

doors + hardware

A red wooden door with ornate brass hardware. At the top center is a large circular medallion with intricate geometric patterns. To its right is a rectangular pull plate with a curved handle. Below the pull plate is a keyhole with a decorative tassel hanging from it. The door has a vertical grain and a rich red finish.

DECORATIVE & RESTORATION HARDWARE

The Growth of Decorative and Antique Hardware

Decorative PVD for Door Hardware

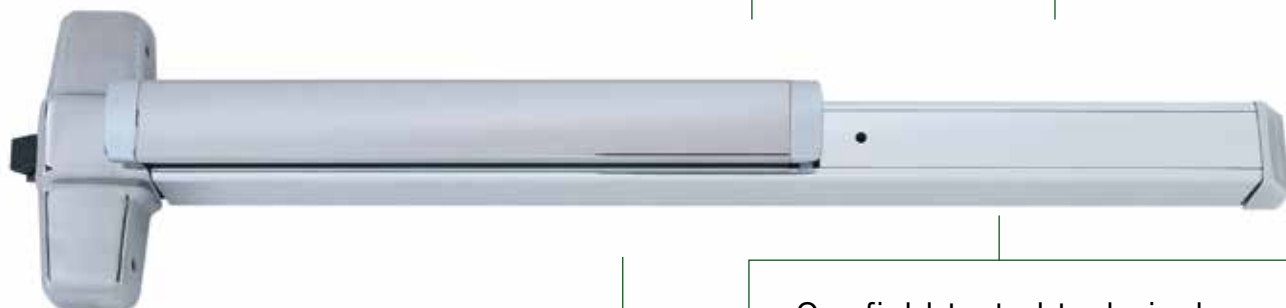
Addressing Our Nation's Real School Security Needs

How Industry Movers Are Opening New Doors with Custom Design

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A New Day, a New DHI— How Have We Done?

By Jerry Heppes Sr., CAE

In the February issue of *Doors + Hardware* magazine, we announced that the new day of DHI was coming in 2016. An overview of our new direction was presented in an article entitled, *"We asked, you answered, and we evolved."* The article noted the upcoming changes to our education, certification, advocacy, membership matters and membership experience. We stated that we are no longer your dad's DHI and that we wanted to engage with you to help further your career and enjoyment of this diverse and dynamic industry.

We wanted these changes to give you a sense of belonging to something bigger and more meaningful; an organization of which you can be proud. DHI is not about an institute delivering education and certification; it is about *you*, our members—*door security and safety professionals*.

So what have we accomplished since that announcement? Quite a lot:

- In February, we announced our new name and brand, DHI—Door Security and Safety Professionals.
- In May, at conNextions 2016, we announced the new credential program with a live-streamed event (you can still review on our website) to the industry and an animated video to explain the changes.
- In August, we launched the new DHI.ORG featuring our new inclusive feel that provides our members a home for their professional development and careers.
- In September, our new education Learning Management System (LMS), DHI's TopClass, was introduced with a video explaining its many features. Consistent with our approach in other mediums, TopClass is a tool that can be personalized for you, our member. The education transcript component will be launched soon, allowing you and your company to track your education progress. In addition, the new LMS site houses our new monthly webinars, free to members, and the archive of previous webinars, great for CEP points. It will

also house our new education vehicles such as short product videos, live online programs and our new education offerings to support our new credentials. This education will also be perfect for those who are not interested in the credentials but just want to learn!

- This month, we will launch the Door & Hardware Industry Associate (DHIA) program—the first level of technical education in our credentialing program and the new Industry Orientation program. This is completely supported with online education!
- Earlier this year, we announced our new policy of eliminating specific course requirements for our credentials, both new and legacy. We will continue to build this system with assessment tests to determine one's ability, so they can decide whether they need to take the class before they sit for a credential exam or an advanced class.

What's next? Our new automated testing program—Kryterion Testing System—will launch soon, with testing sites around the globe. Our first test in this system will be for the Door & Hardware Technician (DHT) credential and will be available in early 2017. After we launch our DHT automated testing, we will launch an upgraded AHC exam, also delivered using Kryterion testing centers. This will be followed in 2017 and 2018 with exams for our third-level certifications and the education to support them.

Also, we have plans to launch at least two online communities in 2017—one for FDAI members and the Door Security Growth Community for the generations following behind the Baby Boomers.

The future is bright, and the new DHI—Door Security and Safety Professionals—continues to evolve to meet your needs. I'd say we are well on our way! ■

JERRY HEPPES SR., CAE, is the CEO of DHI. If you'd like to comment on this article or any others within the December issue, email dgable@dhi.org.



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Katherine Panousos-Wagner, AHC ALLMAR INC.

DHI MEMBER SINCE: 2008

OCCUPATION: Coordination Supervisor

VOLUNTEER: Vice President of the Alberta Rose Chapter for DHI Canada and an Ambassador for the YBG (Young Builders Group) here in Edmonton.

CHILDHOOD AMBITION: I wanted to design houses.

FIRST JOB: I worked at a summer program for kids, and was assigned to a couple children with fetal alcohol syndrome. This was a very challenging and rewarding experience.

WHAT LED YOU TO OUR INDUSTRY? I landed in this industry completely by fluke; I had no idea what I was getting myself into. I applied for (I think) a coordination assistant role at CP Distributors and now I have since excelled to become a supervisor at Allmar.

PROUDEST PROFESSIONAL MOMENT: Passing the AHC exam! Being young and a woman, getting my AHC is something to be proud of; at least that's what everyone tells me.

BIGGEST CHALLENGE: My biggest challenge is where I am at today. Being new in a leadership role in today's world is certainly a challenge. Running a team, even though it's a small team, is a huge learning curve, especially when my team is very new in the industry and team members have completely different personalities.

GUILTY PLEASURE: That has to be red wine for sure and chocolate, I love almost all kinds of chocolate and my husband quite often runs out to get it for me—what a gentleman, right?

FAVORITE BOOK/MOVIE: One of my all-time favorites is The Sound of Music with Mama Mia being a close second, but I always love a movie that takes place in Greece.

MENTOR/HERO: There are definitely a few people in the industry who have been extremely helpful helping me learn as much as I have so far. And if it wasn't for one or two of these people, I may not have stuck with the hardware industry. I also have a couple of people in my office who really are my backbone and they always try to keep me grounded and remind me of what's important.



BEST ADVICE YOU EVER RECEIVED: I have received quite a bit of advice over the years so it's difficult to narrow down the best advice, but in the recent past I was told that my lack of confidence holds me back. Confidence has always been an issue for me and although I haven't quite figured out how to overcome this yet, I truly believe that I one day I will.

HOW HAS YOUR INVOLVEMENT WITH DHI SUPPORTED YOUR CAREER GOALS? My involvement in DHI started a long time ago when I attended the ASSA ABLOY course in Toronto. This was the first time I traveled anywhere for work and traveled anywhere alone. I met some great people that week and continued to meet many more along the way. DHI has gotten me out of my shell, and if it wasn't for the people I've met through DHI, I would have moved on to a different industry and never would have had the opportunity to work at Allmar and be where I am today.

Do you know a DHI member
you would like to nominate
to be spotlighted in Faces?

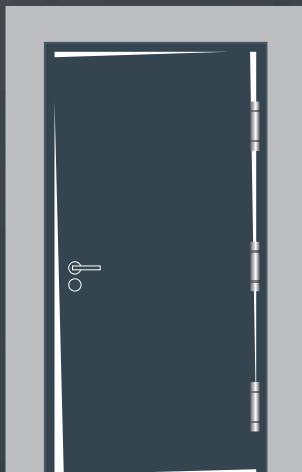
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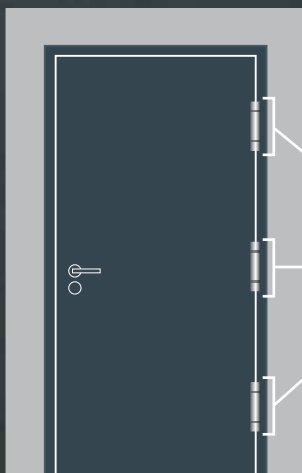
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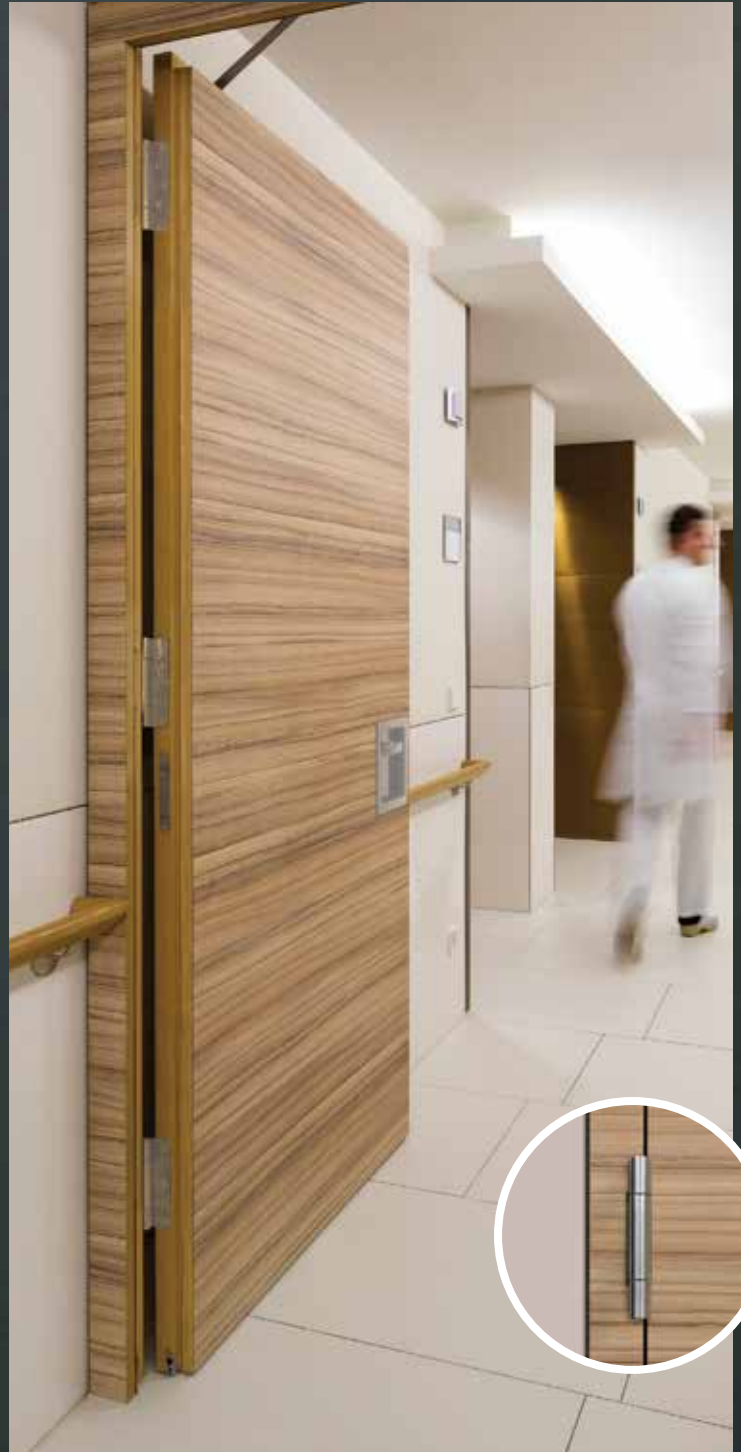
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THE GROWTH OF DECORATIVE AND ANTIQUE HARDWARE

The style and design of hardware has changed significantly with the changing styles of American architecture.

By Raheel Ahmad

For many of us, architecture provides one of the most fascinating aspects of our historical legacy. One of the key elements that enhances architectural beauty is the decorative hardware that adorns it. Though it may seem to be a small part of an overarching design and structure of the building, no single element adds more grace than the right portrayal of the hardware on both interiors and exteriors. It may be one of the reasons why people, in general, never seem to get tired of admiring classical and antique decorative hardware.

During my long association with the antique and decorative hardware industry, I have a chance to work with several people associated with this interesting field. Almost all of them agree that the fascination with antique and decorative hardware has never diminished. This industry, like every other industry segment, had its share of ups and downs, yet it managed to survive the recent economic recession and hardships with aplomb.

