



# Ferro Alloy Sector Hit by High Costs & Imports

- Steelworld Research Team

Operating with around 62 per cent of installed capacity, the ferro alloys industry in India is struggling to raise efficiency and economic health of producing units due to competitive imports. With a production capacity of 4.65 million tonnes, the industry is sufficient to meet ferro alloys requirement to produce more than 120 million tonnes of steel per annum.

Ferro alloys' production in India has shot up to 2.87 million tonnes in the financial year 2010-11 as compared to 2.63 million tonnes in the previous year. Despite over 9 per cent rise in domestic production, the import surged to set the new record this year. Ferro alloys are used in production of mild steel, carbon steel, special alloy steel and stainless steel in the country. India's steel production is increasing every year; thereby the consumption of ferro alloys is also increasing. The industry has enough capacity to produce ferro alloys required for domestic steel industry.

However, certain basic raw materials, i.e., ores viz., manganese ore, chrome ore, roasted molybdenum ore and concentrate / moly oxide, tungsten ore, wolframite ore, scheelite ore, nickel oxide, vanadium ore, vanadium pentoxide, ammonium

| Installed Capacity (million tonnes) |             |                           |                      |
|-------------------------------------|-------------|---------------------------|----------------------|
| Type                                | Capacity    | Production During 2010-11 | Capacity Utilization |
| Manganese Alloys                    | 2.75        | 1.70                      | 62                   |
| Chromium Alloys                     | 1.60        | 1.03                      | 64                   |
| Ferro Silicon                       | 0.25        | 0.11                      | 44                   |
| Noble Alloys                        | 0.05        | 0.03                      | 60                   |
| <b>Total</b>                        | <b>4.65</b> | <b>2.87</b>               | <b>62</b>            |

### Manganese Slag

Ferro manganese slag is generated as a byproduct while producing ferro manganese. For every tonne of production of ferro manganese, approx. one tonne of slag is generated. This slag is consumed in the production of silico manganese. The consumption of such slag for producing one tonne of silico manganese is 600 kg. per tonne of silico manganese. Generally, ferro manganese is produced on high MnO slag practice basis, i.e., above 38 % MnO in slag. However, considering the availability of low Mn/Fe ratio of manganese ores in the country, ferro manganese producers are unable to produce ferro manganese with such high MnO2 slag. The availability of manganese ore has become very critical in the country, and the industry has already started importing manganese ore in large volumes. The industry produces 30 % of manganese alloys in the form of HC ferro manganese the rest 70 % is silico manganese. Therefore, availability of slag is very low for producing silico manganese. The average consumption could be considered as 600 kg of ferro manganese slag per tonne of silico manganese.

The production of HC ferro manganese remained volatile in the last three years. The total output in India was recorded at 390,000 tonnes in 2010-11, a significant rise from 341883 tonnes in the previous year. In 2008-09, however, the output of HC ferro manganese was witnessed at 372,286 tonnes. But, the production of silico manganese remained consistently higher from the level of 889,434 tonnes in 2008-09 to 1066485 tonnes and 1250000 tonnes in 2009-10 and 2010-11 respectively. From the above production levels, the demand of ferro manganese slag works out to around 7,50,000 tonnes, whereas

considering the ferro manganese production, the availability of slag would be around 2,92,500 tonnes (75 % of ferro manganese production is considered as high MnO slag production process). Thus the demand supply gap would be around 4, 57,500 tonnes during this year. This will increase in the coming years, considering the projected increase in steel production and the demand of silico manganese.

### Imports

Imports of ferro alloys have increased as and when the basic customs duty is reduced. The imports were Rs 2630 million when the duty was reduced from 25 to 20 % in 2003-04, and increased to Rs 4793 million in 2004-05 when the same was cut to 15 %, and again to Rs 5913 million in 2005-06, with the further downward revision in customs duty to 10 %. Further, overall imports shot up to Rs 7798 million when the import duty was reduced to 7.5 % in 2006-07. With another downward revision to 5 per cent import duty in 2007-08 the overall imports surged to Rs 10894 million and further to Rs 15,300 million during

2008-09, when the duty was made "nil" on ferro alloys imports. A slight reversal was noticed in the value of imports at Rs 15,165 million in 2009-10 when 5 per cent import duty was restored. Further the import surged to Rs 20,338 Million in 2010-11 with the same duty rate.

