



NATIONAL ASSOCIATION OF
ELECTRICAL DISTRIBUTORS



Use IDEA as the Central Repository of Cross Reference Information

*Developed by the National Association of Electrical Distributors (NAED)
for members of the National Electrical Manufacturers Association (NEMA)*

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INTRODUCTION

Since early 2013, the National Association of Electrical Distributors (NAED)¹ has focused on electrical distributors' need for...

- a single source of complete, high quality data—**including cross references**—for all manufacturers;
- information delivered in an efficient manner;
- to enable day-to-day sales transactions and bids;
- as well as the information necessary to conduct e-commerce.

Over the last three years, the National Electrical Manufacturers' Association (NEMA) and NAED have worked together to improve IDEA's governance, reconstituted IDEA's board, and charged board members with improving the breadth, depth, and quality of the data in IDEA's Data Warehouse (IDW).

In early 2015, IDEA's board mandated all items (Stock Keeping Units or SKUs) in the IDW must contain 43 critical data fields to be considered fully attributed. Exceptional efforts by manufacturers and IDEA staff culminated in 1,449,224 fully attributed SKUs in IDEA's Data Warehouse (IDW) to date.

Unfortunately, however, electrical distributors' need for an efficient way to populate their business systems and e-commerce platforms with cross reference information—*i.e., provide product alternatives in the form of matches, substitutes, similar products, functional equivalents, etc.*—has yet to be fulfilled due to IDEA shareholder misalignment.

There are 3 main reasons electrical distributors require cross reference information in their business systems:

1. **The need for speed in responding to customers.**
2. **To facilitate ecommerce.**
3. **To decrease the costs of obtaining cross reference information for all parties involved—customers, manufacturers, and distributors.**

¹The National Association of Electrical Distributors (NAED) is the trade association for the \$70+ billion electrical distribution industry. Through networking, education, research, and benchmarking, NAED helps electrical distributors increase profitability and improve the channel. The NAED's membership operates in more than 5,100 locations internationally.

DEBUNKING COMMON MYTHS

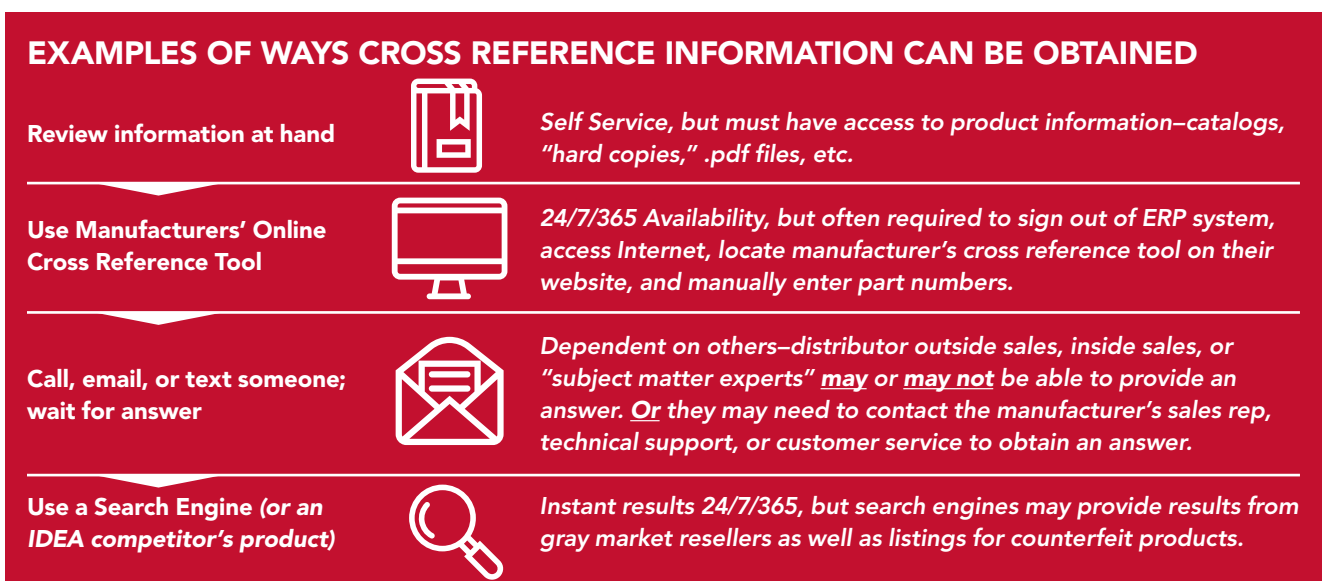
Distributors are committed to providing value to customers and manufacturers in order to grow sales **and** increase margins. We understand competing on price is a foiled remedy. If price becomes the lowest common denominator, manufacturers will eventually stop investing in research and development for new and better products. Then distributors will not generate sufficient margin to ensure the viability of their businesses into the future.

