



#### Advancing U.S. Exports of Power Technologies and Equipment

#### **Martin Engineering Perspectives**

2009 Electric Power Conference May 11, 2009



# Today's agenda

- Brief overview on capabilities of Martin Engineering
- International Reach
- Business Case for China Operations





Edwin F. Peterson *Founder* 

### **Company Background**

Inception: 1944

**Mission:** Make bulk materials handling cleaner, safer, and more productive

Values: Safety, Quality, Innovation

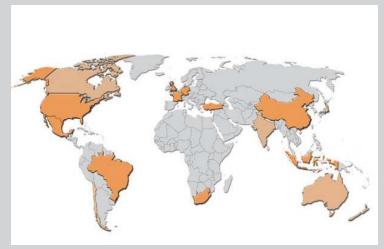


**History:** Founder Edwin F. Peterson invents the VIBROLATOR<sup>®</sup> Pneumatic Ball Vibrator to improve the flow of molding sand from bins in a foundry.

Martin Engineering is founded to develop other systems that improve bulk materials handling







### **Corporate Headquarters**

Location: Neponset, Illinois

**Facility:** 130,000 sq/ft Full in-house manufacturing capabilities \$6 Million in finished goods & inventory

Team: 650 in USA and 600 worldwide

**Global Business Units:** United States, Mexico, France, United Kingdom, Turkey, Brazil, Germany, South Africa, Indonesia and China.

Licensees: Australia, Canada, Chile and India

# **Bulk Materials Handling**



### **End User Challenges**

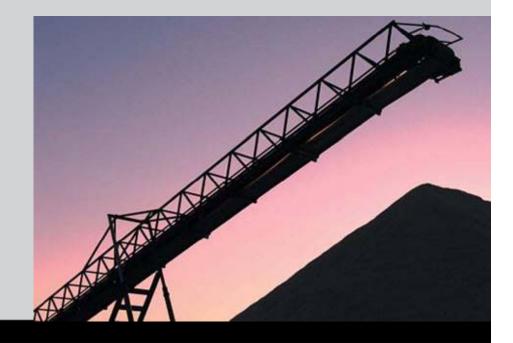
- Managing, containing and controlling fugitive materials
- Controlling costs (maintenance, lost production)
- Preventing equipment failures and inefficient production
- Meeting with governmental and regulatory compliance and safety requirements



# **Bulk Materials Handling**

### **End User Risks**

- Citations, fines, unexpected shutdowns
- Explosion, fire or other safety problems
- Unforeseen maintenance issues and costs
- Decreased reliability, efficiency and profitability









Where efficient bulk materials handling is critical to productivity and profitability.

### **Industry Focuses**

- Coal-Fired Power Plants
- Coal Mines & Prep Plants
- Cement Manufacturing
- Hard Rock Mines & Mineral Processing
- Steel Mills, Ore Smelting & Metal Casting
- Aggregate Production
- Waste-to-Energy Plants
- Pulp & Paper Mills
- Bulk Transport Terminals
- Chemical Processing
- Petroleum Processing
- Metals Mining including Gold, Copper
- & Platinum



### Products & Services • Flow Aid Products



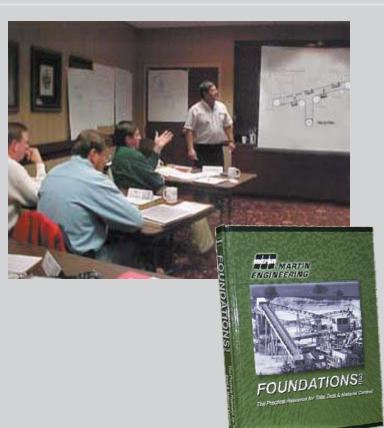
- Engineered Vibration Air Cannon Systems Railcar Unloading Systems
- Conveyor Products
  - Belt Cleaning Systems
    Sealing Systems
    Support Cradles
    Tracking Devices
    Air-Supported Conveyors
    Dust Suppression Systems
- Engineered Systems Transfer Point Design & Construction
  - Engineered Transfer Chutes
- Field Services
  - Installation Laser and System Surveying Silo Cleaning Maintenance Services



