



## Twenty Years at 24/7/345 Oiling Operations

July 1999 found Terronics hard at work to install their largest Electrostatic Oiler to date on the Continuous Anneal Process Line in New Carlisle, Indiana. It was a heavily contested sale with two line trials against our one time Exclusive Licensee for the technology we invented, patented and developed towards maturity. However, when I/N Tek analyzed the data from both trials, Terronics not only had far superior cross web uniformity, but was also much closer to the required target deposition. We got the order!

The summer of 1989 was very hot, and in the shutdown building at the 50 foot level it was even hotter. Harried and extensive development work preceded the design of the machine. Phil Rodenberger, specifically, did an outstanding job in its design.

Terronics has, with outstanding reliability, coated a great deal of steel at deposition levels previously unknown to the industry. I/N Tek's light oiling was 80 mg/square foot/ side when we replaced their Trinity Oiler, bought as the best available technology in the world in 1989 when the plant was originally built. Well...that wasn't quite true it turns out. They routinely oil at 35 mg/square foot/side with complete "film forming" protection, a 57% reduction in oil use, and complete confidence in rust protection.



We had built several small oilers for Rome Strip Steel when the Exclusive License was cancelled, but this was a big one at nearly 2 meter maximum strip width and 700 meters/minute in strip overspeed. This mill shuts down just 3 or 4 times a year for maintenance and runs at speeds of 400 meters/minute the rest of the time. In good sales years it produces 1.1 million tons, which is hard to get your head around, except that an Aircraft Carrier grosses 100,000 tons. In 20 years, we've helped make 220 million tons of steel!

The Trinity Electrostatic Oiler came out and we had just 4 days to become operable. There was no turning back for our Customer. They had put their faith in us, and we proved it was well deserved when we were ready to go before the downturn ended. The start up went very well and we were on our way.

Minor problems about a month out taught us what high potential electricity can do when it runs 24/7, but the small change we had to make was done in one day on site. The customer really liked the massive redundancy designed into the Machine as it was operating while we were incorporating the small change needed for improved high voltage integrity.

I/N Tek practices Continuous Improvement, and to that end, they have done a great job of accepting all the upgrades available on the Technology. Things like sensors, PEEK nozzles and Carbon Fiber Inductor bars have been upgraded through the 20 years of the machine's operation. Improved serviceability is what I/N Tek will get when they finally retire the existing Oiler and replace it with a more modern machine.