

# ***Evolving Trailer Technology***



V19 • 3



**Designed for the  
thousands of miles ahead of it.  
Guaranteed by the  
century of experience behind it.**

# calendar of events

## JANUARY

22-25

Heavy Duty Aftermarket Week, Las Vegas, NV

## MARCH

5-8

TMC – ATA's Technology & Maintenance Council  
Annual Meeting & Transportation Exhibition,  
Atlanta, GA

6-9

NTEA – The Work Truck Show, Indianapolis, IN

25-28

Truckload Carriers Association Annual  
Convention, Kissimmee, FL

27-29

PepsiCo Fleet Training Summit & Tradeshow,  
Dallas, TX

## APRIL

11-18

TRALA Annual Meeting, Scottsdale, AZ

18-19

Home Delivery WORLD, Atlanta, GA

18-21

TTMA, Santa Ana Pueblo, NM

29-May 1

NPTC – National Private Truck Council,  
Cincinnati, OH

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## Committed to Moving Goods Safely and More Efficiently

Dear Customer,

From autonomous trucks to platooning to all-electric vehicles, the transportation industry is rapidly changing. As an industry leader in the development of technology-based solutions, Great Dane uses technology to design new products to help its customers move goods in safer, more efficient ways and to help the industry continue to move forward. In this issue of *Evolving Trailer Technology*, read about some of the ways Great Dane is using technology to contribute to the advancement of the transportation industry.

Great Dane is proud to sponsor and participate in industry events where industry leaders come together to exchange ideas and innovate new solutions. For example, Great Dane sponsored the first Run on Less cross-country roadshow, which showcased advancements in freight efficiency. Great Dane fleet customer Mesilla Valley Transportation (MVT) participated in the event and achieved exceptional results, including an 11.08 MPG average due, in part, to strategic spec'ing on its Great Dane Champion dry vans. Great Dane also provided a judge and six trailers to the IFDA Truck Driving Championship and battled Hurricane Irma to bring eight 53-foot dry vans to the TMC Technical Skills Competition in Orlando. Read more about the company's participation in these events and MVT's Run on Less results on page four.

Fighting corrosion, protecting refrigerated trailers from moisture intrusion and preventing bacterial growth are a few of the common customer issues that Great Dane is using technology to combat. As the harsh winter weather approaches, Great Dane is offering some tips in this issue for protecting your trailers from the threat of corrosion, preventing moisture intrusion and absorption, and fighting bacteria and contamination in both our trailers and in our refrigerated truck bodies for last mile deliveries.

Speaking of last mile deliveries, the Great Dane Truck Bodies team has helped develop a new refrigeration system that uses two forms of energy storage: cold plates and a unique, lightweight, high-capacity auxiliary battery system. Charged using a combination of solar and utility power, the auxiliary battery requires no diesel power.

Finally, read about how Great Dane works with two of its customers to custom-design equipment to meet their needs. Penske and its partner Fabri-Kal work closely with their Great Dane design team to custom spec equipment that is durable and incorporates cost-saving trailer technology. Mark Vend Co. works with its Great Dane Truck Bodies team to design truck bodies that feature the temperature compartments and refrigeration systems the company needs to meet the demands of its micro market services.

The technological advancements the industry is seeing are fascinating and there is no end in sight. Great Dane will stay on the forefront of this revolution and continue to bring you the innovative solutions you've come to expect.

Best regards,

Brandie M. Fuller  
Vice President, Marketing  
Great Dane





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*Evolving Trailer Technology is published by Great Dane. For additional copies or questions about this publication, contact [ett@greatdane.com](mailto:ett@greatdane.com).*

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 **RUN ON LESS**


## There's Only Forward

*Mesilla Valley Transportation achieves goal-shattering fuel efficiency*

A 10-MPG average truck. Five years ago, that was a seemingly far-flung, futuristic idea. Today, a demonstration fleet of seven truck-trailers utilizing real-world specs and tackling real-world applications achieved a 10.1 MPG average during the North American Council for Freight Efficiency's (NACFE) Run on Less cross-country road show. The seven participating trucks drove a combined 50,107 miles during the 17-day event, which kicked off on September 6 and ended September 24 at the North American Commercial Vehicle Show (NACV Show).

