INTERLOCK

THE MAGAZINE FOR ELEVATOR PROFESSIONALS

FALL 2019

THE UNEXPECTED RISE OF HYDRAULIC ELEVATORS

The Pixel-Perfect Control System

Your Ultimate Safety Checklist

The Secret Diary of a Field Service Engineer

Alesa McArthur the New Face of the NAEC

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COVER STORY

THE UNEXPECTED RISE OF HYDRAULIC ELEVATORS

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PUBLISHER
Vantage Elevator Solutions
50 East 153rd Street
Bronx, NY 10451

EDITOR
Åsa Christina Magnusson

DESIGN & PRODUCTION
MagazineXperts, LLC
Jennifir Pekarek, *Art Director*
Donald Berry, *Production Manager*

MARKETING
John Curzon
Kimberly Berkowitz
Amy Fancher

CONTRIBUTIONS
To submit stories or suggest content, contact:
interlock@vantageelevation.com

SUBSCRIPTIONS
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It's time to thrive.

When I joined the team as CEO of Vantage in July 2019, I was well aware that many customers and partners would be likely to know a great deal more about the Vantage brands than they do about me. That is the beauty of working with a business that has such a strong legacy, and one that has made a substantial impact on the elevator industry for many decades.

We are operating in a very interesting industry that is highly resilient when it comes to economic trends. However, being a key supplier of product solutions, Vantage has a responsibility to continuously work towards improvements in both product quality and customer experience.

My priority is to grow the business while systematically making the customer experience better. When our customers are successful, we're successful - and I'm excited to be part of helping our customers thrive by working with Vantage as a strategic partner.

Ron Cauchi

Ron Cauchi
CEO
Vantage Elevator Solutions

in•ter•lock
/in(t)ərläk/

verb
1. to fit into each other, as parts of machinery, so that all action is synchronized.
2. to lock parts together to ensure coordinated action.

noun
1. a device or mechanism for connecting or coordinating the function of different components.

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ALESA MCARTHUR – THE NEW FACE OF THE NAEC

NAVIGATING THE FUTURE OF A 70-YEAR ORGANIZATION

2019 brings two major milestones for the National Association of Elevator Contractors: The celebration of the organization's 70th anniversary, and Alesa McArthur's transition into the role of Executive Director. But how did a Georgia girl with wanderlust become the new face of the NAEC? We decided to sit down with Alesa to learn what brought her here – and where she wants to take this historic organization next.

A LOVE FOR TRAVEL

Alesa was born in Dublin, Georgia, as part of a farming family that never traveled. This triggered a desire to see the world from an early age, and it's something she still loves to do – which certainly makes her job a whole lot more enjoyable. "I love the travel. I love going out to see members, talking to them, seeing them in their element, and meeting them at conferences. That's what makes this role so interesting."

This year alone, Alesa has certainly had her fair share of travel. She's already been to both London and Brazil, and she's visited all the partner events within the UNITED group; IAEC in Reno, CECA in Ottawa-Gatineau, and Elevator U in Charlotte, NC – not to mention countless member visits across the United States.

THE JOY OF EVENTS PLANNING

Alesa graduated from the University of Georgia with a BA in Political Science, and then went on to get her MBA from Georgia State University in Atlanta. Once she graduated, she was hired by Johnson & Johnson to sell surgical instruments. This gave her an initial footprint in the medical world, but she also started doing a great deal of volunteer work alongside her day job which soon led her to be part of the board of the Atlanta Symphony Orchestra. "I already had a musical interest from a young age, so the symphony felt like a very natural fit for me." Alesa chaired galas and ran events for them, and soon discovered that event planning was a whole lot more fun than selling surgical instruments.

She eventually pursued a career in events management in the catering industry, but once she got married and had a son, the hours became too demanding. “I knew I wanted to keep doing events planning, but just not with the late nights and weekends. So I went looking for a new role and ended up being hired by the Georgia Academy of Family Physicians. I began there in 2005, starting as Director of Education and eventually becoming Chief Operating Officer. As I had worked on various boards as a volunteer, I also had a great understanding of what goes into a successful board operation and how to communicate well with board members – which was obviously a great thing to have in the back pocket when signing up to work with the NAEC.”

DEALING WITH HURRICANES

Alesa started out working with the NAEC as a meeting planner on a part-time freelance basis in 2017, which allowed her to get a flavor of the organization and learn on the job. During that time, she experienced a true baptism of fire as she faced an event planner’s nightmare. The Orlando NAEC Annual Convention was in the direct path of Hurricane Irma. “It was a shock to the system. NAEC had worked on preparing this event for over a year, and now we were suddenly tasked with moving the entire thing to Atlantic City in no more than two weeks. It seemed like an impossible challenge at first – but the entire team pulled together to make it happen. Everyone worked hard and collaborated so well. The whole process made me really proud to be part of an organization that could achieve something like this.” That’s when Alesa knew she wanted to be part of the NAEC team full time.

“To me, failure is not an option,” she explains. “My first thought when things go wrong is that ‘there’s got to be some way to fix it.’ I could see that attitude mirrored in the whole NAEC team. You can’t fix a hurricane – but you sure can work around it.”

By the end of 2017 Alesa was ready to make the leap into a full-time commitment to the NAEC and soon became Deputy Director to Teresa Witham who was Executive Director at the time.

MAKING AN IMPACT FOR MEMBERS

There’s no missing the fact that Alesa is a people-person, and one who thrives on connecting with members and partners alike. “I would hope to continue the good work that the NAEC is doing but be able to affect change in some areas. When I talk to members and they tell me what they would like from us, I get very excited about our opportunity to serve them better as a community and help their businesses thrive.”

“An association exists to serve its members, period. It’s why we exist. That means we have to listen to the voices, ideas and opinions of the people who need us, and turn them into action wherever possible. NAEC does that well; we just need to get better at broadcasting what we’re doing. We should be more effective in giving our members an insight into current and upcoming services, and how they can get the full value of their membership.”

An association exists to serve its members, period. It’s why we exist. That means we have to listen to the voices, ideas and opinions of the people who need us, and turn them into action wherever possible.

DRIVING NEW INITIATIVES

Alesa sees the importance of listening to members and taking action. One great example of this is the QEI program which was triggered by the request of members a couple of years ago. They wanted the NAEC to provide its own QEI program in order to be a one-stop-shop for members. NAEC already had the CET and CAT programs, but wasn’t supporting the Inspector roles. “This project is a good example of something we’ve had a lot of people approach us about, but it’s taken a long time to get off the ground,” Alesa explains. “We’re now ready to roll it out to members this year.”

