



## Starkey Matamoros Plant

### Overview

Starkey is the hearing aid industry's only American owned and operated company. It has been since our inception in 1967. But hearing loss is a global problem, and we now operate 21 facilities, conduct business in more than 100 markets. Starkey Hearing Technologies is recognized across the globe as a premier provider in hearing healthcare. Our belief that each hearing life deserves special, individualized treatment is evident in all our operations, including groundbreaking work in hearing aid manufacturing and our global philanthropic endeavors

### Corporation

Starkey Hearing Technologies Founder and CEO, William F. Austin, founded a hearing instrument repair service in St. Louis Park, Minnesota. Four years later, he acquired a small ear mold company called Starkey Laboratories, and merged his companies under the Starkey Laboratories name.

### Plant

Located in H. Matamoros, Tam, Mexico since 1996, this plant is responsible for the production of 75,000 hearing aids monthly average. In Matamoros Facility is built the 75% of the US Custom Aid orders and the 99% of the Standard products sold worldwide. We currently have 900 employees within a 54,993 sq. ft. of building area.

### Products

Starkey de Mexico produce hearing aids in many styles, such as: Behind-The-Ear hearing aids, Receiver-In-Canal hearing aids, In-The-Ear hearing aids, In-The-Canal hearing aids, Completely-In-Canal hearing aids, and Invisible Products. Factors such as the wearer's level of hearing loss, size of ear canal, even dexterity issues or lifestyles determine which style the client needs.



### Process

The Production area is divided into two basic hearing aid types: Standards (behind the ear/ receiver in the canal) and Custom (inside the ear). We have assemblies and subassemblies production cells; electronic work instructions displayed to each operator automatically, updated to all users and controlled it by a documentation department. Also material handling routes, high tech test equipment for normal and wireless hearing aids, molding lasers/engraving process, resin soft ear mold process and our new acquisition moisture-resistant process.

### Achievements

We have deployed Lean manufacturing as a management philosophy in our plant: 5S, KAIZEN, STANDARD WORK, VSM, TPM, TWI, A3 & DAILY MANAGEMENT SYSTEM, HOSHIN KANRI, LEAN ACADEMY, POKA-YOKE SYSTEM, GEMBA WALKS, helped us in our journey to become leaders in hearing aids manufacturing. Among our main results include the following:

Quality:

⇒ Scrap rate decreased 52%

Cost:

- ⇒ Standard Product cost reduced 32% per unit
- ⇒ Overhead reduction 20%

Productivity:

- ⇒ Global Efficiency improved by 28%
- ⇒ Standard Products efficiency improved 25%

Delivery:

- ⇒ Custom Products cycle time reduced by 36%
- ⇒ Custom orders fulfillment improved by 6%

Continuous Improvement:

- ⇒ More than \$204,837 USD savings due to suggestion systems/implemented ideas
- ⇒ Layout designed to maximize space generating more than 2800 sq. ft. floor space for new products

Customer Satisfaction:

- ⇒ 2011 Manufacturing Award of Recognition. Global Intercompany Support



## Others

All managers and change agents are trained in Shingo model for operational excellence

Shingo Prize Benchmarking with: Toyota, Delphi mechatronic systems, Kemet de Mexico, Denso, Gulfstream, Pentair, etc.

## Foundation

Based on the premise, "Alone we can't do much, but together we can change the world," Bill Austin started the Starkey Hearing Foundation. It distributes and fits over 100,000 FREE hearing aids annually to people in need around the world. Thanks to the efforts of thousands of volunteers and donors around the world. Their support allows us to deliver hearing aids annually through more than 100 global hearing missions a year, in countries like Mexico, Malawi, Vietnam and Mozambique.



**For more information contact:**

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## Morale

Turnover: Around 1% -Excellent labor stability. Benchmark in this area.

Safety: More than 1200 days without accidents since 2009.

TWI: Production training to new employees development up to 6 weeks before starting on production floor, including certification matrix and cross training.

Continuous Improvements System: 60 hours of Lean Culture Training to all employees. Including certification matrix and training effectiveness measurements.

Employee recognition: perfect attendance, years of service, suggestion systems/implemented ideas, cost reduction projects, performance bonus, free breakfast daily to all employees.

Healthcare programs: Every month a medical check-up is provided during work hours. Among FREE services including: dentist, optical, hearing test, diabetes test, counseling, medical doctors, legal service, etc.

Healthcare week campaign held yearly.

Events are held: Mother's Day, Father's Day, Family Day picnic, and Christmas party. Employee satisfaction surveys.

Recycle and energy savings campaign.

Ergonomic: Audits and corrective actions performed. Ergonomic exercises practiced twice daily.

Communication: Meetings held every three months lead by supervisors and operators. Survey of the meeting results taken.

Scorecard: System to measure results at corporate level, Facility Level and Departmental level.

Daily Management System: daily operations meetings are reviewed by Tiers, starting with the Tier one that is the Line Leaders and their Team, second Tier is the Supervisor and Line Leaders, third Tier is the Managers and Supervisors and fourth Tiers are Managers and Plant Director.

## Awards & Certifications

2012 Starkey Hearing Technologies Named "Top Workplace"

2012 The International Excelsis Award (Global Quality Foundation) Best Hearing Aid Business leaders

2012 Silver Edison Award in the category of Science/Medical-Assistive Devices

2011 Manufacturing Award of Excellence Best Custom Production Scorecard 2011 - Starkey Matamoros

2011 Scorecard Performance Award Small Market (<\$10M in revenue) 1st Place Starkey Mexico

2011 Contribution to the creation of new jobs to strengthen the Economic Development of the Municipality of Matamoros 2011

2011 Good Practice from MX (FDA. COFEPRIS) certificate

2010 charitable work was recognized by the President of Mexico Felipe Calderon, with the Aztec Eagle Medal to Mr. Bill Austin, owned of Starkey

2008 Lean Manufacturing Award. Recognition of outstanding improvements in process and quality.

2007 Tamaulipas Quality Award (Contribution to external trade)

2004/2012 Ministerial Ordinance Certification No.169 (PAL)

2001 Outstanding Manufacturing Performance CTPAT certification

ISO9001:2000, ISO13485 Certification