While all seven trucks exceeded the goal of a 9 MPG average during the event, Mesilla Valley Transportation (MVT), a leader in the chase for the greatest fuel efficiency possible, pulled away from the pack with an 11.08 MPG average, reported Royal Jones, president and chief executive officer of MVT. The truck and trailer combinations

that achieved that MPG were a standard spec for MVT—an International LT Series with a Cummins X15 Efficiency Series engine coupled to Great Dane trailers, most fitted with skirts, tails, and wide-base super-single tires.

If achieving a mind-bending fuel efficiency average wasn't enough, the trucks in Run on Less were also impacted by hurricanes Harvey and Irma, facing a 6.8 MPH average headwind to a 7.6 MPH tailwind, according to OpenWeatherMap.org. That didn't stop MVT from running efficiently to get the job done.

"The truck started in Miami with a 45,000-pound load headed to Atlanta on an old trailer that had eight tires and no rear tail fairing. It was a 2003 model year trailer that we hadn't seen in years," Jones recounted, noting that every trailer MVT owns is model year 2004 and newer with wide-base super-single tires. "Our two team drivers then

picked up another heavy load in Atlanta on a newer trailer and brought it to El Paso. Then they worked a regular run to St. Louis and back to El Paso. We ran twice the miles of any other company on this deal and had more weight and more elevation change than anyone else."

After laying a fuel-efficient foundation through the right combination of equipment specs, Jones noted that the drivers played a big role in achieving 11 MPG, which is higher than the MVT fleet average of 9 MPG (still a lofty achievement). For MVT, this is only a continuation of the company's pursuit of efficiency.

"We are working daily on trying new things and testing weekly with MVT Solutions to find ways to make us better and lessen our carbon footprint and lessen our need for foreign oil," Jones said. 🇺🇸

## #StaySocial

*Great Dane likes to stay connected*

As a trailer manufacturer, Great Dane is always on the move. Luckily, communication today is as mobile as a Great Dane trailer, making it easier than ever to keep up on all of Great Dane's latest and greatest through your social media channel of choice. From LinkedIn and Facebook to Twitter and Instagram, Great Dane shares pictures, videos and more through social media. Be sure to search #GreatDaneDriven and follow, like and link up with Great Dane.



If you would like to submit a story to our communications team for social, please send it to [stories@greatdane.com](mailto:stories@greatdane.com). 🇺🇸

**We want to share your news too! For the greatest impact, it is helpful for each story to include:**

- a photo
- names of those pictured
- a snippet about the event, customer or partner to tag, if applicable.

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# Challenge Accepted

## *Great Dane delivers on its commitments despite historic weather challenges*

A 10-foot storm surge in the Florida Keys. A 7-foot storm surge in Naples, Florida. When Hurricane Irma made landfall in mid-September, it was labeled a Category 4 – the first storm that size to hit Florida since 2004. More than 200 miles north in Orlando, Florida, two premiere skills challenges were scheduled to take place – the American Trucking Associations' (ATA) Technology and Maintenance Council's (TMC) SuperTech National Technicians Skills Competition and the International Foodservice Distributors Association's (IFDA) Truck Driving Championship. However, the storm had disrupted transportation logistics putting in question the availability of trucks and trailers for the events.

But the hurricane couldn't stop Great Dane from delivering on its trailer commitments.

For the TMC SuperTech program, eight 53-foot dry vans that were to be used in the competition were in Tampa, Florida, to be cleaned and prepped for the event, but they were stalled by the storm. Walmart arranged to transport the trailers to Orlando, where Tony Neven, Great Dane Aftermarket Service manager, and Jim Wyman of Central Valley Trailer Repair in Fresno, California, washed the trailers by hand. For the IFDA Truck Driving Championship, members of the distributor planning committee with CDLs hit the road to bring three 48-foot trailers up from Tampa.

The effort was more than worth it when the equipment began to roll in to Orlando. This year's TMC SuperTech program featured a new schedule that included a written test, a series of qualifying rounds, a separate track for trailer technicians, and the final Hands-On Skills Challenge. Neven had helped develop the test curriculum and also chaired the alignment station alongside Steve McDonald from Hutchens Industries. Tim Montes from Eight Point Trailer in Fontana, California, Jim Wyman from Central Valley Trailer Repair in Fresno and Colin Duncan from the Great Dane Training department served as judges.



TMC SuperTech



TMC Trailer Track Winner, Darrell Duggan, Walmart Tech



TMC SuperTech

## *IFDA Truck Driving Championship*

In the end, Mark McLean, a FedEx Freight technician from Montgomery, New York, won his third Grand Champion title at the National Technicians Skills Competitions, which is the most titles ever won in the 13-year history of the event. Darrell Duggan from Wal-Mart Transportation LLC, won the TMC SuperTech Trailer Technician Competition, besting 20 other competitors. In another history-making win, Bonnie Greenwood, a student from WyoTech in Laramie, Wyoming, became the first woman to win the TMC FutureTech National Student Technician Competition.