Alesa has also started hearing requests for lobbying, which is something NAEC has not done before as an organization. “I’m more than happy to support a lobbying initiative and have experience in managing PAC (Political Action Committee) funds. It can most likely be done, if it’s something our members want.”

EXPANDING MEMBERSHIP VALUE

“In one-on-one conversations, it’s very easy to tap into what a member wants and doesn’t want,” Alesa says. “But we need to find better ways to engage with our members as a group, to learn more about what they want us to focus on.”

From left: Shawn Cowden, Åsa Magnusson (Editor of Interlock Magazine), Britnee Irwin, Alesa McArthur, Kathy Bell, Megan Ragan

Alesa believes many members are comfortable sharing ideas and suggestions with her because she is new. “They know I’m not wedded to doing things the way they’ve done in the past, but I’m happy to evaluate what’s working well and what can perhaps be improved,” she says.

Alesa is in favor of making gradual changes over time, guided by member input. “I would love to see the NAEC have both the personnel and the financial resources to continue to increase valuable member services, and we are making some major strides in the right direction. We’re planning to hire two new people in the next few months. One is a remote educator who can go out into the field and increase the number of certified mechanics, and one an educational assistant to help co-ordinate those initiatives.”

WORKING WITH GOVERNMENT BODIES

The NAEC is already doing valuable government work that has not yet been widely communicated, such as working on a safety alliance with OSHA, in partnership with other elevator organizations like NEII, EIWPF, and IUEC. “It’s taken us three years to get here,” Alesa explains, “but we’re now at a point where we’re ready to get it all signed off. This is something that’s taken place behind the scenes, although we do recognize that there is value in keeping members updated on progress for projects like these and in the future we want to improve the way we inform people about ongoing projects.”

In May, the NAEC also started working with the Consumer Product Safety Commission on improving safety for home elevators.

TWO-WAY COMMUNICATIONS

While the organization wants to improve the ways in which they communicate, Alesa also wants to encourage members to be more proactive in how they access information from the NAEC. “We do send out information that sometimes may not get read – or it may not get read by the right people. One key thing we need our members to do is to ensure we have the right contacts. The person in charge of paying the membership may not be the person who needs the information we share.”

INDUSTRY TRENDS AND CHALLENGES

Alesa sees consolidation as a continuing trend throughout the industry that is changing the vendor and partner landscape. While this sometimes makes it complicated to maintain NAEC memberships at the right level, she is dedicated to ensuring each entity still gets access to the right information and member benefits they need.

For members, code updates and changes continue to be a challenge. Whether it’s new ASME standards or alternative codes for older buildings, the NAEC works with members through their Codes and Standards Committee, dealing with the relevant government bodies. This allows them to support their members in navigating the various code issues they face.

“One of the major areas where we want to help members,” Alesa adds, “is finding employees. We recognize it’s not just important to educate existing team members, but actually stimulating new employment and identifying opportunities to hire

While growth is important, our main goal is to offer value to members to help them improve their businesses and be more successful.

young talent. Many of these young kids end up going to college for four years, and then still struggle to get a job with that college degree. What we need to do is to pique the interest of these kids as soon as they graduate from high school and show them that elevator mechanics is a viable and rewarding career. If we can offer them that clear path into a high-demand job, we can perhaps make some progress towards filling this industry skills gap."

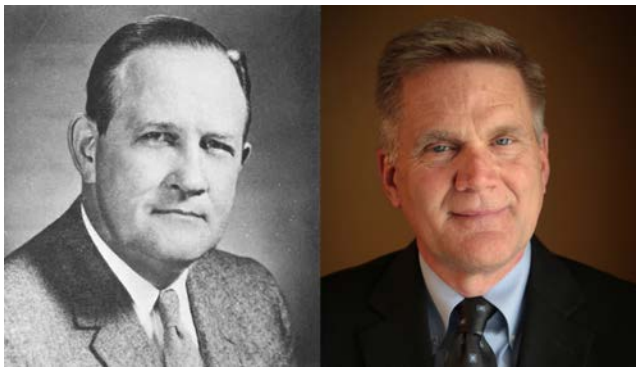
THE FUTURE VISION FOR NAEC

Alesa has a clear future focus on growth for NAEC and wants to significantly increase the membership base. "While growth is important, our main goal is to offer value to members to help them improve their businesses and be more successful," she explains. "And as I call on members, I'm getting lots of ideas as to what matters most to them."

One example Alesa mentions for future-proofing the NAEC is through the the subset of its member community called NexGen. This consists of the future business leaders and influencers in the elevator industry, and it's open to industry professionals under the age of 40. They have their own educational summits and activities, which are both well attended and appreciated. "This is an important group for us," Alesa says. "We want to hear their ideas and input, because they have a different perspective on things like technology, engagement, and company culture. We are an industry that tends to be pretty traditional, and we have a lot to learn from the leaders of tomorrow. We need to stay relevant, and our members help us do that."

The NAEC may be a 70-year old organization, but Alesa certainly doesn't feel a weight on her shoulders. "There is plenty of good work to be done, but I am confident we can take this organization to the next level," she says. "I know what the framework of a great organization looks like, and I'm here to help the process of constant improvement – together with our members."

The very first NAEC Director's Convention, Jefferson Hotel, St. Louis, 1952



The first NAEC President James W Bryce of Bryce Elevator Company, and the current one, Gary Schuette of Midwest Elevator Company

THE 9 ELEVATOR SAFETY ABSOLUTES

BEST PRACTICES FOR MAXIMIZING SAFETY AND PREVENTING INJURIES

Injury and risk prevention sit at the very heart of elevator installation and maintenance. The cost of having the safety essentials in place is negligible in comparison to the cost of human life and health, which is why safety thinking needs to be ingrained in the very processes and operation of any elevator business. This list of safety absolutes, issued by the National Elevator Industry Inc., is the fundamental checklist for field staff to incorporate in their regular routine.

