

International Manganese Institute Annual Conference

An Overview of Mn Ore & Alloy Production North America “Capacities vs Consumption Potential”

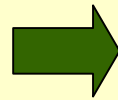
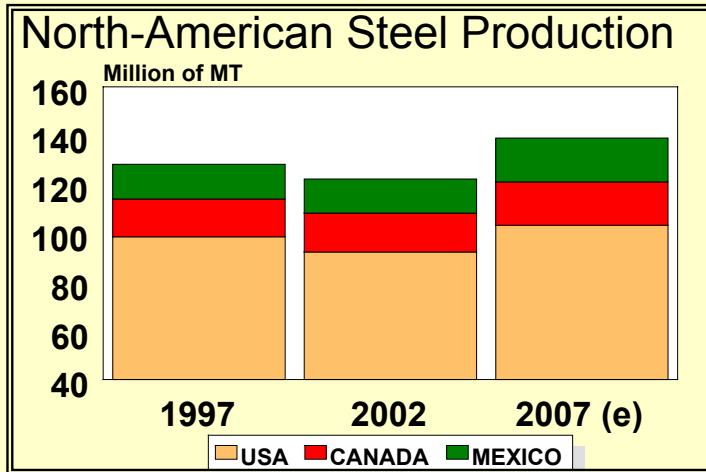


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- **Steel Industry Perspectives**
- **Mn Alloy Capacity**
- **Mn Alloy Capacity vs Consumption**
- **Mn Ore Capacity**
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- **Conclusions**

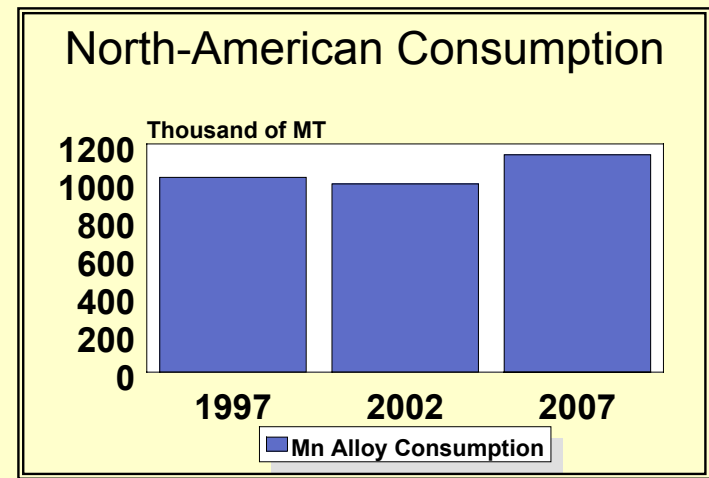
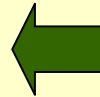
Steel Industry Perspectives



- The year 2002 was the beginning of the recovery for this industry worldwide.
- Steel industry expects a moderate increase on its production levels for the next years.

Source: World Steel Dynamic

➤ Therefore, North- America Mn Alloy consumption is in line with the growth expectation of the steel industry.

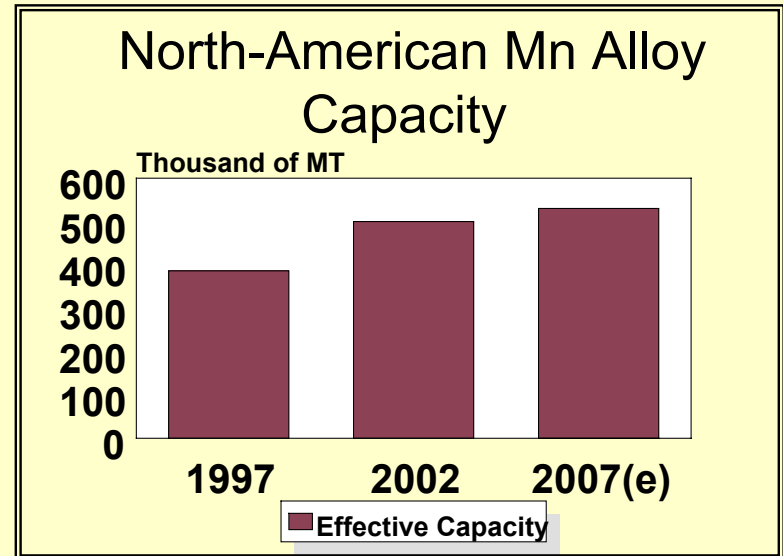
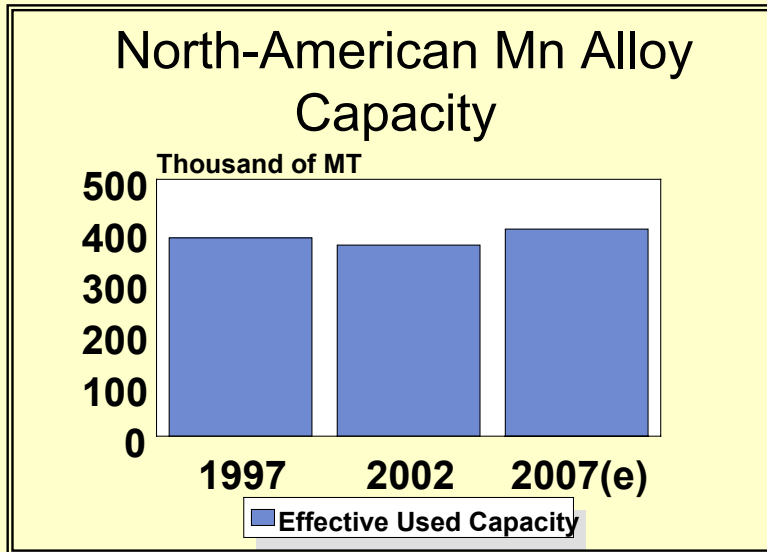