In a report published in 2014, market researcher Forrest Burnson argued that the construction industry was undoubtedly one of the hardest hit by the Great Recession. Even though the recession officially ended in 2009, the industry as a whole has been struggling to bounce back to its

pre-recession levels. Still, a number of positive trends in various sectors of the industry remain. The growth of antique and decorative hardware is one of those positive trends.

If we look at the historical development, the style and design of hardware changed significantly during each period, with the changing styles of American architecture. To fully understand the hardware segment, we need to first look at the broader aspect of architecture. The homes and buildings of each era differed from period to period, thereby leaving a stylish imprint of their own. The Antique Home Style Guide published by Antique Homes Magazine provides a delightful insight of the architectural styles in the U.S., especially prevalent in the New England region.

Another source worth mentioning here is the book, *American Architecture Since 1780: A Guide to the Styles*, by Marcus Whiffen. His classic introduction to American architectural styles was published in 1969, and it is often referred to as "one of the most enjoyable general works on American architecture that has ever appeared." Similarly, another interesting read is *American House Styles: A Concise Guide* by John Milnes Baker.

From early colonial to "pretentious" postmodern, Baker's guide achieves its goal of defining

and clarifying American architectural styles introduced throughout various periods of home construction. Baker considers the changes occurring to in-house design by elaborating on, and providing links between, general historical incidents, pertinent architectural history, and influential figures who participated in the development of distinctive house styles. He has very rightly pointed out that America has an abundance of fascinating and varied house styles, as fascinating and diverse as its people. And undoubtedly, each variation in housing style marks a significant variation in hardware style that goes with it.

Now let us also briefly look at the different types of decorative hardware before moving on to how the growth has happened and how the industry looks like today. Decorative hardware can be divided into product segments such as door opening and locking devices, door hinges and closers, window hardware, and cabinet hardware like cabinet locks, cabinet knobs, pulls, catches as well as other builders' hardware. But from our perspective, we mainly look at it from another angle that focuses on the period or era which it represents: Colonial, Victorian, Art Deco, Neoclassical, Modern, or any other distinguishable period of architectural style.

Without going deeper into the period and styles of each era, it would be interesting to see how the industry has developed. To understand it thoroughly, I wanted to get opinions from industry experts on how they see it from the inside. I asked several people who have spearheaded this industry within the U.S. for decades. While many people find it amusing year after year when a leading home furnishing chain publishes and sends out their gigantic catalogs, which sometimes consist of more than 3,300 pages of "curated and inspired design," look at the intrinsic meaning. Though it is not limited to decorative hardware, this gives us a fair indication of the growing popularity of this segment.

After reading my article from last December in this magazine, Johnston Hager, Director of Residential Sales and Marketing for the 167-year-old Hager Companies, wrote to me saying how fascinated he is with antique hardware and that he has some very rare antique design hinges installed at his office. This exemplifies the growing fondness for antique and decorative hardware among the Americans. A South Carolina couple, Timothy and Ellen Judge, have done their fair share to popularize antique and decorative hardware in the U.S. Their company, The Kings Bay, has been featured in several popular shows on American television.

Photo courtesy of The Kings Bay





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Another industry veteran, Liz Gordon, owner of the Liz's Antique Hardware in Los Angeles, shared an interesting fact with me, saying there's no limit to designers' creativity when it comes to hardware, so, in addition to the existing designs, designers continuously develop their exclusive lines. Liz told me that she met a man around 40 years ago who owned a warehouse full of all kind of objects, including barrels, drawers, and stacks of hardware strewn all over the floor. She was so intrigued that she purchased that inventory and has been sorting out the antique hardware ever since.

Today, her store—with its unique collection of Spanish Revival and Mid-century architectural hardware—carries over one million pieces of original hardware for doors, windows, cabinets, furniture, bath accessories and lighting dating from 1860 to the present. Liz and the store's General Manager, Terri Hartman, are the authors of *Decorative Hardware*, that looks at the creative possibilities of decorating with antique and contemporary American hardware: doorknobs, drawer pulls, locks, hinges, and more.

The book, and Liz's store, became so popular that they caught the attention of celebrities, including lifestyle guru Martha Stewart, who called the store "perhaps the best supermarket for antique hardware in the country."

Antique Hardware for Furniture

According to Steve Young of Kennedy Hardware, a large amount of oak furniture was produced in the United States from the early 1880s to about 1930. In 1980s, a lot of this furniture could still be purchased at reasonable prices, but much of it required replacement hardware that was hard to find.

In the 1980s, a handful of companies began to offer replacement hardware for American antique furniture. By 1995, there was a wide selection of brass antique furniture hardware available. Much of this hardware such as bin pulls, brass knobs, hinges, and locks were good quality and low priced, and people began using them for new furniture, kitchens, bathrooms and other projects.

Kennedy Hardware focuses on hardware from the 1890s-1930s. Their extensive line of Hoosier Cabinet parts was and continues to be, one of the most successful lines. Phil Kennedy, one of the original owners, traveled all over Indiana doing research to write his very own *Hoosier Cabinets* book. It became one of the bestselling books on Hoosier Cabinets ever written.

Millions of Hoosier cabinets, almost all manufactured by companies in Indiana, were sold before styles changed and built-in kitchen cabinets



Photos courtesy of Global Metal Company

became the rage in the 1940s. As someone having a lifelong interest in American history, specifically manufacturing and production, Steve and his wife could not pass up an opportunity to get into this industry.

Among the other popular companies that have helped in the development of antique and decorative hardware in the U.S. markets are House of Antique Hardware, Adkins Antique Hardware, Rocky Mountain Hardware, Signature Hardware, Baldwin Hardware, Eugenia Antique Hardware, Architectural Accents, and Van Dykes Restorers.

Demand Increasing

According to industry watchers, the demand for decorative hardware within the luxury segment is also going up gradually. Within the high-end segment, there seems to be a gradual shift from iron and brass toward bronze.

Sun Valley Bronze, an Idaho-based manufacturer of decorative hardware, has been in business for almost 25 years. It is owned by the Commons family and run by Bob and Aimee Commons. From the time they started, the hardware industry changed dramatically. Many companies came out with their own 'oil rubbed bronze' collections after the lines of the original bronze hardware. The luxury hardware market is thriving, and this trend continues as the building industry continues to grow and homeowners become increasingly interested in high-quality products and designs.

It has been a personally enriching journey for me to learn and know more about the antique and decorative hardware industry. As I go deeper and deeper, my interest level has also increased tenfold. It has been an amazing experience to get involved in this field and to know about the history along the way.

When my uncle Rafiq started his antique and decorative hardware business in India almost four decades back, things were quite different.

He had to learn the manufacturing techniques and the designing all by himself. Indeed, managing two different facets must have been pretty difficult. It was not easy to get access to old designs and to know more about their history. He had to travel across America as well as Europe to learn about the period hardware and the industry. Some of the old techniques still continue, but he says that it has become somewhat easier in the present days.

Each product and each period have its unique story, and unless people know about them, the interest remains low. One of the major reasons for the increased interest in antique and decorative hardware has been the Internet, and the wealth of information it provides.

The next few years will see further transformations within the antique and decorative hardware industry. While industry largely depends on the skilled workmanship of craftsmen and designers, emerging technologies will shape the design and production techniques of products. Companies are increasingly using 3D modeling software to realize complicated assemblies and designs. The introduction of 3D printers will also greatly revolutionize the creation of complex patterns.

The use of Computer Numeric Control (automated machines) and hi-tech machinery to build the patterns helps to achieve product consistency and efficiency. The growing awareness, accessibility to technology, improved communications, affordability and consumer interest will fuel this industry for years to come. ■



RAHEEL AHMAD is the Director of Global Metal Company, which specializes in antique and decorative hardware. The author would like to thank Liz Gordon, Steve Young, Aimee Commons and all others for their views. Special thanks to Areeb Ahmad and Bachchan A. Khan for their input. The author can be reached at raheel@globalmetal.in.



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DECORATIVE PVD FOR DOOR HARDWARE

By James R. Treglio, Ph.D.

PVD stands for Physical Vapor

Deposition, a general term for a variety of coating processes that are done in a vacuum system. You are probably familiar with PVD coatings for decorative purposes on door hardware, since it has been used for more than 20 years, primarily on household doors.

If not, you may be familiar with coatings, such as titanium nitride (TiN), applied to metal cutting tools to extend tool life. Tool coatings are much thicker and applied at higher temperatures than decorative coatings, but otherwise, they are more or less the same extremely hard, chemically inert coatings.

What makes this a particularly appealing process is that it is environmentally benign. It does not entail any significant waste stream, hazardous materials, or extensive chemical testing. While the equipment to do

PVD is very expensive, it requires far less manpower than plating, powder coating, or other finishing processes.

In this article, we review the PVD process, show some of the available finishes, and discuss the issues associated with PVD coating of various substrates.

PVD Advantages

It should not come as a surprise that one great advantage of PVD coatings as a decorative coating on door hardware is improved durability. After all, if the coating is hard enough to cut metal, it is hard enough to provide decent scratch resistance.

PVD coatings provide a wider range of finishes than offered by plating, and it is much easier to change the color. One can go from a nickel finish to a 24-carat gold look just by tweaking the coating recipe.

The finishes are durable. If one plates a part with brass, over time, the brass will tarnish. Same with a nickel finish. Gold plating wears off easily, as gold is very soft (and expensive). On the other hand, a PVD nickel, brass, or gold finish will not change in appearance.

Process Description

The first thing to remember about PVD is that it is a bulk process. That is, a large number of parts are processed at the same time in the vacuum chamber. The process time, energy consumption, and overall cost do not have any significant dependence on how full the chamber is. The reason is that each part gets coated independently of the other parts in the chamber, so the coating steps—the recipe—remain pretty much the same. Here are the basic steps of a PVD coating process:



PVD black on satin, matte, and polished stainless steel surfaces. PVD process does not change surface texture, so these were all run in the same chamber.

PVD 24 kt gold finish on nickel/chrome plated brass. Outgassing from folded metal area caused arcing on part surface, leaving noticeable tracks.

1. Parts are loaded into the vacuum chamber, and the chamber is pumped down to ultrahigh vacuum levels – around eight orders of magnitude below atmospheric pressure.
2. Radiant heaters are turned on to heat the parts to the 150-200 C level (300-400 F) to drive water vapor and hydrocarbons out of the parts and to bring the parts up to deposition temperature.
3. A sputter cleaning step follows to remove the native oxide on the part surface. PVD coatings do not adhere well to oxides.
4. The parts are PVD coated. The PVD process that American Faucet and most other companies use is called cathodic arc. In this process, a very high current arc (hundreds of amperes) is ignited from the surface of a target; usually a pure metal tube or plate of zirconium, titanium, or chromium. The target is the negative pole of the arc, so electrons flow from the target to an anode, as one would expect. However, this is an arc, so on the surface of the target, the arc is quite small. The high current density at the arc spot evaporates the target metal and strips the outermost electrons from the metal atom surfaces, forming an intense metal plasma. This metal plasma flows around the

parts. Biasing the parts negatively pulls the positively charged metal ions from the plasma to the parts, where they stick tightly to the surface. Add a reactive gas (nitrogen, methane, acetylene, oxygen, et al.), and one has a hard ceramic coating. By varying process gasses, one can create a whole range of hues, including black and rainbow.

Limitations of the PVD Process

- The parts have to fit into the chamber. The largest PVD systems for decorative coatings run about five feet tall and can handle parts around 20" in diameter.
- The parts cannot have unsealed hidden cavities. These may outgas during the coating process and contaminate the coating. To put this in door terms, ball bearings should be installed after the hinges are PVD coated.
- Not all materials can be put in the vacuum chamber. Zinc and cadmium are to be avoided at all costs. Again in door terms, you cannot directly PVD coat zinc die cast materials, galvanized steel, or cadmium plated steel.
- PVD coatings are extremely thin. This is good, in that one never has to worry about tolerances or maintaining surface finish—polish in, polish out. However, being extremely thin, PVD coatings

provide little or no corrosion resistance.

- It is possible to damage the parts during the PVD process. The most common problem is arcing. Arcs forming on the surface of the part eat the part much as they do the target, leaving ugly "chicken tracks." Arcing can be caused by outgassing or very small sharp points on the part surface.