The ability to download cross reference information from IDEA's Data Warehouse (IDW) provides electrical distributors a quick and efficient way to respond to customer requests. Whether online or on the phone, suggested alternatives could be accessed instantaneously, even if the customer only has a description. Immediate information access will also result in a value added sales tool, allowing distributors time to present customers with good, better, and best product alternatives. Cross reference information on distributors' e-commerce platforms can keep online buyers engaged with authorized distributors, rather than exposing them to the gray market resellers and counterfeit products that may be listed in search engine results.

CROSS REFERENCE RESOURCES ARE WIDELY AVAILABLE

Manufacturers offer a myriad of resources for obtaining cross reference information—*tables in the back of catalogs; "hard copies;" manufacturer-provided Excel® spreadsheets and/or .pdf listings; Apps; single item look-up on manufacturer websites; calls to the manufacturer's sales, technical, or customer service personnel, etc.* In fact, cross reference information is so widely available IDEA's largest competitor has created an electronic cross reference product for electrical distributors and contractors.

Figure 1. Current Process for Obtaining Cross Reference Information

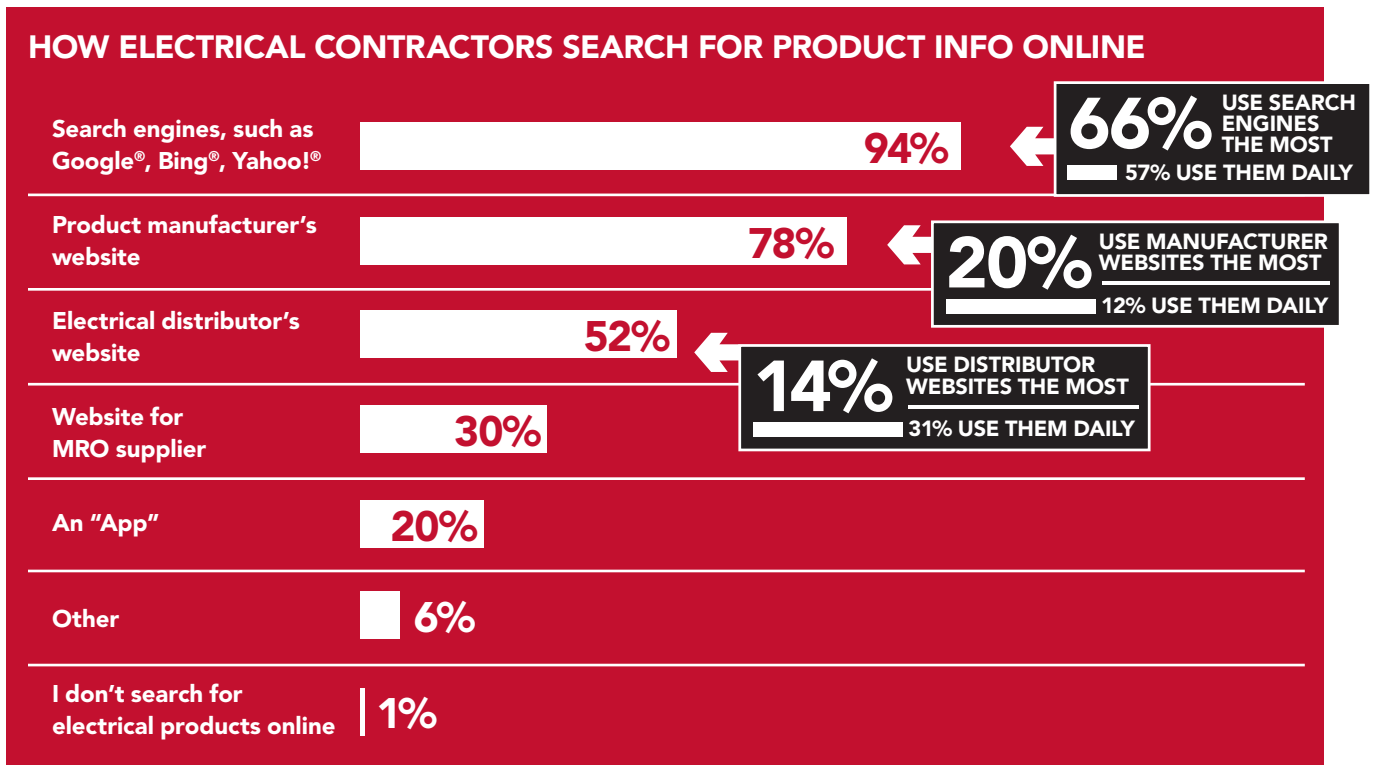


Providing suggestions for alternative products is a normal day-to-day business occurrence for electrical distributors as customers call, e-mail, text, or check the distributor’s website for product information, availability, and pricing. Distributors must provide timely answers and offer suggestions to help customers fulfill their needs or risk losing the business to a more responsive competitor.

However, unless an electrical distributor subscribes to Trade Service’s eDataFlex® or Comparator®, uses a commercially available cross referencing product such as the one used by Grainger, or develops a custom application, the process is manual and does not support e-commerce. Instead, identifying product alternatives often requires distributor personnel to sign in and out of their business system in order to access manufacturer-provided information online; wait for a manufacturer sales, technical, or customer service representative to provide an answer; and/or rely on search engines—Google®, Bing®, Yahoo!®, etc.—for answers that may include links to gray market resellers or counterfeit products.

The popularity of search engines for searching for product information by commercial contractors² is illustrated by the results of NAED’s 2015 Electrical Contractors’ Technology Benchmarking Survey,³ as shown in Figure 3.

Figure 2. Electrical contractor preferences for searching for product information online



²The 2015 PAR™ Report (2014 Results) list commercial contractors as the typical NAED Distributor’s largest customer segment, providing 37.6% of sales.

³NAED surveyed members of the Independent Electrical Contractors Association (IEC) and the National Electrical Contractors Association (NECA) during the summer of 2015 on how technology is used in their businesses.

Why contractors use Google®—which set the standard for quickly obtaining product information, availability, and pricing information 24/7/365—to research and find electrical products:

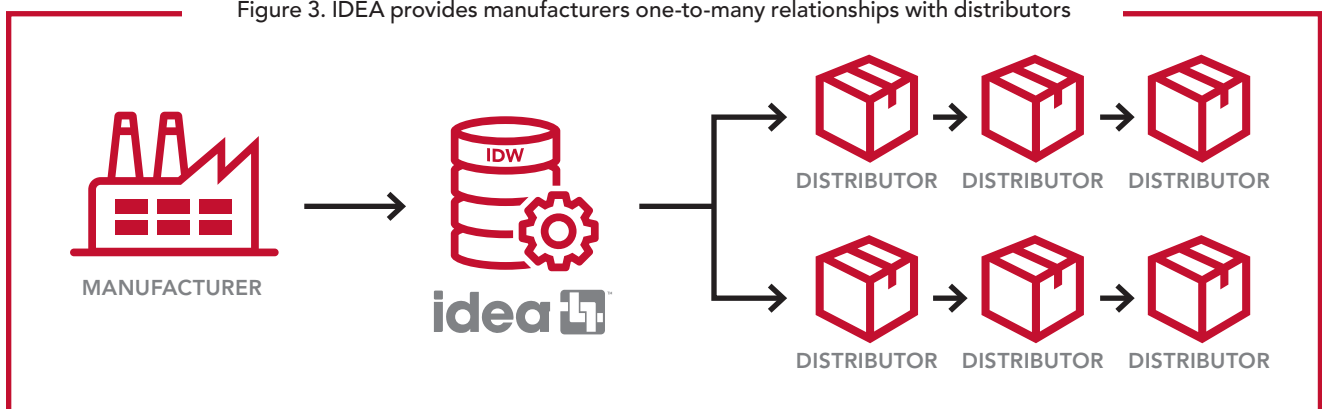
- ➔ "[Google casts a] broad net. I may end up on a manufacturer's website or a supplier's site. [It] provides the most flexibility."
- ➔ "Normally, I search by a description or by a number without a manufacturer. Using Google makes this simpler."
- ➔ "[My] homepage is set to Google and I simply type in the product I am looking for, which usually takes me to the product or at the very least the manufacturer's website."
- ➔ "It comes up with what I need...it's fast and easy...[also] if I am trying to get a quick ballpark price, the manufacturer or distributor site does not have that information."
- ➔ "Google is so much faster to find product data than most manufacturers' websites."

Electrical distributors with strong customer relationships; local inventory; technical expertise; and robust online offerings containing suggested product alternatives present a formidable barrier against online competitors.

USE IDEA AS THE CENTRAL REPOSITORY OF CROSS REFERENCE INFORMATION

IDEA's Industry Data Warehouse (IDW) allows manufacturers to send product information to one, secure place accessible by many distributors. IDEA provides electrical distributors one, secure place to populate their business systems, digital catalogs, and web stores with product information; better manage warehousing and logistics; and facilitate sales operations. IDEA developed functionality to add cross reference information to the Industry Data Warehouse (IDW) in late 2013; however, shareholder misalignment has prevented implementation.

Figure 3. IDEA provides manufacturers one-to-many relationships with distributors



Cross reference information delivered in an efficient manner—*electronically from one source*—is an essential requirement for electrical distributors to compete in today’s marketplace. At least one IDEA competitor offers a solution today; others may also develop solutions which could impact IDEA’s business model.

Combining IDW’s central repository of over 1.4 million SKUs populated with the 43 critical data fields with cross reference information will allow electrical distributors to:

- ◆ Continue to rely on IDEA as a single source of high quality data.
- ◆ Enhance distributor online offerings by providing suggested product alternatives⁴ with a verifiable source—*link to NEMA manufacturer’s web page, etc. (and perhaps even reduce the popularity of search engines for obtaining product information).*
- ◆ Compete with online behemoths such as Amazon, AliBaba, Fastenal, Grainger, Home Depot, Lowes, etc.
- ◆ Defend against gray market resellers and counterfeit products.
- ◆ Reduce costs for all parties involved, including the buying public, by streamlining the current cost referencing process.
- ◆ Generate new sales opportunities.

Figure 4. Electrical Distributors’ Website Functionality⁵



⁴While this would not be a guarantee of a perfect cross for all specifications, it could be used to direct the requestor to a similar product. Legal disclaimers would specify the customer qualify the recommended cross to ensure suitability for their intended application.

⁵NAED’s 5th Annual Distributor Technology Benchmarking Survey, published in October 2015.

WAYS TO GENERATE NEW SALES OPPORTUNITIES & OPERATE MORE EFFICIENTLY

Besides furnishing a more efficient process for electrical distributors to offer suggested alternative products to customers in the normal course of day-to-day business and enabling e-commerce, here are six ways electrical distributors will use electronic cross reference information to generate new sales opportunities.

