



Aros electronics AB

Aros electronics AB in Mölndal, Sweden

Aros specializes in the development and production of control systems and power electronics for automotive and machinery applications. The company's managers focus on process optimization and Industry 4.0 concepts to improve the efficiency and quality of their electronics production for the long term.

Key Facts

- > 145 employees in development, production and sales
- > €45 million sales
- > One highly efficient dual lane SMT line for high-mix/low-volume production
- > Typical lot sizes range from 1 to 200 units; many NPIs
- > 3-shift operation

Focus

- > Intelligent, highly automated setup and production concepts
- > Highly efficient material management
- > No-touch production: routings and program downloads driven by board IDs
- > Optimized printing processes via self-controlling expert systems
- > Real-time information about the production progress
- > Robot-supported testing

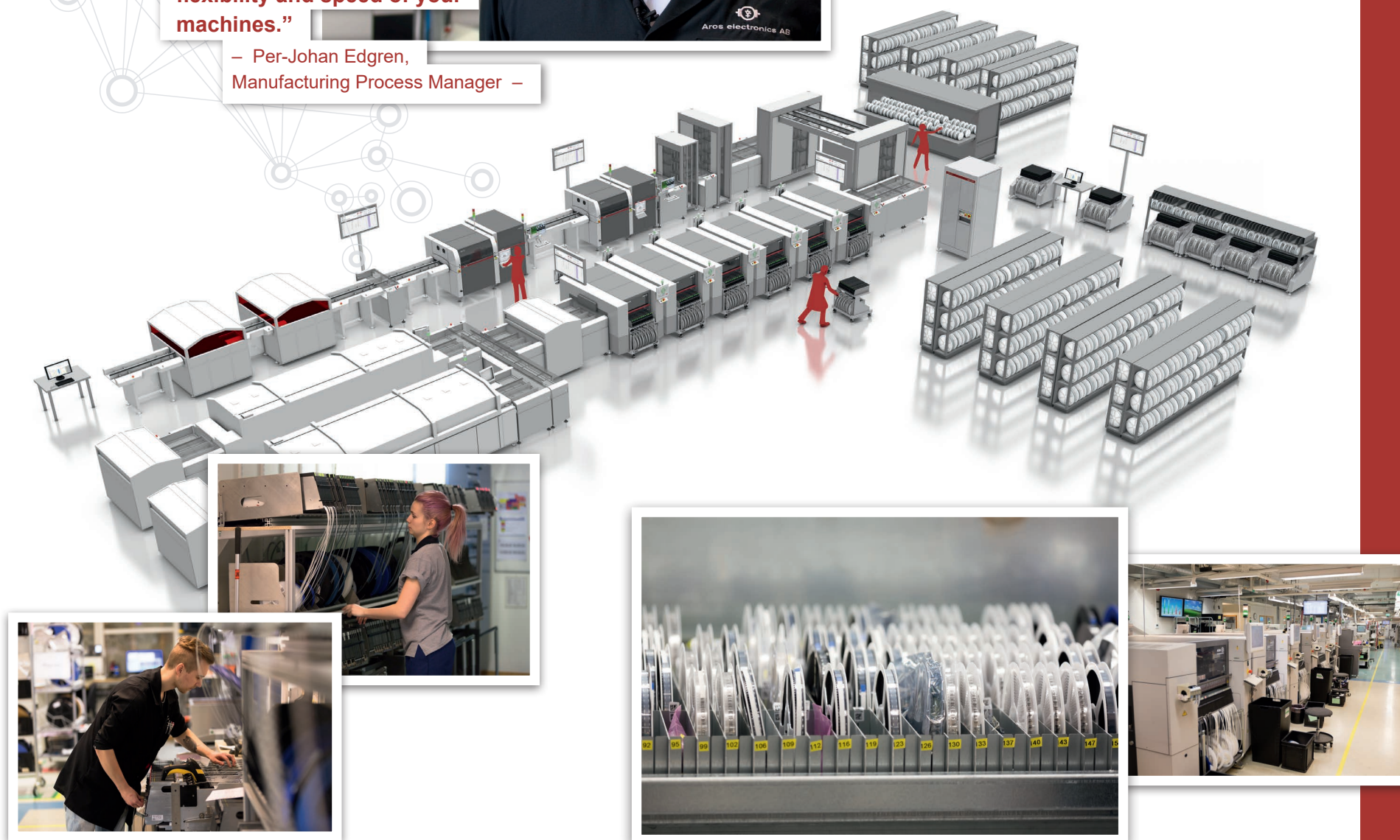
Results/KPIs

- > Process-oriented material logistics
 - Material management with package UIDs, MSD handling, and control of automatic storage systems
 - Shorter distances, faster setup preparation, fewer errors
 - 60% more efficient in material logistics
- > Significantly more efficient setup and production concepts
 - Board IDs control routings and program downloads
 - Expert systems control and optimize printing processes autonomously
 - Flexible routing via dual-lane conveyors (with separate reflow ovens)
 - One side of the line operates with fixed setups/splicing, the other with dynamic feeder tables and family setups
 - Minimization of setup- and material-related line stops
- > Transparency regarding production progress
 - Real-time display of machine and process data
 - Software visualizes the SMT line with drill-down to boards, process parameters, and machine data
 - Assignment of process/machine data to individual board IDs (track-and-trace)
- > Line output increased by 200% (with the same line configuration)
- > Reduction of line staff from 9 to 3 operators per shift

SWEDEN

"If you don't have control over your material logistics you will not have all the benefit of the flexibility and speed of your machines."

— Per-Johan Edgren,
Manufacturing Process Manager —



Space-saving and efficient: components reels with UIDs in the automatic storage system

Scan the QR code to view AROS videos.



 Aros
Smart SMT Factory



 Aros
Workflow Planning



 Aros
Workflow Production



 Aros
Workflow Preparation