PVD Finishes

As noted above, a wide variety of PVD finishes are available. These include brass, aged brass, various shades of gold, rose gold, nickel, black nickel, black chrome, and various rainbows.

Base Materials Issues

Brass

One of the most common applications of PVD coatings is on brass parts. There are two issues with PVD coating brass. The first, which you can probably guess from the previous section, is that PVD coatings do not protect the brass from tarnishing. The second is that brass is not all that hard, so while one cannot easily scratch a PVD finish on brass, one can scratch the underlying brass.

So, brass parts are almost always electroplated before PVD coating with nickel and a very thin trivalent chrome. The nickel provides both a harder base for the PVD coating and



THERE ARE TWO ISSUES WITH PVD COATING BRASS. THE FIRST IS THAT PVD COATINGS DO NOT PROTECT THE BRASS FROM TARNISHING. THE SECOND IS THAT BRASS IS NOT ALL THAT HARD, SO WHILE ONE CANNOT EASILY SCRATCH A PVD FINISH ON BRASS, ONE CAN SCRATCH THE UNDERLYING BRASS.

PVD rainbow on nickel-chrome plated brass

protects the brass from oxidation, while the chrome helps with corrosion protection and is a good adhesion layer for most PVD finishes, including brass.

Steel

If corrosion isn't a problem, steel is hard enough to provide a good base for PVD coatings. Otherwise, some sort of corrosion protection is needed. The best is probably the same one used on brass—electrolytic nickel topped with a very thin trivalent chrome layer. Duplex nickel would be best for outdoor use. Duplex is basically a two-layer electrolytic nickel plating where the base layer is semi-bright nickel topped by a thinner layer of either dull or bright nickel.

Stainless Steel

Stainless steel is a great candidate for PVD coating. No plating is needed, and adherence is usually quite good. There are two potential problems, though. First, it is pretty common to

passivate stainless steel. Passivation entails oxidizing the surface, and, as noted above, PVD coatings don't adhere well to oxides. It is best not to passivate before PVD coating. If that is not possible, make sure your coater knows that the parts have been passivated. Second, heavy bead blasting can create very small sharp points on the surface of stainless, and these can contribute to arcing during the PVD process.

Aluminum

It is possible to deposit a PVD coating directly on aluminum, but it is much better to plate the aluminum first. In this case, plating provides a hard base for the PVD finish. One large caveat here is temperature. Aluminum has a very high coefficient of thermal expansion, whereas PVD coatings have low coefficients of thermal expansion. Hence, if the PVD coating temperature is too high, this difference will result in the PVD coating peeling off.

Zinc

Zinc die cast parts can be PVD finished if, and only if, they are plated first, and the plating covers the entire surface, and they are coated at reduced temperature. Even then, if the casting has voids, expect blistering.

Cast Material

One issue that you may face in going to PVD is the initial condition of the parts to be coated, specific to cast parts. If the casting is not done well, you will have voids. This can be a serious problem for PVD coating. The air inside the voids will try to get out, especially as the part is heated during the PVD process. The pressure created can leave the surface with blisters or even holes.

Bonded Material

The question will come up as to whether to bond parts first, then PVD coat, or to coat first, then bond. This depends very much on the bonding method, and whether the bonded area



PVD chamber and control rack

is visible. Welds will ruin the PVD finish, so it is probably a good idea to weld before PVD. Parts can be brazed or soldered first, but only if one uses high temperature braze or solder alloys. Otherwise, it is best to bond after PVD coating.

Hardware Restoration

There is increasing interest in restoring door hardware, and PVD can play an important part in any restoration. To put this in perspective, if one is going through the cost and effort to disassemble a door, strip off an old coating and any rust/tarnish, and rework the part (polish, brush, et al.), it may make economic sense to provide a longer lasting finish than the hardware originally had. You can also easily change the hardware appearance, going from say a nickel look to brass, or brass to black.

One word of caution: the PVD process requires that the part be completely disassembled. That means taking the ball bearings out of the hinges before they go into the PVD chamber.

Conclusion

Physical vapor deposition, or PVD, provides door hardware manufacturers and restorers with an very viable method to give their products a finish that has much greater durability than powder coating and better overall appearance, with a wide range of color options. ■

THERE IS INCREASING INTEREST IN RESTORING DOOR HARDWARE, AND PVD CAN PLAY AN IMPORTANT PART IN ANY RESTORATION.



JAMES R. TREGLIO, Ph.D., is Technical Consultant and Sales Representative for American Faucet & Coatings Corp. He is a world-renown scientist with more than 30 years of experience in the metal processing field, spanning just about every aspect of the business. In addition, he has developed several PVD-coated consumer and industrial products. Treglio is well-published, with over two dozen papers, and holds six patents in the metal processing field. He has served as chairman of the ASM International Surface Engineering Committee, and been awarded a Congressional Science Fellowship by the American Physical Society. He obtained his Ph.D. from Stevens Institute of Technology in plasma physics. Contact him at jrtreglio@gmail.com.

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Where Are the Specifiers?

By Cherise Lakeside, CSI, CDT

Editor's note: Since DHI members and our interests intersect with members of the Construction Specifications Institute, we thought this article might be of interest to some of our members. If you'd like to comment or have a suggestion for future articles, please email dgable@dhi.org.

With the ever increasing speed and change in projects and products every day, this article could have been about anything. I chose to write about something that I do not hear much about but that I see with increased frequency—something that really concerns me: Where are the trained specifiers? Am I the only one noticing a major shortage?

Please understand that when I say “trained” specifier, I am referring to

the folks that have had contract document, project delivery, and specifications education. I am talking about the folks who are well versed in the latest and greatest in the products world and know exactly how to incorporate that information into the contract documents for the best possible project outcome. I am not talking about all the folks out there who write specs but do not have this very special and specific training.

I am aware of a number of firms, in different locations around the country, who are having a very difficult time finding a specifier with this kind of training.

Why is that? I will tell you what I think (which anyone who knows me would expect).

Please note that there is no scientific research or analytics behind this article. It is merely my observations in my local area and other parts of the country as a result of my involvement and connections in the Construction Specifications Institute (CSI).

I think we dropped the ball and I think two recessions have taken a huge toll on Generation X. Trained specifiers are a rare breed as it is. I see tons of (untrained) people in our industry writing or editing specs and creating risk and potential conflicts in the process because they do not know what they are doing. The cold hard truth is that it is common in our industry to discriminate against the specs. It is common to treat them as less important than the drawings. It is



common to see only cursory attention given to this CONTRACT document—the document that carries equal weight with the drawings in the eyes of the law. As a result, many firms will let anyone in the office dump information into the specs. That is a critical mistake, and I have seen the fallout of this decision first hand—more than once.

On the flip side of that coin, the firms that are smart enough to hire trained spec writers can't find them. Finding a trained spec writer to hire these days is like looking for Bigfoot.

Why are we so short in this valuable, necessary resource in Architecture, Engineering and Construction (AEC)? Here is my take:

- Baby Boomers are retiring at alarming rates, and they are taking their expertise with them.
- Generation X (that would be mine) took two hits in two recessions, and we lost a lot of people who might have stepped into those shoes—people who left AEC and never came back.
- Generation X only has (overall) approximately 45 million people to fill the exiting 75 million Baby Boomer positions. That is overall. Imagine the imbalance for specifiers.
- Almost no disciplines outside of architecture are getting this education which is limiting the “trained” folks even more.
- Traditionally in architecture, a person would transition into the role of spec writer mid-career after spending some years designing, doing construction administration and project management. That experience would then translate nicely into moving into a role of spec writer. That means we would need a chunk of Generation X'ers to transition. We don't have them.
- Millennials don't have enough experience and don't want to be pigeonholed into being a spec

writer that early in their career and I don't blame them. After all, most of them went to school to design and administer projects. They need that experience to be a good spec writer. This means most of them are not interested in this role for another 10-15 years.

So where does that leave us? That leaves us without qualified, trained spec writers to fill the shoes of the exiting Baby Boomer spec writers (which, honestly, are the majority of them). What is the consequence? Firms are letting anybody with a pen in their hand write specs and the conflicts on projects are increasing.

What can we do about it? It's not like we can close our eyes, twinkle our nose and have a boatload of trained Generation X specifiers appear out of nowhere. We have to change the way we think about our contract documents and their importance. We have to change the way we educate our staff. We have to give the Millennials the skills they need, far earlier than we have ever done before so that they can step into these empty shoes and incorporate spec education and knowledge into their design experience.

We Have to Change!

- We need to get every single one of our AEC professionals, in all disciplines trained in contract documents. No, they do not get this education in school!
- We have to teach our young AEC professionals how to write specs or, at the very least, teach them the basics, so they understand where things belong, why they belong there and how to get the information they need.
- We have to emphasize the equal importance of the specs to the drawings.
- We have to bring everyone to the table.
- We have to reduce risk and conflict which typically rears its ugly head during construction.

How do we do this? There are many ways:

- Join The Construction Specifications Institute (CSI). The only organization that I have found that offers this all-inclusive education and includes all disciplines as equal members.
- Bring contract document education to your staff. This can be done in very cost effective ways. Contact CSI and they can help you.
- Encourage our institutes of higher education to include this education in their degree programs. How we have gone this long without this being required is totally beyond me.
- Attend CONSTRUCT. I learn more in one conference from the education sessions, show floor, and other professionals than I often can learn in months or longer.
- The fact of the matter is, due to the generational imbalance, we are being forced to change the way we work. This is a good thing.

We have two choices here—continue to throw band-aids on the problem and allow untrained people to write specs (take this road at your own (very big) risk) or make contract document education and specifications (finally) the priority that they should be and provide better, more coordinated projects.

It seems like the answer is simple. It's time to do a better job. ■



CHERISE LAKESIDE, CSI, CDT, is a specifier with Ankrom-Moisan Architects. She has experience with many facets of the project team and has worked for a general contractor, MEP engineering firm and two

architectural firms in her 30-year career in AEC. Cherise is actively involved in AEC Social Media, public speaking and authors a blog called “The Voices in My Head.” You can follow her on Twitter @CheriseLakeside or connect with her on LinkedIn.



Every time I go to the convention, I always leave with fresh ideas. I come back renewed, with new business leads and new solutions for my customers. That's what justifies us sending as many staff as possible—because they all come back, ready for whatever is coming next. It's hard to put a price tag on that value. — *Josh Hallgren, FDI, Project Manager, The Hallgren Company*

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High quality training sessions (in many areas of our business) are definitely of value—not just product and application training, but sales, organizational, etc. Good variety to build on and bring more value to the trip. — *Ben Boomer, Vice President, Twin City Hardware*



The DHI convention is my chance to talk about and learn the best practices from my peers in the industry. [...] Most of what I find valuable is spending time with business leaders and other distributors across the U.S. and discussing business level issues. — *Ron Couch, AHC, President & COO, Central Indiana Hardware*



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BASIC TO BOLD

*HOW INDUSTRY MOVERS
ARE OPENING NEW DOORS
WITH CUSTOM DESIGN*

By Ricky Crow

Photos courtesy of Wilsonart except page 24 photo by Robin Hill



In today's world of infinite possibilities and custom solutions—thanks in large part to remarkable feats made in technological advances over the last decade—one might appreciate that a door could remain exactly what it is—a door and nothing more. But if you take a closer look at what commercial industries are striving to achieve to stay ahead of the competition, industry movers would tell you that in highly competitive markets—full of eager-for-the-latest-and-greatest consumers—the demand for customization has become customary. To stand out, companies are continuously seeking new ways to make a statement. Sometimes, that statement is a statement piece itself.

WE UNDERSTAND THE DESIRE FOR DEVELOPERS, ARCHITECTS AND DESIGNERS TO WANT UNIQUE AND DYNAMIC DESIGNS THAT CAN DIFFERENTIATE THEMSELVES FROM OTHERS. THERE'S NO DOUBT THAT THESE DISTINCT HPL APPLICATIONS HAVE RAISED EYEBROWS IN THE INDUSTRY, HEIGHTENED END-USER INTEREST AND INCREASED THE VALUE OF THE PROPERTY OVERALL.



Demand for Innovative Design

Having access to one-of-a-kind pieces that set you apart from the crowd is now the standard for businesses that want to fulfill those same consumer expectations. For the commercial and residential real estate industries, in particular, architectural innovation in all areas of design matters – including doors.

