Excellence is more than a word…

it’s our passion

With roots in the world of metal stretching back over 75 years, AIM has evolved from humble beginnings into an international leader in the development, manufacture and application of electronics assembly materials.

Our mission is to offer the most innovative and reliable product solutions available to the electronics industry. At the same time, AIM is keenly focused on the need for customer support at every stage of the professional relationship. In fact, we consider our commitment to providing top-notch technical service to be just as important as our goal of producing market-leading materials.

The key to being a market leader in any industry today rests on the ability to provide customers with unmatched quality, consistency and value throughout the entire process, with products and services delivered locally, and yet still inspired by a global, environmentally-focused view.

We believe that our focus on creating excellence every step of the way is what sets AIM apart, and allows us to meet those challenges. We thank you for the confidence and trust that you have placed in us, and we look forward to continue working closely with you to help you achieve your goals.

Yours truly,

Rick Black
President, AIM
Introduction to AIM
The AIM Advantage

AIM is a subsidiary of American Iron & Metal
- Founded in 1936 in Montreal, Canada
- The group employs over 2000 people worldwide
- A stable and financially secure company

AIM is able to compete successfully with any solder company in the world by offering our customers a unique package of:
- Innovative products
- Leading technology
- Unparalleled service
- Competitive pricing

AIM operates worldwide
- Manufacturing locations located throughout the world
- Global stocking locations to provide reliable supply of product
- Global technical support and customer service

AIM is a cradle-to-grave supplier in North America and throughout other parts of the world with dross and scrap reclamation services
AIM is a Leading Global Manufacturer of Solder Assembly Materials

Products:
- Solder paste
- Bar solder
- Cored wire solder
- Solid wire solder
- Flux
- Cleaners
- Adhesives
- Underfills
- Ribbon
- Foil
- Preforms
Advancement Timeline

**1980 – 1990**
- Ramped up production of solder products for electronics industry

**1990 - 1995**
- Became first company to sell materials to tier 1 EMS specifically for mass lead-free production
- Became first company to open electronic solder manufacturing plant within Mexico
- Won 2nd and 3rd SMT Vision Awards
- Expanded U.S. headquarters and opened support branches in Hong Kong, Singapore and the UK

**1996 - 2000**
- Ramped up lead-free electronic alloy research
- Developed first no-clean paste used by Nortel and DEC (Compaq)
- Received the first patent in the industry for a Sn/Ag/Cu alloy
- Won 1st SMT Vision Award
- Began full-line manufacturing in China
- Opened support branch in northern China
- Chair IPC SPVC Lead-Free Committee
- Developed new lead-free alloy with superior drop test results for BGAs
- Licensed the SN100C lead-free alloy
- Won fourth SMT Vision Award

**2001 – 2005**
- Expanded China headquarters
- Developed SCAN alloy, a RoHS compliant, no-silver, no-bismuth, high-reliability solder
- SMT Vision Award finalist in two categories
- Bolstered the already extensive R&D laboratory with new state-of-the-art testing equipment
- Opened offices in India and Philippines
- Won two NPI Awards

**2006 - 2013**
- Expanded Mexico headquarters
- Opening production facility in Poland
- Expanding Rhode Island facility

**2014**
- Expanded China headquarters
- Developed SCAN alloy, a RoHS compliant, no-silver, no-bismuth, high-reliability solder
- SMT Vision Award finalist in two categories
- Bolstered the already extensive R&D laboratory with new state-of-the-art testing equipment
- Opened offices in India and Philippines
- Won two NPI Awards
Global Presence
Americas

Corporate headquarters located in Montreal, QC
400,000 square foot (45,000 sqm) state-of-the-art facility
Full-line manufacturing
Dross reclamation

Houses:
✓ Research & development
✓ Process engineers
✓ Metallurgists
✓ Chemists
✓ Corporate manufacturing
✓ Production
✓ Quality control specialists
USA Division, Cranston, Rhode Island
US distribution center for full line of solder products
Technical support
Customer service
Extension of AIM Montreal’s Research and Development
AIM’s Specialty Materials/Indium Division
2014 expansion project doubled the size of the facility
Americas

