricting outages only to the equipment affected. By having a coordinated system you will mitigate unnecessary outages, saving you time and money. Contact Ferraz Shawmut Technical Services for more information at 978-465-4853.



### Streamlined inventory

Amp-Trap 2000 fuses have the ability to replace multiple SKU's, reducing your overall inventory by 25% or more. The most common fuses found in today's industrial MRO facilities are the UL Class H, K and RK5. The UL Class H, K and RK5 fuses are dimensionally interchangeable with the Amp-Trap 2000 Class RK1, making them easy to replace with a single class. The Amp-Trap 2000 Class RK1 provides a higher level of safety and performance than the other classes. A Class RK fuse holder should also be installed to prevent users from mistakenly installing Class H or K fuse in the future.



### Easier electrical code compliance

Being responsible for your workers' safety means being up-to-date on the arc flash hazard regulatory and consensus standards, and integrating them into a comprehensive safety program. The major industry regulations and standards that you should be aware of are OSHA, NFPA 70E®, CSA-Z462, IEEE Standard 1584, and NFPA 70®: National Electric Code®. Amp-Trap 2000 fuses can reduce hazard risk categories allowing for a safer work environment. Ferraz Shawmut can assist you with electrical hazard assessments, including Arc Flash Hazard Analysis and Short Circuit Study.



Arc fault delivered to a circuit without fusing.



Arc fault delivered to a circuit protected by Amp-Trap 2000 fuses

### MESSY BIN

A bin cluttered with multiple mismatched SKUs



### ORGANIZED BIN

Reduce inventory, and achieve higher safety, with Amp-Trap 2000 fuses





**“It’s important that all critical personnel have a voice in the process...”**

To learn more about Fuse Control, contact us at:

Phone: 978-462-6662

Email: [info@ferrazshawmut.com](mailto:info@ferrazshawmut.com)

[us.ferrazshawmut.com/about-you/fusecontrol.cfm](http://us.ferrazshawmut.com/about-you/fusecontrol.cfm)

## The three phases of Fuse Control™

Now that you understand the benefits of the Fuse Control program, we can review the proper steps needed to implement a successful consolidation:

- **Storeroom Audit and Database Analysis**
- **Consolidation Report & Plan**
- **Implementation**

The Fuse Control program will be performed by a Ferraz Shawmut electrical distributor in collaboration with a Ferraz Shawmut regional sales representative making it effortless for you. Each phase contains its own list of action items and deliverables which allow for a smooth and efficient conversion. There is no time pressure; the phases are performed at a pace that works around your schedule.

### Phase 1: The storeroom audit & database analysis

The main goal of phase one is to audit your storeroom and analyze your inventory database in order to gather the necessary information for an accurate consolidation report.

#### How to get started

The process typically begins with an orientation meeting given by your Ferraz Shawmut sales representative. The goal of the meeting is to inform appropriate personnel within your facility about the benefits of the Fuse Control program. Since the program targets many facets of the organization, it is important to reach out to all personnel.

The orientation meeting can be an informal or formal process depending on your situation. Ferraz Shawmut is here to serve you and to help make the process as efficient and effective as possible. The orientation meeting will usually be hosted by a Ferraz Shawmut sales representative in conjunction with a distributor of your choice. Plant training and seminars can also be part of the meeting if more in-depth training and services are required. Ferraz Shawmut’s field engineers are very knowledgeable in all aspects of circuit protection including arc flash, codes and standards and product applications.

#### Who should be at the table?

- Plant Manager
- Plant Electricians
- Maintenance Personnel
- Safety Managers / Engineer
- Purchasing Manager
- Inventory Manager
- Electrical / Facility Engineer



**Performing the audit**

Once you and your organization understand the benefits and are ready to proceed we can start the storeroom audit and database analysis process. The process is very simple and will take up little of your time and resources. Also, did we mention **it is free!** The fuse inventory and audit analysis are provided to you at no cost.