One industry driver, The Related Group, one of the largest and most respected real estate conglomerates in the U.S., recognized the need to stand apart with bold design. In respect to custom designed doors, a unique opportunity to elevate the consumer experience became a focus for one of their latest projects in Miami's iconic Design District.

The Baltus House Condos, an exclusive luxury residence, is The Related Group's impressive 15-story, 167-unit new construction development lead by Beauchamp Construction and designed by the award-winning firm Cohen Freedman Encinosa. Given the area's upscale, urban setting and reputation for world-class fashion, retail and design, the vision for the Baltus House to be an extension of its environment could only be achieved through quite literally creative solutions.

One desire that would prove to start off as a challenge for the luxury condo project was to turn every floor into an art gallery, where each unit's door would display a different painting from Spanish artist Javier Martin.

A Collaborative Solution

Answering the challenge, Wilsonart Engineered Surfaces, a manufacturer of technology-enhanced performance and decorative engineered surfaces, stepped up to the plate. Wilsonart's lead specification and fabricator representatives on the Baltus House project, Raul Gozalez-Rio and Rick Deiros, met with Related's lead designer, Nicole Holman, to discuss ideas.

"Originally, Related reached out to Wilsonart looking for cost-effective

alternatives to silk-screening metal doors for the artwork that would provide long-term wearability," Deiros said. "An attempt to transpose the artwork onto a wood veneer surface was also unsuccessful once it was discovered that not only would wood veneer not provide the acceptable fire-rating required for condominium interior doors, but that the surface was too soft to paint and, over time, dents or scratches would take its toll on the artwork."

Ultimately, Wilsonart proposed their WilsonartXYou (WxY) service, which allows anyone to create one-of-a-kind High Pressure Laminate (HPL) designs using proprietary Wilsonart custom print processes. Alina Van Katwyk, Wilsonart Metro Manager, who was also closely involved with the creative elaborates, "There was no better solution. The ability to print created images on-demand and imprint them onto a laminate surface—combined with our embossing plate technology to add realistic dimension—offers unlimited design possibilities. On top of that, you get the benefits of product consistency and long-term durability. We are very proud of the fact that Wilsonart's decorative laminate solution addressed the Related's needs for cost-effective, fire-rated and long-lasting material."

The process of creating these viable custom solutions has shorter lead times than ever before. According to Deiros, "The process is simple. Just upload your artwork to Wilsonart's digital team and within approximately five business days your laminate sample will be ready for your approval."

As the construction for the Baltus House progressed, and pleased with the samples provided by Wilsonart, Related approved the creation of 167 laminate sheets cumulative of eight different Javier Martin design patterns. The sheets had a fine velvet textured finish applied to enhance the color in the artwork when lit by overhead lighting features. To protect the laminate from damage caused by overspray or debris during the

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end of construction, a thin peel coat was applied to the surface so that no amount of mishaps could penetrate the artwork.

Of course, a project this large is never the work of just a few individuals. Wilsonart recruited the custom capabilities of leading fabricator and door manufacturer, Ampco by AJW, who worked diligently with Wilsonart to provide a top-of-the-line product. Mike O'Neill, Senior Vice President of Corporate Pricing and Product Development at Ampco by AJW, says, "As a fabricator, we want to offer high-performing decorative surfaces for a value on any architectural doors that we produce. It is clear there is a growing demand in the market for HPL given its multi-purpose applications from doors to partitions to lockers. Wilsonart's custom laminate is the preferred, sustainably-conscious product offering impact resistance and consistent quality."

Echoing the objectives of Wilsonart, O'Neill said, "We understand the desire for developers, architects and designers to want unique and dynamic designs that can differentiate themselves from others. There's no doubt that these distinct HPL applications have raised eyebrows in the industry, heightened end-user interest and increased the value of the property overall."

The Future is HPL

The evolution of laminate propelled by technological advancements has reignited its appeal across the commercial and residential industries. Today, HPL's innovative surface performance has, in many ways, become a superior choice to veneer.

While wood veneers claim virtually unlimited color/species combinations, there are limitations by product and stain-line capacity often due to size availability and sustainable sourcing practices. On the flipside, laminate has almost no limitations in design or production.

The quality of the color and pattern consistency for multiple placements of the same design using HPL technology delivers exquisite results. By embossing texture using the latest plate technology, woodgrain laminates can also have the same realistic look and feel as wood veneer, but for a price that will help you manage your budgets.

In addition, today's laminate has matching performance to protect the beauty of its design. Compared to veneer, High Pressure Laminate possess up to 12 times better wear performance, five times better impact resistance, and four times better scuff resistance based on National Electrical Manufacturers Association/International Organization of Standardization 4586 test results. There's also evidence to show that HPL displays superior performance in light resistance-fade testing. In the long run, maintenance is a breeze with a lower life-cycle investment and no special cleaners required.

It's time to take your basic veneer look and turn it into a bold statement with custom laminate solutions. HPL is clearly the future of innovative custom surface designs. And continuous innovation is making made-to-order designs increasingly easier to obtain.

One thing is clear: industry movers who have recognized the need to fulfill consumer expectations for unique and memorable experiences by implementing technology-enhanced performance materials into their designs, will continue to open new doors for many years to come. ■



RICKY CROW is Director of Wilsonart® High Pressure Laminate. He can be reached at crowr@wilsonart.com.



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Addressing Our Nation's Real School Security Needs

By Tim Eckersley

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More than a decade ago, my family moved to a new city, and as a result, my son changed schools. In an initial visit with my son at that school, I recall being struck by the fact that I could walk in, have a simple dialogue with a volunteer at the front desk and gain access to the school, walking the hallways unattended.

I remember thinking “this is really odd.” I by no means expected a prison-like environment; however, as a parent, I did expect there would be a secure process or mechanism to prevent just anyone from walking into and through the school building. I remember being genuinely bothered by the lack of access control—and I know that was not an experience unique to me.

Of course, school security is a passion of mine. It was important to me then, and it's important to me now. For as

long as I can remember, I've had a genuine interest in kids' wellbeing. As a board member for the Security Industry Association (SIA) and as a business leader for Allegion, a corporate contributor to the Door Security & Safety Foundation, I've been able to combine that interest with my industry expertise to help push for progress. I believe our nation's children are our greatest asset, and it's our industry's moral imperative to work together with educators, parents, government and law enforcement officials to protect them with the tools we have available.

Truly, this work has never been more needed. Today, American schools face significant safety and security threats—and not just regarding natural disasters. In reality, our schools are “soft targets” with the high probability of mass casualties by man-made

violence, including terrorism. Violence occurs in all schools in all types of locations—rural, suburban and urban areas.

Still, the main instructional buildings of America's approximately 100,000 K-12 public schools are, on average, more than 40 years old. Many haven't been supplied with the mechanical and technological advancements created by the security industry to improve building infrastructure and better protect students, teachers and administration. Funding these updates proves to be a challenge for many school boards—and building security should not compete with needed education tools like classroom technology, for a place in the budget.

But that challenge of funding school security needs isn't always an obvious one. Communities don't always realize what innovative tools are available



to help protect our kids, and they don't always think they're needed. Or, when provoked by fear, communities sometimes rush to put in place cheap, quick-fix alternatives like barricades that don't always meet code requirements and can still cost us the safety of our kids.

Unfortunately, it's often the case that tragedy must strike before security infrastructure updates are talked about as priorities. You can point to Columbine. You can point to Sandy Hook. When tragic events occur in our schools, people quickly become interested in the subject. However, almost just as quickly, that interest dissipates as people go about their busy everyday lives.

As an industry, we can't be okay with just going about our busy everyday lives when we know there are tools and mechanisms available to provide

needed protection for our kids. When reflecting on the values of my own company, I think, if not us, who else? Allegion's purpose is to create peace of mind by pioneering safety and security. Our vision is to make the world safer as a company of experts, securing the places where people thrive. Children not only need educational tools to learn, but also an environment that allows them to be their best. As a whole, our industry can work together to make that happen.

I'm happy to say that, just this year, I've seen progress being made—with the leadership of industry members—to help schools address their real security needs and funding challenges. In February, I had the privilege of moderating a panel discussion at the debut event of the Congressional School Safety Caucus. This Caucus was organized in 2016 by Reps. Susan Brooks

(R-Ind.) and Rick Larsen (D-Wash.) to explore how our elected federal officials can help protect our nation's children while they're at school.

The Caucus' initial meeting and panel discussion included three school safety and security experts to shed more light on the issue: Dr. Erroll G. Southers, director of home-grown violent extremism studies at the Safe Communities Institute in the University of Southern California Sol Price School of Public Policy; Dr. Paula Maurer, superintendent of the "Safest School in America," Southwestern Consolidated School District of Shelbyville, Ind.; and Robin Lambert, author of *Violence in U.S. K-12 Schools, 1974–2013* and policy information manager for the Rural School and Community Trust. Common themes and insights emerged from these experts, including:

I'm proud that Allegion has partnered with DHI and the Door Security & Safety Foundation in our belief that security industry leaders have an obligation to provide a safer environment for our students to learn and thrive in.



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- Schools top the list of terrorism soft targets, not just in the United States, but globally.
- School security training and assessments aren't focusing on the state of physical environments.
- Schools that have been targeted in the past had little physically in place to stop intruders.
- There are no minimum standards available to school decision makers regarding safe school infrastructure.
- Funding is a challenge, but one that can be managed with an innovative industry and public policy leaders that want to help.

Since that time, the Caucus has produced bipartisan legislation to help schools modernize and implement

improved security measures, such as training for staff and students. Those Congressional members have also introduced legislation calling on the Departments of Homeland Security and Education to create a national strategy to help schools protect themselves against acts of terrorism and other emergencies.

There has also been progress at the state level. After approving Senate Bill 147 earlier this year, Indiana leads the nation in establishing Department of Homeland Security responsibility for school security. The new law, which took effect in July, requires the Indiana Department of Homeland Security to establish minimum standards and best practices for school emergency response systems.

In addition, New Jersey now leads the

nation in establishing guidelines and funding streams for school security infrastructure improvements. In September, Assembly Bill 2689 was signed into law, establishing a state aid program for security services, equipment or technology to ensure safe and secure school environment for non-public school students. In October, the New Jersey legislature unanimously approved Assembly Bill 3348, requiring certain school security measures to be incorporated in the architectural design of new school construction and existing buildings.

I'm proud that Allegion has partnered with DHI and the Door Security & Safety Foundation in our belief that security industry leaders have an obligation to provide a safer environment for our students to learn and thrive in.

Door Security & Safety Foundation to Launch Public Awareness Campaign about Temporary Door Locking Devices

The Door Security & Safety Foundation (DSSF), as part of its mission to promote secure and safe openings that enhance life safety, is launching a new public awareness campaign this month on the dangers and unintended consequences of temporary door locking devices.

Opening the Door to School Safety is a multi-level campaign that will include video, social media and education to key audiences. The Foundation has launched this campaign to raise awareness for school safety and educate school administrators, teachers and parents about the importance of safely securing classroom doors.

"Temporary door locking devices—often referred to as barricade devices—violate a multitude of life safety codes and ADA requirements," said DSSF CEO Jerry Heppes Sr., CAE. "However, there is a fast-growing movement to use these products because they are inexpensive and satisfy the very real fear people have of an 'active shooter' event at their children's school. Unfortunately, fear can often drive poor decisions."

To learn more about the campaign and how you can help, go to doorsecuritysafety.org/advocacy.

Earlier this year, Allegion founded the Secure Schools Alliance. The Alliance is building a broad-based "coalition" of parents, first responders, educators, public officials and industry members to garner legislative efforts at the federal and state levels. This coalition has

already produced federal legislation to provide Department of Homeland Security funding to improve the security infrastructure, security technology and life safety systems of K-12 public schools. We cannot expect the education or government systems, alone, to address security threats against our schools and the infrastructure funding needed to mitigate them. Public- and private-sector experts need to work together to protect our schools.

That's why I'm calling on other security industry leaders and stakeholders to take a step forward and join us in our efforts. Become a member of the SIA-led Partner Alliance for Safer Schools, the Secure Schools Alliance or the Door Security & Safety Foundation. Join conversations of the Congressional School Safety Caucus with our nation's top officials. Share your expertise on the issue of school

security at the state and local levels. Get involved with schools.