Over at the IFDA Truck Driving Championship, drivers took a written exam that included 40 questions ranging from road laws to vehicle safety. After that, they performed a pre-trip inspection and navigated through a challenging field course. During the pre-trip, each driver inspected a vehicle in their class of competition to find 10 planted defects that could affect driving safety. During the field course, drivers navigated six challenges that simulated situations they face on the road. The competition concluded with an awards banquet on Sunday evening to recognize top finishers in each category: Anthony Garcia, Shamrock Foods Co., Phoenix, took first place in the straight truck competition; Gary Noyes, Shamrock Foods Co., Albuquerque, New Mexico, took first place in the 28-foot tractor trailer competition; and Adam Caughey, Reinhart Foodservice, Marshall, Minnesota, took first place in the 48-foot tractor trailer competition.

These events provide a much needed and appreciated opportunity to recognize talented operations support staff, showcasing their knowledge and skill. 🇺🇸



# Growing Together

Fabri-Kal leverages Penske's equipment performance to push its business forward



**T**he Monster.” That’s what Fabri-Kal’s original seven shareholders affectionately called their first major equipment purchase when the company incorporated in 1950 in Kalamazoo, Michigan. It was a multi-faceted machine that produced paint cups for the paint-by-number industry. Other pieces of equipment with equally interesting nicknames came afterward as Fabri-Kal grew its plastic container business and set its sights on becoming the leader in the food packaging industry that it is today. What it didn’t set out to be was a leader in the transportation industry—and that’s where Penske Truck Leasing comes in.

Fabri-Kal partnered with Penske in 1994 and hasn’t owned a piece of power equipment since. Fabri-Kal works closely with Penske in spec’ing its equipment and depends on Penske to maintain and service the Great Dane trailers that keep Fabri-Kal’s product moving.

For Fabri-Kal, durability is the biggest bullet point when transporting its food packaging products, and Fabri-Kal and Penske put their heads together to craft tough, time-tested trailers. Fabri-Kal and Penske thought outside-the-box (no pun intended) to craft a trailer spec that more closely falls in line with a paper products, heavy-haul spec. The reason? Durability. Inside the trailer, Fabri-Kal taps Great Dane’s Single Side Laminated (SSL) interior wall lining panels, which are made from extremely durable galvalume steel that will not rust and is wrapped around a solid core then fastened to the logistic posts achieving an inside width of just over 100 inches.

“We have extremely high food safety standards and these trailers help us maintain that,” said Alan Hart, Fabri-Kal’s Corporate Logistics Manager. “Wood inside the trailers tends to break and splinter. The splinters become potential contamination and the holes in the walls allow for pest harborage. The SSL prevents both of those issues for us.”



## Company Profile

**Fabri-Kal**

**Headquarters: Kalamazoo, Michigan**

**Founded: 1950**

**Business: Packaging solutions**

**Great Dane Equipment: Champion Dry Vans**



When it came to custom specs that weren't on the standard build sheet, Great Dane was quick to offer solutions and recommendations to meet Fabri-Kal's application needs.

It's one thing to spec a trailer, but it's another to maximize uptime and productivity. Penske can't afford to have equipment rolling into its shops for minor service issues. If Fabri-Kal has a truck or trailer down, Penske is responsible for getting that piece of equipment up and running and the load delivered. While Penske offers 24/7 roadside assistance with more than 700 service locations, it knows that spec'ing durable, reliable equipment can help to avoid unplanned service situations.

"We appreciate the solutions Great Dane provides to help us meet

customer needs and that meet our high standards for quality," said Paul Rosa, senior vice president of procurement and fleet planning at Penske Truck Leasing.

