Miba Bearings US, LLC

3rd Annual Appalachian Ohio State of the Region Conference
Tuesday, May 20th, 2014
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1927</td>
<td>Company founded by Franz Mitterbauer</td>
</tr>
<tr>
<td>1949</td>
<td>Start of Bearing Production</td>
</tr>
<tr>
<td>1955</td>
<td>Introduction of the Miba Brand</td>
</tr>
<tr>
<td>1963</td>
<td>Start of Sinter Production</td>
</tr>
<tr>
<td>1975</td>
<td>Start of Friction Production</td>
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<tr>
<td>1986</td>
<td>Miba goes public on the Vienna Stock Exchange</td>
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<tr>
<td>1989</td>
<td>International Expansion starts</td>
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<tr>
<td>2005</td>
<td>Start of Coating Production</td>
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<tr>
<td>2007</td>
<td>Opening of Sites in China and Slovakia</td>
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<tr>
<td>2010</td>
<td>Foundation of New Technologies Group</td>
</tr>
<tr>
<td>2011</td>
<td>Opening of Miba Sinter USA and EBG/DAU Acquisition off-road by Friction Division</td>
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</tbody>
</table>
Our Vision
No power train without Miba technology

Our Goals
Profitable core business growth. A new business area provides the basis for at least 1 billion euros in sales.

Our Strategy
Global No. 1 in economically attractive and technologically demanding market segments

Our Mission
Innovation in Motion - Miba technology enables resource-efficient mobility

Our Values
Technological leadership
Life-long learning
Entrepreneurship
Passion for success
Close to our Customers
We are long-term Partner of our Customers
Miba Group
5 Core Segments

<table>
<thead>
<tr>
<th>Miba Sinter Group</th>
<th>Miba Bearing Group</th>
<th>Miba Friction Group</th>
<th>New Technologies Group</th>
<th>Miba Coating Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miba Sinter Austria GmbH</td>
<td>Miba Gleitlager GmbH</td>
<td>Miba Frictec GmbH</td>
<td>Miba Automation Systems GmbH</td>
<td>High Tech Coatings GmbH *</td>
</tr>
<tr>
<td>Vorchdorf, Austria</td>
<td>Laakirchen, Austria</td>
<td>Roitham, Austria</td>
<td>Laakirchen, Austria</td>
<td>Vorchdorf, Austria</td>
</tr>
<tr>
<td>Miba Sinter Slovakia s.r.o.</td>
<td>Miba Bearings US LLC</td>
<td>Miba Steeltc s.r.o.</td>
<td>EBG Elektronische Bauelemente GmbH</td>
<td>Teer Coatings Ltd.</td>
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<tr>
<td>Dolný Kubín, Slovakia</td>
<td>McConnelsville, OH, USA</td>
<td>Vráble, Slovakia</td>
<td>Kirchbach, Austria</td>
<td>Droitwich, United Kingdom</td>
</tr>
<tr>
<td>Miba Sinter USA LLC</td>
<td>Miba Precision Components (China) Co., Ltd.</td>
<td>Miba HydraMechanica Corp.</td>
<td>EBG Shenzhen Ltd. *</td>
<td>Miba Coatings Trading (Suzhou) Co., Ltd.</td>
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<tr>
<td>McConnelsville, OH, USA</td>
<td>Suzhou, China</td>
<td>Sterling Heights, MI, USA</td>
<td>Shenzhen, China</td>
<td>Suzhou, China</td>
</tr>
<tr>
<td>Miba Precision Components (China) Co., Ltd.</td>
<td>Suzhou, China</td>
<td>Miba Drivetec India Pvt. Ltd.</td>
<td>Miba Deutschland</td>
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<tr>
<td>Indaiatuba, Brazil</td>
<td>Advanced Bearing Materials LLC *</td>
<td>Pune, India</td>
<td>Schongau, Germany</td>
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<tr>
<td>Sintercom India Pvt. Ltd.*</td>
<td>Miba Far East</td>
<td>Miba Deutschland</td>
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<tr>
<td>Pune, India</td>
<td>Singapore</td>
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<td>Mahle Metal Leve Miba Sinterizados Ltd.*</td>
<td>Miba Deutschland</td>
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<td>Fellbach/Wolfsburg, Germany</td>
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<td>Miba France SARL</td>
<td>Mipa Deutschaland</td>
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<tr>
<td>Meudon, France</td>
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<tr>
<td>Miba Italia s.r.l.</td>
<td>Mipa Deutschaland</td>
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<tr>
<td>Mondovi, Italy</td>
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* All companies are 100% subsidiaries, except for High Tech Coatings (50.1%), Advanced Bearing Materials (50%), Mahle Metal Leve Miba Sinterizados (30%), EBG Resistors (70%), EBG-Shenzhen (25%) and Sintercom India (26%).
20 Sites Worldwide
Miba’s Global Network

- Sinter Group
- Bearing Group
- Friction Group
- New Technologies Group
- Coating Group
Miba Market Segments
Positioned in diverse Market Segments to reduce Market Risks

- Automotive: 37%
- Construction: 11%
- Truck/Bus: 10%
- Railway/Locomotive: 7%
- Industrial: 7%
- Powerplants: 7%
- Marine/Shipbuilding: 6%
- Agriculture: 5%
- Trade: 4%
- Special machinery: 2%
- Wind: 2%
- Others: 2%
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Divisions at a Glance

- Bearing Group
- Sinter Group
- Friction Group
- New Technologies Group
- Coating Group
## Miba Group Overview on our Core Segments