What we have today—regarding nationwide school security levels—isn't good enough. We can do better. We must do better. We must come together—as an industry and with educators, parents, government and law enforcement officials—to address our nation's school security needs. We must keep our children safe. ■



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REVOLVING DOORS: AN INTELLIGENT CHOICE

By Arnold Kravitz and Tom Chaney



Revolving doors have an architectural history that dates back to the late 19th century. Originally popular as a fashionable way to provide building access, they continue to appeal to architects and designers not only for that reason, but also for their role in traffic control, security, safety, and energy efficiency. Revolving door design typically involves two, three, or four panels that hang on a central shaft and rotate around a vertical axis within a drum (a cylindrical enclosure).

Manual revolving doors rotate by pushing the wings with push bars, causing all wings to rotate when

someone pushes through them. Motor gear drive assemblies regulate door speeds and electronic sensors ensure operational integrity in automatic revolving doors.

Although revolving doors are popular in larger cities and schools, not all architects are fully informed or aware of the benefits and energy-saving results that come with revolving door installations. Revolving doors offer an effective access solution for public buildings in nearly every vertical market; higher education is no exception.

Not too long ago, higher education facilities were slow to adopt revolving doors. But with ambitious sustainability goals, we've seen a marked increase in their popularity. As owners and facility managers become educated on revolving doors' benefits beyond aesthetic appeal, they will be more eager to embrace their measurable advantages over swinging doors.

Managing High Traffic Flow, Safely and in Style

Revolving doors make an attractive access solution in university buildings that have consistently high pedestrian traffic.

According to Jessica Mangin, who focuses on the higher education market at KSS Architects in Philadelphia, "Revolving doors are both beautiful and functional. When you want to make a prominent entrance both effective at controlling the flow of traffic and aesthetically appealing, revolving doors can satisfy both objectives."

Because they offer hundreds of configuration possibilities, it is generally not difficult to find a revolving door to fit the requirements of either new or existing construction.

Revolving doors offer safety benefits as well. They must meet ANSI 156.27 standards, which sets maximum rotations per minute to ensure they won't rotate too quickly and jeopardize the safety of the students and faculty passing through them. ANSI also requires presence detection sensors for automatic doors to slow or

stop the doors when objects or people are within a certain distance of them. Other safety features on automatic revolving door include: entry-point sensors to help prevent entrapment at the intersection of the rotating wing and the approaching drum wall; a contact safety edge that halts the doors rotation if it detects obstructions; toe-guard sensors to help prevent a user's heel from getting trapped underneath them; and emergency buttons to stop power to the door.

Providing a Secure Environment for Students in Residence Halls

Universities, like other institutions nationally and abroad, have heightened security concerns.

Security revolving doors offer peace of mind wherever there's a need to control and monitor who goes in and who goes out of a facility or a restricted area of a facility. They can function as standard revolvers by day and then require access credentials at night, making them ideal for applications like college residence halls.

Fulfilling Sustainability Objectives

Many higher education facilities have made LEED and sustainability initiatives a high priority. And yet, many of these goals are thwarted by building envelopes that allow air to escape from frequently opened swinging doors—thereby defeating the building's energy efficiency. Architects and engineers have spent years improving the performance of the building envelope and windows, but only recently have they moved their focus to the door systems. Higher education organizations that fully embrace their commitment to sustainability find that revolving doors can not only enhance those efforts but also simultaneously reduce their building operation costs.

Revolving doors are strikingly superior to swinging doors (including vestibule arrangements) in preventing air exchange and minimizing entry of the outside elements. Generally, air exchange between the inside



A bank of all glass revolving doors provides a sleek entrance to the main lobby of One World Trade Center in New York City that's both beautiful and secure.

Photo courtesy of dormakaba



Older revolving doors can be retrofitted to upgrade moving parts without changing the door's original look. New door wings can be manufactured to replicate the original design and materials.

controlled space and the outside air occurs because of differences in air pressure between the two spaces. During the winter months, the air inside the building is heated, and warm air rises. If there are openings in the building envelope, cold air infiltrates the space to replace it. The challenge is to allow movement of people through the building envelope while minimizing air exchange between the two spaces—something revolving doors do very well.

While revolving doors are not airtight, they minimize the impact of the air pressure differentials that rob buildings of their controlled environment—and the dollars required to maintain it. A single swinging door will exchange approximately eight times more air than a revolving door. In high traffic areas like student unions and dining facilities, this can result in dramatic interior temperature changes, putting immense pressure on HVAC systems and raising energy costs significantly.

Prime Applications for Revolving Doors in Higher Education Settings

Because of the large volume of pedestrian traffic that flows into and out of buildings on higher education campuses, the following applications are ideal for revolving doors:

- Student centers
- Dining halls

- Residence halls
- Recreation centers
- Student store
- Libraries

The various considerations to keep in mind when choosing revolving doors include:

- What are the architectural requirements? For example, what material and finish are required to match the exterior of the building? Will it need to fit into existing construction? Does it require customization?
- What size revolving door is desired?
- What traffic volume needs to be accommodated at the entrance?
- Will the revolving door be part of your egress plan?
- Will access need to be restricted at any time of the day? If so, what credentialing method to confirm authorization will be used?
- Will remote operation/control be required?

Final Thoughts

Revolving doors provide an opportunity to increase buildings functionally and improve curb appeal. They offer a chic, modern ambience to main entrances, enhance safety as people enter and exit buildings, deliver energy cost

savings, and offer added security. For higher education institutions looking for intelligent options to augment their facilities and better their bottom lines, revolving doors make a smart and trusted choice.



ARNOLD KRAVITZ is an Architectural Services Manager for ENS – Entrance Systems with dormakaba. He has more than 36 years of experience in the architectural market, specifying and providing project specific

technical and code compliance assistance to architects, contractors, and end users. Arnie is the past president of the Metropolitan Chapter of the Construction Specifications Institute (CSI), and he is an associate member of the American Institute of Architects (AIA). Contact him at Arnold.kravitz@dormakaba.com.



TOM CHANEY joined DORMA in June 2014 to manage sales efforts for Automated Openings and Crane Revolving Doors in the Mid-Atlantic Region. He has more than 26 years of experience in the architectural hardware and

automatics industry, providing design assistance, specifications, and project support to architects and owners. He can be reached at Tom.chaney@dormakaba.com.



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OUR PERSPECTIVE:

Why Hager Companies Continues to Support DSSF

By Ginny Powell

At the heart of Hager Companies are our people—from the corporate team, engineers, sales force and manufacturing team in Montgomery, Ala., to the distributors, architects, and contractors we are fortunate to work with on a multitude of amazing projects worldwide. It is the people throughout the construction process who make every project come to life.

We believe people that use the structures we collectively build benefit the most from the products manufactured and distributed by DHI members. At Hager, we are passionate about keeping people safe and secure, yet allowing a means of egress in the event of a calamitous event. This is why the mission of the Door Security & Safety Foundation (DSSF) is such a natural one to support: “To promote secure and safe openings that **enhance life safety** through awareness and education to the building design, code authority, and facility management communities.”

A Founding Supporter

When the Foundation launched in 1998, those directing the effort wanted to include the viewpoint of manufacturers, in addition to distributors. Hager was the first manufacturer to participate, and our president at the time, Rusty Hager, volunteered to serve on the Foundation board.

That was just the start of our unwavering commitment to the Foundation.

Since 2006, Hager has contributed over \$380,000 to the Foundation and has been a Diamond Level contributor for the last three years. We share this not to be boastful, but to illustrate that we believe, like so many others, that we are responsible for ensuring that the industry remains strong and vibrant for generations to come.

“Hager is proud of the legacy that Rusty helped shape in furthering education and spearheading change in our industry,” explains Josh Hager, Executive Vice President and Chief Operating Officer for Hager Companies. “We are committed to supporting the Foundation’s efforts for the advancement of life safety, security and education.”

Raising Awareness and Influencing Responsible Decisions

A primary objective of the Foundation’s mission is to support the annual fire/egress door inspection initiative by creating awareness of this important update to the NFPA 80 and 101 standards—and their inclusion in the *International Building Code* and *International Fire Code*. Through educational efforts, the Foundation helps stakeholders understand the code implications and the complexity of the products and applications.

“For Hager, it’s not just a hinge, lock, door or frame; it’s the entire door

opening that keeps people safe, and we are proud to be a part of that conversation,” says Josh.

One issue the Foundation is working tirelessly on is classroom barricade devices—specifically in educating the decision makers why these devices are going a lot further toward trapping occupants than they are at saving them. The Foundation testified against the secondary locking devices in schools at the Ohio Board of Building Standards hearing, but the Ohio legislature still passed a law to allow such devices, as did Arkansas.

This hasn’t deterred the Foundation from pressing on to continue to educate state and local legislators and officials why being so narrowly focused on one single event, such as what happened at Sandy Hook, is dangerous.

“The Foundation’s goal is to raise public awareness of door safety and security issues, which aligns with Hager’s mission to produce quality door hardware to meet the architectural opening industry’s safety and security needs,” adds Josh.

Educating the Next Generation in the Industry

Hager provides continuing education to our team members on key programs related to safety and security issues of both mechanical and electronic door hardware, as well as



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building codes and green building standards. The Foundation's educational offerings are a key component of this training. In fact, August Hager IV—a sixth generation Hager—is currently studying for his Architectural Hardware Consultant (AHC) certification from DHI and will be the first Hager to earn his AHC.

Annually, Hager Companies also donates \$2,000 to the Foundation for a scholarship awarded to a contract hardware distributor employee. These funds may be used to pay for any DHI education course including technical schools, online courses, and Chapter-sponsored DHI courses.

Brauer Hall, Washington University, one of Hager's educational projects. "Hager is proud of the legacy that Rusty helped shape in furthering education and spearheading change in our industry," says Josh Hager, Executive Vice President and Chief Operating Officer for Hager Companies.

"The Foundation supports DHI members by attracting new talent to the industry and giving them the training, tools and education to be successful," says Eric Rose, vice president of U.S. Sales for Hager Companies.

The recipient of the 2014 scholarship, Matt Duffett, used his award to attend the Fall Technical School in Scottsdale, Ariz. Matt is a project manager for Central Valley Hardware Company in Stockton, Calif. For him, the ability to attend the school on scholarship was the first step to furthering his career in the industry; with his ultimate goal being to attain the AHC certification.

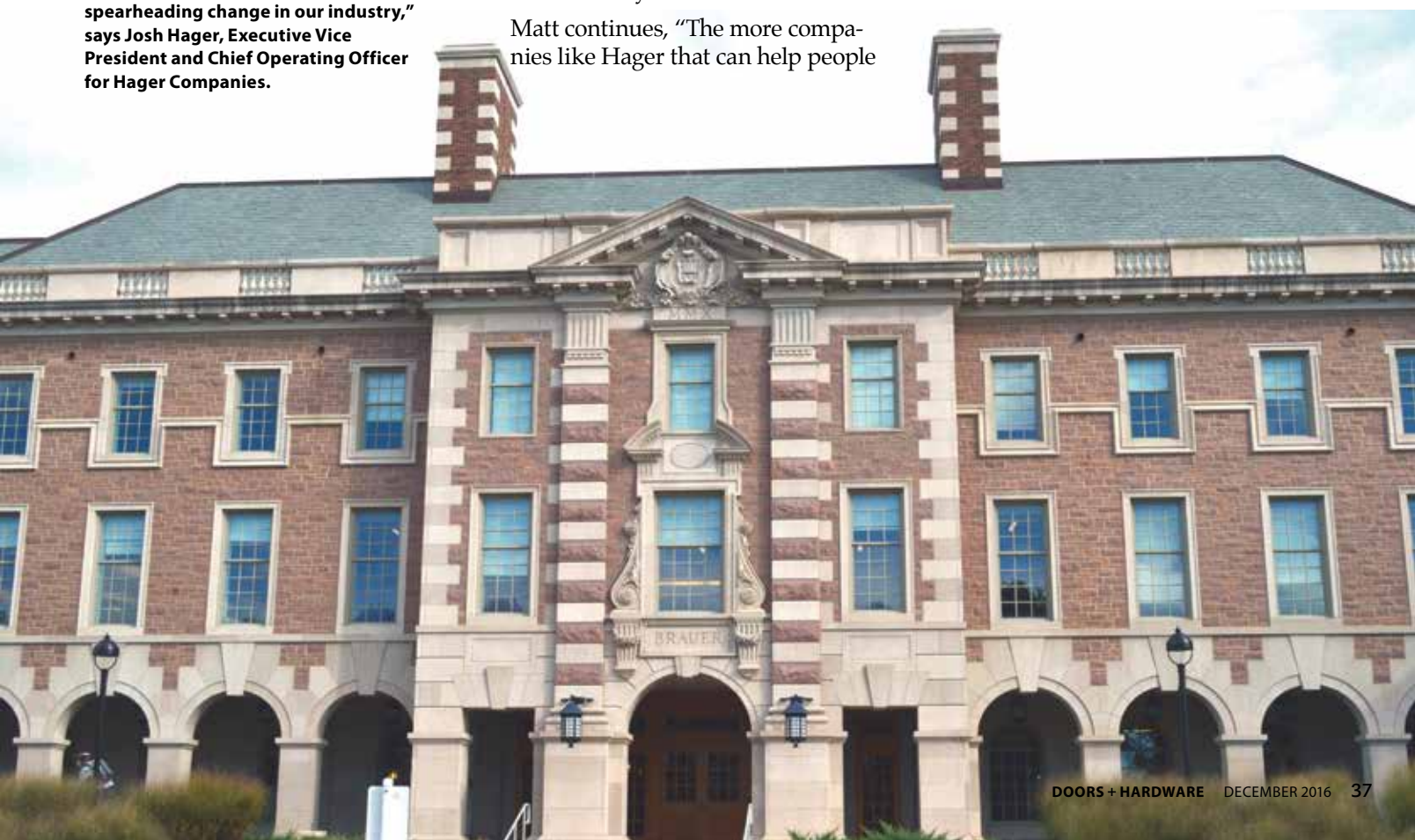
"I came to Central Valley Hardware in December 2011 thinking I was going to work at a hardware store—which it isn't," says Matt. "This scholarship definitely helped me take another step to further my education and career."