At a time when Indian ferro alloys producers have slowly expanded their installed capacity over the years to meet the expected rising demand from steel industry, cheap import from China is steadily grabbing the domestic market share. Used as an ingredient for steel making, ferro alloys consist of around one per cent of overall raw materials in furnace. The latest assessment by the IFAPA, said that the capacity utilisation has declined to 62 per cent in 2010-11 as compared to 65 per cent last year. The overall installed capacity of the industry stood at 4.04 million tonnes last year. Amid expectations of luring figure of steel production of 100 million tonnes by 2012-13, ferro alloys producers continuously added the production capacity over the last several years. In the financial year 2010-11 alone the industry added over 0.61 million tonnes to 4.65 million tonnes. Fortunately, the demand of the steel making ingredients has also increased.

But, according to T S Sundareshan, secretary general, the Indian Ferro Alloy Producers' Association (IFAPA), the advantages of the demand is muted because of escalating import from



| Rising Imports (Bulk Ferro Alloys, Rs Million)       |                |                |                |                |                |
|--|----------------|----------------|----------------|----------------|----------------|
|  | 2010-11        | 2009-10        | 2008-09        | 2007-08        | 2006-07        |
| Ferro Manganese : Carbon containing, > 2 % by weight | 17,481         | 9,292          | 6,012          | 1,988          | 1,074          |
| Other Ferro Manganese                                | 21,447         | 19,312         | 15,996         | 19,763         | 10,963         |
| Ferro Silicon containing >55 % of Si                 | 119,701        | 111,243        | 58,703         | 62,547         | 64,797         |
| Other Ferro Silicon                                  | 15,394         | 13,895         | 24,048         | 33,763         | 22,038         |
| Ferro Silico Manganese                               | 1,642          | 1,377          | 239            | 513            | 207            |
| Ferro Chromium ; Carbon containing, > 4 % by weight  | 6,344          | 3,706          | 3,346          | 1,738          | 1,316          |
| Other Ferro Chromium                                 | 16,068         | 13,518         | 9,028          | 17,564         | 17,737         |
| Charge Chrome  | 2,503          | 500            | ==             | 869            | 10             |
| <b>TOTAL (A)</b>                                     | <b>200,580</b> | <b>172,843</b> | <b>117,372</b> | <b>138,745</b> | <b>118,142</b> |

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China and thereby, an imminent reduction in the capacity utilisation. Apparently, Chinese products are widely accepted by Indian steel makers due to competitive price. Since, the quality of imported goods is almost at par with the product of domestic origin, steel mills prefer the Chinese ferro alloys in order to keep higher margins.

“Rising import is a major cause of concern for the domestic ferro alloys industry. Hence, we have recommended the government to raise import duty to 7.5 per cent to protect the domestic industry from cheap imports. Currently, import duty stands at 5 per cent,” said Sundareshan.

#### Piling Up Foreign Exchange Outgo

With the result, outgo of foreign exchange has increased to Rs 75,408 million in last six years. This could have been avoided, and the requirement could have been met from the domestic production, by utilizing the idle capacity, which would increase the Revenue from Indirect taxes like excise duty, sales tax, etc. It would add to better utilization of investment in idle plants, create more employment and increase in GDP, an analyst said.

#### Common Benefit

Any measures being applied to steel Industry get indiscriminately applied to ferro alloys for Iron and Steel. It is, therefore, necessary that ferro alloys to be singled out from any customs related measures to reduce the customs duty structure on iron and steel, given its non-level playing field. Government's revenue will increase by levying higher import customs duty. The industry fears that there will be

cheap imports from other countries with the import duty on ferro alloys at 5 per cent. The Industry needs a level playing field by supplying power at international price. The power tariff is 3 to 5 times higher as compared to the power tariff available in other Ferro Alloy producing countries. These costs disadvantage encourages other countries to export ferro alloys into India at very low prices when the duty is also at a lower level in the country. Therefore, it is necessary to increase the basic customs duty from 5 % to 7.5%.

Considering the total imports of ores, it will be observed that the import of raw material - manganese ore, chrome ore, molybdenum ore and vanadium oxides are negligible. These raw materials are very essential for producing manganese alloys, chrome alloys, ferro molybdenum and ferro vanadium respectively, to cater to the steel and stainless steel industry in the country. As the steel production increases, the requirement of manganese

Roasted molybdenum ore and concentrate is not available in the country, and it is 100 % dependent on imports and vanadium oxides are almost 75 % dependent on imports. The availability of manganese ore and chrome ore, in the country is not sufficient to produce the required Alloys for the steel industry. It is therefore required to import high grade manganese ore and chrome ore to blend with the low grade available ores within the country and produce the required ferro alloy for the domestic steel industry as well as for exports.