We will need a full record of your fuse inventory. This information may already be available through your software ordering system. The following information will be required:

**Collect inventory data**

- Customer Part Number:** The part numbers you have assigned to identify the fuses in your inventory
- Stock Location (Bin Number):** The location number associated with the bin or shelving where the fuse is located
- Manufacturer:** Name of the manufacturer of the fuse
- Manufacturer’s Part Number:** The fuse manufacturer’s part number found on the fuse itself
- Part Number Description:** The description of the product including voltage and ampere rating. Used to help identify the product in case the part number does not match. May also include dimensions and key words such as “Class J” or “time-delay.”
- Quantity on Hand:** The quantity on hand of each particular part number
- Annual Usage:** The annual quantity consumed for each part number for the last 12 mos.
- Min/Max Levels:** The minimum and maximum inventory levels which will be used to drive your ordering system

**Note:** Consult your sales representative if this inventory information is not readily available for guidance on how to proceed.

Where applicable, it is also important to audit the fuses you have in service. It is one thing to have the proper Amp-Trap 2000® fuses in stock but that still doesn’t help you with fuses that are currently installed. If possible you should perform an audit on fuses that are in service and also replace those fuses with Amp-Trap 2000 fuses. This way you will be fully protected and reap the full benefits of the program immediately.


**Submitting the data**

Once the audit is complete, the next step is to send the electronic file to your Ferraz Shawmut sales representative. The representative will then work with the Ferraz Shawmut applications engineers who will analyze the data using our proprietary Fuse Usage & Storeroom Evaluation software.



**Submit data in MS Excel®**

Please submit your inventory data electronically using Microsoft Excel. You may download an Inventory Audit Template in MS Excel, like the one below, at our web site at [us.ferrazshawmut.com/about-you/fusecontrol.cfm](http://us.ferrazshawmut.com/about-you/fusecontrol.cfm).

| <br>Ferraz Shawmut Inc.<br>374 Merrimac St. Newburyport, MA 01950<br>(978) 462-6662 |                 | Customer Name:         |              | Date:      |                         |     |            |     |     |
|--|-----------------|------------------------|--------------|------------|-------------------------|-----|------------|-----|-----|
|  |                 | City/State:            |              |            |                         |     |            |     |     |
|  |                 | Distributor Name:      |              |            |                         |     |            |     |     |
|  |                 | City/State:            |              |            |                         |     |            |     |     |
| Item #   | Customer Part # | Stock Location (Bin #) | Manufacturer | Mfg Part # | Part Number Description | QOH | Annual Qty | Min | Max |
| 1  |                 |                        |              |            |                         |     |            |     |     |
| 2  |                 |                        |              |            |                         |     |            |     |     |
| 3  |                 |                        |              |            |                         |     |            |     |     |
| 4  |                 |                        |              |            |                         |     |            |     |     |
| 5  |                 |                        |              |            |                         |     |            |     |     |
| 6  |                 |                        |              |            |                         |     |            |     |     |
| 7  |                 |                        |              |            |                         |     |            |     |     |
| 8  |                 |                        |              |            |                         |     |            |     |     |
| 9  |                 |                        |              |            |                         |     |            |     |     |
| 10   |                 |                        |              |            |                         |     |            |     |     |
| 11   |                 |                        |              |            |                         |     |            |     |     |
| 12   |                 |                        |              |            |                         |     |            |     |     |
| 13   |                 |                        |              |            |                         |     |            |     |     |
| 14   |                 |                        |              |            |                         |     |            |     |     |
| 15   |                 |                        |              |            |                         |     |            |     |     |
| 16   |                 |                        |              |            |                         |     |            |     |     |
| 17   |                 |                        |              |            |                         |     |            |     |     |
| 18   |                 |                        |              |            |                         |     |            |     |     |
| 19   |                 |                        |              |            |                         |     |            |     |     |
| 20   |                 |                        |              |            |                         |     |            |     |     |