As Fabri-Kal continues to grow, the company works with Penske to incorporate cost-saving trailer technology as part of its Lean Initiative to drive efficiency within its operations, which includes being a SmartWay Transportation Partner since 2008. Fabri-Kal and Penske have been working with Great Dane to make automatic tire inflation systems a mandatory trailer spec and they are investing in aerodynamic undercarriage fairings (e.g. side skirts) to make sure that Fabri-Kal's products are delivered on time and as efficiently as possible. 🚚

## No Shortage of Drivers

The American Transportation Research Institute (ATRI), a not-for-profit trucking industry research institute, recently unveiled its top ten industry issues report, headed by the driver shortage in the top spot. Yet, if you were to look at the tenure of Fabri-Kal's contract drivers, you'd see that many of them have been with the company for nearly 20 years. Penske Truck Leasing plays into part of Fabri-Kal's driver retention plan, offering its drivers new, more efficient and dependable equipment. The other part of Fabri-Kal's driver retention success is Fleet Manager, Dionne Buffington, who works diligently to make sure that deliveries are made on time and that drivers' routes and schedules are flexible so that they are home for important family events such as anniversaries, birthdays, graduations and even doctor's appointments.

# Protecting Your Reefer From its Biggest Predator

*How to keep cool air in and moisture out*

In the world of refrigerated trailer transportation, moisture is a primary concern. Of course, it's also unavoidable given a reefer's application. Fortunately, there are steps you can take to put moisture in its place. But first you have to know what to look for – so let's take a walk around the reefers you currently field.

One of the telltale signs of moisture intrusion inside the trailer is frost on the metals, like the aluminum floor, scuff, frames or the cargo securements. Keep a close eye on the warmer side of the trailer's body structure because that is where condensation will appear. Additionally, the connection areas on the trailer are highly susceptible to moisture intrusion. These areas include where the walls meet the front and rear corners, the top rail to roof connection, TCU to mounting frame, floor to wall, and the door gasket mating surface with the frame.


The right trailer specs are your first line of defense against moisture intrusion. Take wood for example. It is extremely susceptible to moisture absorption, which causes weight gain and rot, and ultimately, reduces the useful life of your trailer. In Great Dane's Everest reefers, composite sills and furring replace the use of wood as support in construction. Composite sills will not only protect your trailer and goods, but also reduce the trailer's overall weight without sacrificing durability, especially in the case of the Everest, which comes standard with PunctureGuard interior lining protection.

Taking thermal efficiency a step further, Great Dane's ThermoGuard protects reefers from moisture by preventing moisture absorption through the lining, protecting the foam insulation from outgassing. Outgassing occurs when the refrigeration unit's Hydrofluorocarbon Gas in the polyurethane foam system escapes into the atmosphere and is replaced by moisture. ThermoGuard's

patented technology is designed to prevent this process from happening. The metal barrier within the ThermoGuard lining prevents the blowing agent from permeating out. By retaining the insulator gas, the thermal performance of the polyurethane foam system is maintained for long periods of time and prevents weight gain caused by moisture intrusion.

Great Dane's Everest reefers have several other features that help prevent moisture intrusion. The high-quality foam insulation process and wall design guarantee void-free panel construction, while the modular design eliminates gaps between construction areas. All-aluminum rear swing doors feature a unique gasket design that provides a triple seal to lock in cold air. Great Dane's exclusive blade lock side door closure exerts constant pressure along the full height of the door to prevent air loss around the total perimeter of the door.

The Everest's high-performance floor design protects cargo from underneath and helps ensure proper temperatures. It is automatically welded to seal out moisture and the composite floor sills are engineered for maximum durability and defense against moisture intrusion. An impact-resistant thermoplastic sub-pan completes the floor design, creating an extremely durable and well-protected floor.

Finally, if you're looking to spec a multi-temp reefer, ensure that all these components will stand up to the varied temperatures and application rigors. 



# Combating Corrosion

*The ongoing battle to extend trailer life*

**O**ut on the road, regular trailer wear and tear is expected. But these seemingly cosmetic blemishes can invite a huge threat to your trailer's structural integrity – corrosion. Even if you don't have to deal with treacherous winter weather, you're still susceptible to trailer corrosion.

Road dirt and debris strikes will damage the coatings of the underside of the trailer. Dirt that collects on well-painted surfaces can remain wet, causing corrosion. Additionally, moisture from rainwater and condensation on the inside of the trailer can contribute to corrosion. Basically, if there's water on the trailer, corrosion can happen. However, there are precautions you can take to ensure that your trailer's life isn't cut short.

The most important thing you can do to protect your trailers is regularly wash them per the manufacturer's recommendations. But don't go overboard – improperly power-washing a trailer can do just as much harm as good. Sidewall seams should not be blasted directly

because that can push dirt and road chemicals into the seams. Be sure to give your trailer a good inspection before washing it, as heavy impacts to the upper half of the trailer can cause leaks.

