

## Wheel Assembly at Oakley (USA)

### Challenge

Oakley Industries had been using a multi-level, chain-driven live roller conveyor system to transport tire and wheel assemblies from their manufacturing facility to an automotive assembly plant. The system frequently broken down, requiring continual parts replacement and ongoing repair - proving costly both in terms of labor and downtime.

### Solution

Ermanco, a leading provider of "Smart" material handling systems, designed a high performance system using ITOH DENKI's Power Moller® motorized roller technology.



A new concept for this industry, the motorized rollers (PM570AU series) are less susceptible to temperature variations than chain, sprockets, and other mechanical components. This was a critical element for the customer's operation, where temperature can vary from sub- zero to 100+ degree Fahrenheit or 38 degree Celsius. The new system reduces maintenance requirements, minimizing downtime, and the roller arrangement is exceptionally quiet.

The in-plant system delivers a rate of 14 tire-and-wheel assemblies in a first-in, first-out arrangement. Installed overhead, it eliminates floor space dedicated to staging tires for shipment to the assembly plant; instead, a truckload of tires can be accumulated overhead. Assemblies are conveyed directly onto automated delivery trailers and shipped in production broadcast sequence. The time required to load the truck has been reduced, increasing throughput.

### Result

The ITOH DENKI Power Moller® motorized roller concept has provided Oakley with a 25% reduction in maintenance, and the cost of Ermanco's system was about 25% lower than that of conventional chain-driven equipment. Conveyors eliminate lifting and rolling of heavy wheel assemblies, improving safety. Uptime of the truck system has been greatly increased, which has reduced the number of trucks required for transporting tires by 20%.