<table>
<thead>
<tr>
<th><strong>Miba sintered components</strong> are high-precision and high-strength parts. They are used in engines, transmissions, steerings, brakes and shock absorbers of passenger vehicles.</th>
</tr>
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<tbody>
<tr>
<td><strong>Miba bearings</strong> support crankshafts in diesel and gasoline engines of heavy commercial vehicles, locomotives, power plants and ships. Their quality and reliability is critical to the functioning and durability of the engine.</td>
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<td><strong>Miba friction materials</strong> determine the performance of clutches and brakes. They are used in construction machines, tractors, trucks, cars, high-speed trains, motorcycles, aircrafts and wind turbines.</td>
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<td><strong>High-performance components for power electronics</strong> are a key to more efficient power trains as well as to the efficient and effective use of regenerative energy sources.</td>
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<td><strong>Miba Automation Systems</strong> is a specialist for μm-accurate, automated machining and positioning as well as for mobile processing of large components.</td>
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<td><strong>Miba coatings</strong> are used in components for engines, transmissions and other high-stress applications. They improve performance and energy efficiency and also save costs.</td>
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Miba friction materials determine the performance of clutches and brakes. They are used in construction machines, tractors, trucks, cars, high-speed trains, motorcycles, aircrafts and wind turbines.
Friction Group
One-Stop-Shop for Friction Solutions

Technology leader in friction materials
• Fiber Composite
• Carbon Composite
• Sprinkled & pressed Sinter
• Woven Carbon and
• Molybdenum

Our friction materials assure
• a high constant friction coefficient
• low wear and noise level
• high energy load rating
• favorable oil tolerance
High-performance components for power electronics are a key to more efficient power trains as well as to the efficient and effective use of regenerative energy sources.
Power Electronics
Power at the right Time, at the right Place, in the right Intensity

- High power resistors
- High voltage resistors
- Thermal solutions for power electronics
  - Liquid cooling
  - Air cooling
  - Heat pipes
  - Bus bars
Miba Automation Systems is a specialist for accurate, automated machining and positioning as well as for mobile processing of large components.
Miba coatings are used in components for engines, transmissions and other high-stress applications. They improve performance and energy efficiency and also save costs.
Coating Group
Innovation is our Passion

Our portfolio
• Spacecoat® backlash adjustment
• Synthec®-dry lubrication coatings
• PVD/DLC coatings
• Electroplated coatings
• Coating application systems

Our coatings
• improve acoustics.
• reduce friction loss through precise backlash adjustment of gears.
• reduce costs and weight as substitutes for bearings and bushings.
• minimize wear.
Miba bearings support crankshafts in diesel and gasoline engines of heavy commercial vehicles, locomotives, power plants and ships. Their quality and reliability is critical to the functioning and durability of the engine.
Bearing Group
Durable and Safe Engines

Miba half shells, bushings and thrust washers

• enable efficient and ecological peak performances of engines under extreme conditions.
• protect the engine from failure and damage.
• minimize friction during operation.
Our Products

We develop and produce:

- Bearing shells
- Bushings
- Thrust washers
- Fixed profiled journal and thrust bearings
- Direct coatings of tribologically active surfaces
- Manufacturing equipment and tools for bearing production
Close to our Customers
We are long-term Partner of our Customers
Our Products

- rocker arm bushing
- camshaft bearing
- conrod bearing
- piston pin bushing
- main bearing
Applications – High Speed
Miba Bearings US, LLC
McConnelsville, OH

Plant Make Up

No. of Employees: 307  (72 Blue Collar, 235 White Collar)

Operations:
- CNC Machining (54% of Workforce)
- Casting/Foundry
- Electroplating
- Sputter and Synthec® Coatings
- Inspection
- Maintenance
- Utility
- Shipping

Support:
- Managers
- Manufacturing Engineers
- Production Planning
- R&D
- Application Engineers
- Finance and Accounting
- Human Resources
- Sales/Customer Service
Location/Supply Chain

Location
• Located along North State Route 60 in McConnelsville, OH

Successes
Centrally located

Challenges
2 lane highway
No recent developments or improvements
Business Successes and Challenges
Miba Bearings US, LLC

Recruiting

Process

All positions: Advertise via net and newspapers, apply on line
Hourly: Apply online, review of resume, pre-hire testing (Work Keys), interview
Salary: Apply online or through recruiter, interviews

Successes:

• Pre-hire testing with Work Keys administered by Washington County Community College
• Scholarship for Morgan High School students
• Visits with classes from OU, Zane State, MHS,
• Morgan Local Schools Teacher tour/visit
• Machine Skills Trades collaboration
• Washington State Community College program/Certificate

Challenges

• No strong support for encouraging youth to consider Manufacturing
• Lack of interest in Vocational Trades and Engineering in local students
• Location not ideal for relocation
Business Successes and Challenges
Miba Bearings US, LLC

Training

Successes:
• APEG support
• Grant Support
• Development for onboarding process

Challenges
• Employees not starting at ideal “beginner level”
Retention

Successes:
• Multiple persons with 60+ years of service

Challenges
• Many young engineers due to fluctuation
• Hard to retain in area when drawing from outside the area
Successes:
- Business in Morgan County strongest since the 80’s
- Coming on a 10 year trend of tripling the plant to 85-90 Mil. Trend is profitable growth.
- 2012/2013 record sales in plant

Challenges
- Fixed employee costs due to healthcare impact ability to be competitive
- Healthcare driven by inflation, age and cost. Our Ave age is 54.
- Navigating changes creates nervousness in management and hourly employees.
Support from Government Agencies

Successes:
- Ohio Incumbent Workforce Training Voucher Program
- Job Creation Tax Credit 2011
- R&D Tax Credit