**“...I like the fact the fuse audit and analysis was absolutely free...”**

**Need an Inventory Template?**

Ferraz Shawmut offers several time-saving tools including a free Inventory Audit Template in MS Excel®. Download the handy template to the left at:

[us.ferrazshawmut.com/about-you/fusecontrol.cfm](http://us.ferrazshawmut.com/about-you/fusecontrol.cfm)



## Phase 2: The consolidation report & plan

During this phase, a Ferraz Shawmut factory engineer will analyze your data using our proprietary Fuse Usage & Storeroom Evaluation software. This software consolidates the audited inventory list into Ferraz Shawmut Amp-Trap 2000® fuses. The result is a series of valuable reports, which detail the bottom-line benefits of converting to the Fuse Control™ program and Amp-Trap 2000 fuses.

### The sections of the report

The Fuse Control Amp-Trap 2000 Consolidation Report is comprised of the following:

- Inventory Consolidation Summary
- Consolidation Details
- Class H & K Fuses Identified in Inventory
- Duplicate Inventory
- Follow-up Actions

Combined together, these reports will give you a comprehensive view of your potential streamlined inventory and will inform you of how many SKU's you can eliminate as well as what actions you should immediately consider to improve safety in your facility.

### Inventory consolidation summary report

The inventory consolidation summary report (Fig. 1) is a one page document summarizing, for each fuse class, the number of bins you currently have, the number of bins you could have by consolidating to Amp-Trap 2000 fuses, and finally the number of bins you could eliminate. Figure 1 illustrates that for this example the user was able to eliminate 136 bins of inventory reducing the total from 230 bins down to 94 bins. Each Amp-Trap 2000 fuse class is listed in the left-hand column. This will allow you to view the overall breakdown of bins consolidated by each fuse class.

### Inventory consolidation detail report

The consolidation detail report (Fig. 2) is a multi-page document which validates how the consolidation summary was derived. It identifies each individual part number and its Amp-Trap 2000 equivalent, along with the end user part number, bin number, annual usage, current inventory, min/max levels and physical inventory. Utilizing annual usage and quantity on hand, we will be able to recommend a stocking quantity suitable for your plant use. It is common to find stocking quantities of two different fuses used for the same application. For example, let's analyze part number A6D15R within Figure 2. We were able to replace four different stocked parts with a single fuse. We were also able to reduce the stocking level by basing the new inventory quantities on the combined annual usage value.



| AmpTrap2000 Inventory Consolidation Summary |                         |                                 |                           |
|---|-------------------------|---------------------------------|---------------------------|
| <b>Company</b>                              |                         |                                 |                           |
| Analysis #: 081108-001                      |                         |                                 |                           |
| 6/15/2008                                   |                         |                                 |                           |
| Upgrade Category                            | Existing Number of Bins | Number of Bins with AmpTrap2000 | Number of Bins Eliminated |
| A2D-R                                       | 25                      | 30                              | 5                         |
| A6D-R                                       | 20                      | 16                              | 4                         |
| ATDR  | 10                      | 8                               | 2                         |
| ATQR  | 25                      | 20                              | 5                         |
| AJT   | 10                      | 8                               | 2                         |
| A4BO  | 5                       | 4                               | 1                         |
| <b>TOTALS:</b>                              | <b>50</b>               | <b>40</b>                       | <b>10</b>                 |

