

Background

- Founded in 1957
- Broad range of thermal management solutions and services
- Annual Sales Volume approx. \$60 Million
- Number of Employees = 150
- Manufacturing facilities in NH & CA
- In-house extruding & fabrication capability

Markets Served

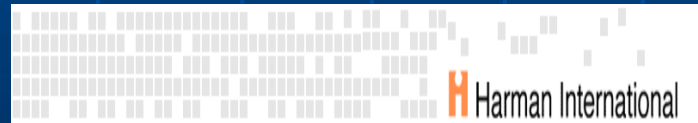
- Data Center Power / Cooling
- Industrial Drives & Controls
- Automotive Entertainment
- Pro Audio Equipment
- Communications Equipment
- Power Supplies
- Medical & Instrumentation
- Transportation
- Military / COTS

New Growth Markets

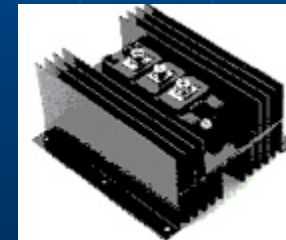
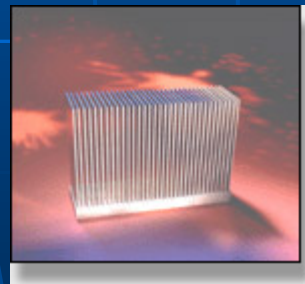
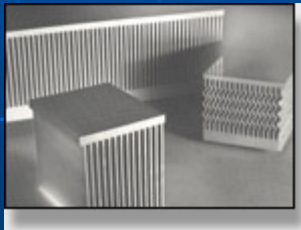
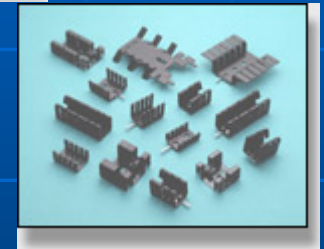
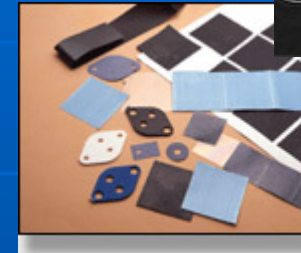
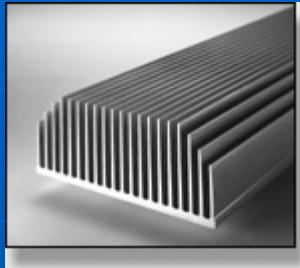
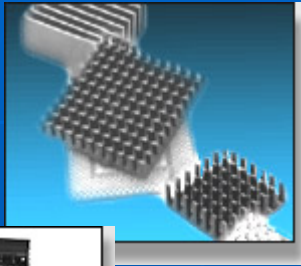
- LED Lighting
- Alternative Energy Power Conversion
 - Wind
 - Solar
- Security
- Fiber to the Home / Broadband
- Electric Vehicles



Customers



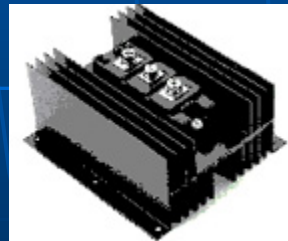
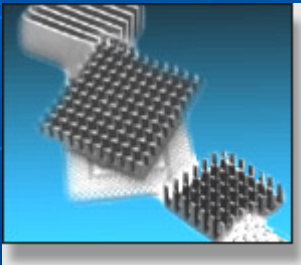
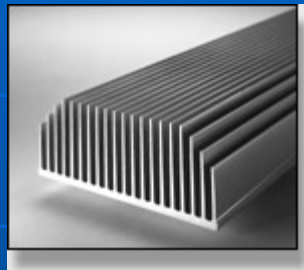
Product Family



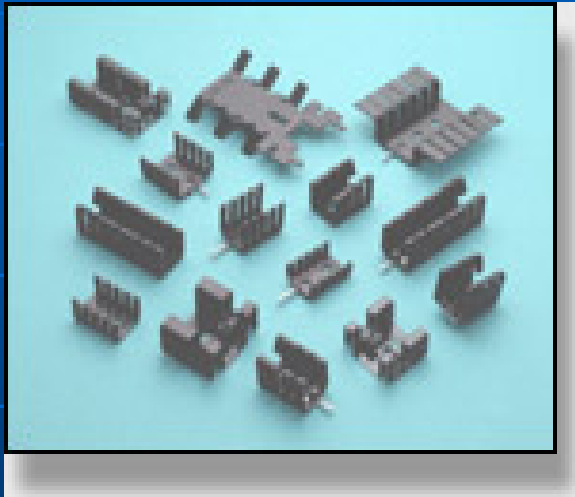
Thermal Products

■ Extruded

- Profiles
 - Flatback/Channeled
 - Double Sided
 - Press Pack
 - Power Module
 - Forced Convection Assembly
 - Enclosure Heat Sinks
 - Misc. (Bar, Angle)
- Custom Products –Fabricated
 - Machining Processes
 - CNC-Punch-Assy.-Finishing
 - Cross Cut
 - Assembled with Clip & Tape
 - Fan Heat Sink



Thermal Products (cont.)



