

# **Status and Outlook for the USA & European Magnet Industry**

**The Japanese Association of  
Bonded Magnet Industries**

**2003 BM Symposium**

**December 11, 2003**

*by*

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# Outline

**Western magnet producers status**

**Market and competitive trends**

**The future outlook for the US & Europe**

**Anticipated trends in China**

**IMA status report**

**WebMagnetics – the internet portal**

**Summary**

# The Past Few Years - Difficult

- **Weak local market demand**
- **Customer migration to Asia**
- **Chinese competition strengthening**
- **Continued industry consolidation**
- **Numerous plant closures**
  - **VAC USA**      - **Magnequench**

# Consolidation Will Continue

## (Example: US Producers)

- **No ferrite slab or ring producers**
- **One sintered NdFeB producer (2003)**
- **One ferrite arc producer (in 2-3 years)**
- **One or two bonded NdFeB producers ?**  
(The question is not “if”, but “when”)

# **Worldwide Consolidation Will Also Continue**

- **Hitachi-Sumitomo combination was unthinkable just a few years ago**
- **Underlying financial pressures will assure additional worldwide consolidation actions**
- **A consolidation process in China is also on the horizon**

# **The Results Have Been Devastating**

- **Many plant closures**
- **Business consolidation**
- **Limited R&D funds**
- **US production to Mexico and China**
- **Financial losses**
- **Lost jobs**

# **The Outlook is Grim**

**(For those who do not act decisively)**

- **Customer migration to Asia will continue**
- **Domestic western markets will recover with only modest growth**
- **The Chinese will continue to expand**
  - **Production capability**
  - **Technology will improve**
  - **Exports will continue to grow**

# Example – US Imports (Metal)

(\$ 000)	2000	2001	2002
Mexico	1,702	952	?
Japan	44,130	30,289	30,930
China	28,002	31,229	30,753
All Other	42,846	31,848	34,084
<b>Total</b>	<b>\$ 116,680</b>	<b>\$ 94,318</b>	<b>\$ 95,767</b>
<b>China %</b>	<b>24.0%</b>	<b>33.1%</b>	<b>32.1%</b>



# Example – US Imports (Ferrite)

<b>(\$ 000)</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Mexico	11,001	10,938	11,282
Japan	16,088	9,717	9,569
China	31,913	28,445	31,130
All Other	23,377	29,710	30,136
<b>Total</b>	<b>\$ 83,721</b>	<b>\$ 78,810</b>	<b>\$ 83,308</b>
<b>China %</b>	<b>38.1 %</b>	<b>36.1 %</b>	<b>37.4 %</b>

# Current Estimates of Western Magnet Production (2002)

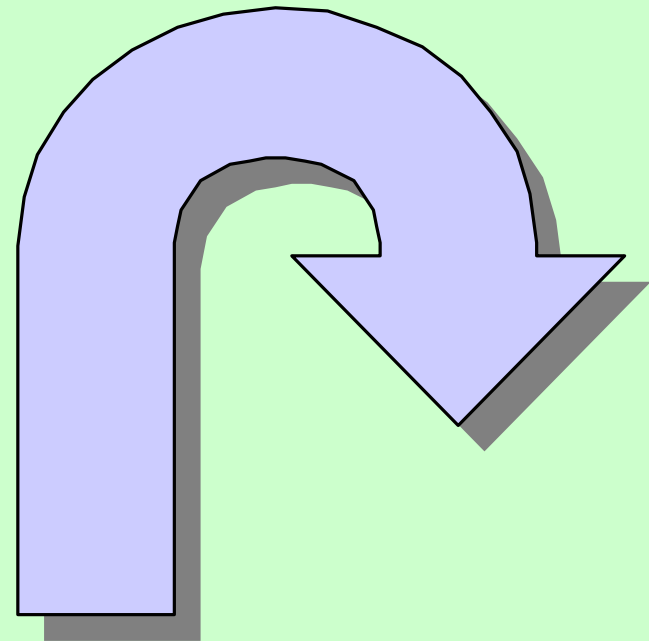
( \$ Million)	USA	EUROPE
ALNICO	33	22
FERRITE	114	48
RARE EARTH	80	87
<b>BONDED</b>	<b>163</b>	<b>149</b>
<b>TOTAL</b>	<b>\$ 390</b>	<b>\$ 306</b>

# Current Estimates of Western Bonded Magnet Production (2002)

(\$ Million)	USA	Europe
Flexible	78	100
Rigid Ferrite	45	17
Rigid Rare Earth	40	32
<b>TOTAL</b>	<b>\$ 163</b>	<b>\$ 149</b>

# Western Production of Permanent Magnets

- It is likely that in 2004, U.S. and Western European production of permanent magnet materials may represent **less than 20%** of total world production!