In addition to keeping your trailers clean, regular inspections will keep them in shape. If you notice a mark on your trailer that is beginning to corrode, the first thing you should do is consult your manufacturer's trailer repair recommendations. If those are unavailable, Great Dane recommends the following:

1. Clean the area in question by wire-brushing or sand-blasting the corrosion.
2. Prime the area and paint to slow the rate of corrosion.

Though these instructions seem simple, it's important to take care of corrosion as soon as it appears to ensure a long service life for your trailer. 🚚

## Winter Weather Advisory

Even if you stay on top of your trailer inspections and washing, corrosion can still pose a threat in wintery climates where roads are treated with deicing chemicals. To combat this issue, Jay Nelson, Great Dane Testing manager, makes the following suggestion:

"Rinse your trailers as much as your business model can support," he says in all seriousness before breaking into a smile and acknowledging business realities. "Outside of that, thoroughly washing and rinsing your trailers twice a winter – with the last wash occurring after the spring warm up – will help immensely."

"Corrosion cannot be totally eliminated. It's inevitable," he added, "but through excellent trailer design, fabrication and maintenance, corrosion can be slowed to meet trailer life expectations."

## Beyond Corrosion

There are plenty of adversaries besides corrosion that can impact your trailer's life. For example, in warm, humid climates, fungi and mold may grow on yard trailers. The fix: A good cleaning.

Insects can also pester your trailers. "Dirt dobbies love to crawl inside the brake lines at the glad hands," Nelson said. "Filter screens should be considered on the glad hands to keep intruders out."





# Delivering the Spice of Life

**Mark Vend relies on the right refrigerated solution to diversify its business**

**F**or Mark Vend Co., a leader in Northern Illinois' vending industry, a happy customer is one with choices. Vending is requiring more and more variety to meet demand. Realizing that this demand was requiring more than what a typical vending machine offers, Mark Vend Co. has diversified into the micro market and pantry service segments and leans on Great Dane truck bodies to keep its goods fresh.

"It's the evolution of the industry," Daniel Stein, co-owner of Mark Vend Co. explained. "Vending was designed around World War II and post-World War II manufacturing, but today, manufacturing plants are different. Micro markets provide variety that today's consumers demand."

## What is a micro market?

Pose that question to Stein, and his passion for the industry punctuates a rapid-fire rundown of the services Mark Vend Co. provides. Essentially, a micro market and pantry service is a collection of refrigerated coolers stocked with things like beverages, yogurts and cold

sandwiches coupled with kiosks of snacks like fruit and energy bars. Micro markets employ self-service check out stations, which customers use to pay for the food. A pantry service is typically set up within a business office where the cost is covered by the company.

Providing these services presents a distinct challenge versus stocking vending machines. According to Stein, Great Dane truck bodies have been a major component of Mark Vend Co.'s success in delivering the freshest goods safely and efficiently.

Mark Vend Co. currently fields six Great Dane truck bodies to tackle its micro market/pantry service tasks – two of which are 100 percent refrigerated while the other four feature refrigerated compartments (one-third refrigerated and two-thirds dry). The key component of the truck bodies, Stein explained, is the use of Great Dane's Johnson AE Series all-electric cold plate refrigeration systems. The AE Series includes traditional free-hanging cold plates and cold plate blower systems with automatic defrost for steady temperature control, delivering consistent temperature ranges in each zone for fresh, frozen and deep frozen applications.

"With perishable fresh food, it's the Goldilocks scenario – we don't want it too hot, we don't want it too cold, we want it just right. In our application, cold plate works better because we don't have to keep the truck running," Stein said. "If our truck goes to a dock where we have three or four markets, then the truck could be in that dock for more than an hour. With cold plates, we never worry about the temperature inside the truck."

Durability is another big plus for Mark Vend, which looks to keep its truck bodies in the field for at least 15





## Company Profile

**Mark Vend**

**Headquarters:** Chicago, Illinois

**Founded:** 1962

**Business:** Vending Delivery

**Great Dane Equipment:** Alpine Truck Bodies



years, often outlasting the truck chassis to which they were originally fitted. In spec'ing its truck bodies, Mark Vend worked closely with the Great Dane truck bodies engineers to ensure that the bodies meet the job requirements, stand up to a decade's worth of workload demands, and fit the company's new Isuzu FTR cab-overs like a glove.