CAR TOP ACCESS

- Always maintain control of car
- Use door lock and stopper correctly
- Verify door safety and all switches independently
- Ensure stop switches are activated when exiting car top
- Secure the working area

FALSE CARS AND RUNNING PLATFORMS

- Perform inspection of equipment prior to use
- Operate with at least two means of safety
- Always assemble/ disassemble at the lowest landing
- Do not overload
- Install a protective barrier between cars

HOISTING AND RIGGING

- Ensure hoisting and rigging plan is in place
- Know the weight of the load and that equipment is rated appropriately
- Do not stand or walk under hoisted load
- Use certified equipment and inspect before each use
- Ensure load will clear all obstructions

PIT ACCESS

- Always maintain control of car
- Use door lock and stopper correctly
- Activate and verify pit stop switch
- Use ladder safely
- Turn on pit light
- Deactivate stop switch after exiting
- Secure the working area

MECHANICAL STORED ENERGY

- Bring equipment to zero energy state
- Avoid pinch points
- Do not wear loose clothing and be careful when wearing gloves
- Ensure all loads are stable and secure
- Do not put yourself in the line of fire

FALL PROTECTION

- Always wear proper personal protective equipment and tie off when a fall hazard exists
- Inspect your fall protection system every time
- Be aware of your surroundings
- Ensure proper guardrails are used

JUMPERS

- Do not install jumpers on the safety circuit when elevator is on automatic operation
- Only use company approved jumpers and inspect prior to use
- Account for all jumpers at all times
- Always notify co-workers jumpers are being used
- Use a jumper tag
- Understand how your jumpers will affect the entire system

ELECTRICAL SAFE WORK PRACTICES

- Lock out and tag out if power is not required
- Test meter on a known source before use
- Probe with one hand to verify circuits
- Use certified tools
- Inspect before each use and prevent incidental contact
- Always protect high voltage exposed live circuits

LOCK OUT / TAG OUT

- Ensure there are no passengers and cab is secure
- Lock out and tag out (LOTO) if power is not required
- Follow company LOTO procedures
- Verify the correct system has been de-energized
- Follow electrical safe work practices

THE UNEXPECTED RISE OF HYDRAULIC ELEVATORS

HOW THE CONTINUED HYDRAULIC DEMAND PROVED THE EXPERTS WRONG

BY EMERY THRAN

When North America saw the introduction of next-generation traction MRL technology in 1998, it quickly led to a battle of marketing messages. Vendors were trying to displace one technology for another with discussion points like contamination potential, energy efficiency, and footprint considerations. But how do these issues actually stack up today?

THE PREDICTED END OF HYDRAULIC ELEVATORS

Hydraulic elevator technology experienced a surge of interest in the late 90s, only to be heavily disputed by defenders of new traction elevator systems who predicted the imminent death of hydraulics. However, hydraulic elevators are still alive and well today, 20 years later. Sales records are still being set, and many vendors are increasing production.

What we're seeing is a continuous, strong demand for a reduced total cost of ownership, especially when it comes to 2 – 4 stop elevators – which was the original sweet spot for hydraulic systems. Over the years, we have become used to considering costs relating to installation, maintenance and repair, as well as change requirements driven by codes and regulations. These factors have played a key part in the growth of the hydraulic market – and continue to do so.

In this article, we're taking a closer look at the main discussion points around hydraulic vs MRL traction elevators.

ISSUE 1 OIL CONTAMINATION

The first risk factor identified by opponents of hydraulic elevators was that of oil contamination. Prior to the current code requirements, the risk of oil-to-ground or oil-to-water contamination was a real risk. Today, however, a great deal of environmentally protective and preventative work has been done to mitigate this risk. Oil containment has been addressed for new and existing installations thanks to a number of voluntary and other code mandated initiatives such as replacing single bottom jacks with double bottoms, adding domed pressure caps, anti-corrosive protection and/or PVC containment well-hole liners, leak detection systems and evacuation methods.

Advanced equipment

In the early 2000s we started seeing a rapid increase in holeless hydraulic applications for new construction, which provided exposed and visible cylinder systems while also eliminating the potential for cylinder-to-earth contact. Additional methods for responsible hydraulic oil management include simple yet effective products such as cylinder head drip rings, catch pans, scavenger pumps, and return lines.

Oil choice

As for the oil itself, there is also the choice of regular, petroleum-based oil or biodegradable, vegetable-based oil to consider. Since the U.S. Green Building Council (USGBC) has recognized biodegradable, non-toxic hydraulic oil to be LEED point worthy, we now know that this can play a key part in the sustainability of a building. Choosing the proper oil for the conditions can also help prolong the life of the oil as well as the hydraulic components. But regardless of the choice of oil, it's crucial to maintain the quality of that oil over time. Dirty oil is often the root cause of accelerated component degradation or failures in hydraulic elevator systems, which should drive us to put more focus on advanced testing, external filtration and reconditioning of the oil. It doesn't just provide economic benefits, but environmental ones too.

It's safe to say that with the use of responsible hydraulic construction and oil management methods, the contamination risks are largely mitigated.

ISSUE 2 ENERGY EFFICIENCY

The next main discussion point around hydraulic elevators has been that of energy efficiency compared to traction MRL products.

The solid state starter

Over the past 20 years, various hydraulic elevator component suppliers have developed technologies to greatly improve energy efficiency. One example is that of the solid state starter, which brought many benefits compared to the mechanical starter. It offered built-in phase protection, less instantaneous starting current, fewer power surges, less maintenance, no contacts to check or change, and an increased pump motor life. Despite these advantages, it was considered by many to be too expensive and it wasn't until the price point decreased by 50-70% that it started gaining popularity in the market. Today, the use of solid state starters has eclipsed mechanical starters.

Valve adjustment

In order to provide the best efficiency and prevent excess heat from being generated, it's critical that the valve is adjusted correctly. Improper adjustment can lead to additional power consumption and heat generation as oil is bypassed back to the oil reservoir during acceleration, deceleration and leveling. It's also important to adjust the speed control to avoid long slowdown. Leveling timeframes are critical for getting the most from the system. As tooling and

software have become more advanced and valve adjustment has been simplified, we've started seeing an improvement of bypass time – which saves on power consumption and reduces heat.

Oil temperature

As oil viscosity changes, the rate of oil flow in the pilot valves and the main valves also changes. When the temperature rises the viscosity drops and the oil flows with greater ease. This viscosity change can lead to speed control changes causing the elevator to level faster or overshoot the floor, requiring the car to relevel.

There are oil heaters as well as coolers available to control the oil temperature and allow for a more consistent and efficient operation, using fixed or adjustable thermostats. By maintaining an acceptable oil temperature before the elevator begins to generate its own heat, it is possible to control the oil flow more precisely. This prevents longer run times and offers a better ride quality.

Placing oil coolers within the machine room itself helps to exchange the heat in the oil into the machine room space, but this installation method relies on the ventilation or HVAC system being able to exchange the heat for cooler, conditioned air. With increased natural heat loads during summer months along with higher oil temperatures, it can prove difficult for the HVAC system to keep up. Installing the heat exchanger in a remote location rather than in the elevator machine room can be a great solution for reducing temperature and air handling requirements.