# Western Industry Trends

- **Environmental regulations will increase costs**
- **Downward price pressure will continue**
- **Labor costs will continue to escalate (especially benefits)**
- **Capital investment will be limited**
- **Additional consolidation is a certainty**

# Anticipated Trends in China

- **Growth of production capacity will slow**
- **Continued technology advancements**
- **Continued world-wide market penetration**
- **Pricing pressure will continue**
- **Domestic market growth will be significant**
- **Industry consolidation will begin**

# The Western Survival Strategy

- **Distinguished Domestic Capability**
  - Outstanding customer service
  - Design & development support
  - Prototype and small/rush order capability
  - Value-added capability
  - **Advanced materials & new products**
- **Outstanding China Capability**
  - Low cost high-volume manufacturing
  - Consistent and high product quality
  - Reliable delivery performance

# **New Bonded Magnet Technologies**

## **(Recent Gorham Conference-Detroit)**

- **Isotropic SmFeN (Hitachi)**
- **Anisotropic SmFeN (Hitachi)**
- **Anisotropic NdFeB (Aichi Steel)**
- **Japan is the leader in bonded technology development**



# China is the Low-Cost Leader in Permanent Magnet Production

- **The migration of the permanent magnet industry to China will continue – especially NdFeB and Ferrite**
- **Risks of conducting business in China are being reduced & payback can be very attractive**
- **Today, most companies can easily establish operations in China to compliment a sound overall business strategy**

# An Example – Setting up in China

- **The Nordic Industrial Park**
- **Located in Ningbo**
- **Western management**
- **Single-story factory with mezzanine**
- **No employee dormitories**
- **Turn-key service –WOFE or JV**
- **Economical and fast !**
- **Website: [www.nip.com.cn](http://www.nip.com.cn)**



# **A Global and Expanded Magnetics Industry Trade Association**

# **The International Magnetics Association – Mission**

- **To promote the worldwide growth, development and use of magnetic materials and devices through:**
  - **Collection and dissemination of global trade statistics**
  - **Publication of industry standards**
  - **User and industry education**

**[www.intl-magnetics.org](http://www.intl-magnetics.org)**

# **The International Magnetics Association – Status Report**

- **Recent merger with MDFA**
- **Significant membership increase**
- **42 member companies as of 9-1-03**
- **74% USA    19% ASIA    7% EEC**
- **Major membership initiative underway**

# **The International Magnetics Association – Membership Advantages**

- **Executive networking**
- **Industry standards**
- **Statistical programs**
- **Scholars program**
- **Benchmarking program**
- **Educational seminars & presentations**
- **Business round table**

# **The International Magnetics Association – Division Structure**

- **Permanent Magnets**
- **Soft Ferrites**
- **Distributors & Fabricators**

# WebMagnetics.com

- **Website features include:**
  - Industry news
  - Company directory
  - Conference Schedules
  - Recruitment & placement services
  - Acquisition & divestiture information
  - Product & service finder
  - Equipment for sale



# WebMagnetics.com

- **Subscriber profile**
  - North America - 45 %
  - Asia - 25 %
  - Europe - 25 %
- **Site traffic**
  - 400,000+ hits per month
  - 3,000+ unique visitors per month
  - Over 10,000+ visits per month

# WebMagnetics.com

- WebMagnetics has established itself as **the internet portal** for the worldwide magnetics industry, serving a broad constituency:
  - Magnet producers
  - Magnet users
  - Equipment manufacturers
  - Fabricators & distributors
  - Raw material suppliers
  - Industry service suppliers

# Presentation Summary

- **The marketplace for permanent magnets is now truly global**
- **Large customers will continue to demand Chinese sourcing at lower prices – along with excellent service & quality**
- **Customers will continue to demand new technologies and materials development**

# Presentation Summary

## (Continued)

- **Western companies must establish a China capability in order to survive**
- **There will be continued worldwide industry consolidation**
- **The world market for magnets is a growth market – *those who adapt to change will be successful***

*Thank You !*

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