"We know the reputation of Great Dane truck bodies," Stein said. "The engineers are experts. We talked to them about our equipment needs and they worked with us to spec them properly. They're great listeners, and the Great Dane truck bodies definitely meet our needs." 🍎

# The Future of Refrigeration

*Reducing emissions and saving money – that's the power of all-electric cold plate technology*

The increasing interest in electrification isn't exclusive to tractors. Advanced electrification technology is making its way into transport refrigerated units (TRUs), and Great Dane is on the cutting edge with its first-to-market, zero-emissions Johnson Series All Electric (AE) refrigeration system. In partnership with eNow Inc., Emerson, and Challenge Dairy Products Inc., the Great Dane Truck Bodies team developed and deployed a new refrigeration system that uses two forms of energy storage: cold plates and a unique lightweight high-capacity auxiliary battery system.

Outfitted on a Challenge Dairy Class 7 truck for testing on actual urban delivery routes and designed to transport medium-temperature refrigeration applications, the cold plates and auxiliary batteries are initially charged from utility power delivered to the vehicle when it is plugged in at its home base overnight. Roof-mounted solar photovoltaic panels provide additional power when the unit truck is in operation. The auxiliary battery is charged exclusively by solar and utility power – no diesel power necessary.

The truck was unveiled in California's San Joaquin Valley, an area that faces challenges in meeting federal air-quality standards. Already, it has proven that a dramatic decrease in harmful emissions of nitrogen oxides, particulate matter,

and carbon dioxide compared to the typical diesel-powered TRU is possible. Additionally, this system is expected to reduce operation and maintenance costs by 90 percent. Putting cold plate technology and all-electric refrigeration to work in a real-world application proves that it's a viable solution for food distributors and any business that employs refrigerated truck bodies.

"This technology, coupled with the eNow solar power system, Emerson 48VDC condensing unit, and the composite construction of the truck body provides a complete, thermally efficient solution for food distributors," said Eduardo Navarro, director of business development at Great Dane Truck Bodies. "Having an all-electric system like the Johnson AE provides food distributors a reliable alternative to diesel power units as they look to meet their cold chain demands efficiently and at a low operating cost."

The project partners hope to commercialize the technology for widespread use, including throughout the San Joaquin Valley.

Want to learn more information about this all-electric refrigeration system? Call 800-922-8360 Ext. 2

## STOCK BODY PROGRAM DETAILS

When you have an urgent job, finding the right equipment solution is critical. That's why Great Dane is implementing a truck body stocking program, which, in most cases, will cover the needs of truck body customers looking for a refrigerated or dry freight truck body with a quick turnaround

and a spec designed to cover 80 to 90 percent of their needs.



"We began testing this initiative in target geographical markets supported by key Great Dane locations. We used a specific rental and leasing spec and we have had good success in meeting the needs of our customers and moving the initial inventory," said Mayo Rude, director of Truck Body Sales. "Now that we have more experience and we understand the regional demands of our customers, we will expand into a number of different configurations and sizes to better serve our customers and continue to seed our complete line of Truck Bodies: Sahara, Alpine and the Johnson series in key markets."



Check out a video from Challenge Butter about the all-electric refrigeration  
<https://youtu.be/YlufnhMpyRs>





# Protecting Equipment From What You Can't See

*Microban technology now available in Great Dane's Alpine truck body*

**W**hen it comes to transporting food, safety is paramount. Food safety standards are strict, and when it comes to food transportation, it makes smart business sense to meet and exceed them. In a daily delivery operation where foods are stocked constantly, they must arrive safe and sterile. Just like in its refrigerated trailers, Great Dane is bringing Microban antimicrobial technology to its Alpine refrigerated truck bodies to further protect products. Microban protection is featured in PunctureGuard and ThermoGuard interior linings.

The biggest challenge that truck body applications face in terms of food delivery is the frequent loading and unloading of goods by hand and smaller loading equipment. Temperature control is a concern because of the high frequency of ingress and egress and the operation of access doors. This all adds up to a higher chance of contamination.

Microban technology actively fights bacteria, stains and odors in the liner, providing greater product protection against the potential growth of microorganisms and suppressing microorganism reproduction. It helps support the requirements under the Food Safety Modernization Act (FSMA) by offering broad-spectrum 24/7 antimicrobial product protection.

## **So what is a microbe and why does it matter in food transportation equipment?**

A microbe is a microscopic organism that covers virtually all the surfaces that you come in contact with every day – from your truck's steering wheel to your cell phone screen. On unprotected surfaces, microbes can double in number every 20 minutes, making it more challenging to effectively clean surfaces and equipment.