Mexico

- AIM’s Mexican division, Soldadura de Mexico, located in Juarez, Mexico
- First domestic supplier of electronic grade solder pastes and fluxes in Mexico (Established in 1997)
- Relocated in 2013 to much larger and technologically advanced facility very close to the existing one
- Full-line manufacturing
- Dross reclamation
- ISO 9001:2008 certified
- Analytical laboratory

Applications Laboratory:
- Parmi solder paste inspection system
- DEK screen printer
- Yamaha placement machine
- Heller reflow oven
- Rework stations
- Technical Devices wave machine with spray fluxer
Americas
Joint Venture Manufacturing

Brazil

- Solder paste
- Bar solder
- Sales support
- Technical support
- ISO 9001:2008 certified
Europe

Łódź, Poland

- Full-line manufacturing
  - Solder paste
  - Bar solder
  - Cored and solid wire solders
  - Liquid flux
  - Cleaners
  - Adhesives
  - Underfills

- Sales support
- Technical support
- Scheduled to open 2014
Europe
Joint Venture Manufacturing

Milan, Italy

- Solder paste
- Bar solder
- Cored and solid wire solder
- Quality control laboratory

Toledo, Spain

- Bar solder
- Liquid flux
- Solid wire solder
- Quality control laboratory
- Technical support
Asia

Shenzhen, China

- Full-line AIM manufacturing facility under the strict controls of corporate headquarters
- Supporting the Asia-Pacific region
  - Support offices and stocking locations throughout China

Houses:
- Customer service
- Technical support
- Applications laboratory
- Analytical laboratory
Asia

Hong Kong
- AIM’s Asia-Pacific financial headquarters
- Houses:
  - Customer service
  - Technical support
  - Warehousing
  - Bar solder manufacturing

India
- AIM’s applications support and sales office
- Houses:
  - Customer service
  - Technical support
  - Warehousing

Philippines
- AIM’s applications support and warehousing
- Houses:
  - Technical support
  - Warehousing
AIM Global Support & Sales Offices

AIM has additional support offices located in:
- Suzhou China
- Shanghai China
- Bangalore India
- Singapore
- Philippines
- United Kingdom
- Czech Republic
- Germany

AIM distributors located throughout the world:
- Australia
- Austria
- Belgium
- Canada
- China
- Denmark
- Estonia
- Finland
- Germany
- Hungary
- India
- Indonesia
- Ireland
- Israel
- Italy
- Korea
- Malaysia
- Mexico
- Morocco
- Norway
- Pakistan
- Poland
- Russia
- South Africa
- Spain
- Sweden
- Tunisia
- Turkey
- Ukraine
- United Arab Emirates
- United Kingdom
- United States of America
AIM Global Locations

**MEXICO** New State-of-the-Art Facility

**POLAND** New Facility Opening 2014

**AIM LOCATIONS**
- **Australia**
  - Sydney
- **Brazil**
  - São Paulo
- **Canada**
  - Montréal, QC
- **China**
  - Shenzhen
  - Hong Kong, SAR
  - Suzhou
  - Shanghai
- **India**
  - Bangalore
- **Mexico**
  - Juárez
  - Reynosa
  - Guadalajara
- **Philippines**
  - Manila
- **Poland**
  - Łódź
- **Singapore**
  - Sengkang
- **United Kingdom**
  - Surrey
- **United States**
  - Cranston, RI
  - Anaheim, CA
  - Chicago, IL
  - Albany, NY
  - El Paso, TX

**Manufacturing (M)**
**Sales Support (SS)**
**Technical Support (TS)**
**Stocking Location (SL)**
Leading Technology
Focus on Technology

- AIM understands the importance of an aggressive R&D program that provides solutions to a rapidly evolving market.

- Continuous laboratory upgrades and ongoing research and development enables AIM to develop innovative solutions for the manufacturing challenges of tomorrow.
Award Winning Technology

- AIM’s innovative R&D team is strongly committed to product and process improvement
- Received several patents, including one for the CASTIN® lead-free soldering alloy
- Recipient of many prestigious SMT industry awards