1

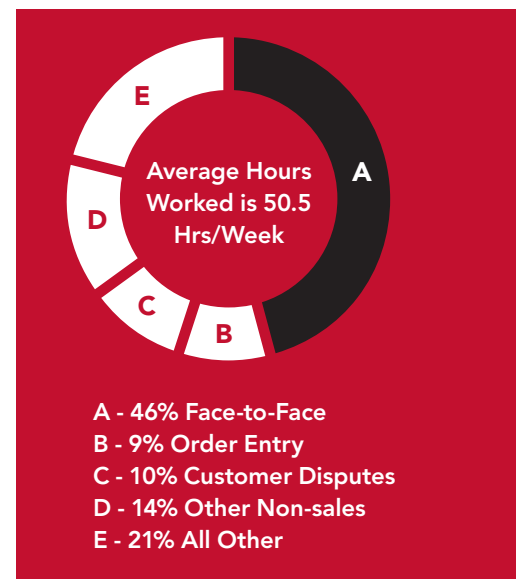
STREAMLINING THE CURRENT CROSS REFERENCING PROCESS ALLOWS MANUFACTURER AND DISTRIBUTOR SALES REPRESENTATIVES MORE TIME TO FOCUS ON HIGH VALUE-ADD ACTIVITIES.

Sales expense is one of the electrical distribution channel's highest outlays and a key area for channel productivity improvements. A 2011 study funded by the NAED Education & Research Foundation's Channel Advantage Partnership reported 35% of an electrical distributor sales representative's time was spent on non-selling activities such as *"running down alternative items so as not to lose an order."*⁶

Although manufacturer sales representatives were not included in this study, information available from the Corporate Executive Board in 2011 indicated world-class companies keep non-selling time to 15% or less.

Including cross reference information in IDW will eliminate the time consuming task of cross referencing products for both manufacturer and distributor sales representatives. This will allow time for higher value added activities—*increased customer face time, time for solution selling (i.e., up-selling and add-on sales), and introducing new products.*

Figure 5. How Electrical Distributor Sales Representatives Spend Their Time



2

PROVIDE PRODUCT INFORMATION AND PRICING MORE EFFICIENTLY TO CONTRACTORS

The quickest, easiest way for contractors to order products is through their estimating system. However, most contractor estimating systems arrive pre-populated with a limited set of products, from a random mix of manufacturers, often with only one brand per category.

⁶Maximizing Sales: Techniques & Tools to Boost Selling Productivity

If the contractor's preferred manufacturers are not included in the "pre-loaded" selection pool, they must add their product preferences by importing the information from their preferred electrical distributor or a contractor pricing service.

After the estimating system's database is originally configured with products, labor, and assemblies (*product and labor combined*), distributors must continually keep the contractor's product and pricing information updated.

Figure 5. Processes Contractor Software Drives

HOW CONTRACTORS USE THEIR ESTIMATING SOFTWARE

- ◆ Take-offs
- ◆ Specifying products
- ◆ Creating material list
- ◆ Synching material list w/Distributor
- ◆ Pulling in pricing from Distributor
- ◆ Finding product spec sheets
- ◆ Labor decisions
- ◆ Assembling bid packages
- ◆ Project management – scheduling
- ◆ Processing change orders
- ◆ Everything Needed to Generate Orders

Besides generating purchase orders, contractors also use their estimating software to bid jobs. Upon receipt of a bill of material, distributors must provide pricing for the products listed or suggest alternatives from the lines carried; provide documentation on the suitability of any substitution; and submit product information and pricing to the contractor electronically.⁷ The turnaround time available to distributors is often very short since the contractor must incorporate the distributor's information into their own bid package.