That's where Microban comes in. In lab tests, liners treated with Microban technology exhibited reduced microbial growth when tested against stain and odor-causing bacteria common to product degradation. That's a level of security your customers can trust. With standard Microban technology included, you can be a champion for the cleaner delivery of goods. 🍷

PROTECTION THAT LIVES ON  
**MICROBAN**



# Putting the Brakes On

**HENDRICKSON**

*How the right trailer brakes improve safety and save money*

**W**hile there is plenty of attention today on advanced safety systems like collision mitigation and roll stability, safety starts with spec'ing the right brake for your application. While drum brakes have been the tried and true brake of choice in the North American trailer industry, advancements in air disc brake technology can offer improved stopping distance and reduced maintenance costs in the long run.




The Hendrickson MAXX22T™, for example, has been specifically tuned to match the performance needs of a typical North

American trailer and is approved for brake performance in 20,000-pound applications or up to 23,000-pound applications with the appropriate tire static-loaded radius. The optimized design makes the MAXX22T™ brake less aggressive when the trailer is empty, maintains high-speed torque levels for a positive brake feel and is not overly aggressive during panic stops when the load shifts to the tractor, which lessens the probability of ABS cycling. Hendrickson's RTR® Ready-To-Roll® wheel-end packages are available with three-, five- or seven-year warranties, depending on what the customer

chooses to spec. Hendrickson's HXL7 package features a 7-year limited warranty.

Spec'ing the right trailer brake can also help you save in other ways. The Hendrickson MAXX22T™ air disc brake system saves 100 pounds per tandem trailer compared to a similar drum brake configuration. Additional weight savings can be achieved with Dura-Light Hub.

The Hendrickson MAXX22T™ is also less susceptible to brake over-stroke and the potential compliance problems that accompany it, making these brakes an increasingly attractive option. Hendrickson offers a full range of air disc brakes for wheel sizes varying from 17.5 to 24.5 inches for trailer commercial vehicle systems. 

## Quick Tip

Don't confuse brake fade with brake wear: An air disc brake that does not fade may achieve better stopping power during panic stops, but wear may not be optimal in certain brake-intensive applications where the disc brake takes on more work to compensate for the fading drum brake.

# Strength Beyond Steel


*How an advanced aluminum alloy can reduce truck body weight*

**A**dvancements in aluminum alloy technology can improve durability and reduce a trailer's overall weight, helping to improve operating costs for customers. Great Dane has partnered with Arconic, a leader in the development of aluminum alloy transportation products, to design an

aluminum truck body door frame that weighs 24 percent less than a traditional stainless steel design, providing a savings of 84 pounds.

In terms of durability, Arconic reports that the aluminum alloy and temper chosen has the same strength as the steel currently being used. The temper of the aluminum alloy was optimized to

achieve desired strength levels while maintaining good corrosion resistance required for the application. The thickness of the aluminum was increased compared to the steel door frame in order to meet stiffness requirements. The body building process involves a typical steel to aluminum conversion, which requires material science expertise and welding capabilities for the frame to be properly joined together.

The weight reduction leads to both fuel and freight efficiency benefits, and thanks to aluminum being more naturally corrosion-resistant than steel, it can be used without paint, which eliminates additional manufacturing and maintenance costs. In addition to fatigue analysis conducted by Arconic, Great Dane is currently conducting durability testing. Keep an eye out for more details in 2018. 





# Answers When You Need Them

*That's the AdvantEDGE when it comes to unplanned service issues*



It's 10 minutes until quitting time and you're packing up to head home after a productive day. Then the phone rings. You pick it up hoping it's just an easy question, but the driver on the other end confirms that fear you felt when you answered the phone—a trailer is down.

The questions start flying: What's the issue? Where's the nearest service location? How long is it going to be down? What are you going to do with the load? A trailer-down situation is always a headache, and there may be a lot of unknowns. Great Dane's AdvantEDGE Aftermarket Parts and Service Program aims to have the answers that get your driver up and running as soon as possible.

The program provides 24/7 emergency roadside service, consolidated invoicing, single point-of-contact, not-to-exceed parts pricing and the peace of mind that comes from clear communication, quality repair services and a nationwide network. And it's not just trailers—the program offers its members mechanical, refrigerated unit and tire repair for Class 7 and 8 tractors.

Finding a service location is the first step. Great Dane's Locator App makes it easy to find sales, parts and service locations near you as well as contact information, operating hours and turn-by-turn directions. Along with Great Dane's network of 100+ dealer locations, Great Dane has partnered with Love's Travel Stops to provide

AdvantEDGE members access to an additional 425 service trucks offering tire care, light mechanical and minor reefer repairs for Class 7 and 8 tractors and trailers.

