

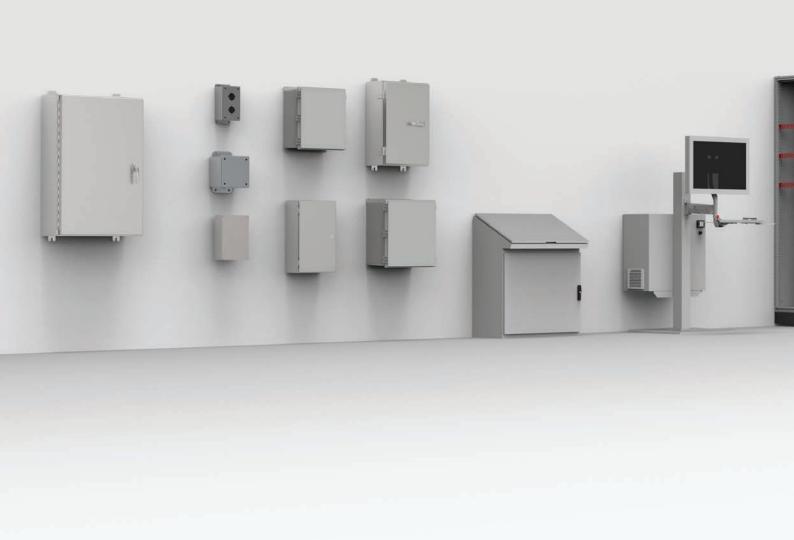
## **Automotive Industry Solutions**

Keep processes flowing, and your people and equipment protected





# Flexible, **Progressive Solutions** For Evolving Demands



As the world increasingly turns to renewable energy sources, innovators are heeding the call to empower the automotive industry's future – and secure their place in it with sustainable high-performance vehicles, high-voltage batteries, charging stations and eco-friendly tires. To succeed, state-of-the-art automation systems and safeguards are required.

From tool-free, click-in-technology to enhanced safety features and superior quality, nVent HOFFMAN solutions set a high standard end to end, making it easier, safer and more cost-effective for automotive sector innovators like you to empower the future.











With growing consumer interests and government sponsored incentives and rebates, advanced auto technologies and electric vehicles are gaining ground in the United States, European Union and other major markets around the world.

To get in and stay in the race, auto manufacturers have the opportunity to redefine their legacy revenue streams and add capacity to deliver the next generation of vehicles and components. For many, this also presents a great opportunity to streamline manufacturing processes and systems for efficiency and repeatability.

#### **GLOBAL IEC ENCLOSURES**



#### **WALL-MOUNT ENCLOSURES**



#### CABLE MANAGEMENT SYSTEMS



## Solutions for Expanding **Automotive Capabilities**

- Streamline facilities and processes with globally available, superior quality electrical enclosures, climate control and HMI solutions.
- Improve safety to protect your personnel and equipment from electrical hazards, while providing maintenance to controls and electrical components.
- Improve worker productivity and comfortability with flexible and adjustable HMI systems that integrate with modern controls, flat panels and touch screen devices.
- · Improve speed and flexibility with ready-to-ship and modified electrical enclosure solutions delivered quickly through our global network of 3,000+ distributors.
- Rely on innovative DTM (Design to Manufacturing) Software to connect machines and workers to save crucial electrical enclosure modification and assembly time and resources.



Taking raw materials from their natural state to form a rubber compound to transform into tires for specific vehicle makes and models requires process manufacturing expertise and precision. So does managing the harsh and extreme environmental factors that can damage electrical equipment through corrosion, particulate ingress, wide temperature swings, and other hazards.

The right electrical enclosure and climate control equipment is critical to safeguard equipment - and personnel. It is also critical to keep your operations running smoothly.

#### CLIMATE CONTROL UNITS



#### **ERGONOMIC HMI SYSTEMS**



#### **TERMINAL** BOXES



## Solutions for Controlling **Harsh Environments**

- Protect critical controls and electrical equipment from sulfur, humidity and other harsh and corrosive elements in the tire-making process.
- Keep electrical equipment at optimal temperature with state-of-the-art climate control solutions to prevent component failure and unplanned downtime.
- Optimize operations and streamline processes to reduce capital expenditures and operating expenses.



With development and production revving up for electric vehicles, the DC fast charging station infrastructure needs to be built up to drive the adoption of new emission-saving technologies by commercial fleets and other consumers to support them.