Combining IDW's central repository of over 1.4 million SKUs populated with the 43 critical data fields with cross reference information streamlines the job bidding process for electrical distributors; allows electrical distributors to respond to contractors

quickly; provides electrical distributors with an ongoing, automated means of providing product and pricing information to electrical contractors with a verifiable source—*link to a NEMA manufacturer's web page, etc.*; and could reduce contractors' reliance on Trade Service as a source of product and pricing information.

3

HELP ARCHITECTS, DESIGNERS, AND CONSULTING ENGINEERS RESEARCH PRODUCT OPTIONS

It is a challenge for many manufacturers to get products noticed by all the commercial and institutional architects, designers, and consulting engineers in the U.S. While the largest architectural firms may be called upon by manufacturer personnel, the smallest firms often rely on local electrical distributors, magazines, and the Internet for up-to-date product information.

⁷The job bidding process is currently difficult for online players—Amazon, Alibaba, Fastenal, Grainger, Home Depot, Lowes, etc.—to compete.

Providing electronic cross reference information in IDEA's Data Warehouse would enable electrical distributors to simplify the product research process for these commercial and institutional architects, designers, and consulting engineers. An array of good, better, best application-specific product options from various manufacturers—including brands, styles, etc.—could be proactively presented, as well as verifiable links to specifications on the NEMA manufacturer's website.

4

CONDUCT BUSINESS INTELLIGENCE AND ANALYTICS

National and regional distributors carry various manufacturers' products across the company footprint. Without cross reference information in the distributor's business system, a massive, manual, labor intensive data coding effort is required in order to analyze "what" products are selling "where" across various brands in order to determine market share and account penetration across the company.

5

SELL MORE BUILDING WIRE AND COMMERCIAL PRODUCTS

Building wire and commercial products—conduit, ground rod, boxes, fittings, etc.—are examples of product categories where contractors exhibit less brand loyalty than others. Whether this is a cause or an effect of contractor estimating software identifying these products with generic UPC codes,⁸ distributors must cross reference the generic UPC codes provided by contractors to the products they are authorized to sell.

Cross referencing wire is a particularly labor intensive task since wire manufacturers use unique catalog numbers and UPC codes for the exact, same THHN wire. Time is of the essence in during the job bidding process and unfortunately, any products distributors are unable to cross reference quickly often aren't quoted.

Providing complete cross references for NEMA conduit, wire, ground rod, boxes, and fittings manufacturers to generic UPCs in IDEA's Data Warehouse would enable distributors to quote the most relevant products in the contractor's time frame and could also provide a selling advantage over offshore competitors offering functional equivalents.

⁸Since existing contractor estimating systems are widespread, there's no reasonable expectation generic UPC codes will go away. IDEA's largest competitor addresses generic UPCs by providing generic UPCs in the form of commodity codes.

6 SERVICE NATIONAL ACCOUNTS

Customers with multiple locations—typically large industrial businesses and building owners—often use nationwide contracts—aka National Accounts—to receive consistent pricing, local expertise, and quick delivery for Maintenance, Repair, and Operations (MRO) supplies.

On the fulfillment side, national contracts allow regional electrical distributors to work together to provide reliable solutions to fill the needs of the local installed base. Since many national contracts rely on traditional ordering methods, the local distributor receiving the P.O. must determine “who” gets “what” on the order by manually cross referencing items.

Providing electronic cross reference information in IDEA’s Data Warehouse would speed up this process and enable electrical distributors to proactively present an array of good, better, best product options with verifiable links to the NEMA manufacturer’s website to local maintenance personnel.

LET’S USE IDEA AS THE CENTRAL REPOSITORY OF CROSS REFERENCE INFORMATION

IDEA has the functionality to add cross reference information to the Industry Data Warehouse (IDW). Furthermore, cross reference information delivered in an efficient manner—electronically from one source—is an essential requirement for electrical distributors to compete in today’s marketplace.

