Snider Fleet Solutions from Greensboro, USA, operates an auto and truck rim and wheel refurbishing business, which utilizes a dedicated powder coating line to prime and coat the rims and wheels. Until a couple of years ago, the company used an overhead conveyor system and single convection oven to powder coat its parts. This limited production to 3,000 wheels per month. The company soon realized that it needed much more capacity to continue meeting demand, which was mainly because a growing percentage of parts were now requiring a two-step coating process. Manufacturing bottlenecks were created in different places each day due to the variations in cooling time, lot sizes, and colors of each lot of parts. Therefore, flexibility was a major requirement for more efficient operation.

Heraeus (at that time Vulcan Catalytic) provided the company with a thorough engineering evaluation, including part testing. Based on the evaluation results, the company elected to revamp its entire manufacturing process cell. The Heraeus engineering staff designed the infrared ovens according to the material requirements, line speed, part loading time, and part sizes and installed both an IR primer gel oven as well as a catalytic IR cure oven. The oven’s lightweight modular sections allowed for easy shipping and handling during installation. The logistics solution was to supply a new overhead conveyor system with three staging areas. A combination of lines, staging areas, and track transfer switches allow the operators to easily move and batch lots together where they are needed. For example, parts that do not need primer are sent via a bypass line directly to the powder booth.

Unlike convection ovens, infrared heating requires no contact and generates heat within the product. Process heating using gas catalytic infrared heaters is much more efficient than convection heating for powder gelling and curing. The successful conversion has allowed Snider Fleet Solutions to stay ahead of the growing demand for its refurbishing business. It greatly improved plant logistics and utilized a much more efficient process heating method, which has helped more than triple production.

**Features**
- Refurbishing of rims and wheels for cars
- Re-design of entire manufacturing process cell
- Increase in production flexibility
- Modular sections for easy handling

**Technical Data**
- Cure oven with 4 sections and 12 zones of independently controlled catalytic heaters
- Primer gel oven with 2 sections and 8 zones of control
- Tripled production to 9,500 powder coated wheels per month