It is critical to know the oil specifications your hydraulic elevator has been designed for and control the upper limit temperature for optimal performance, power consumption and oil longevity. ISO 32 is the most typical hydraulic oil specification used in the elevator industry with an upper temperature threshold of 140 degrees Fahrenheit. If the oil temperature rises above this level, oil breakdown begins to occur. After that, the oil integrity degrades by 50% for every 18° Fahrenheit increase. Once the oil temperature exceeds 165° Fahrenheit, permanent damage to the oil occurs and leads to the often associated "hydraulic elevator odor." At 180° Fahrenheit, most packing manufacturers' compounds suffer permanent damage.

Most hydraulic applications are designed to rely on heat dissipation through natural ventilation and thermal conductivity. But if the oil temperature reaches the ambient temperature of the machine room and drops below 100° Fahrenheit, the viscosity can increase to the point where is causes rough starting, ride pulsation and leveling problems. This is why it is important to meet or exceed the pump unit manufacturer's minimum clearance to the back of the tank, based on their planned natural thermal transfer.

Many elevator consultant specifications now require higher percentages (25% - 50%) more oil volume than necessary to operate a hydraulic elevator, to allow for greater heat dissipation. But in some cases, this also requires a larger tank – which may not be feasible, considering existing clearances.

ISSUE 3 PHYSICAL HOISTWAY SIZE

As the traction MRL applications began to be marketed as an "all inclusive" low-rise through mid-rise approach, the hydraulic sector was highlighting energy considerations and addressing oil contamination concerns. However, there was a third discussion point: the physical size.

New motor designs

In the late 90s, fitting a traction elevator in a hydraulic elevator hoistway seemed unthinkable – until it happened. As traction MRL technology advanced, the use of rare earth elements such as Neodymium reshaped the elevator industry, one hoistway at a time. It made for motor efficiencies and design criteria never seen before. Suddenly we were able to build machines in shapes and sizes that fit in hoistway overhead spaces, often allowing for code minimum clearances. This meant that you could have a traction elevator fit within a hydraulic elevator footprint.

Sustainability

There is however a sustainability question when it comes to Neodymium. In 2018 this element was over demand by 3,000 tons, and more than 85% of it was produced in China. In 2017, China mined 105,000 metric tons of rare earth metals, while the U.S. only produced 43,000 metric tons in the last 20 years combined.

While we need to diversify our Neodymium supply in order to keep up with demand, there are also environmental considerations to bear in mind. Large amounts of material need to be mined in order to extract Neodymium, which impacts the landscape. This also unearths other elements such as uranium, which become the biproduct of progress. These large-scale operations require open-pit mining, or in some cases hydraulic pressure strip mining, which can cause erosion and sediment impact.

The environmental contrast

With the environmental impact of rare earth magnet mining, the use of a well-built, reusable hydraulic tank and easily replaceable pumps, motors and valves can start to look more attractive. As an industry, we need to take a step back and consider the future of technological development. If rare earth elements demand outpaces supply (as projected), how will that affect the elevator industry? This could further establish the revitalized hydraulic sector, but may also start to impact mid-rise applications as a whole.

THE FUTURE OF HYDRAULIC ELEVATORS

With architects, end-users and elevator consultants now having 20 years of traction MRL cost-realization spanning from installation-related costs, operating cost, continuing maintenance contract costs and repair costs, it seems that we have gone in a giant circle only to realize that there is a redefined market segment that has withstood a great deal of scrutiny; the hydraulic sector.

Hydraulic growth

The 2 – 4 stop market segment demands simplicity, dependability and reasonable pricing. There are good indicators that we have put many of the discussion points in this article behind us, and that the hydraulic market is alive and well. We're seeing how hydraulic elevator manufacturers are setting record shipment years, are having to extend lead-times, and making expansion plans. There are even some companies re-entering the hydraulic market segment after having once written it off.

So – where will the hydraulic industry go from here? Will we be investing in electronic valves, further control advancements, and variable frequency drive technology? Or will the demand for low-cost simple solutions outweigh technology advancements?

Considering external impact

In all cases, we need to evaluate not just the final product cost but the environmental impact of raw material extraction, transportation, manufacturing, installing, servicing, modernizing and end of life disposal or recycling. While we all want to ensure we're in the green, we should all bear these different aspects in mind.

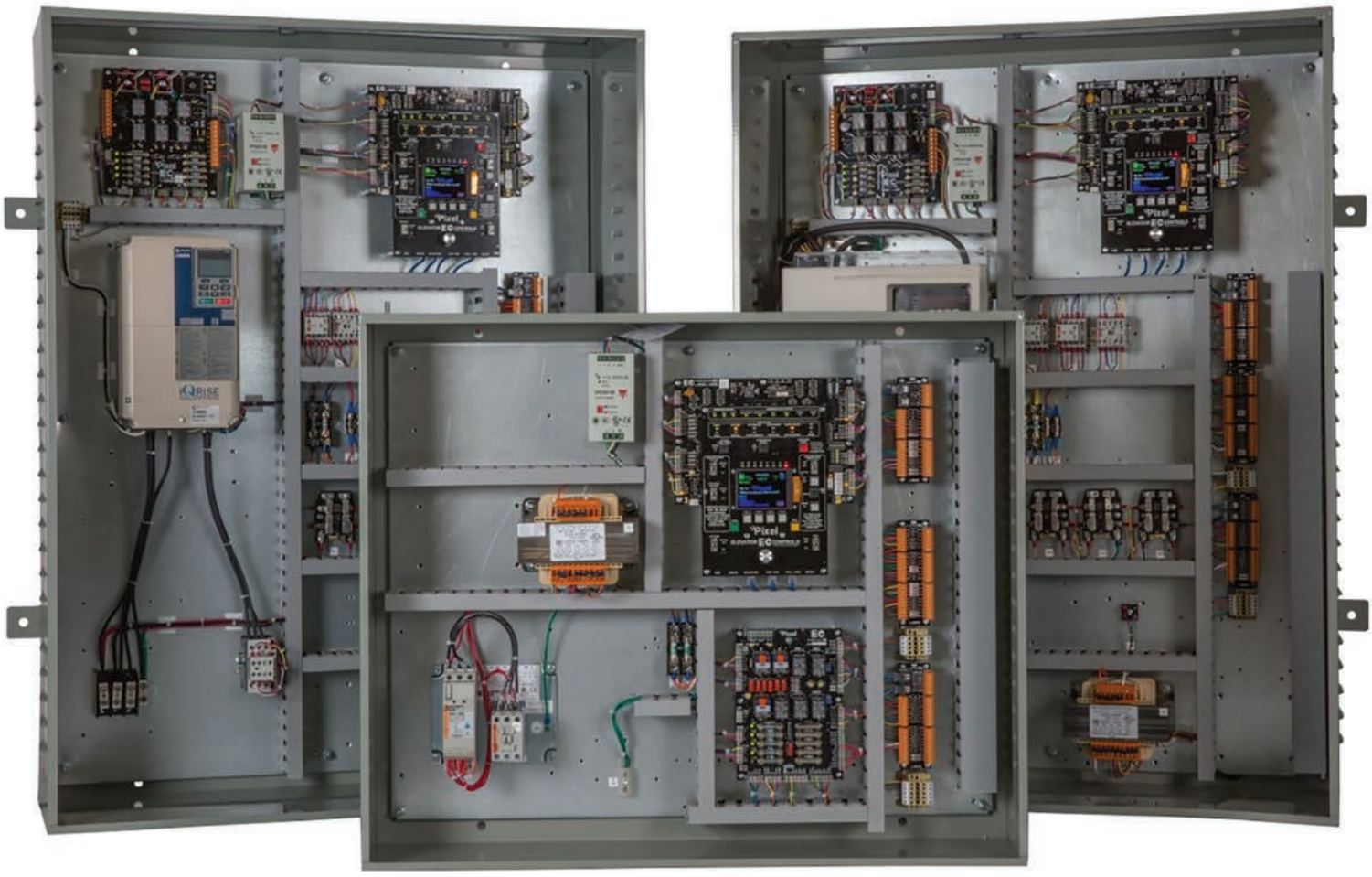
Most specialists and experts agree that a new hydraulic installation has plenty of green features. Meanwhile, existing hydraulic elevators are mandated to be brought up to a greener standard. For both scenarios, the price point and the desire for simplicity remain key considerations for modernization as well as new construction. The right elevator choice for the right project will prevail.