1995 SMT Vision Award
- Best New Solder Material of the Year, CASTIN Lead-Free Solder Alloy

1990 - 1995

1996 - 2000

2001 SMT Vision Award
- Best New Material of the Year, Underfill 620

2001 – 2005

2006 - 2011

2012 - 2014

1997 SMT Vision Award
- Best New Cleaning Material of the Year, Enviro-Wipes

2000 SMT Vision Award
- Best New Solder Material of the Year, NC251 No Clean Solder Paste

2008 SMT Vision Award Finalist
- Best Soldering Material, NC257 No Clean Lead-Free Solder Paste

2008 SMT Vision Award Finalist
- Best Adhesive / Coating / Encapsulant / Underfill of the Year, One-Step Underfill 688

2012 Circuits Assembly NPI Award
- Best Soldering Material, NC259 No Clean Lead-Free Solder Paste

2013 Circuits Assembly NPI Award
- Best Flux Material, NC277 VOC-Free Liquid Flux

1997 SMT Vision Award
- Best New Cleaning Material of the Year, Enviro-Wipes

2000 SMT Vision Award
- Best New Solder Material of the Year, NC251 No Clean Solder Paste

2008 SMT Vision Award Finalist
- Best Soldering Material, NC257 No Clean Lead-Free Solder Paste

2008 SMT Vision Award Finalist
- Best Adhesive / Coating / Encapsulant / Underfill of the Year, One-Step Underfill 688
Technology Roadmap
## AIM Timeline of Product Development

<table>
<thead>
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<th>Product Category</th>
<th>SHORT TERM</th>
<th>MID TERM</th>
<th>LONG TERM</th>
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<tbody>
<tr>
<td><strong>Paste</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>RoHS2</td>
<td></td>
<td>01005 and Sub-Visual Components</td>
<td>No residue - No Silver - No Clean</td>
</tr>
<tr>
<td>Print Idle Time</td>
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<td>Expansion of Silver-Free SMT Paste Offering</td>
<td>Beyond Stencil Printing - Jetting? Solid Transfer? Graphene Conductors?</td>
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<tr>
<td>Wetting/Hip</td>
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<td>Solder Residue as Conformal Coating</td>
<td>Air reflow self-encapsulating residues</td>
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<tr>
<td>Cleanable No Cleans</td>
<td></td>
<td>SPI Controlled Solder Volume Augmentation Materials</td>
<td></td>
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<tr>
<td>High Reliability/SIR</td>
<td></td>
<td>Residue interaction with signal spacing compared to current leakage</td>
<td></td>
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<tr>
<td>T4</td>
<td></td>
<td>Conformal coating compatibility</td>
<td></td>
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<tr>
<td>MX Apps Lab - New DEK</td>
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<tr>
<td><strong>Flux</strong></td>
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<tr>
<td>VOC-Free</td>
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<td>No Residue No Clean</td>
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<tr>
<td>Improved SIR</td>
<td></td>
<td>Ultra-High SIR/Signal Purity</td>
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<tr>
<td>Selective - Kruss Equipment</td>
<td></td>
<td>Nano Particle Activator Suspensions</td>
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<tr>
<td>Selective - Partnerships with Pillarhouse/ACE/Soltec</td>
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<tr>
<td><strong>Wire</strong></td>
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<tr>
<td>Better Wetting</td>
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<td>Sub .010 diameter for UPF Rework</td>
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<tr>
<td>Improved SIR</td>
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<tr>
<td>Reduced Residue</td>
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<td>More Consistent Core</td>
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<tr>
<td>MX Lab and Coring Operation</td>
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<tr>
<td>R&amp;D Focus</td>
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<tr>
<td><strong>Alloy</strong></td>
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<tr>
<td>Tin Whisker Resistant Alloys</td>
<td>Expansion of Silver-Free Alloys with Dopants</td>
<td>Nano Powders</td>
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<tr>
<td>Lower Cost Silver-Free Alloys</td>
<td>Optimization of Powder Manufacturing to T5 and Smaller</td>
<td>Beyond Solder - Alternative Technologies for Component Attachment</td>
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</tr>
<tr>
<td>High-Temp, High-Reliability RoHS Alloy</td>
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</tbody>
</table>
Research and Development Laboratories Around the World
AIM Canada Research and Development Laboratory

- Partial equipment list
  - Koh Young Solder Paste Inspection System
  - Gen3 Wetting Balance
  - Bono Testing
  - DSC (Differential Scanning Calorimetry)
  - TGA (Thermogravimetric Analysis)
  - ICD
  - Carl Fisher Coulometer
  - Arc Spark
  - AA (Atomic Absorption)
  - Titration
  - X-Ray
  - SIR Testing
  - Shelf Life and Dry Out Testing
  - Shear Testing
  - Cross-Sectioning
  - Particle Distribution Equipment