Fig. 1 Inventory Consolidation Summary Report

| AmpTrap 2000 Inventory Consolidation Report |              |                           |                      |            |              |                   |                   |                    |
|---|--------------|---------------------------|----------------------|------------|--------------|-------------------|-------------------|--------------------|
| Upgrade Category                            | Upgrade Fuse | Ferraz Shawmut Equivalent | Customer Part Number | Bin Number | Annual Usage | Current Inventory | Maximum Inventory | Physical Inventory |
| A2D-R                                       | A2D3-15R     | TR3-15R                   |                      | WH-3-10    | 12           | 20                | 15                | 0                  |
|   | FRFR3-10     |                           |                      |            | 12           | 20                | 15                | 0                  |
| A3D10R                                      | A3D10R       | TR10R                     |                      | WH-3-11    | 5            | 7                 | 5                 | 0                  |
|   | FRFR10       |                           |                      |            | 5            | 7                 | 5                 | 0                  |
| A2D100R                                     | A2D100R      | TR100R                    |                      | WH-3-12    | 7            | 10                | 0                 | 0                  |
|   | FRFR100      |                           |                      |            | 7            | 10                | 0                 | 0                  |
| A6D3-15R                                    | A6D3-15R     | TR33-15R                  |                      | WH-5-1     | 6            | 5                 | 7                 | 3                  |
|   | FRFR3-15     |                           |                      |            | 3            | 1                 | 0                 | 2                  |
|   | TR33-15R     |                           |                      |            | 12           | 10                | 15                | 6                  |
|   | LPS-RK3-10   |                           |                      |            | 3            | 16                | 27                | 13                 |
| A6D30R                                      | A6D30R       | TR330R                    |                      | WH-5-6     | 1            | 10                | 4                 | 3                  |
|   | FRFR30       |                           |                      |            | 1            | 10                | 4                 | 3                  |
| AJT   | AJT25        | AJT25                     |                      | WH-10-2    | 5            | 2                 | 7                 | 2                  |
|   | LJ25         |                           |                      |            | 0            | 10                | 0                 | 0                  |
|   | J-25         |                           |                      |            | 2            | 12                | 7                 | 2                  |

Fig. 2 Detailed Inventory Consolidation Report

### Class H & K Fuses Identified in Inventory

**Company**  
Analysis #: 081108-001  
8/15/2006

| Customer Part # | (Customer) Information<br>Bin Location | Fuse Part # | Ferraz Shawmut<br>Equivalent (Class) | Ferraz Shawmut<br>Upgrade |
|-----------------|--|-------------|--------------------------------------|---------------------------|
| ABC             | A1234                                  | RF30        | RF30 (H)                             | A2000R                    |
| 123             | B5678                                  | RF60        | RF60 (H)                             | A2000R                    |
| EFG             | C9012                                  | RF5100      | RF5100 (H)                           | A60100R                   |
| 456             | D3456                                  | NCN30       | OT30 (K)                             | A2000R                    |
| HLJ             | ET890                                  | NC560       | OT560 (K)                            | A60060R                   |




Fig. 3 Class H Inventory Report

### Duplicate Inventory not Upgraded to AmpTrap2000

**Company**  
Analysis #: 081108-001  
8/15/2006

| Ferraz Shawmut<br>Part Number | (Customer) Information<br>Customer Number | Fuse Part # | Bin Number | Maximum<br>Inventory | Minimum<br>Inventory | Current<br>Inventory | Annual<br>Usage |
|-------------------------------|---|-------------|------------|----------------------|----------------------|----------------------|-----------------|
| G0C5                          | ZEE-098                                   | A123        | A123       | 0                    | 0                    | 0                    | 0.000           |
|                               | ZEE-154                                   | A234        | A234       | 0                    | 0                    | 0                    | 0.000           |
| 08C1                          | ZEE-080                                   | A345        | A345       | 0                    | 0                    | 0                    | 0.000           |
|                               | ZEE-181                                   | A456        | A456       | 0                    | 0                    | 0                    | 0.000           |
| T-6-14                        | ZEE-089                                   | A567        | A567       | 0                    | 0                    | 0                    | 0.000           |
|                               | ZEE-187                                   | A678        | A678       | 0                    | 0                    | 0                    | 0.000           |




Fig. 4 Duplicate Inventory Report

### Additional Information Request

Analysis for: **Company**      Representative: **Rep Company Name**  
 Address      First Last  
 City, State Zip      Phone #  
 Field Engineer:      First Last  
    Phone #