Adaptability is key

The hydraulic market segment has undergone many changes and adaptations over these past 20 years, making it a hugely popular solution for both cost-efficiency and sustainability. However, with the world demand of rare earth elements increasing rapidly, we must ask ourselves if the world of non-hydraulic MRL elevators will be able to adapt and adjust as well as the hydraulic market segment has had to do.

Emery Thran is a Special Projects Manager at Vantage Elevator Solutions. With a background in the construction industry, his professional elevator career spans 24 years and includes extensive experience in traction, hydraulic and finishes in both the modernization and new construction sectors.

THE PIXEL-PERFECT CONTROL SYSTEM



When a company has a name like Elevator Controls, there can be little room for doubt about where their specialisms sit. Since 1986, this business has served its customers with a laser-focused approach to products, solutions and unwavering customer care.

A STRATEGIC VANTAGE BUSINESS

For the past 33 years, Elevator Controls Corporation has been a trusted manufacturer of non-proprietary, microprocessor-based elevator controllers. When the business was incorporated into the Vantage group in 2018, it further became firmly established as a key supplier of control systems to the elevator industry – especially with the increased representation of the regional Vantage Service Centers located throughout North America.

The mission for Elevator Controls is to engineer vertically integrated equipment that is **simple, solid** and **supportable** for customers to install, adjust and maintain.

CUSTOMER CARE WITH A DIFFERENCE

In this era of fast-moving transactions, Elevator Controls has always strived to move towards quality-centric customer care and support. Quality improvement efforts and measurements sit at the core of the business, thanks to a commitment to zero defects through every employee and every process. All production units undergo rigorous testing before leaving the factory, and all results are analyzed to confirm that they meet the company's exacting quality standards.

THE 'PIXEL' REVOLUTION

In 2012, Elevator Controls launched its Pixel Control System as a complete elevator control management platform for easy installation, adjustment and troubleshooting. It was developed with the user firmly in mind, providing a highly sophisticated design that supports a wide variety of applications, device interfaces, and features.

Once launched, Pixel quickly proved itself as a dependable, premium control system for the most complex of building applications. Configuration and adjustments were now made through the same interface in all instances, which meant that every application offered a simple, consistent user experience.

SYSTEM COMPONENTS

The complete Pixel System features identical control interfaces located within the car controller, top of car control, and main car operating panel. This allows the user to quickly make operational parameter adjustments from any of these three locations.

The system also incorporates the time-proven Landa™ positioning system, which provides Pixel with an absolute position resolution of 0.8mm (about 1/32 of an inch). This reduces the need for adjustment, as the user always knows the position of the elevator without the need for additional hardware for door zone targets, slowdown switches, access limits, and more.

Another system component is the Pixel Traveling Cable, a custom-labeled cable that simplifies installation, saving time and reducing maintenance costs by preventing expensive installation errors.

In addition, Elevator Controls offers WebInteract, which is an interactive monitoring system that provides simultaneous display of multiple elevator systems on a single screen, with intuitive point-and-click interaction and menu-driven navigation.

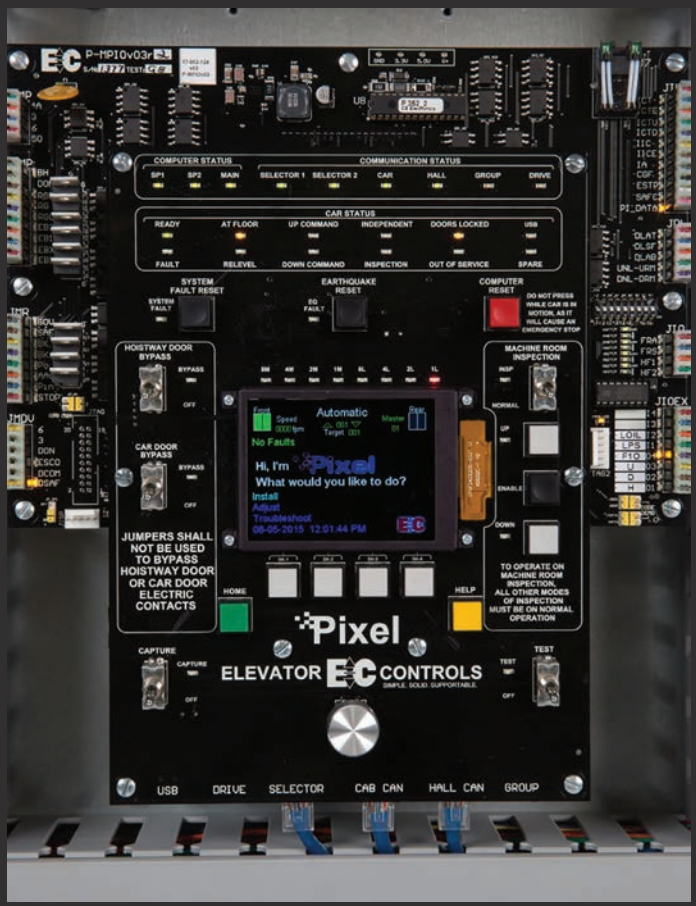
These building blocks enable you to build a comprehensive elevator package that integrates Pixel into all hydraulic, traction, and machine room-less