Source: Autlan

Mn Alloy Capacity

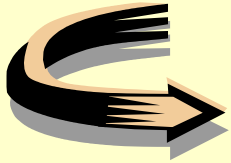
North American Alloy capacity will not anticipate many changes for the next years, however, we visualize two perspectives with regards capacity:

- ❖ Effective Capacity Used
- ❖ Effective Capacity



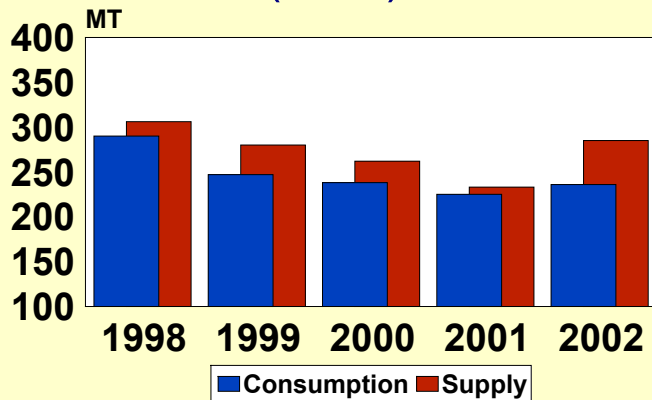
Source: Autlan

Mn Alloy Capacity vs Consumption



➤ **Mexico is self sufficient and due to its capacity installed is more than able to supply domestic consumption.**

Consumption-Supply FeMn
(USA)

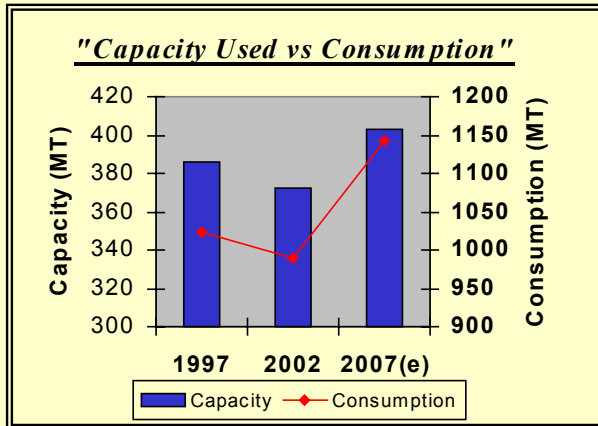


Source: CRU/Autlan

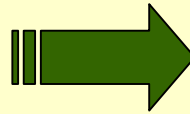
North-America has been oversupplied during the last years. For instance, we can see in the chart the relation supply-consumption for the FeMn in the USA.

Destructive competition of main players has caused an excess of material and pressure on prices most of the time.