And AdvantEDGE membership is free. "Great Dane has chosen to partner with Love's Travel Stops because of its high integrity for quality and customer service, as well as its locations matching our fleet customers' shipping lanes," said Great Dane's National Account Sales Manager Randy Gosson. "We take great pride in providing emergency roadside services to our Customers to get them back on the road as quickly as possible," said Terry Sewell, manager of tire care service operations for Love's Travel Stops.

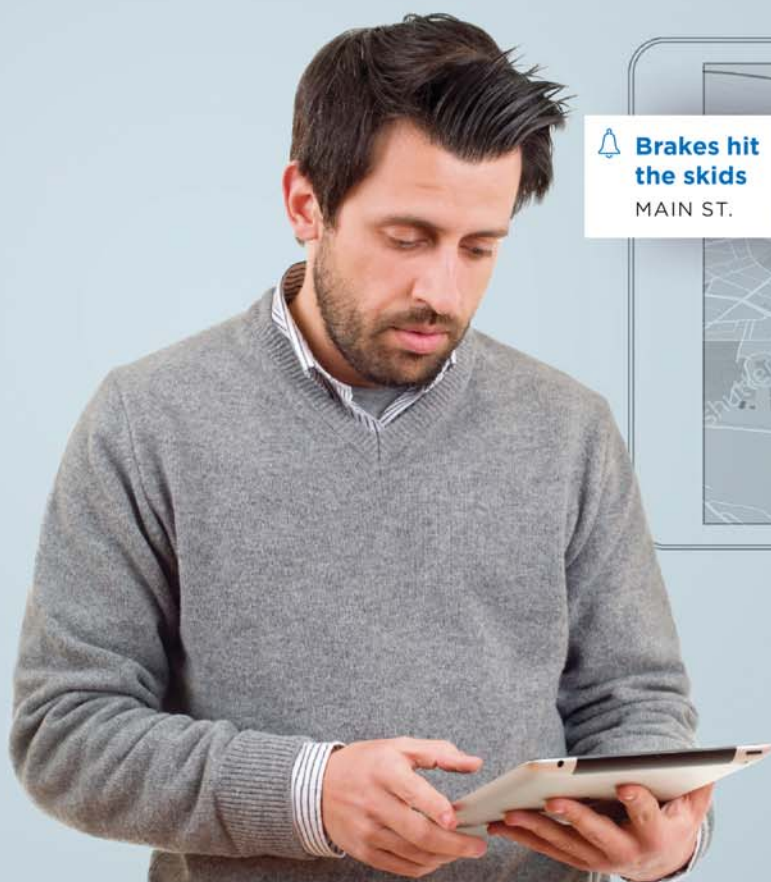
Knowing that your service will be done properly is another challenge. The more than 100 AdvantEDGE service locations are staffed with trained technicians who are up to date on the most current products and repair techniques. The National Institute for Automotive Service Excellence (ASE) recently recognized Great Dane as an accredited training provider through its Continuing Automotive Service Education (CASE) program, which ensures that the systems and processes for identifying, developing and delivering training to Great Dane technicians have gone through a robust industry recognized process – a first for a trailer OEM. 🇺🇸



**For FREE enrollment, scan the QR code, call (877) 600-3433 or visit [greatdane.com/service](http://greatdane.com/service)**



Find an approved Great Dane location near you by visiting [www.greatdane.com](http://www.greatdane.com), or download our mobile app for free from the App Store or Google Play.



Brakes hit  
the skids  
MAIN ST.

Door becomes  
unhinged  
CYPRESS AVE.

Jack gets  
jacked  
GRANT ST.

## You Can't Be There To Rescue Every Trailer In Distress. **But We Can.**

With Great Dane's **AdvantEDGE** program, every trailer emergency is swiftly met with 24-hour roadside assistance. Whether it's your tires, a mechanical issue or a reefer repair, you can rest assured that your drivers will get the help they need no matter when or where they need it.

In addition, our partnership with Love's Travel Stops gives you access to 425 more service trucks and 245 U.S. locations—getting you back on the road and ensuring the safe and efficient delivery of your goods. **Let's go.**

**Enroll for free today:** [GreatDaneTrailers.com/AdvantEDGE](http://GreatDaneTrailers.com/AdvantEDGE)



**ADVANTEDGE**  
National Aftermarket Parts & Service Program