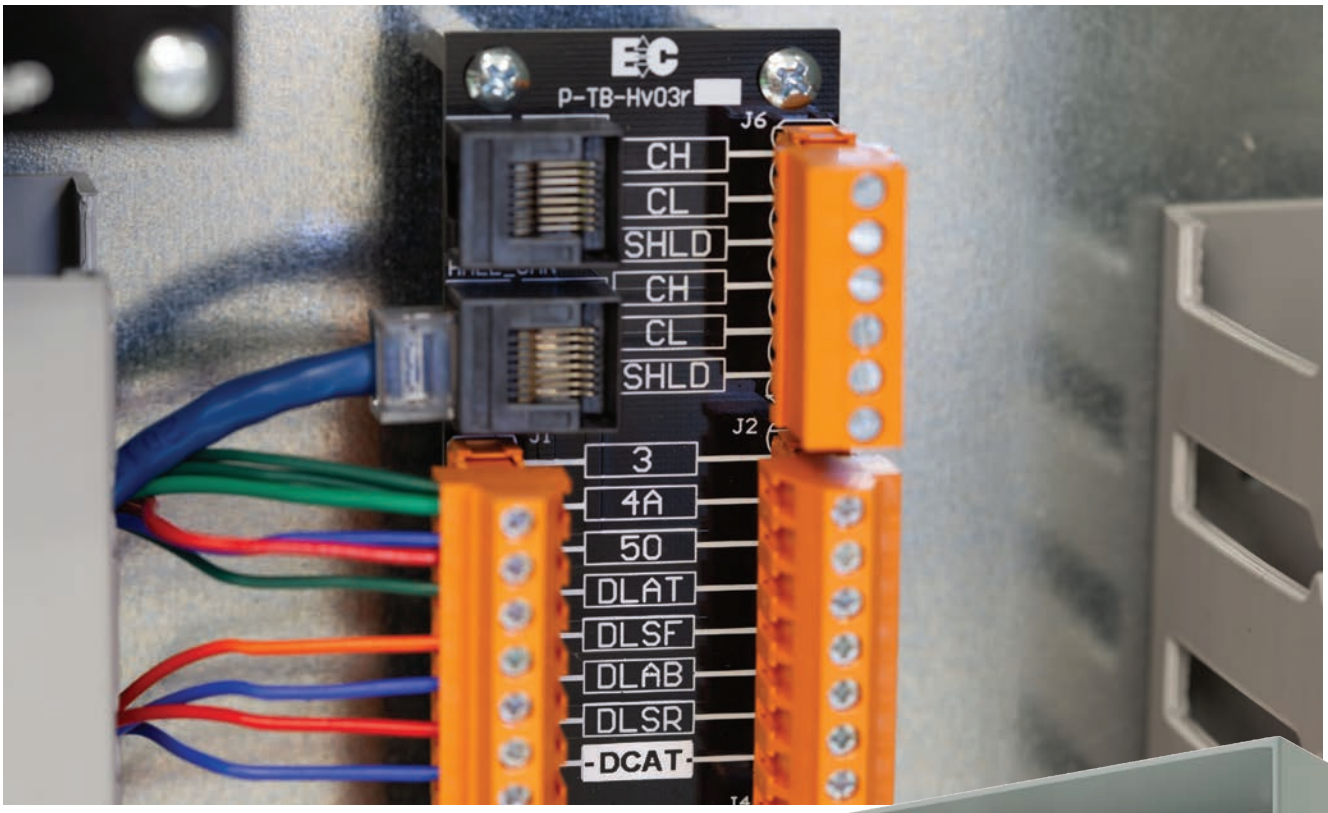
KEY BENEFITS OF THE PIXEL CONTROL SYSTEM

Cost and Quality:
The Pixel system form factor is similar for all types of applications. This allows for repeatability in manufacturing, which in turn enhances build quality and efficiency while helping to keep controller pricing low.

Efficiency and Speed:
With Pixel, the user can troubleshoot and adjust the control system from any of the three points of access, without having to go to the machine room. This leads to improved user efficiency, installation speed, and ultimately higher profitability.

Service and Support:
The system dramatically minimizes the cost of support and spare parts supply. Even if your service portfolio features many different types of Pixel controllers, a small collection of components will support them all.