### **FOUNDATIONS<sup>™</sup> Program**

Teaching the industry to THINK CLEAN®

- MARTIN<sup>®</sup> FOUNDATIONS<sup>™</sup> book and training programs on Improving Belt Conveyor Transfer Points and material handling
- MARTIN<sup>®</sup> FOUNDATIONS<sup>™</sup>
   Workshops on Improving Operations and Maintenance of Belt Conveyors
- Fourth Edition to be released in 2009





### Lean Manufacturing

- ISO 9001:2000 Certified
- Complete production capabilities
- Workcell approach for assembly (5)
- •1 Million Lbs. urethane molded annually
- Leader in specialty urethanes and custom formulations
- Single-day turnaround on standard products





### **Global Innovation**

Martin Engineering Center for Bulk Materials Handling Innovation

- Product Research & Development
- Training Center
- Polymer & Metals Testing
- Bulk Materials and Environmental Labs
- Full Process Simulation
- Technology Library







### **Specialized Services**

#### Martin Vibration Systems & Solutions

Supplier of "New Generation"
 Pneumatic Vibrators, and Related
 Vibratory Feeders, Conveyors, and
 Compaction Tables

#### *Martin Original Equipment Manufacturers*

 Serves Manufacturers of Industrial Processing and Material Handling Equipment

• Expertise in Engineering of Vibratory Drives and Conveyor Components

#### **Martin Services**

 Specialized services including equipment installation and maintenance





### **Specialized Services**

#### Martin Silo Cleaning & Services

 Specialists in removing buildup from silos, bins and bunkers

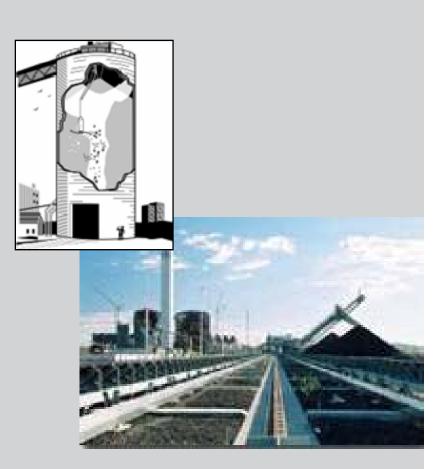
#### Martin Engineered Projects

 Assists In Engineering of New Construction or Plant Upgrade Projects Around the World

 Works With Engineering Firms, Contractors and End-User/Owners

#### Martin Walk The Belt

 Specialists will analyze your conveying system including system analysis, maintenance requirements and upgrade options

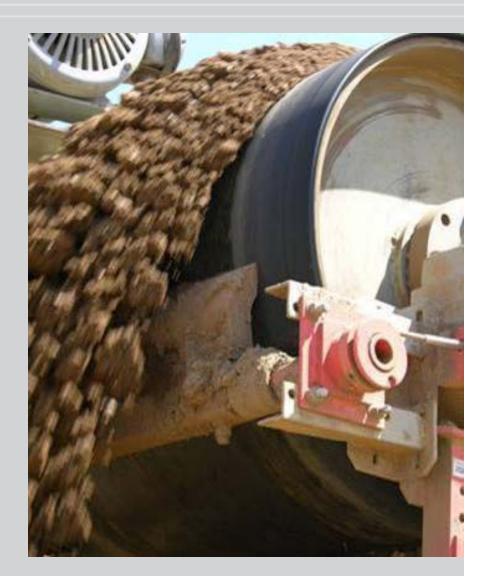


# **Bulk Materials Handling**



# Leader in Belt Cleaner Design

- "CARP" Constant Angle Radial Pressure Design
- Single Pin, No-Tool Blade Replacement
- Slide Mounting
- Urethanes to match application
- Applications for above or below ground
- Specialty cleaners available for unique applications including:
  - Food Grade
  - High Temperature
  - Wash Systems



### **Air Cannon Systems**



BIG BLASTER® Air Cannons Use the Controlled Eruption of a Reservoir of Compressed Air to Boost Flow from Storage or Through Process Vessels.