Matt continues, "The more companies like Hager that can help people

further their education in the industry, the better. It gives us the opportunity to keep up on the new things that are happening within the industry and helps people like me—fairly young—to be able to visualize that this isn't just a job. It is a career that can be extremely fulfilling. You can go home every day happy about what you do."

Creating awareness and providing educational opportunities for the people in our industry will ensure continued strength and proliferation of our industry. Hager, a company focused on people, is honored to continue supporting the Door Security & Safety Foundation year after year.

Interested in supporting the Foundation? Contact Jerry Heppes Sr., CAE, CEO of the Door Security & Safety Foundation, at JHeppes@dhi.org. ■



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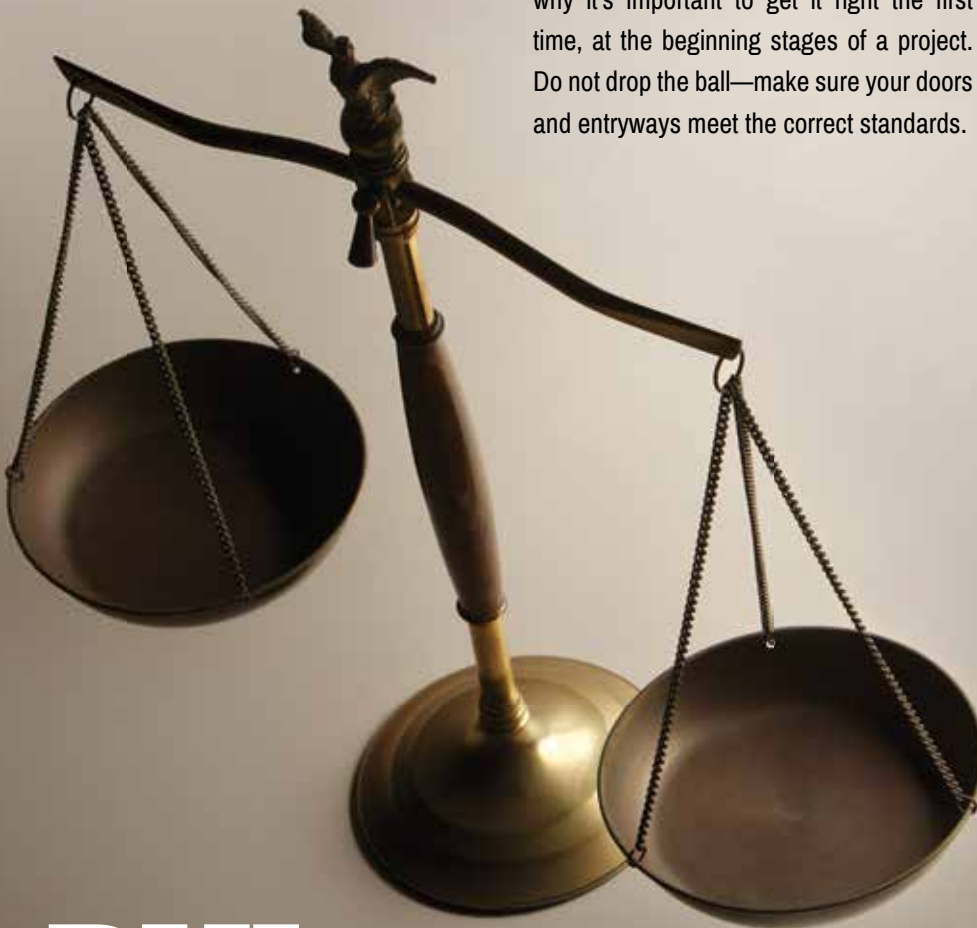
For more information and resources, visit the Door Security & Safety Foundation
at www.doorsecuritysafety.org/advocacy.

Managing the Balance of Life Safety and Security

DHI members are the only certified, credentialed professionals with the experience to find the right balance between life safety and security in the non-residential architectural openings industry.

When it comes to public buildings, it's easy to take the doors and entryways for granted. A major challenge is that often door security measures can undermine human safety. **It is critical that door assemblies provide the correct balance of life safety and security while meeting building and fire codes.**

Building codes and product standards are complicated. And there are thousands of combinations of doors and hardware. In fact, while **doors and openings represent only 2% of a new facility's average construction costs, they constitute more than 30% of punch-list issues.** That is why it's important to get it right the first time, at the beginning stages of a project. Do not drop the ball—make sure your doors and entryways meet the correct standards.



Where do I find the industry experts to strike the right balance of life safety and security?

Contact a DHI-certified consultant!

Architectural Hardware Consultant (AHC), Certified Door Consultant (CDC), Electrified Hardware Consultant (EHC) and Architectural Openings Consultant (AOC) are the certification designations recognized as marks of excellence throughout the industry. These professional certifications attest to the extensive knowledge of the individual and that he or she is a professional prepared to provide sound architectural door and hardware specification advice to architects, contractors and building owners.



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***CE1501: 2015 IBC Code Update for Swinging Door Openings**

- This course provides an easy-to-follow and understandable update to the 2015 edition of the International Building Code (IBC) as relates to swinging door openings.

***CE1601: NFPA 101 2015 Edition - The Life Safety Code**

- This course provides an easy-to-follow and understandable update to the 2015 edition of NFPA101 - the Life Safety Code.

Students who hold one or more of DHI's professional certifications (e.g., AHC, CDC, EHC, or AOC) and who are participating in the DHI Continuing Education Program (CEP) will receive technical CEP points upon successful completion of CE1401, CE1501 and CE1601.

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Here's a note from a Fall School student to Instructor Russ Hooker, AOC/FDAI:

Russ,

I was once again reminded this past week of the old saying "ya don't know what ya don't know. . .!"

It was truly a pleasure learning under your direction last week in Phoenix. You're clearly an expert in our industry. I assumed that 10 years of experience, and working for a couple of solid distributors, as well as a large global manufacturer would have given me a head start on my knowledge base, and it did help some, but sitting through your training was humbling, and a reminder that there is still very much for me to learn.

This was my first experience with DHI training, and you greatly exceeded my expectations.

Thank you for challenging me, for being so selflessly generous with your time and knowledge, and for your willingness to share, as I know that you don't get paid for the investment that you make in your students. It's people like you that inspire me to strive harder and to be the best at what I do.

I'm forever grateful, and hopeful that I get to train under you next year in Lansdowne.

Michael Burgess
Vice President Sales, Tull Brothers



Another successful set of Fall Technical Schools in Scottsdale, Ariz., and Calgary, AB, are in the books with over 200 students attending the two schools. Students are noticing the improvements that DHI is implementing in a number of the classes.

While solid content and resources are important, the instructors continue to be some of the most valuable resources gained by the students. Whether you are new to the industry, an experienced veteran who hasn't take classes for some time, or someone looking to complete your education, DHI is here to support you in your efforts. Email education@dhi.org and we'll be happy to help you craft your education plan.



THANK YOU 2016 FALL TECHNICAL SCHOOL INSTRUCTORS!

*Our Instructors
Are the Best!*



- Brad Alexander, AHC/EHC
- Jeffrey S. Batick, FDAI
- Jody Boatman, AHC/EHC, CSI, CDT
- Tony Boatman DAHC/EHC, FDAI, FDHI
- Michelle Bond, AHC
- Richard Bradbury, EHC
- John Clancy, AOC/FDAI
- Lee Garver, DAHC/FDHI
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- Kevin Tish, AHC
- Laura Frye, AHC/FDAI, CSI, CCS
- Rodney Weaver, AHC/FDAI, CAI, CFDI
- Ann McCrady, M.Ed., CPL

"I've just completed Day 1 of a long anticipated journey to achieve my certification, and although I was apprehensive of the experience, the DHI instructors and overall experience greatly exceeded my expectations. I'm looking forward to the next technical school!"

"The DHI experience is an invaluable tool to create the professionalism and consistency in our industry. If you haven't started your education process, consider it mandatory. You will be amazed at the technical experience!"



Another Successful Technical School for **DHI Canada!**

It was a great school in all aspects—spring-like weather, a wide range of education modules, our professional instructors and our eager students. What more could we ask for?



Well, maybe a party to get things going! Our Student Appreciation Night once again kicked things off in style. This has become a tradition at Canadian schools and it's our way of thanking students and instructors alike for their continued support.

Again, there were some successful additions to the school:

- Katherine Panousos, AHC, joined the instructor corps for the first time. We look forward to having her return in the future.
- The new improved EHC410 was offered with a complement of samples and prototypes to make it a real hands-on experience
- We ran out of meeting rooms so we went offsite for AHC exam prep. Thanks to Alan McMurtrie, DAHC, and Allegion for making this happen.



2016–17 Board of Directors and Staff



We couldn't do it without a great deal of support from a great number of our members:

OUR DEDICATED INSTRUCTORS

- Lawrence Beatty, AHC, FDHI
- Richard Bradbury, EHC
- Kelly Chililar, AHC, FDAI
- Sandy Elliott, AHC
- Brad Hewlett, AHC/EHC, FDAI
- Steve Isaac, AHC, FDAI
- Paul Jackson, DAHC
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- Roslyn Shender, AHC/CDC, FDAI, CSI
- Dave Sargent, AHC
- Mark Sorrenti, EHC
- Karl Voth, AHC
- Bob Watson, AHC

Our Outstanding Co-Directors of Education:

- Malcolm Eyre, FDHI
- Paul Jackson, DAHC

Also thanks to:

- K.M. Thomas, for providing storage of our school samples.
- Baillargeon Doors & Daybar, for providing school samples.

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Stairwell Reentry

By Lori Greene, DAHC/CDC, FDAI, FDHI, CCPR

The concept of stairwell reentry can be a confusing one, especially because of the variation between the requirements of the *International Building Code (IBC)* and *NFPA 101 – The Life Safety Code*. Most stairwells are designed to provide a safe means of egress for building occupants, protected by fire barriers and opening protectives (fire door assemblies). This type of stairwell is typically called an exit or exit enclosure.

The purpose of the stairwell reentry requirements is to enable building occupants to leave a stairwell if it becomes compromised during a fire, and cross through a tenant space to find another exit. Another reason for this section of the model codes is to allow firefighter access from the stairwell to the fire on a tenant floor.

International Building Code (IBC)

The IBC includes different requirements for interior stairway doors and stair discharge doors. The stair

discharge door is the door at the bottom of the stairs that leads to the exterior or to a continuation of the egress path to the exit discharge. The IBC states that the stairway discharge door must be openable from the egress side and may only be locked from the opposite side.