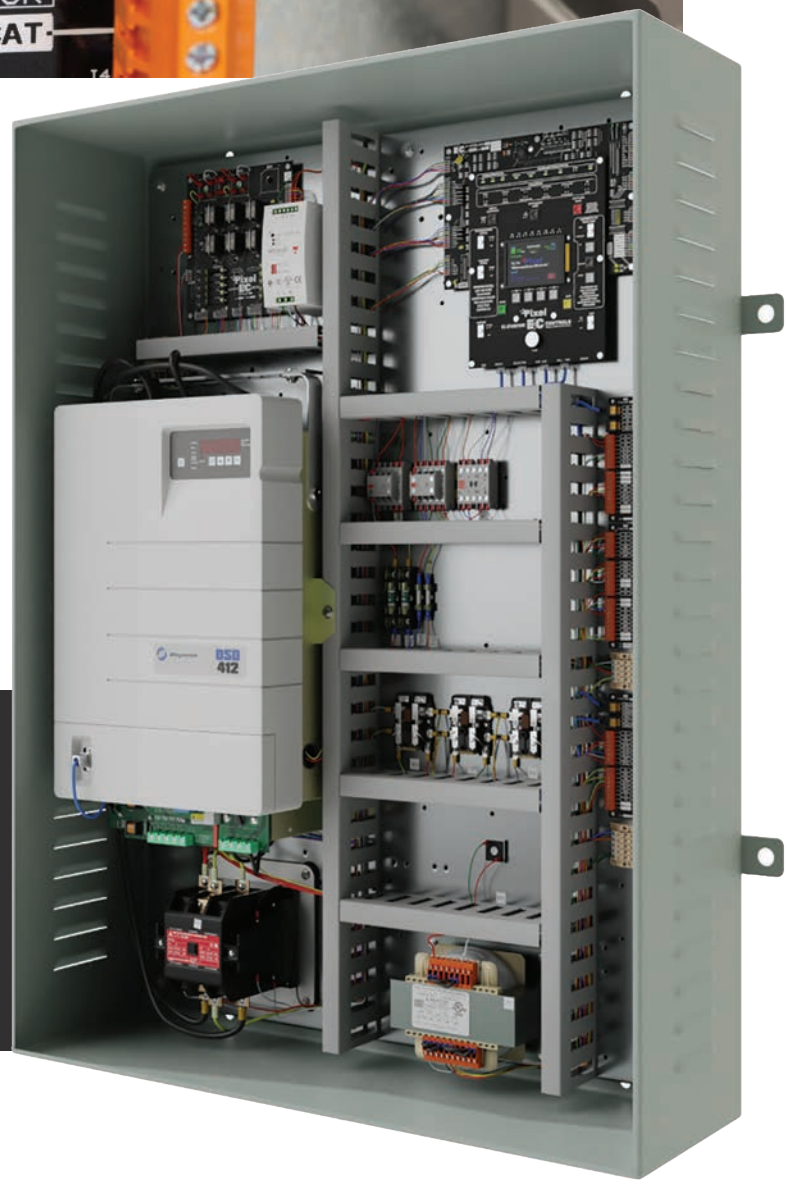




(MRL) elevator applications – offering the same, simple user experience across the board.

SERVING THE WORLD FROM THE WEST COAST AND BEYOND

Elevator Controls is headquartered in Sacramento, CA, where the business is managed by Fernando Ortiz, President, and Francisco Ortiz, VP of Product Engineering and Support. While a key member of the Vantage family of companies, Elevator Controls provide all their own technical support, on-site training and field engineering assistance with regional support from Vantage Regional Service Centers – not just for the West Coast but across the United States and internationally.



WANT TO DISCUSS A PROJECT?
GET IN TOUCH TODAY!

Steve Randall, *Director of Sales*
Elevator Controls
6150 Warehouse Way
Sacramento, CA 95826
Phone: 800-829-8106
elevatorcontrols.com

A "vertically integrated" Pixel Control System saves time, money and eliminates errors.

Pixel Control Systems— deliver maximum efficiency during installation and maintenance.

A **Pixel Control System** provides you with a unique ***"vertically integrated"*** system of components that are engineered to work as a team. That saves you massive man-hours on the job, and greatly reduces the chance for costly installation errors and expensive maintenance problems later on.

A **Pixel Control System** provides — ***Software, Hardware, Mounting Kits, Prewired TOC Box Inspection Station, CAN-bus Serial Hall Call/Lantern CAT5 Wiring Kit, Landa™ Absolute Positioning System, Labeled TOC-COP Harness and Optional Custom Labeled Traveling Cable***.. Everything is systematically organized in boxes, promoting easy, fast assembly, and eliminating confusion.

Available for Traction AC, DC and Hydraulic Elevators, our system maximizes efficiency during installation and maintenance.

Why work harder when you could be working smarter? Pixel's ***"vertical integration"*** system offers just what you need to do the job faster, so you can save money now!

Pixel® Control System benefits

- **Offers three points of system access: Machine Room, TOC and COP so tasks can be completed safely and quickly.**
- **Friendly, intuitive User Interface means it's easy to navigate with no additional tools needed.**
- **Labeled TOC-COP Harness saves time and prevents wiring errors.**

ELEVATOR CONTROLS

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THE DIARY OF A FIELD SERVICE ENGINEER

The Vantage Southeast office and training center

Few roles in the elevator industry are as diverse and demanding as that of a Field Service Engineer (FSE). Always standing by to help customers with the big and the small issues, an FSE needs to be a person who is just as skilled on the installation site as in the training room. But this range of tasks and challenges is often what attracts people to the job, as no day is ever the same as the last. That's certainly the case for José Rios, Field Service Engineer for Vantage in the Southeast. Interlock Magazine got an exclusive insight into a typical week and all the things that José is faced with on a daily basis.

Monday

It's the start of another beautiful, sunny week here in Miami Gardens and I'm one of the first people to arrive at the office on NW 15th Avenue. After making myself a strong coffee, it's time to get to work, picking up some of the most urgent issues from last week. (Monday is always my busiest day!)

Just before lunch, I manage to catch a few minutes with Dan Baltzegar, our Regional VP, and David Tejera, the Customer Service Associate, to discuss a few jobs that are coming up. Dan mentions a new customer in Fort Lauderdale who needs some support with a controller adjustment. I decide to get my van set up and head off to see the customer – and hopefully grab a sandwich on the way.

On site, I take a look at the controller situation. It's a simple enough adjustment, but I also take the opportunity to use it to do some on-the-job training. I get the foreman to pull aside three of his mechanics and I show them exactly what I'm doing. They will then be able to do basic adjustments like this one on their own in the future.

Back at the office I spend what's left of the afternoon in the warehouse preparing orders, which isn't necessarily my favourite thing, but hey – it needs to get done! I'm sure the rest of the week will bring plenty more interesting challenges...

Tuesday

Today is training day here in the Vantage classroom. A Miami customer is doing a first-time install at a downtown business center and have brought their entire team of eight mechanics in for a half-day training session. It's always interesting to meet customers and talk to them about their installation and how to get the maximum value out of their equipment and performance. Today we're running through all the practical, hands-on information they need to install and maintain a set of hydraulic elevators with Bore-Max pump units.

Many of the customers I do training for are people who don't necessarily know about all the products from across the Vantage group of companies, that we can offer directly from our warehouse here in Florida. That's why I always like to take the opportunity to show them around the facilities, so they get an overview of what we have readily available in stock.

Customer training in progress

Wednesday

Sometimes the job requires me to do a day trip, and today is one of those days. I'm heading over to the west coast to do some troubleshooting at a modernization project. This is actually my favorite part of the job – being on-site with the customer, doing the detective work to figure out what's wrong, and getting the issues fixed. I was a field mechanic for many years, and being out on a job like this reminds me of those days. I love a challenge!

When I arrive, I'm able to assess the fault and it turns out to be a CPU board that has been water damaged. This means I need to make sure to save all the existing parameters so they can be used to re-program the replacement board. Once that's been completed, I spend some time with the site team to carry out all the necessary safety tests and inspections to ensure everything is working properly.