Staff consists of:
- Process engineers
- Metallurgists
- Chemists
AIM USA Research and Development Laboratory

Partial equipment list

- Aqua-Quick Water Cleaner
- Olympus Digital Microscope with Imaging Software
- Unitron Scope with Digital Imaging
- Buehler Metallurgical Equipment for Solder Cross Sections
- Chatillon TCM 201-ss for Mechanical Testing of Solder Joints

Staff consists of:
- Vice President of Technology
- Technical Marketing Manager
- Technical Service Engineers
- Support personnel
AIM Mexico Research and Development Laboratory

- New state-of-the-art laboratory
  - Full failure analysis laboratory
  - Cross sectioning and magnification
- Partial equipment list
  - Parmi Solder Paste Inspection System
  - DEK Screen Printer
  - Yamaha Placement Machine
  - Heller Reflow Oven
  - Rework Stations
  - Technical Devices Wave Machine with Spray Fluxer
- ISO 9001:2008 certified

Staff consists of:

- Technical Service Engineers
- Laboratory and testing personnel
AIM China Research and Development Laboratory

- Partial equipment list
  - Fully Automated Wave Machine with Spray Fluxer
  - Cross-Sectioning Capabilities
  - XRF
  - Arc Spark
  - Rheometer

Staff consists of:
- Technical Service Engineers
- Laboratory and testing personnel
Global Technical Support
Unparalleled Global Technical Support

AIM’s global technical resources are available to customers remotely as well as through onsite support and training seminars.

Applications laboratories are used to replicate unique production conditions for product development and optimization, technical support and training purposes.

No matter the location, AIM’s exceptional technical support team is available around-the-clock to assist our customers in reaching their manufacturing goals.

Technical support staff located in:
- United States
- Mexico
- Brazil
- Czech Republic
- China
- Philippines
- India
Consistent Quality
Always Consistent Quality

- AIM’s corporate standards of equipment, manufacturing processes, environmental controls, and quality systems and contingency plans are replicated at each manufacturing facility around the world.

- AIM customers are guaranteed to receive products made of consistent quality, no matter where in the world they are located.

Global Quality Management System

- AIM produces, tests and inspects products to written external/ internal specifications AIM maintains a controlled list, electronic and hard copy of internal, customer and industry specifications
- AIM internal specifications are provided where customer and industry standards are unavailable, inappropriate or inadequate
- Customer specifications are reviewed to ensure AIM’s capability to comply and maintained to verify compliance
- AIM produces material that meets or exceeds industry standards

Commonly referenced industry standards

- ASTM
- IPC
- JIS
Global Quality Management System Inspection & Testing

- **Metal**
  - Tested for major and minor elemental components

- **Solder Powder**
  - Inspected for size, distribution of size, shape, oxide level, moisture content and chemical composition

- **Paste Medium**
  - Tested for corrosiveness, halides, visual, acid value, water content, fineness of grind

- **Cored Wire Flux**
  - Tested for corrosiveness, halides and visual

- **Liquid Flux**
  - Tested for corrosiveness, halides, visual, pH, acid value, specific gravity and non-volatiles

- **Solder Paste**
  - Inspected for metal percentage, viscosity, visual, solder balls, dry-out, paste transfer efficiency, tack, wetting, printing, etc.
Prominent Partners
Prominent Partners
Prominent Partners
Reclamation Services
Reclamation Services

- Limits customer’s environmental liability
- Closed loop, cradle-to-grave recycling
- Up-to-date and current with all local, state and federal regulatory requirements
- Costs based on current metals market
- Fast settlements
- Dross buckets provided at no charge

Materials for recycling:
- Solder pot metal
- Dross/skimmings
- Solder paste/containers
- Circuit boards
- Anodes & anode scrap
Reclamation Metals

Reclaimed materials are not used in the electronics market

Reclaimed materials support industrial markets:

- Heat exchange
- Metals finishing
- Electrical
- Electrical/mechanical preforms
- Stained glass
- Spray metallization
- White metal castings
- Battery/automotive
- Aircraft
- Bearing
- Lighting
Thank You

Solder plus Support

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