This code language is helpful because in some jurisdictions, the fire department may request that the stair discharge door unlock automatically during a fire to aid firefighting efforts. An Authority Having Jurisdiction (AHJ) may require this, but it is not common since it is not required by the IBC and may create security problems, especially if the doors are automatically unlocked by the fire alarm system (refer to the NFPA 101 requirements below).

The requirements of the IBC include the following options for interior stair doors (not the stair discharge):

1. Doors may be openable from both sides without the use of a key or

special knowledge or effort. To accomplish this, a passage set or fire exit hardware with passage function trim would be used, as passage hardware would be freely openable from both sides. Options 2 and 3 below address locking the stair side of interior stair doors, but note that the doors must provide free egress to the stair on the egress side unless a delayed egress or controlled egress lock is used.

2. A high-rise building is defined by the IBC as “a building with an occupied floor located more than 75 feet above the lowest level of fire department vehicle access.” For high-rise buildings, the IBC allows stairway doors—other than the exit discharge doors—to be locked on the stair side. These locked doors must be able to be unlocked simultaneously without unlatching upon a signal from the fire command center. When this application is used in a high-rise building, the

stair is also required to have a telephone or other two-way communication system that is connected to an approved constantly-attended station. This system must be located at not less than every fifth floor in each high-rise stairway where the doors are locked on the stair side.

3. If the stairway is serving four stories or less, the interior doors may also be locked on the stair side if they can be remotely released without unlatching by a switch at the fire command center. If there is no fire command center, the switch may be placed in a location inside the main entrance to the building, for activation by emergency personnel. The differences between the requirements for high-rise buildings and stairs serving four stories or less are the location of the switch and the need for a stairway communication system.

Options 2 and 3 leave a loophole: what if a stair serves more than four stories but does not qualify as a high-rise building? This issue in the code was discovered in time to address it in the 2018 edition of the IBC. A change will be made that clears this up: when a stair serves any amount of levels but is not a high rise building, it can comply with either option 1 or 3 above and a stairway communication system (2) is not required. Option 3 will no longer be limited to stairs serving four stories or less.

The IBC also has two exceptions that apply to stairwell reentry. Under certain circumstances, buildings may be allowed to have only one exit stairway. An example of this is an air traffic control tower. When the building has one exit stair, there is little value in unlocking the stairwell doors for reentry, since there isn't another stair for a building occupant to use. When a stair door is lockable on the stair side in a Group B (Business), F (Factory and Industrial), M (Mercantile), or S (Storage) occupancy, the IBC allows the doors to be locked on the stair side and does not require remote unlocking.

This also applies to Group R-2 (Residential) occupancies where the only interior access to the dwelling unit is from a single exit stairway. R-2 occupancies include apartment buildings, dormitories, hotels, and similar types of residential buildings.

NFPA 101 – The Life Safety Code

NFPA 101's requirements have some similarities to the IBC, but also several variations. As with the IBC, stair doors may have passage sets or passage function trim for fire exit hardware, so the doors will be operable in both directions. NFPA 101 also includes the option for remote unlocking, except that instead of doors being unlocked via a switch at the fire command center, the doors are required to be unlocked automatically upon initiation of the fire alarm system. Again, this applies to the stair side lever only; not to the hardware on the egress side of the door.

There are two other options and some exemptions allowed by NFPA 101 that are not covered by the IBC. According to NFPA 101, stairs serving four stories or less may be locked mechanically, and are not required to be unlocked remotely. NFPA 101 also allows selected reentry, where some stair doors are allowed to be locked mechanically, and others must allow reentry. For selected reentry:

- At least two levels within the stair enclosure must allow reentry.
- There cannot be more than four locked levels between levels that allow reentry.
- Either the top level or the next-to-stop level must allow reentry.
- Signage is required on the stair side of each door, either identifying the door as a reentry floor, or directing building occupants to the next reentry floors in both directions.

Several exemptions are noted in the occupancy chapters of NFPA 101. Check the occupancy chapters for exemptions related to:

- Existing installations in some non-high-rise buildings.

- Existing installations in some high-rise buildings protected throughout by a sprinkler system.
- Existing approved installations.
- Buildings with a single exit stair (similar to the IBC).
- Some healthcare occupancies as addressed in Chapter 18.
- Detention and correctional occupancies as addressed in Chapter 22.

These options and exemptions allowed by NFPA 101 would only apply where NFPA 101 has been adopted as the applicable code, and the facility is not required to meet the IBC requirements. Since the IBC does not include mechanical locks or selected reentry, a building designed to comply with the IBC would not be able to employ these security methods without permission from the AHJ.

Conclusion

The locking hardware typically used on stair doors that are lockable on the stair side are fail-safe locksets or fail-safe trim for fire exit hardware (in some cases electromagnetic locks—also fail safe—may be used). This ensures that the doors will unlock during a fire, even if the power in the building has been cut. An electric strike may not be used to accommodate stairwell reentry, because a fail-safe electric strike cannot be used on a fire door as it does not ensure positive latching.

In some cases there may be floors of a building that are not ideal for stairwell reentry; perhaps they contain equipment that would not be easy to navigate around or could be hazardous to building occupants who are not familiar with it. The model codes don't address this situation, so it's best to consult the AHJ for assistance. ■



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Eating in Peace

By Mark J. Berger

It never fails. I try to enjoy a good meal, pick up a snack or shop for groceries. I try to keep my phone in my pocket and not snap a picture, but the life safety violations jump out.

A challenge to readers: select a topic and send in photos of good or bad doors relating to that theme. Then we'll build a column around them.



▲ GRABBING A COKE

While visiting a dealer I decided to grab a little snack. This is a very large locksmith operation on a busy thoroughfare. They have the equivalent of three or four storefronts, so this soda machine and the adjacent chips and candy bar dispenser must do pretty well.

I'd be happy happier if their placement was not right in front of the emergency exit.

▼ STEPS TO NOWHERE

I saw the sign on the side of the building outside this door of a national chain drug and convenience store in Big D. It was a really hot summer evening and I thought I'd grab a water. I walked towards the overhead sign, but unfortunately it was a store which stretched through the city block and I was on the non-entrance side. That's what the standing sign visible through the door said.

Turns out it was also the non-exit side, though it was supposed to be. The door is up the stairs and very far away from the cashier (literally the width of a block away). Instead of placing an alarmed exit lock or device on it, the store chained a padlock on it to discourage its use by non-paying customers.

Stores need to pay more attention to these unusual layouts. They should realize their need to staff a cashier or post a guard to discourage running out the door with merchandise. A chain through the panic bar arms is never the answer.





◀ BREAKFAST ROOM

I'm not the quickest or sharpest guy in the morning. Fortunately some of my colleagues are. One is a very early riser who walked around this hotel complex and found himself locked in the pool area (sorry, no pictures but it involved latches and a non-functioning room key).

When we met for breakfast I was seated opposite this door. I should have immediately noticed the keyed knob lock on an exit door, but I hadn't yet had my first cup of coffee. I'm glad I had others around to point it out.



NOT SO CLEAR PATH

The front of exit doors should not be used as plant sanctuaries. As lovely as topiary might be, they cannot be placed in the means of egress.

The sun beating down on customers in a restaurant can be bad for business, so it is not unusual to find shades, blinds or curtains covering windows. But glass doors or any door with a large vision lite is another matter.

Any sun blocking elements should be affixed to the door and respect access to the exit device. If you look behind the lovely potted plant, you'll find the outline of an exit device. This was one welcoming reception where I felt less than welcome.





▲ ALMOST PERFECT

Trips to the restroom frequently result in photos for Real Openings. That doesn't sound right, but restrooms are often located in the rear and near exit doors.

Here's one from Norwalk, Conn., which shows what happens to a door after the inspectors come by. The slide bolt and hasp were removed and replaced by an exit device. This is also the entrance from the parking lot, so I'm sure a latched exit device is much better than a push/pull door.

I'd be happier if they remove all vestiges of the offending slide bolt and hasp, to prevent anyone from blocking the door.

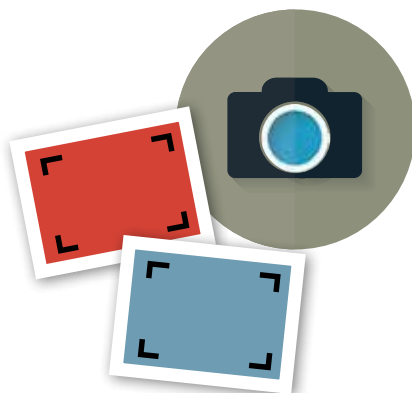


▲ PANCAKE TIME

The start of a summer vacation weekend should always involve pancakes. Sadly, many family restaurants use their exit doors as storage areas for hi-chairs and the chairs removed from tables when hi-chairs are brought to the table. These are completely unnecessary dangers.

◀ CLEAR PATH

Here's an unobstructed path to an exit door. The sign reading "Employees Only" is a bit of a problem, but not as bad as the locked key-in-knob lock on the door. I got more than I bargained for when I stopped for Raisinets at this service station in upstate NY.



MARK BERGER is the President and Chief Product Officer of Securitech Group, as well as the chair of the Builders Hardware Manufacturers Association Codes & Government Affairs Committee. All "Real Openings" photos have been taken in public spaces with the goal of highlighting the prevalence of code violations and the need for vigilance to save lives. If you see something, say something.

The images shown here are not intended to reflect upon any specific manufacturer or products but are intended to help build awareness around the everyday code violations that occur in buildings over time, despite our members' best efforts to provide solutions to secure the life safety and security of the building occupants.

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The Revenue
Growth Habit

4 Ways to Grow Your Business in 2017

By Alex Goldfayn



The election is over. The holidays approach. And the New Year is just around the corner.

Let's talk about your plan to grow sales in 2017. Do you have one? How much time have you spent thinking about how you will grow your revenue next year?

Because here's the thing about revenue growth: it's a proactive pursuit. We must make time for it. Sales *might* grow if we go through our days and weeks reactively, from one incoming customer inquiry to another. But we can't plan for this kind of growth. If the right customers call, we might grow. If the wrong inquiries come in, we won't.

The only planful, strategic, repeatable way to grow is to be proactive and purposeful about.

So, here four specific actions you can implement to grow your business in 2017. Which ones will you do?

In General, Pick Up the Phone. Call instead of email. Call instead of text. We don't like to use the phone because we do everything we can to avoid rejection, and rejection on the phone is intimate. It goes into your ear. We'd rather not call, *and not know*, than call and risk rejection. Want to stand out? Pick up the phone. *Default to the phone.*

I have to say, it's somewhat embarrassing how much get paid to tell people to use the phone. But what do you think happens when we implement systems that double or triple your salespeople's phone hours per week to each sales person's phone time? Sales have *no choice* but to go up!

Specifically, Make the Follow-Up Phone Call: *Tom, its Alex. How are you? How's it going with that thing we talked about (or that quote I sent)?*

Just like that.

When we follow up, we show people that we are interested, that we care. We are not bothering them, or imposing on them, or taking their time. Do you think people get a lot

of follow-up phone calls during their day? Do you? Exactly. Most people don't get follow-up calls because most salespeople don't like following up!

Ask for Referrals: *Tom, who do you know like yourself who would enjoy working with me like you have?*

Then, let Tom answer. Be quiet and listen. Blink if you have to. Sing a song in your head if you must. But don't talk first. Tom wasn't thinking about your referral for hours, like you have been thinking about asking him for it. So, let Tom think, and come up with a referral for you.

One note here: people *love* giving referrals. Because it makes them look good. To the person they're referring, and to you. If our customers would love to give us referrals, why don't we ask them for them? Because they would if we would. We don't ask because of fear. It overwhelms us. What if they don't give us one? What if they don't like us as much as we think? What if I make them uncomfortable? *What if I lose the customer!*

It doesn't work that way. People want to help their friends and colleagues, and you are of tremendous value to them. Of course they'd refer you, if only you asked. So, ask!

Write Hand-Written Notes: Not thank you notes, but personal notes. Thank you notes are easy. But personal notes, which mention something you've recently talked about or experienced with the customer or prospect, are truly rare. I have to say, I hear from nearly every single person who gets a hand-written note from me about how grateful and appreciative they are. Why? Because people don't get hand-written notes any more.