To answer the demand and drive preference, OEMs are aiming to efficiently and cost-effectively deliver reliable charging stations. And the faster you can build them to specification and scale, the more business you can do.

#### FLOOR STANDING **ENCLOSURES**



#### INDUSTRIAL CONSOLES AND WORKSTATIONS



#### CLIMATE CONTROL UNITS



## Solutions for **New Infrastructures**

- Safeguard your critical power components for Level 3 DC fast-charging equipment in virtually any environment and keep operations running smoothly.
- Meet industry standards for preventing liquid and particulate ingress and resisting corrosion.
- Manage extreme temperatures with a variety of robust climate control solutions.



As OEMs seek to innovate faster-charging, longer-lasting rechargeable batteries to fuel electric vehicles, engineers are factoring in a several variables, including towing capacity, weight and temperature, for manufacturing automation systems and environments.

#### **EXTREME ENVIRONMENT A/Cs**



#### HEAT **EXCHANGERS**

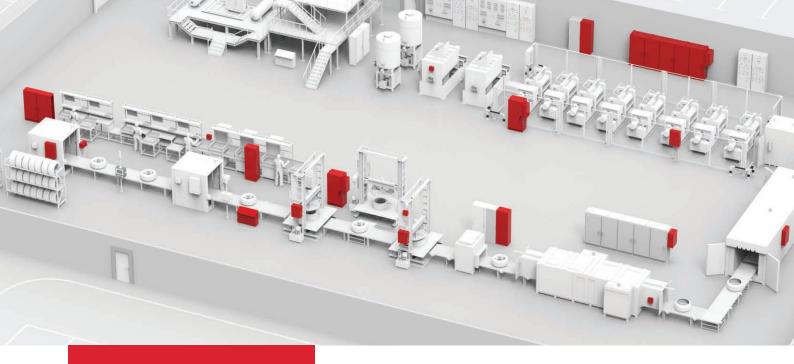


#### **INDUSTRIAL CHILLERS**



## Solutions for **Evolving Technologies**

- Protect your critical electrical equipment from corrosive chemicals for longer life cycles.
- Manage heat inside and around equipment to optimize operations and maximize performance.
- Automate manual processes to reduce assembly and increase uptime.



## Case Study

#### Situation:

Struggling with costly delays and downtime due to critical equipment failures, a tier one tire manufacturer needed a reliable, high-performance cooling solution to maintain optimal temperatures inside the electrical enclosures for their critical control and power equipment at their tire plant.

"All the vulcanizing machines generate a lot of heat, so this temperature is distributed to other areas, requiring immediate maintenance," said a maintenance engineer from the tire plant. On average, heat-related component failures cost the company up to \$400,000 (USD) per day in downtime and repair costs. They also caused the maintenance team ongoing stress and frustration, as they frequently received after-hours emergency calls and often could not get the necessary spare parts from the vendor, adding more cost, time and hassle to repair.

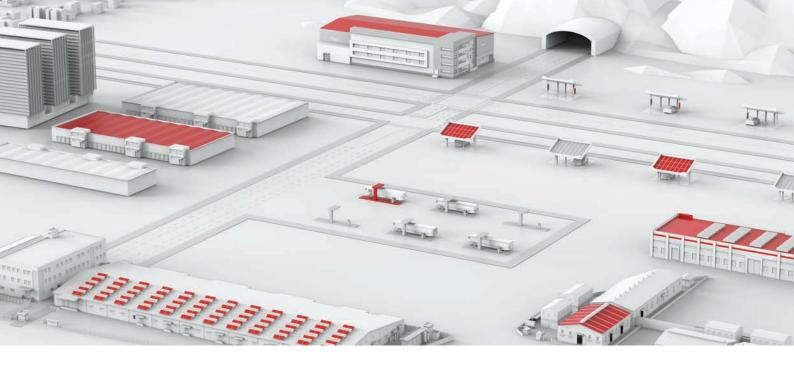
#### **Solution:**

nVent HOFFMAN specialists performed a thermal audit of the tire plant, exploring each enclosure to assess thermal load and provided cooling solution recommendations. The solution that was recommended was the filterless SpectraCool Air Conditioners with Advanced Corrosion Protection. SpectraCool offers a broad range of cooling capacities, sizes and configurations to reliably deliver cooling in demanding environments.