Analysis #: 010108-001      Aug. 15, 2006

| Bin Number | (Customer) Information<br>Part Number | Fuse Part # / Prefix | Ferraz Shawmut<br>Equivalent | Comments        | Write Corrected<br>Part Number Here |
|------------|---------------------------------------|----------------------|------------------------------|-----------------|-------------------------------------|
| xxx        | yyy                                   | zzz                  | See Comment                  | abc def ghi     | _____                               |
| aaa        | bbb                                   | ccc                  | No Cross                     | No Ferraz Cross | _____                               |
| xxx        | yyy                                   | zzz                  | See Comment                  | abc def ghi     | _____                               |
| aaa        | bbb                                   | ccc                  | No Cross                     | No Ferraz Cross | _____                               |

The above corrected part numbers were obtained by performing an inspection of the parts in the indicated bin and have been approved by the customer.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date




Fig. 5 Follow-up Report

#### Class H & K fuses identification report

This report identifies and locates Class H and K fuses in your inventory (Fig. 3). Class H fuses, also known as “renewable fuses,” are not the proper fuse to install in 99% of today’s applications. The 2005 National Electric Code Article 240.60(D) states that Class H renewable fuses are not permitted in new installations. Ferraz Shawmut recommends immediately eliminating these fuses from your inventory. Class H and K fuses have significantly lower interrupting ratings and performance capabilities than Class RK1 fuses and can be harmful to your personnel and equipment. The fuses identified in this report are also included in the consolidation details report.

#### Duplicate inventory report

The duplicate inventory report (Fig. 4) detects equivalent part numbers that are physically stocked in separate bin locations. By locating these part numbers, we can identify how many bins you can eliminate by consolidating like part numbers only. Using Fig.4, let’s analyze Ferraz Shawmut part number GDL1-1/2. In this example, part number GDL1-1/2 is stocked in two separate bin locations. The primary focus of the duplicate inventory report is on those products that will not be upgraded to Amp-Trap 2000 fuses such as glass, semiconductor and special purpose fuses.

#### Additional information / follow-up report

The follow-up report (Fig. 5) consists of a list of part numbers with missing or invalid information, such as incorrect or incomplete part numbers or descriptions. This report is used to clear up any missing or incorrect information from the audit process. Ferraz Shawmut’s Technical Service Department is always available to assist in identifying miscellaneous or unrecognizable products. For assistance, please contact the Ferraz Shawmut Technical Support Team at 978-465-4853. After the follow-up report has been resolved, we will update the Fuse Control™ report one final time making sure all information is up to date and accurate.





**“Another benefit of Amp-Trap 2000® fuses is that they are always readily available...”**

## Phase 3: Implementation

Once the Fuse Control™ report has been presented and the benefits of Amp-Trap 2000® fuses are apparent you are ready for the implementation phase.

### Update database

Make sure that the inventory and ordering software is updated with the new part numbers and bin locations. The conversion will not work if we do not prevent the system from ordering the obsolete inventory. Customer part numbers, bin locations, min/max levels, and part descriptions should all be updated. Ferraz Shawmut can work with you and provide you with an electronic list of part numbers and descriptions to upload into your software ordering system. Software updates are critical to the success and longevity of a conversion.

### Ordering & delivery

Your Ferraz Shawmut sales representative will quote your conversion order based on your annual usage and min/max levels created by the Fuse Control consolidation report. You may add or subtract line items and adjust quantity levels based on your company's needs. Another benefit of Amp-Trap 2000 fuses is that they are always readily available at Ferraz Shawmut's distribution warehouse, meaning if you do not have inventory we can deliver the fuse 97% of the time when requested. Also check with your local Ferraz Shawmut distributor for their stocking policy and availability. After the purchase order is placed, Ferraz Shawmut will deliver the quoted order according to your requested date. Look for the distinctive Amp-Trap 2000 orange and blue packaging.

### Obsolete inventory

Before we can complete the integration of your new Amp-Trap 2000 inventory, we must dispose of the dead inventory. Phasing in new inventory is not recommended. Instead, we recommend disposing of any old, obsolete product which may be hazardous to your people and equipment.