Martin Engineering Pioneered and Patented the Original Air Cannon, and is the Leader in Air Cannon Technology.

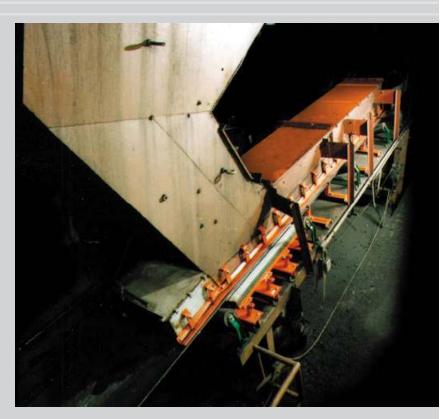


# **Bulk Materials Handling**



### **Transfer Point Solutions**

- Designed to reduce dust, spillage and improve conveyor performance
- CEMA rated containment solutions including:
  - Skirtboard Sealing
  - Belt Support Cradles
  - Impact Cradles
- Automatic tracking technologies maintain consistent belt centering
- Dust suppression and control solutions address environmental and safety hazards



# **Bulk Materials Handling**



# Advanced Conveyor Technologies

#### **Martin® Inertial-Flow Transfer Chutes**

- "Hood And Spoon" design channels material onto the receiving conveyor with minimal impact, turbulence, and dust
- Computer modeling is used to evaluate material flow and system performance
- Controls dust without baghouse collectors

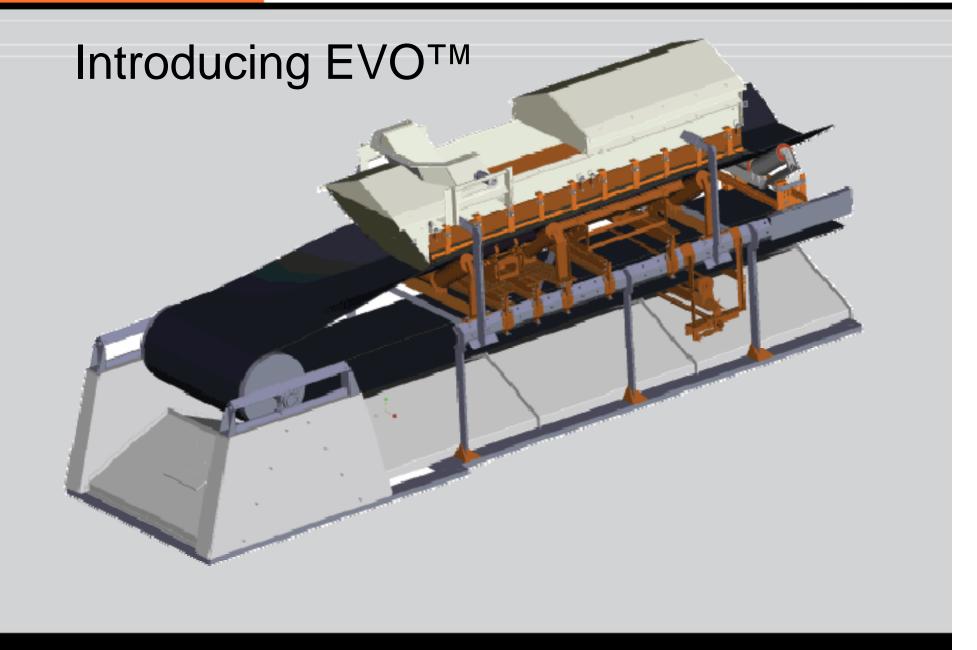
#### Martin® S-Class<sup>TM</sup> Air Supported Conveyors

- Fully enclosed system prevents dust escaping
- Low horsepower fan and low friction enables high efficiency
- Replaces idlers with a layer of air













- "Conveying Evolved"
- New way of looking at conveyor performance and design
- Focusing on dust resistance and control, safety, serviceability and moving more material