The manufacturer installed approximately 80 SpectraCool air conditioners in the tire plant and also took advantage of Remote Access Control (RAC), an integrated controller that enables remote monitoring and management of nVent HOFFMAN air conditioners, to ensure systems ran optimally.

#### **Results:**

With the SpectraCool air conditioners, the tire manufacturer achieved temperature and humidity stabilization and optimal equipment performance. Compared to the previous equipment, the new solutions cut equipment failures by 90%, and reliably keep systems and operations running smoothly. In addition, the tire manufacturer has saved maintenance time and hassle, and slashed spare part inventory needs.



## Let our innovative solutions work for you



16,000+ standard products with large in-stock selections available locally through a global network of 3,000+ distributors, and meet or exceed global certification standards, including IEC, UL, CSA, NEMA and CE.



A wide selection of specially engineered metallic and nonmetallic enclosure solutions and accessories for electrical safety, climate control, hazardous and corrosive environments. and more



A uniquely complete range of IEC and NEMA electrical enclosures and accessories to meet application needs around the world, while accelerating the specification and installation process through interchangeable accessories and tool-free assembly, and streamlining ordering with global part numbers.



Express Customization, Advanced Customization and engineered-to-order services for tailored solutions and faster delivery.

# We make it easier for you to gain the competitive edge.

A global leader in electrical connection and protection, nVent offers a full suite of proven nVent HOFFMAN enclosure, climate control and panel shop automation products, services and solutions to keep automotive sector processes flowing, and people and equipment protected.

From tool-free, click-in-technology to enhanced safety features and superior quality, nVent HOFFMAN solutions set a high standard end to end, making it easier, safer and more cost-effective for automotive sector innovators like you to empower the future.

For over 75 years, the nVent HOFFMAN brand has progressively delivered one of the industry's most comprehensive portfolios of innovative electrical enclosure and climate control solutions.

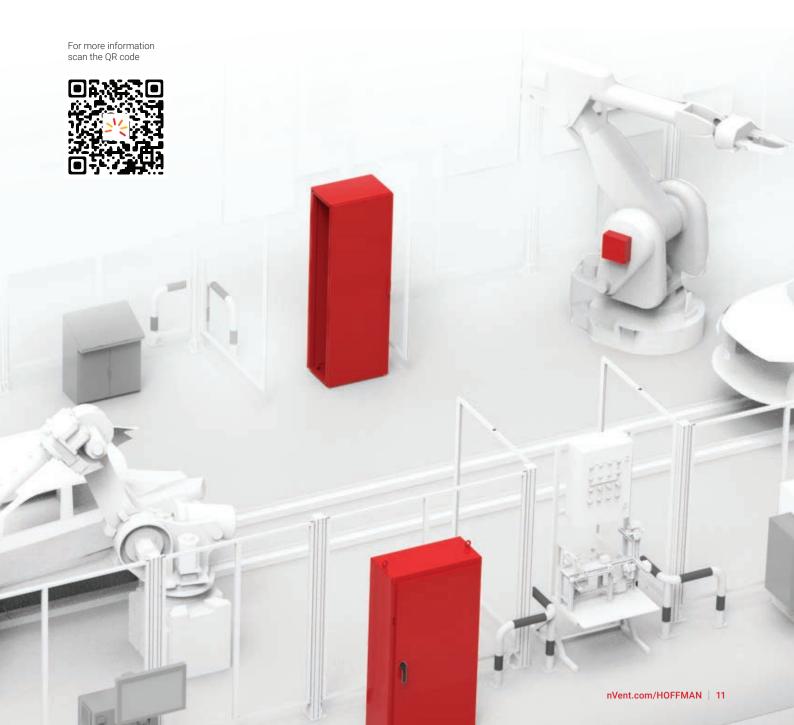
#### Rely on us to help you:

- Accelerate project lead times, add production capabilities and manufacturing capacity
- Standardize equipment across local and global facilities
- Ensure resiliency in the most critical systems to protect electrical equipment, electronics and data
- Improve electrical safety to protect personnel and critical equipment
- ✓ Shift gears as demands evolve rapidly



## Learn more about how we can help you gain the competitive edge in:

- Auto Manufacturing
- Electric Vehicle Battery Production
- Electric Vehicle Charging Stations
- Tire Production







Our powerful portfolio of brands:

CADDY ERICO HOFFMAN ILSCO SCHROFF TRACHTE