Recycling programs are available from participating Ferraz Shawmut representatives and distributors. Please consult your representative or distributor if you have questions.

### Bin labels

After the storeroom has been cleansed of dead inventory, the next step is to re-label your fuse bins. Work with Ferraz Shawmut to create bin labels that will allow you to easily identify the fuse and its location. A free customizable MS Word® bin label template is available on our web site at [us.ferrazshawmut.com/about-you/fusecontrol.cfm](http://us.ferrazshawmut.com/about-you/fusecontrol.cfm).



Example of Bin Labels.  
Download a bin label template at  
[us.ferrazshawmut.com/about-you/fusecontrol.cfm](http://us.ferrazshawmut.com/about-you/fusecontrol.cfm).

### Consolidation charts

Ferraz Shawmut will also provide cross reference documents and charts to be posted in the fuse storeroom. We make it easy for maintenance electricians and personnel to select the proper Amp-Trap 2000 fuse in cases where there is a need to replace an old fuse that was still in service. Six consolidation charts, one for each major fuse class, are available (see sample chart to the right).



Example of the Consolidation Charts

To learn more about Fuse Control, contact us at:

Phone: 978-462-6662

Email: [info@ferrazshawmut.com](mailto:info@ferrazshawmut.com)

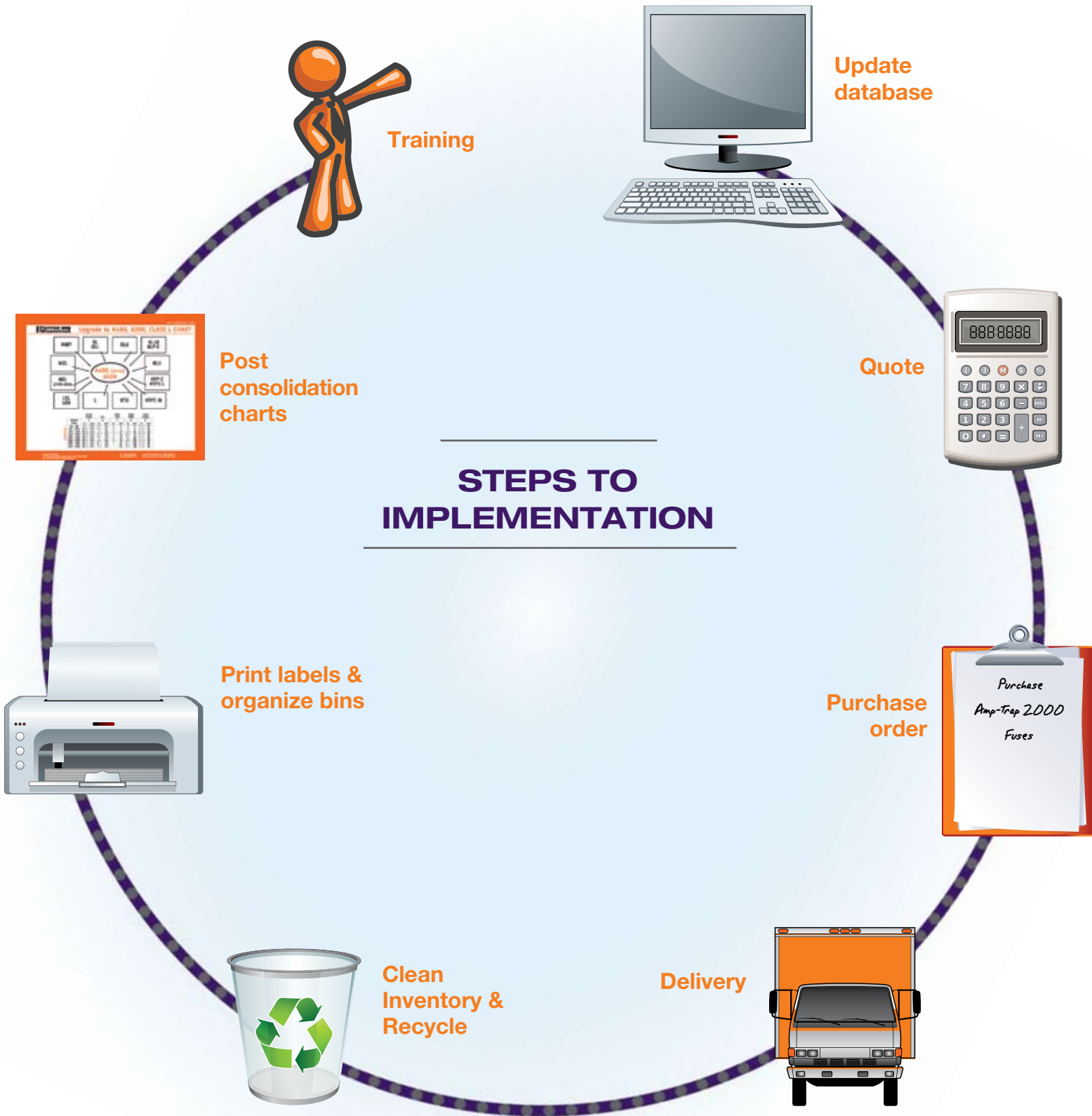
[us.ferrazshawmut.com/about-you/fusecontrol.cfm](http://us.ferrazshawmut.com/about-you/fusecontrol.cfm)