# International Manufacturing **Capabilities**



#### Martin Engineering South Africa Witbank, RSA

- Acquired in 2003
- New facility opened in 2007

#### Martin Engineering GmbH Walluf, Germany



• Acquired in 2006

 Serves representatives in Germany, UK, France, Spain, Turkey, Saudi Arabia, Northern Africa, CIS







# International Manufacturing Capabilities



#### Martin Engineering China Kunshan, PRC

• Acquired in 1998

• WFOE opened in 2005

#### *Martin Engineering ,Ltda. Campinas, Brazil*

- Acquired in 1989
- New facility opened in 2008









# **Global Reach**

Key distributors and dealers across the globe

- Argentina
- Australia
- Belgium
- Brazil
- Bulgaria
- Canada
- Chile
- China
- Columbia
- Czech Republic
- Denmark
- Dominican Republic

- Egypt
- Germany
- Greece
- Hong Kong
- India
- Indonesia
- Israel
- Italy
- Japan
- Malaysia
- Peru
- Philippines
- Portugal

- Puerto Rico
- Romania
- Slovenia
- South Africa
- South Korea
- Sweden
- Switzerland
- Taiwan
- Thailand
- UAE
- USA
- Venezuela
- Vietnam



# **Customized Offerings Regionally**

Varied product and service offerings by region and industry needs



Unique Secondary Scrapers for the South Africa Mining Market

Unique price point offering for Air Cannon technology in China





Specialized Dust Management offerings for unique challenges in Brazil



### **International Challenges Overcome**

Many challenges to overcome and manage effectively when working internationally

- Cultural differences
- Language barriers
- Time zone differences
- Technology differences/capabilities
- Training cross-culturally
- Variations in local laws and regulations
- Variations in regional codes and government
- Balance local assembly with exportation of core technology



# Martin Engineering Business Case for China



# "Unlimited" Opportunity





# **Target Industries**



 Coal Fired Power Plants: 1,000 (one new plant opened each week)

- Cement Production Facilities: 1,200
- Coal Mines: 23,000



# **Martin History in China**

- 1990's ..... Limited success
- 2000-2004.....Moderate growth
- 2005.....Decision to move forward with a more formal presence in China



# Martin Challenge in China

- Need competitively priced offerings which compete with domestic suppliers.
- Organizational structure which utilizes Chinese management team.
- Structure that supports local assembly and core component exportation from USA.



### Wholly Foreign-Owned Enterprise (WFOE)

- The Wholly Foreign Owned Enterprise (WFOE) is a Limited liability company wholly owned by the foreign investor.
- In China, WFOEs were originally conceived for encouraged manufacturing activities
  - Export orientated or introduced advanced technology



# **WFOE** Rules

- WFOE Rules require that "the establishment of WFOE must benefit the Chinese national economy"
  - China "encourages the establishment of technologically advanced WFOEs"



# **WFOE** Rules

- One of the most important issues in WFOE application is business scope...
  - Business scope needs to be defined and the WFOE can only conduct business within its approved business scope, which ultimately appears on the business license.
- Any amendments to the business scope require further application and approval



# **WFOE Strategy**

- Our investigation showed that the set-up costs for a joint venture before the commencement of production would be very high, compared to the WFOE approach.
- WFOE strategy allowed for Martin Engineering to maintain complete ownership of the business enterprise and to operate the business without the constraints of a partner that didn't share the same goals, expectations, values, and corporate culture



# **WFOE Advantages**

- Ability to formally carry on business rather than just a representative office function
- Capable of issuing invoices to their customers in RMB and receive revenues in RMB
- Capable of converting RMB profits to US dollars for remittance to their parent company outside China



# **WFOE Advantages**

- Protection of intellectual know-how and technology
- Greater efficiency in our operations, management and future development



# **WFOE Capital Requirements**

• The minimum registered capital guides for manufacturing industries:

RMB 1 million or USD \$140,000



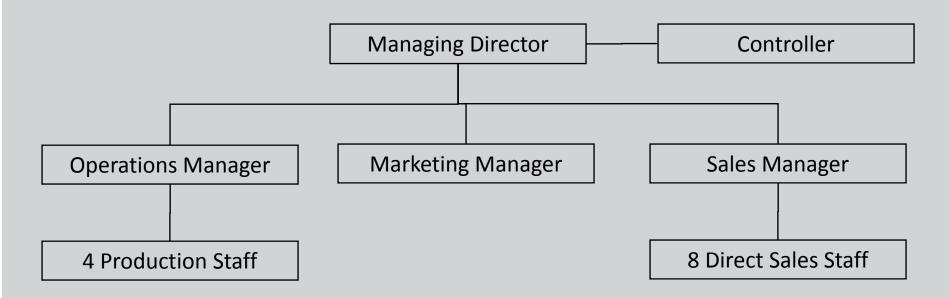
### Martin Engineering China... Welcome to Kunshan!!

- Located between Shanghai to the east and Suzhou to the west
- Kunshan City is the eastern gateway of Jiangsu Province
- Currently, there are about 650,000 permanent residents living in Kunshan





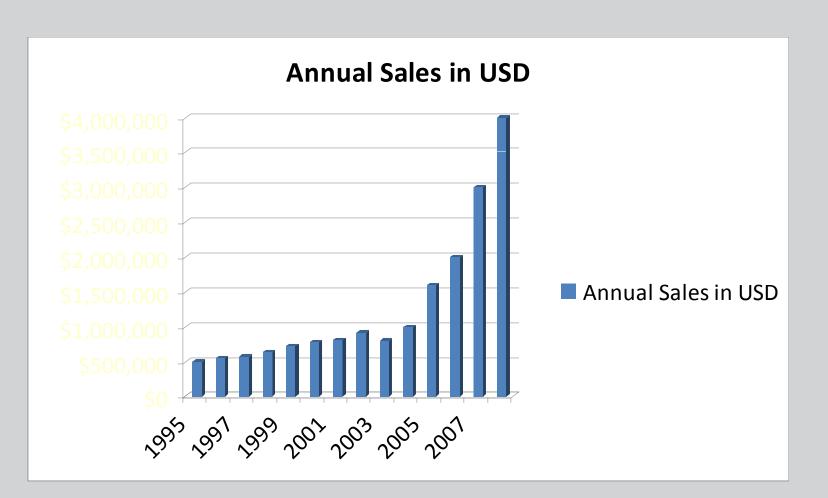
# Martin Engineering China Resources



• 100% of Martin staff are Chinese Nationals

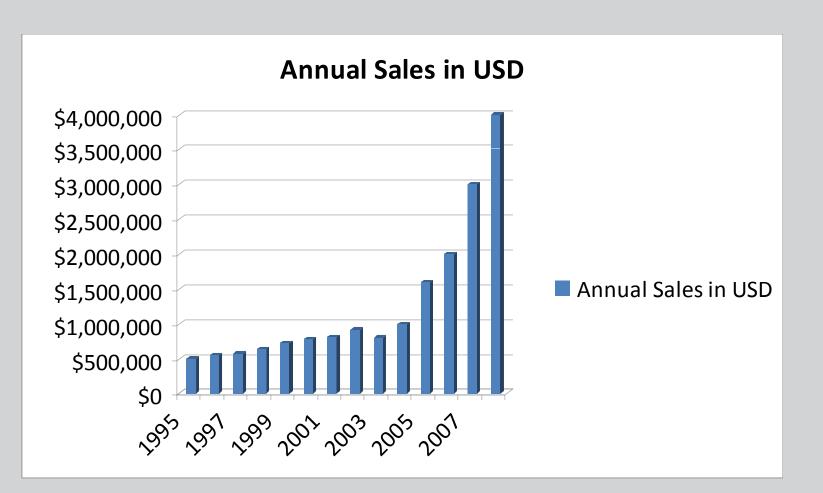


# **Business Results**





# **Business Results**





# **Ongoing Benefits**

- Continued business growth
- Greater market penetration and market share growth
- Exports from USA...4 times level from pre-WFOE structure
- Superior support for global customers





# **Thank You!**

Martin Engineering Products are Covered by Issued and Pending USA and International Patents

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