A tidy warehouse makes it easy to find the right spare parts

On the way back to the office in the late afternoon I manage to stop in and see a customer near Kendall and deliver a couple of spare parts. This quickly turns into another education opportunity as I get to show them a few installation tips. It's definitely worth the extra time doing things like that, because making the customer's life easier makes my life easier too!

Showing a renovation project to Vantage CEO Ron Cauchi

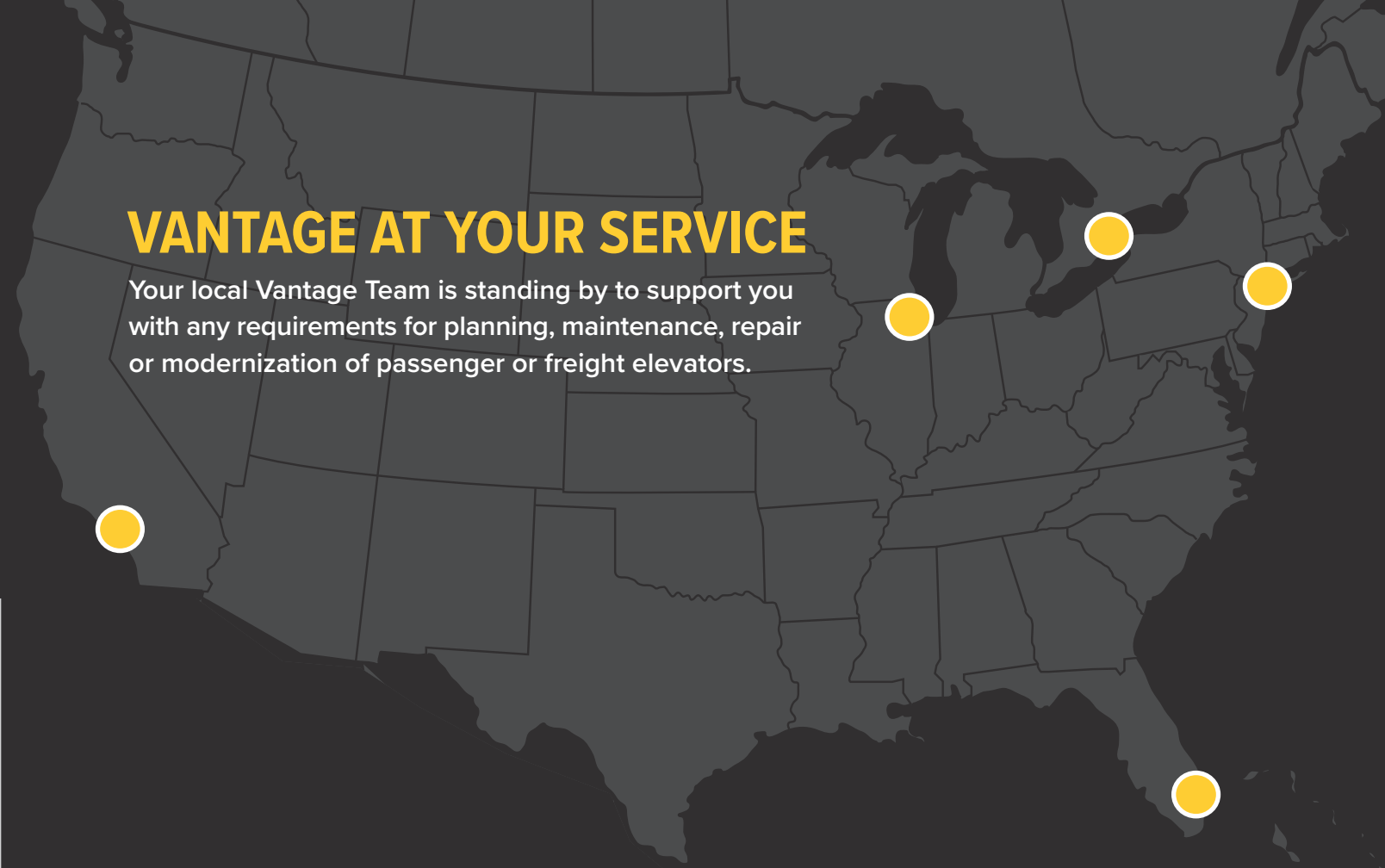
Thursday

Today I'm spending some time taking calls for tech support. I often do this when I'm not out on jobs or busy preparing orders. This can be pretty interesting, as you get to deal with a lot of different issues and problems, and it's always great to be able to help customers with an urgent issue. But this can also be an opportunity for me to learn something new. Now and then you're faced with a weird issue you've never seen before, and it can take some digging around to figure out the root of the problem. But between me and my colleagues from the Vantage group, we're always able to find a way forward for the customer.

Friday

It's the last day of the working week. (Hooray!) The weather report promises plenty of sunshine for the weekend ahead, and I'm looking forward to doing some scuba diving with bull sharks off Jupiter Beach. But first, I am heading out to a renovation job in Miami Beach. Today we have Ron Cauchi, CEO of Vantage, visiting along with Bob Jackson, our VP of Sales, and I get to walk them through the project and show some of the work we're doing. This is a project where a regional contractor is installing three traction elevators at a 10-story hotel, and it includes GAL controllers, door equipment, platform and slings, and Hollister-Whitney machines. The renovation work is expected to be completed in December, but I have a feeling the time will pass very quickly!

As the afternoon comes to an end, I wrap up the week with Dan and the rest of the team, making sure there's nothing urgent outstanding that needs to be looked at. And when I drive up onto the I-95 Expressway heading home to Hallandale Beach for some much-needed relaxation, I'm actually already looking forward to what next week brings.



VANTAGE AT YOUR SERVICE

Your local Vantage Team is standing by to support you with any requirements for planning, maintenance, repair or modernization of passenger or freight elevators.

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6150 Warehouse Way
Scaramento, California
(916) 428-1708
elevatorcontrols.com

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HOLLISTER-WHITNEY ELEVATOR CO.
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hollisterwhitney.com

Naturally our five Service Centers offer warehouses fully stocked with **GAL, GAL Canada, Hollister-Whitney, Courion, Bore-Max and Elevator Controls** components, but each Vantage family member can also quickly assist to provide you with the product and expertise you need. All you have to do is call and products can be shipped and delivered to you on-site where and when you need them. That means big savings in time, cost, and a degree of convenience that sets us apart from the rest. Rest assured though, we're still working on ways to make your job even easier. Perhaps one day in the future we'll make the scene above a reality. Until then, we'll keep our feet on the ground and you'll have to be satisfied with the next best thing.

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