### Training

Ferraz Shawmut also offers personnel training. Whether it's basic fuse training, arc flash training or codes and standards training, Ferraz Shawmut has the expertise. Because safety is everybody's responsibility, our sales representatives are trained to educate not only your staff, but engineers, purchasing agents, storeroom personnel and other plant employees.

# A snapshot of the implementation phase

The implementation phase is comprised of the seven steps below, starting with "updating your database" and ending with "training" your workers. Each of these steps flow seamlessly from one to the other. Your Ferraz Shawmut sales representative will work closely with you through each step and provide valuable sales and technical support.





## More satisfied customers...

### **Turkey Hill Dairy** – Food Processing

"I never knew it could be this easy. I was able to reduce inventory, improve safety and reduce costs and I barely lifted a finger." – *Dennis Rapp, Turkey Hill Dairy*

- Bins Eliminated – 42 of 128
- Estimated Annual Dollars Saved – \$9,240

### **Snap-tite, Inc.** – Fluid Components

"I didn't realize how much excess inventory I had. After I made the switch my storeroom was cut in half."

*Jay Ciecierski, Snap-tite*

- Bins Eliminated – 72 of 158
- Estimated Annual Dollars Saved – \$15,840

### **Accuride Corporation** – Automotive (Trucking)

"The industry is very competitive. We were able to cut costs and shed excess inventory by using Ferraz Shawmut." – *Rich Moore, Accuride*

- Bins Eliminated – 19 of 97
- Estimated Annual Dollars Saved – \$4,180

### **BrucePac** – Food Processing

"We have been very satisfied with the results. It was one of the best moves we have made." – *Sandra Neal, BrucePac*

- Bins Eliminated – 30 of 62
- Estimated Annual Dollars Saved – \$6,600

To learn more about Fuse Control, contact us at:

Phone: 978-462-6662

Email: [info@ferrazshawmut.com](mailto:info@ferrazshawmut.com)

[us.ferrazshawmut.com/about-you/fusecontrol.cfm](http://us.ferrazshawmut.com/about-you/fusecontrol.cfm)

## Case Studies:

### MillerCoors discovers the power of the Ferraz Shawmut's Fuse Control™ program

**MillerCoors** is the second largest American style beer maker in the country and an industry leader in brewing and bottling malt beverages. When Nick Zingaro, Electrical Team Leader for MillerCoors, teamed up with Mark Wonderlic, a Ferraz Shawmut Sales Representative, he quickly learned the benefits of the Fuse Control program. Within three months, MillerCoors cut their operation costs and reduced excess inventory by 40% by utilizing Fuse Control and upgrading to Amp-Trap 2000® fuses.