Ask the "Did You Know?" Question: Your customer only knows about 20 percent of what they can buy from you. Isn't that tragic? They need much of what you can do for them. In fact, they probably buy it elsewhere, from your competition. And both you and the customer know they'd be better off if they bought from you. So ask them, *did you know we also do x?* Even if you've asked them before, ask again. Just because we've told customers we do something, doesn't mean they know!

Now look over this list of techniques to grow your sales. Does it cost a lot of money to execute these techniques? No. It costs *no money*. Does it take a lot of time? No. It takes *mere moments* to make each of these communications.

Revenue growth is easy. The more that people hear from you, the more they buy from you. Here are five ways for your customers and prospects to hear from you. Which of these actions will you take now, today, and in the New Year? ■

Grow Your Business

1. Pick Up the Phone
2. Ask for Referrals
3. Write Hand-Written Notes
4. Ask the "Did You Know?" Question



ALEX GOLDFAYN runs The Revenue Growth Consultancy, which helps companies and sales departments grow revenue quickly and easily by implementing a system of simple communications techniques.

To discuss growing your business in this way, email alex@evangelismktg.com or call him at 847.459.6322. His latest book, *The Revenue Growth Habit*, was named the 2015 Sales Book of The Year by 800-CEO-Read.

SCORECARD SOLUTIONS

By Jason Bader

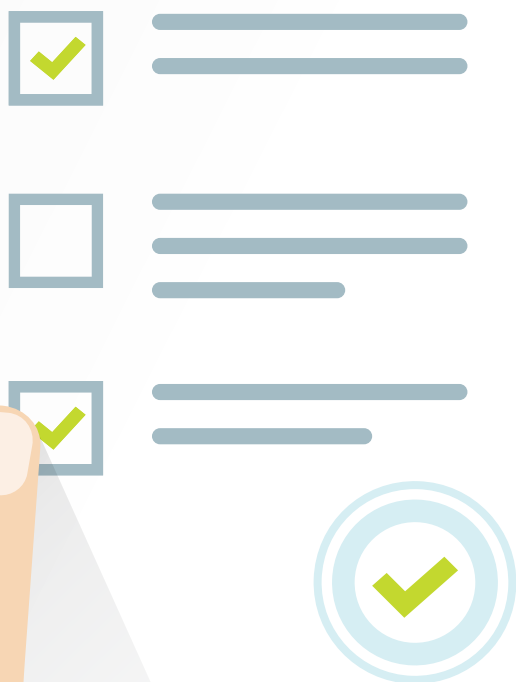
There is an old saying, “You can’t manage what you can’t measure.”

As many of you know, I am a strong advocate for the use of branch management scorecards when trying to motivate teams to improve performance. It just makes too much sense. Managers who oversee several branch locations struggle with how to coach and motivate branches without a document to guide the discussion. This is one of the greatest reasons to produce and maintain these performance measures. Documenting the performance is just the first step. If you really want to drive change, you have to bring a little black bag of strategies to the party.

I have been helping companies develop branch scorecards for a number of years now. Everyone has their own little spin on how they want to present the information. I have no problem with that. Each entity has their own culture and they ultimately know what will fit best in their organization. Some companies keep it really simple by only measuring certain sales-related metrics. Others find ways to incorporate asset-related performance. My preference is the latter, but the creation of monthly revenue driven goals will go a long way to improving profitability.

Building the sheet of metrics is a trick unto itself. Make sure they are easy to measure. How easy can they be extracted from your distribution software? If the creation process is too cumbersome, I suspect that many of you will eventually round file the program. Keep it relatively simple.

In an earlier article, I walked down several metrics that I often suggest to the companies I coach. In all honesty, I shared the list with one of my clients today. We reviewed the list, talked about how to capture the data, and discussed why each particular metric



I generally believe that product knowledge training is one of the best solutions to diminished margins. Make product training, by manufacturer reps, a part of your weekly activity.

was valuable. It is important to get a philosophical understanding of why we are measuring something so that when it comes time to share the document, you are comfortable explaining the benefit. Unfortunately, this is where many companies stop.

Producing the document every month and sending it to the responsible manager will not produce the productivity improvements you seek. I would concede that exposure will drive some measure of change, but providing a couple of strategies for improvement will help get that manager off on the right foot. Sometimes people just need a little view of the path before they can apply creativity. Build your strategic starter kit before you begin coaching. Here are a few of mine.

Gross Margin Dollars per Day

If the branch is not meeting this goal, start looking at how the goals are being communicated. Challenge the manager to communicate the daily performance. I like to see managers write the gross margin dollars on a wall calendar. Use black ink for days that exceed the goal. Use red ink for days that fall short of the goal. You can also talk about using a couple of other scorecard metrics, gross margin dollars per ticket and lines per order, to improve performance.

Gross Margin Dollars per Ticket

When this metric is in decline, I start looking at ways to round the customer up to larger package sizes. Simple comments like, "Did you know that those paint cans come in

a case of 12?" or "Did you know that we have a quantity break at 50?" can drive behavior. Subtle changes in margin can also drive up this metric. Increasing the lines per order metric is my favorite strategy to drive improvement in the dollar per ticket goal.

Lines per Order

As mentioned above, improvements in this metric can really drive dollars in the door. This one might take a little coaching. Just telling the manager to get their team to add on sell is a little too simplistic. Help that person develop a plan. Review the highest hit items and have team members list complimentary items. Make complimentary item review a regular part of inside sales team meetings.

Gross Margin Percentage

The first tactic I generally employ is a discussion about the impact to net profit. It is generally accepted that a 1 percent improvement to gross margin can spark a 40 percent improvement to the bottom line. This ratio gets them to see the value. I generally believe that product knowledge training is one of the best solutions to diminished margins. Make product training, by manufacturer reps, a part of your weekly activity. Teach your manager how to look for subtle margin improvement in slow moving product. If all else fails, take away commission below a certain threshold. A zing to the wallet usually gets the message across.

Unproductive Inventory

This metric measures the percentage of dead, slow and surplus inventory in

the branch. Setting expectations on this metric can help you drive better turns and help prevent the inevitable cry for a bigger facility. Coach the manager to review a monthly hits ranking. Show them how to find, quarantine and liquidate this inventory. Cash conversion of unproductive inventory requires creativity and consistency.

These are just a few of the metrics that I recommend to clients, but I think you get the idea. The first step to operational improvement is to create the monthly scorecard. Step two is to review the metrics with the individual branch manager. Step through is to help that manager develop strategies to tackle unsatisfactory metrics. Showing up to your meeting with a little black bag of tricks will make this process a whole lot easier.

If you are interested in a more complete list of metrics, request a copy of my previous article Building a Branch Management Scorecard. As I continue to coach distribution companies toward profitability and peace of mind, I have come to believe in the magic of monthly performance metrics. If you need help getting started, please don't hesitate to reach out. ■

JASON BADER is managing partner of The Distribution Team, a firm that specializes in helping distributors become more profitable through strategic planning and operating efficiencies. The first 20 years of his career were spent working as a distribution executive. Today, he is a regular speaker at industry events and spends much of his time coaching individual distribution companies. He can be reached at Jason@Distributionteam.com.

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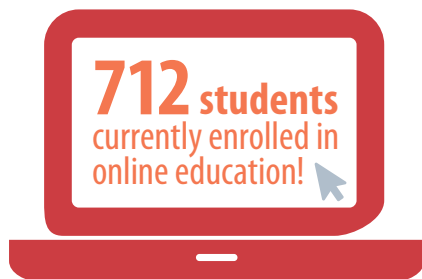
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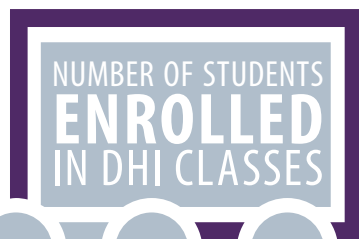
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Awareness of Need for Fire Door Inspections Continues to Grow

By Paul Baillargeon, AHC, FDAI

By now, many of you are aware of the Centers for Medicare and Medicaid Services' (CMS) recent adoption of the 2012 edition of NFPA 101, the *Life Safety Code*, requiring health care facility operators to conduct a yearly inspection of fire door assemblies in accordance with NFPA 80: *Standard for Fire Doors and Other Opening Protectives*.

DSSF: Your Resource to Learn More about Annual Inspections of Swinging Fire Doors

With the Centers for Medicare and Medicaid (CMS) adoption of NFPA 101 2012 Edition, it's more important than ever to learn about these life safety and security requirements regarding annual inspections for swinging fire doors.

If you would like to learn more about bringing the Foundation's education and training to your customer's facility or staff, contact me at pbailargeon@doorsecuritysafety.org.



After that announcement, we expected significantly greater demand for the Foundation's awareness programs and annual inspections of fire doors within healthcare facilities, and in the last quarter of 2016, we have seen that demand come to fruition.

The number of requests for the Foundation's services has increased 50 to 60 percent in the last quarter of 2016. And it's coming from all segments of the building code and facility manager community: fire marshals, code officials, architects, owners/facility managers, construction managers, and installation contractors.

With CMS's notification to its regulated healthcare facilities

that it will begin surveying for compliance with the NFPA 101 2012 edition on Nov. 12, the hammer fell on enforcement.

DSSF has identified more than 6,000 hospitals across the United States as potential sites for the awareness and education programs specifically designed for the healthcare community. The education role for us starts with facility owners/managers, contractors, architects, and fire and building code officials. The bigger and

more varied the audience, the better chance we have to reach the influencers, effect change and fulfill our mission to promote secure and safe openings.

Now that inspections can no longer be delayed, DSSF is poised to respond to this demand and has a program in the works to expand our capability to provide instruction. NFPA is now requiring that all assembly components be inspected, as well as the performance and operation of the total assembly. Traditionally, mechanics have not been taught the codes, so this is a whole new education process for them. They are being taught to identify the proper products, care and maintain those products and learn whether or not those products can be modified.

In addition to more than 15 presentations in the last quarter, we co-sponsored an all-new one-day class with NFPA on Dec. 2 on fire door inspection regulations, geared to facility managers.

This course addressed the door types encountered along the egress paths within a health care facility; the door locking means permitted; the 13 verification points required for the yearly inspection of swinging fire door assemblies, and the knowledge and skills required to perform the care, maintenance, and revised inspection and testing requirements in accordance with NFPA 80.

If you would like to learn more about bringing the Foundation's education and training to your customer's facility or staff, contact me at pbailargeon@doorsecuritysafety.org. ■



PAUL BAILLARGEON, AHC, FDAI, is Vice President, Technical Consultant, for the Door Security & Safety Foundation. He can be reached at PBaillargeon@doorsecuritysafety.org.



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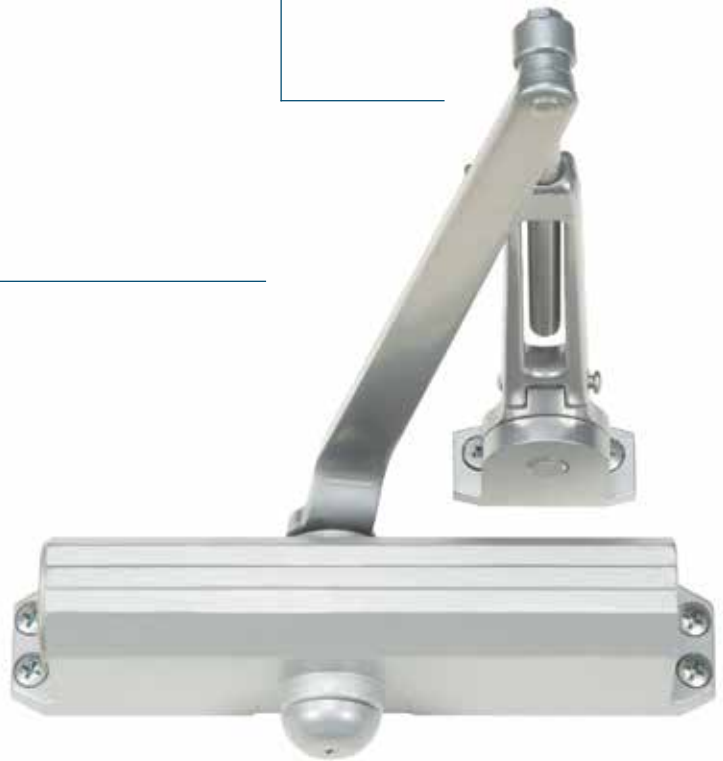


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