- Stamped
 - Heat Sink formed from a flat stock by a press
 - Board Level
 - Fastener Device Mount
 - Spring Loaded Device Mount
 - Surface Mount
 - Standard Products
 - BGA's
 - Power Devices

- Stack Fin

Thermal Products

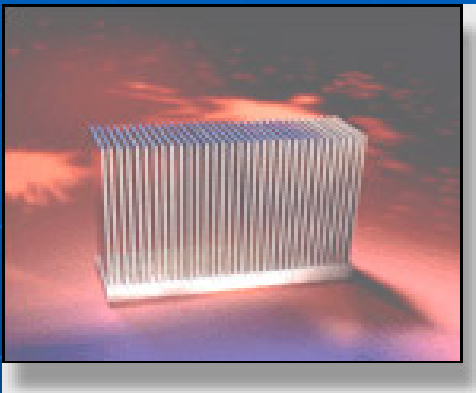


- Liquid Cold Plates
- Used for High-Performance Components & Systems
- Miscellaneous
 - Fans
 - Deltem Heat Sinks
 - Compression Clamps

High Performance Thermal Solutions

■ Bonded Fin

- Fabricated from an extruded base having slots into which straight fins are epoxy bonded



■ Swadged Fin

- Fabricated from an extruded base having slots which fins are mechanically inserted to base without the use of epoxy



■ Convoluted Fin

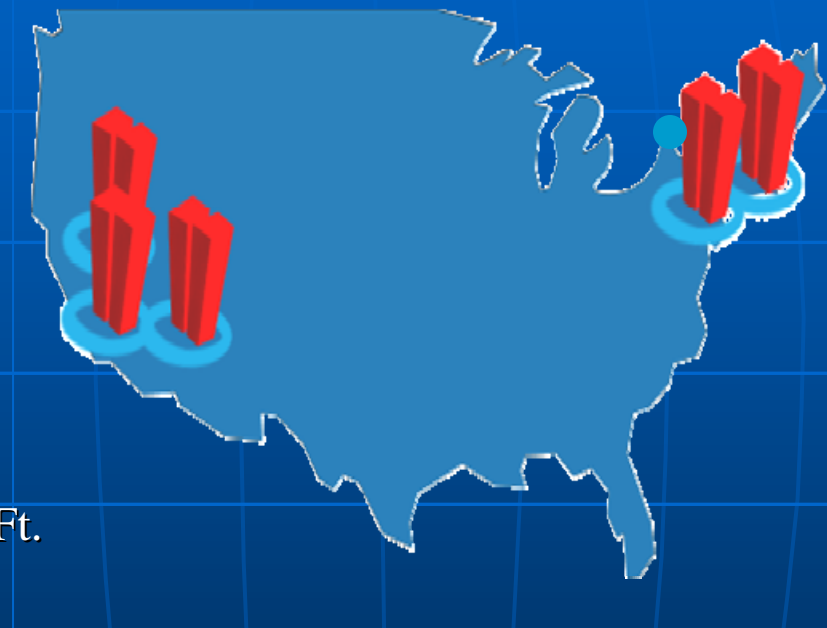
- Fin Structure Made from Sheet stock folded into Square wave shape for High Aspect Ratios
 - Stacked Layers
 - Horizontal/Vertical
 - Aluminum & Copper
 - Modular
 - Attached to Aluminum Base via epoxy bond



Wakefield Facilities

Headquarters-Pelham, NH
>200,000 Sq. Ft.

Wakefield West
Paramount, CA
62,000 Ft. Sq.



Fullerton CA, 15,000 Sq Ft.

Over 275,000
total sq ft

Pelham, NH-Corporate Manufacturing Capabilities

- ISO 9001:2000 Registered
- **Extrusion Presses**
 - **3000 T 11" CCD**
 - PLC Controlled with 100 T stretch & puller
 - Kevlar handling system
 - **1800 T 9" CCD**
 - PLC Controlled 45 T stretch & puller
 - Kevlar handling system
- **Fabrication**
 - 75 Multi-Axis CNC Machining Centers.
 - Punch Press
 - Debur and Wash



Pelham, NH

- **Assembly and Value Added Services**
- **Clamp Assembly**
- **Bonded Fin Assembly**
- **Final Inspection**
- **Shipping**



Pelham, NH Services

- Customer Support
- Order Fulfillment
- Distribution Channel Sales & Service
- Thermal & Design Engineering (CFD)
- New Product Review Team
- Accounting and Finance
- Executive Offices

Wakefield West- Paramount, CA

- Fabrication
 - CNC, Punch, Cut Debur, and Wash
- Distribution & Stocking Center for Standard Products

Fullerton, CA

- *1600 T 7" CCD*
 - Graphite handling system.
- Traditional press practices
 - Extrusion Expertise
- Close Proximity
 - Wakefield West
- Short lead times
- Direct online link with Pelham Engineering group.

Engineering Capabilities

- Thermal/Structural Analysis
- CAD Design
 - AutoCAD 2006
 - Solids Works
- Prototype & Testing Lab
- CNC Programming
 - CAD CAM 9
 - Smart CAM
- Tooling Design & Mfg
- Thermal Performance and testing

Customer Support

- Dedicated Sales Team
 - Applications Engineers
 - Customer Service Reps.
 - Regional Sales Managers
- Manufacturers Reps
- Distribution Partners
 - U.S. Asia, Europe
- Kan Ban Systems
- 3rd Party Warehouse
- Build to Forecast
- VMI
- EDI capability
- Safety Stock Programs

Quality Assurance

- Precision Dimensional
- Rockwell Hardness Testing
- Automated Coordinate Measurement
 - 750mm(x) 625mm(y) 500mm(z)
 - 1500mm(x) 800mm(y) 700mm(z)

Quality Commitment

- Wakefield Thermal Solutions, Inc. is Committed to meeting or exceeding our customer's expectations while continuously improving our product and services
- ISO 9001:2000 Registered

Thank You!