Teaming up for Fuse Control with Ferraz Shawmut was a win-win for MillerCoors of Albany, Georgia. MillerCoors had been actively taking steps toward improving their electrical infrastructure and safety levels and Ferraz Shawmut delivered them a solution that was easy, inexpensive and risk-free. By streamlining their fuse inventory and upgrading to Amp-Trap 2000 fuses, MillerCoors took a giant step forward to providing the safest work environment possible for its employees, a requirement now mandated by OSHA and NFPA regulations.

"The on-site training and cross reference material has also been a big help," said Nick, Electrical Team Leader for MillerCoors.

Amp-Trap 2000 fuses are available in four fuse class families, Class RK1, J, CC and L, and provide the highest degree of arc flash mitigation available on the market today. Amp-Trap 2000 fuses reduce arc energies created by electrical faults as well as arc flash incidents while being dimensionally interchangeable with most fuse products on the market. "These fuses have put us a step ahead of the arc flash curve," said Nick.

"The fuse bins are so much more organized. It makes it very easy to find what we need," adds Nick. "This new set-up has also made it much easier to manage my guys. I have 40 maintenance personnel that work for me. Since making this change I have had zero complaints."

Not only did Fuse Control streamline inventory, but Ferraz Shawmut cleaned the storeroom bins, disposed of dead inventory and re-labeled the new bins leaving a clean and organized look. Cross reference charts and counter mats were also provided to MillerCoors. Fuse Control also contributed to a reduction in operating costs.

"It saved us money and time. With the reduced inventory, I have less part numbers to worry about," said Angela Culliton, Brewing Planner for MillerCoors. "Since implementing this system we have not had any stock-out issues or shortages."

In the end, MillerCoors was able to eliminate 44 of the original 117 fuse bins. All while increasing safety, lowering operating costs and reducing facility downtime. It's easy; just let the fuses do the work.

### Major Chicago-based hospital saves lives with Fuse Control

A 613-bed, Chicago, Illinois medical center underwent monumental enhancements to its electrical safety and reliability by participating in Ferraz Shawmut's Fuse Control program. Known as one of "America's Best Hospitals" according to U.S. News & World Reports, the medical center realized that their electrical infrastructure is critical and was eager to make improvements. By participating in Fuse Control the medical center not only gained the benefits of the high performance Amp-Trap 2000 fuse family but was also able to eliminate an astronomical 73 fuse bins from their storage room, which calculated out to be a 67% reduction!

Standard benefits such as Type 2 Protection and Selective Coordination, which are delivered by the Amp-Trap 2000 fuse line, are ideal for medical facilities that rely heavily on its electrical infrastructure. The hospital was able to experience these benefits without implementing major changes or retrofits to their electrical system. "This was a no-brainer for us because the fuses are the exact fit and function of what we had installed, but just safer," said the head maintenance electrician at the medical center.

Fuse Control allows the medical center to focus on its patient care mission with the assurance that it is providing the safest method of circuit protection to both the equipment and the personnel in or around the equipment.



**To learn more about Fuse Control, contact us at:**

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**[us.ferrazshawmut.com/about-you/fusecontrol.cfm](http://us.ferrazshawmut.com/about-you/fusecontrol.cfm)**

**A relentless pursuit of protection for electrical components, systems - and the people who use them.**

Ferraz Shawmut is an international company manufacturing the widest range of circuit protection solutions in the electrical industry. Drawing on a century of experience - and an ongoing commitment to critical research in electrical safety - we provide industrial, commercial, and OEM customers with innovative products and technical support teams to increase effectiveness, simplify applications, and enhance productivity. Learn more about our circuit protection solutions at [us.ferrazshawmut.com](http://us.ferrazshawmut.com).

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