



Refractory sector immune to global economic meltdown

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Being fully reliant on end user industries including steel and aluminium, the Indian refractory industry is currently encompassing the downward cycle. Although this has not affected the growth rate of the industry at all, yet it is a matter of great concern. The global economic slowdown has affected the local manufacturing sectors badly with demand from auto, aviation and railways remains stagnant since the blip of meltdown felt about 12 months ago. Being immune to the global industrial development, India's refractory industry has witnessed a dramatic squeeze in margins amidst poor demand from end users and raising raw material prices. Sudden fall in demand has also caused huge inventory pile ups thereby pressurizing manufacturers to clean up stockpiles at the price decided by the end users.

The Indian refractory manufacturers are squeezed between the raw material suppliers and steel makers. The negotiating power of refractories makers is very poor, mainly due to its

size, as it is catering to an industry far bigger in size, primarily steel. Raw material prices are on fire. But unlike steel makers, it is difficult for refractory manufacturers to pass on the burden of increasing raw material prices. Even for them, who operate in high end technology segments, the real price rise of the end products in the last two years has been actually negative. Margins are under severe pressure.

Fresh steel production capacity to the tune of 4.8 million tons will come on stream in 2009-10 taking the total finished steel capacity for the industry to around 70 million tons. In view of this, finished steel production is expected to grow by 6.5 percent in 2009-10. The government's emphasis on infrastructure spending in order to stimulate economic growth is expected to keep demand for long products healthy. Real estate construction activity would pick up gradually in the second half of 2009-10 due to low interest rates and fall in property rates and hence the demand of steel and its backward integration products. Such projects may provide

stimulus for refractory companies also.

The industry

According to available reports, installed production capacity as on December 2006 was roughly around 20 lakh tons per annum. Conservatives estimate that it went up by around 5 to 10 percent in 2007 and remained stagnant in 2008. Similarly, the production capacity that stood at 10 lakh tons per annum is estimated to have grown by at least 10 percent in 2007. But it is expected that by 2010, along with the increase in steel production in the country, the demand for refractories will touch 12 lakh tons per annum. Industry experts, however, draw a different picture. Items, which are enjoying good demand, do not have excess capacity. Makers of these refractories are operating currently at 80 percent capacity utilisation. But, apprehensions are that there would be a shortage in the market once the expansions plans by Indian steel producers start rolling at the expected pace.

The refractory industry is small and fragmented, but is very important. The industry is fragmented with more than 150 players. Out of the lot, there are around 15 to 16 major players while the remaining are smaller ones. On the other hand, there are only a few big customers. This has provided a major bargaining power to the consumers. At the same time, severe competition within the country as well with global players, mainly the Chinese manufacturers, have forced the Indian players to operate on thin margins. But consolidation may not be a solution in the Indian refractory industry, feel experts.

Taking all factors into consideration, it will be very interesting to watch the way this industry moves. However, all these hurdles have not slowed the industry's progress. Apart from steel, demand is rising from sponge iron and cement units too, which has resulted in a sales growth of around 7 percent this year. The industry had recorded a turnover of Rs 3,000 crore in 2007-08, against Rs 2,370 crore in the last

fiscal. Production stood at 1.3 million tons in 2007-08, against 1.08 mt in 2006-07, up around 17 percent. Growth in sales was driven by growing demand from sectors like steel, cement, aluminium, sponge iron and others.

Exports during 2007-08 were at Rs 452 crore, up from Rs 314 crore in the previous fiscal. However, imports stood at a staggering high of Rs 818 crore, which industry experts found promising. A majority of these imports in 2007-08 came from China which could pose a threat for the indigenous refractory industry. China has an advantage over India in terms of raw material availability. China had certain good quality raw materials as well.

Post technological innovation, changes

The average specific consumption of refractories in the steel industry is 12 to 13 kg per ton of steel. About a decade ago, it was 30 kg for every ton of liquid steel. Some of the leading players have achieved higher efficiency. Their average specific consumption has improved to around 7 to 8 kg per ton of crude steel. Given the current technology, the current benchmark average specific consumption level of 7 to 8 kg per ton of crude steel will be achievable for a handful of good producers. For others, the average specific consumption level will come down to around 10 to 10.5 kg per ton as against the current average of 12 to 13 kg per ton.

Raw material imports

According to informed sources, in the last 10 to 12 years, the Indian refractory industry has been "considerably dependent" on imports from China for critical raw materials, such as brown fused alumina. The Indian refractory industry requires about 50,000 tons a year of brown fused alumina. Most of this is imported from China, as India does not produce sufficient quantities of equivalent quality. Sources said that over the last three-four years China has progressively introduced measures that discourage refractory exports. These include licensing, quantitative restrictions, export duties and withdrawal of export benefits.