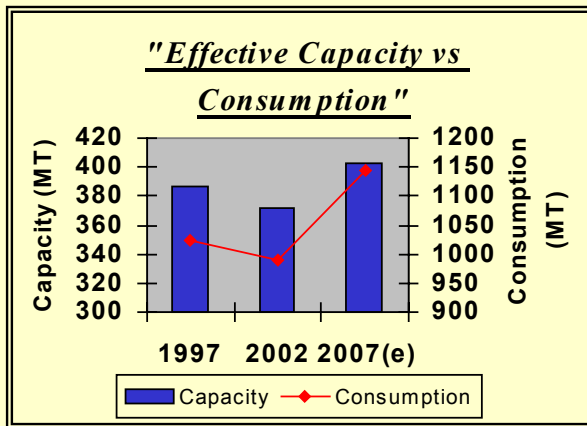
Mn Alloy Capacity vs Consumption



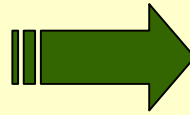
Source: Autlan



If we consider only the current capacity used, the industry is able to supply more than a third part of Mn Alloys needs.



Source: Autlan

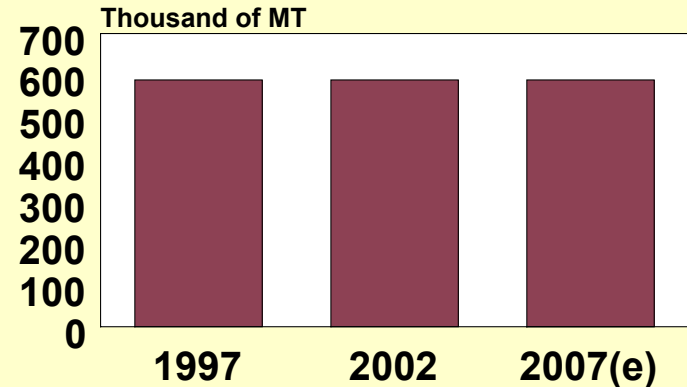


If we consider the total installed capacity, it will be able to supply up to half of Mn Alloys needs.

Mn Ore Capacity

- *The only Mn Ore producer in North-America is Mexico.*
- *We neither expect or see increase in the levels of Mn Ore capacity.*
- *Reserves are good and stable.*

North-American Mn Ore Capacity

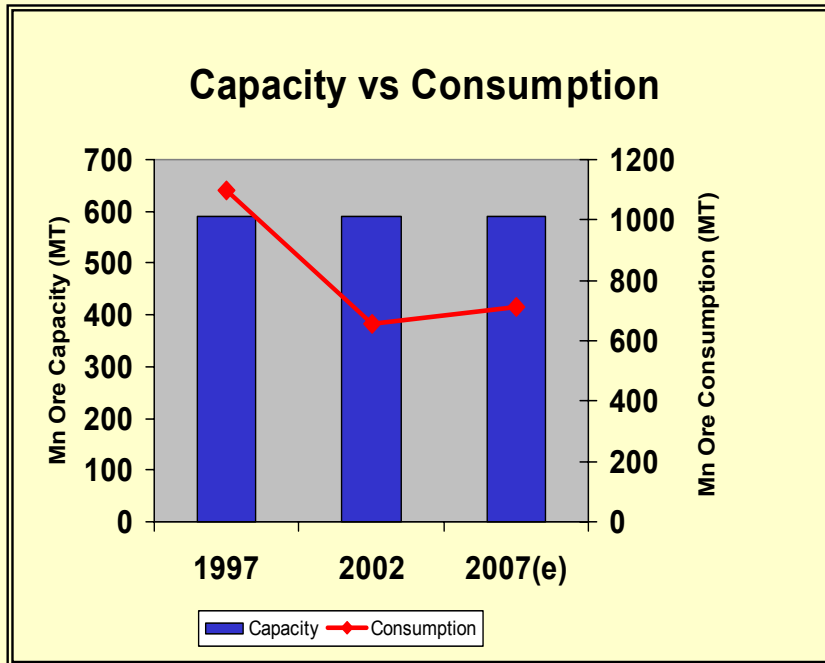


Source: Autlan

Capacity

In addition to capacity, DLA supplies of Mn ore to this market.




Mn Ore Capacity vs Consumption



Source: Autlan USGS Canadian Statistics

- Mn Ore Capacity is limited in this region.
- Alloy producers are dependent on Mn Ore imports and DLA material.

Conclusions

-  *There are new potential producers trying to get into this market, however, to success in the Mn Alloys requires experience and “know-how”. Due to all these kind of problems at this moment it is unknown its impact in the market.*
-  *New players could affect more an already oversupplied market in the next years.*
-  *No forecast for new Mn Ore capacities, Mexico and DLA will remain as the only options in this market.*