Let’s move forward and use IDEA as the central repository of cross reference information so electrical distributors can:

- Continue to rely on IDEA as a single source of high quality data.
- Enhance online offerings by providing suggested product alternatives⁹ with a verifiable source—link to NEMA manufacturer’s web page, etc. (and perhaps even reduce the popularity of search engines for obtaining product information).
- Compete with online behemoths such as Amazon, AliBaba, Fastenal, Grainger, Home Depot, Lowes, etc.
- Defend against gray market resellers and counterfeit products.
- Reduce costs for all parties involved, including the buying public, by streamlining the current cost referencing process.
- Generate new sales opportunities...together.


⁹While this would not be a guarantee of a perfect cross for all specifications, it could be used to direct the requestor to a similar product. Legal disclaimers would specify the customer qualify the recommended cross to ensure suitability for their intended application.

SOME OF THE WAYS MANUFACTURERS PROVIDE CROSS REFERENCE INFORMATION


PROS


CONS


PRINTED IN CATALOGS

 Customers and distributors possessing a catalog have access to the manufacturer's cross reference information.




 Expensive to produce and distribute print catalogs.


 Competitors can usually obtain a catalog.


 Catalogs must be stored; a catalog may not be at hand when cross reference information is needed.

HARD COPIES CIRCULATED


 Customers and distributors possessing a "hard copy," have access to the manufacturer's cross reference information.




 Distributors and customers must keep track of where the information is filed; a "hard copy" may not be at hand when cross reference information is needed.


 Competitors can usually obtain a "hard copy".

ELECTRONIC FORMAT (.PDF, ETC.)


 Customers and distributors possessing the electronic file have access to the manufacturer's cross reference information.




 Distributors and customers must keep track of where the information is electronically filed; access to the file may not be available when cross reference information is needed.


 Competitors can usually obtain an electronic file.

SALES REPRESENTATIVE PROVIDES ANSWER


 Usually provides the customer with the best solution for their application.




 Decreases selling time.

 If sales representative is not immediately available, it may take an extended amount of time to obtain an answer.


TECHNICAL SUPPORT PROVIDES ANSWER

 Most assuredly provides the customer with the best solution for their application.




 If Technical Support is not immediately available, it may take an extended amount of time to obtain an answer.

CUSTOMER SERVICE PROVIDES ANSWER

 If Customer Service has the necessary expertise or access to information, can provide the end-customer with the best solution for their application.



 If Customer Service is not immediately available, or lacks the necessary expertise, it may take an extended amount of time to obtain an answer.

CROSS REFERENCE TOOL ON MFR. WEBSITE

 Self-service for customers and distributors.


Yet, according to NAED's 2015 Electrical Contractor's Benchmarking Survey,


94% of respondents use Search Engines, such as

Google, Bing, YAHOO!


to search for electrical products on-line.



 Customers (& distributors) may have to sign out of current application in their ERP system to access the Internet.

 Once on the Internet, customers must know: (a. How to locate the manufacturer's website; and (b. How to locate the cross reference tool on the manufacturer's website.

NOTE: Some distributors provide links to manufacturers' websites, but the customer will still need to know where to look for the information on the distributor's website.

 Most manufacturer's cross reference tools usually require a manufacturer catalog number.

HERE'S WHAT CONTRACTORS SAID ABOUT USING SEARCH ENGINES TO FIND ELECTRICAL PRODUCTS:

- "The search engines are good for helping to identify manufacturers and often we do not have the information. Also, the search engines are a great place for identifying other sources or similar products."
- "We often don't have a manufacturer, just a part number and Google finds numerous options which we can work through to find the correct item."
- "It's easier just to type in what you want than hunt for a particular website. You can also compare prices."
- "Intuitive search. Manufacturers require "their" name or catalog # used and we don't always have that information."
- "It is not brand specific and shows all the different brands available."
- "You can find what you are looking for faster."
- "It allows me to use one tool to search many places."



BUT while search engines (Google, Bing, and Yahoo!) can provide cross reference information within seconds 24/7/365...

...they can also provide links to gray market providers and counterfeit products.



WE NEED TO FIND A MORE EFFICIENT WAY TO PROVIDE THIS INFORMATION!!!

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