



## Renewable Energy: Northern States Metals Specialized Design & Engineering Capabilities Meet the Challenge for ChargePoint's Advanced Extruded Products

ChargePoint has built the world's largest electric vehicle (EV) charging network. They provide the charging stations, mobile app and network that allow people to charge EVs everywhere they go. It's taken ambitious vision and perseverance to create the new products needed to support that kind of growth. It also took a dedicated extrusion component partner, called Northern States Metals, with an extraordinary depth of knowledge and experience to help bring their vision to life.

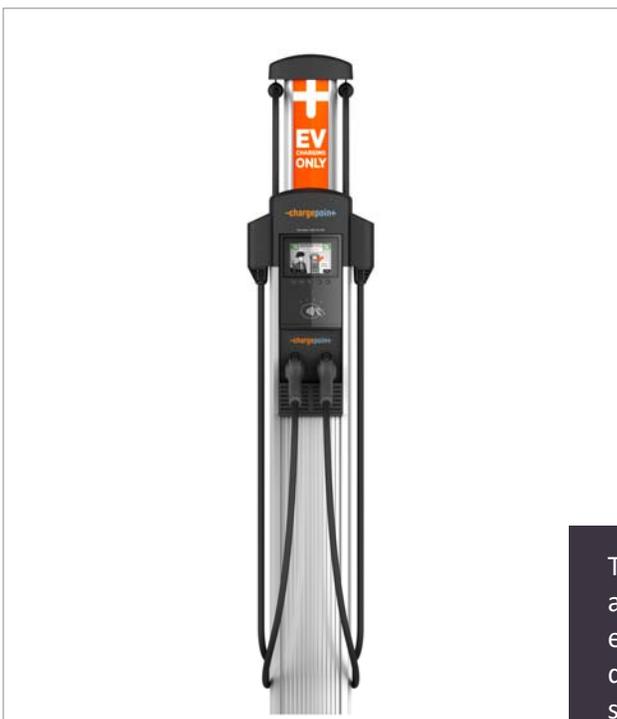
The initial opportunity was for a bollard prototype for the EV charging station. NSM Engineering worked closely with the ChargePoint on the intricate extrusion required. Goals included producing a sleek, high-quality, state-of-the-art appearance that would also be durable, cost-effective and quick to produce. It sounds challenging and it was. Using NSM's knowledge of structural engineering, design efficiency for extrudability, and quality management, the team developed a program that produced a spectacular product without the (often unavoidable) high scrap rate. The program required several iterations. The NSM team maintained regular communication cross-departmentally

to work through challenges and dial-in all design and marketing requirements. The final prototype exceeded all expectations.

With a vast global network of aluminum extrusion services and fully customizable in-house services, NSM efficiently managed the production including machining, polishing, finishing, coating and assembly. NSM acts as a single-point-of-contact for customer's supply chain requirements. The extruded component service company manages the entire logistics program and final assembly, testing and packaging of the EV station product enabling direct shipment to end-users. This allows the team at ChargePoint to focus on their core competency, developing and expanding their national network of electric charging stations to support the monumental technology shift underway in the automotive industry. The concept of EV charging stations, as easily accessible as gas stations are today, will transform the adoption and practicality of the electric vehicle. Some of the benefits will be the dramatic reduction of carbon dioxide and a healthier environment.

Ken Mack, CEO, NSM, commented, "Northern States Metals has a long standing commitment to deliver the highest level of quality at the most cost-effective pricing. We are proud to be a part of the Electric Vehicle industry and it's our mission to help them evolve their visionary products."

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**"We were impressed with the quality of Northern States Metals services, their design ingenuity to help us reduce costs and their attention to customer satisfaction."**

Pasquale Romano  
CEO, ChargePoint

The ChargePoint Bollard is constructed with high strength-to-weight ratio and is corrosion resistant. The total turnkey product is light-weight and easily joined. Highly recyclable, the aluminum bollard is constructed for durability and is weather resistant. The initial prototype design and testing spanned 12 months.

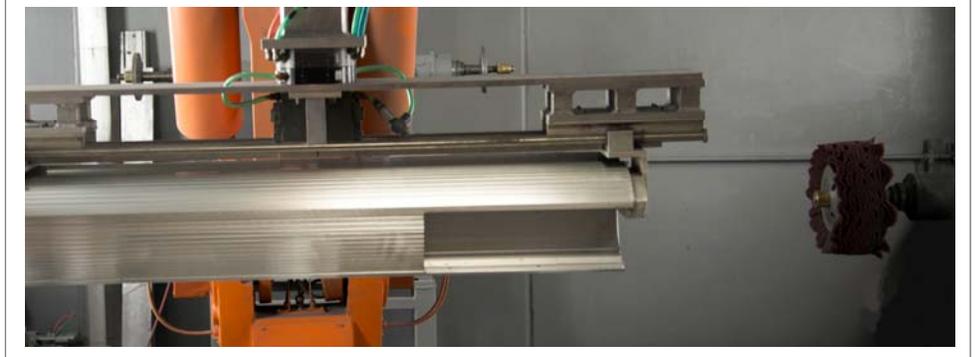
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The contemporary appearance and quality requirements of the EV charging station accelerated NSM's own technology plans. The company advanced their capabilities through robotics reducing production time and ensuring exceptionally high quality standards consistently. It's proven to have been a valuable investment. Robots ensure a high-quality polished aluminum surface finish on the EV charging station maintaining a "high-tech" appearance through years of exposure to weather.

Northern States Metals utilizes robust and highly configurable robotics. Mechanical stops are positioned with flawless accuracy and work is executed with systematic precision. Production is monitored and inspected for sustained quality control. Not only does the technology contribute to a safer work environment, but it has increased throughput by an impressive 25%.

With nearly 50 years of experience in the extrusion industry, these kind of advancements are the hallmark of Northern States Metals commitment to superior quality and customer service.



*Wisner Associates represent Northern States Metals and serve Northern California and Nevada. With over 30 years of experience, the company focuses on delivering the best value of quality and price. They represent organizations dedicated to customer satisfaction who will not only meet, but exceed client expectations.*