Prices of raw materials imported from China are pegged on a shipment basis and are highly unstable. Thus, there is always a big difference between refractory prices when the company settles a contract and when the product is delivered. Refractory companies suffer because of this volatility. It is therefore believed that incorporation of such a clause is now a necessity. However, some industry experts are sceptical as they feel enforcing such a clause can be quite difficult. Long term contracts are not being signed due to advantages for Chinese exporters who cash in on the price rise.

Moreover, refractory usage is improving significantly. Specific consumption would be going down, and with upgraded technology, demand for high quality product would rise. Indian refractory makers need to address these issues.

Cheap imports

The cheap production cost in China is one of the major challenges. China has access to cheap but quality raw materials required in manufacturing of refractories. Interestingly enough, several Chinese units that produce refractories are joint ventures between Chinese and European parties. It is understood that most of the plants get tax benefits as several of them are located in special economic zones.

"At this juncture, Indian refractory manufacturers can respond in two ways. They can either opt for a price war with the Chinese manufacturers in which case they would bleed severely as margins are already thin. Second strategy is to become export oriented," explained an eminent industry expert. And this is exactly what some of the eminent players have been doing. Some of the manufacturers are exporting as much as 60 percent of their entire production. At a national level, India currently exports around 10 percent of its entire refractory production.

Issues and challenges

Another major challenge is marketing and packaging. "Indian players must

focus on better, competitive and customised or tailor-made products for their clients. India is gaining significant reputation in the international market, mainly Europe and the US, but there is still a long way to go," explained an eminent industry representative. Refractory manufacturers should realise that there is no unique refractory solution in steel production. Different types of steel production require different type of refractories. Moreover, wearing rate of refractory depends on several factors including time of exposure, temperature, degree and fluctuation of temperature. All these need to be kept in mind while supplying refractory for optimal utilisation, he added.

In addition, like several other manufacturing sectors in India, the domestic refractory sector is also facing severe crunch in quality manpower. A major area of concern is availability of adequately qualified and competent workforce. In the emerging new trend, customers are looking for a complete solution wherein refractory makers need to source trained manpower to service their products. With the government aiming to invest more and more on infrastructure development, the steel industry in the country is slated to grow to, possibly, 120 million tons or even up to 150 million tons by 2015. According to most reports, the cement, aluminium and other industries are also to grow to unprecedented heights. This should be good news for refractory producers in India but you have to rise to the occasion by providing ready, regular, speedy and consistent supplies.

Both steel and refractory industries are raw material intensive and have to cover their raw material fronts adequately. Otherwise, the producer may either be starved of the raw materials after five or 10 years; or may have to pay through your nose and ultimately get driven out of the market. Now that the steel industry's long term prospects are bullish and the overall market seems to be expanding, it would be useful for refractory producers to look around

for the raw materials, firstly within one's own country, or failing that, in a neighbouring country or with one with very substantial reserves and gradually build up commercial and business relations to secure the raw materials front. Every user, big and small, is expecting more from the refractories industry so that they can concentrate on their core function of producing the right quality, the right quantity and at the right time. This practically means the end of the days of supply of refractories as a commodity. They have to be designed, engineered, produced, installed and maintained as per the specific requirements of each user.

Future growth

There is a good opportunity for Indian refractory makers to augment their export as China has stopped refund of Value Added Tax (VAT) on refractory exports, which is almost 17 percent. Indian refractories are thus becoming more and more competitive. There is increasing scope for exports especially in European markets. Currently, India exports around 10 percent of its production. But in the existing scenario, this could double in the next three years. Indian products are sailing all across the globe, primarily to EU, Middle East, South Africa and Far East including Malaysia and Indonesia. However, Indian products are yet to enter the American markets in large volumes because high freight cost is making it uncompetitive. It is worth mentioning, that these markets are very particular about the consistency of the quality and their renewed confidence is a

signal that assures the quality of Indian products. India is having superior engineering skill; high quality technology and equipment from Germany and Italy, access to superior quality raw materials and all these factors are resulting in superior quality refractory output.

However, overseas producers of automotive steel and other high quality steel are slow in accepting Indian refractories. Otherwise, acceptance of Indian products is high. So, the growth of the Indian steel sector is extremely crucial to analyse the future status of Indian refractory makers. Therefore, the refractory makers are trying hard to make the best prediction regarding the realisation of the plans.

The next five years can be clearly divided into two phases. During the next three years, steel output is likely to grow at an annual rate of 9 to 10 percent. But there would be a significant change after that, from 2011-12 onwards. Then the Indian steel industry might see a high double digit growth in the Indian steel sector. Market dynamics would surely change for the refractory makers as well.

Refractory makers are setting up new plants and are augmenting production capacities. Steel makers, on the other hand, are not being able to go ahead with their expansion plans. This might lead to significant mismatch. It will create some problem for the brick (a type of refractory) makers, as orders have been placed but steel makers are not picking up the goods.



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