

Structural Steel and main producers

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The production of structural steel in India increased from around 2.3 million tones between 2000-01 and 2002-03 to around 3.0 million tones between 2003-04 and 2004-05. The consumption also increased accordingly. However, almost the entire extra production has come from secondary producers and there has been practically no growth in case of main producers. This can be seen from the tables below :

It is ironic that at a time when Institute for Steel Development & Growth (INSDAG) is making concerted efforts to increase steel usage, particularly in construction sector, the main producers, who are promoters and founders of INSDAG, are showing no growth in production of steel structurals.

Steel structurals are categorized into light, medium and heavy depending on size and weight. The

| Year | Main Producers | Secondary Producers | Total | % Share of Secondary Producers | Consumption ('000T) |
|---------|----------------|---------------------|-------|--------------------------------|---------------------|
| 2000-01 | 1040 | 1285 | 2325 | 55 | 2345 |
| 2001-02 | 1034 | 1291 | 2325 | 55 | 2354 |
| 2002-03 | 1046 | 1277 | 2323 | 55 | 2335 |
| 2003-04 | 1109 | 1890 | 2999 | 63 | 2952 |
| 2004-05 | 1024 | 1950 | 2974 | 67 | 2977 |

size wise (mm) categorization is shown below :

Among main producers, light structurals are produced by Bhilai, IISCO & VSP, medium structural by Durgapur, IISCO & VSP and heavy

| | Average Production ('000T) during 2000-01 to 2002-03 | Average Production ('000T) during 2003-04 to 2004-05 | Growth (%) |
|---------------------|--|--|------------|
| Main Producers | 1040.0 | 1066.5 | 2.5 |
| Secondary Producers | 1284.3 | 1920.0 | 49.5 |
| Total | 2324.3 | 2986.5 | 28.5 |

structurals by Bhilai & IISCO. Tata Steel, which was earlier producing structurals has closed down their structural mills. Secondary producers historically produced light structurals, but they are now producing medium and heavy structurals also.

The rail and structural mill of Jindal Steel & Power in Chattisgarh is the latest mill in secondary sector and is having flexibility to produce several sections. However, category wise production of structurals is not available in case of secondary producers. The category wise capacity and actual production in respect of main

producers is shown in table – 3.

In the light structurals category, capacity utilization was 95% in case of Bhilai 67% in case of IISCO and 0% in case of VSP. In respect of medium Structural, it was 76% in case of Durgapur, 62% in case of IISCO and

Its overall production is low.

- Bhilai is concentrating on rails in its rail and structural mill due to good demand from railways and hence production of heavy structurals has come down.
- RINL/VSP is concentrating on

blooms/billets produced by main producers is an important input for secondary sector. No main producer is thinking in terms of modernizing/modifying, let alone installing a new structural mill.

Visakhapatnam Steel Plant is a 3.0 million tonne plant operating at nearly 120% liquid steel capacity. It is a zero debt company and depreciation burden is also not much. Its operating parameters are comparable to the best in the world. The plant is making profits since 2002-03 and will continue

| | Beams/Joists | Channels | Angles |
|-------------------|-----------------------|-----------------------|------------------------|
| Light Structural | Upto 125 x 70 | Upto 100 x 50 | Upto 90 x 90 |
| Medium Structural | 125 x 75 to 200 x 100 | 125 x 65 to 200 x 76 | 100 x 100 to 130 x 130 |
| Heavy Structural | 250 x 125 & above | 250 x 82 to 400 x 100 | 150 x 150 & above |

67% in case of VSP, while it was 22 % in case of Bhilai and 116% in case of IISCO in respect of heavy structurals. In respect of VSP, production of light structurals was insignificant between 2000-01 and 2002-03, while it was only about 23% of capacity in 2003-

Rebars in Light & Medium merchant mill and 65x65/75x75/90x90 squares in medium merchant & structural mill and consequently structurals production has come down.

The secondary producers have grabbed the space vacated by main

to make profits even in difficult market conditions. Therefore it has the capability to price out the secondary sector and capture large market share. Probably that is what the company should do, particularly since it has a capacity to produce 1.08 million tones

| Category | Bhilai | Durgapur | IISCO (as per current assessment) | VSP | TOTAL | Bhilai | Durgapur | IISCO | VSP | TOTAL |
|----------|--------------|----------|-----------------------------------|------|-------|--------|----------|-------|-----|-------|
| Light | 400 (apprx.) | - | 58 | 674 | 1132 | 382 | - | 39 | - | 421 |
| Medium | - | 207 | 34 | 406 | 647 | - | 157 | 21 | 274 | 452 |
| Heavy | 250 | - | 82 | - | 332 | 56 | - | 95 | - | 151 |
| Total | 650 | 207 | 174 | 1080 | 2111 | 438 | 157 | 155 | 274 | 1024 |

04. In respect of other categories, all plants maintained steady production except heavy structurals by Bhilai.

The probable reasons for low production of structurals by main producers are:

- Tata steel's structural mills were old and hence have been phased out. They are now concentrating on HR, CR & GPGC sheets and Bars & Rods.
- IISCO is awaiting modernization.

producers. By adopting flexibility in prices and terms of supply, they have created further problems for main producers. However, except for a few mills, the structural mills in secondary sector are old and manually operated. Consequently, productivity and quality are not upto the mark.

It is therefore strange that main producers have ceded ground to the secondary sector. It is ironic that

of structurals. (62% light and 38% medium). (nearly 45% of total finished steel). The market will definitely accept its product, because of its superior quality. They should increase structurals production at least to the extent of MS 125, 90, 75, 65 billets/squares they are now putting in the market. This quantity was over 5,00,000 T in 2004-05. It will also simultaneously need a change in marketing attitude and strategy. Other main producers are not having much scope to increase

Industry groupwise consumption of structurals (average of 2003-04 & 2004-05)

| Sl. NO. | Industry / Consumer group | Consumption ('000T) | % to Total |
|---------|--|--|------------|
| 1. | Construction : a. House Builders B. Public Bldgs / Hotels C. Industrial Construction d. PWD / CPWD Sub Total | 176 227 333 24 760 | 25.63 |
| 2. | Infrastructure : a. Railways b. Power c. Irrigation d. P & T e. Ports & Ship yards Sub Total | 191 235 12 19 10 467 | 15.75 |
| 3. | Heavy Industry / Govt : a. Defence b. Steel Industry c. Coal Industry d. Oil Sector e. Other Heavy Inds f. Other Govt. Depts Sub Total | 51 183 37 40 90 75 476 | 16.05 |
| 4. | Engineering / Processing Units : a. ENgineering Units b. Machinery Manufacturers c. Elect Manufacturers d. Auto/Tractor/Cycle e. Tube Makers / CR Units / LPG Bright bar units / drum, barrel & Container / furniture makers/consumer Durables / hardware & Fastener / Agricultural implements Sub Total | 666 56 19 56 95 892 | 30.080 |
| 5. | Miscellaneous | 370 | 12.490 |
| | Grand Total | 2965 | 100.00 |

production of structurals.

As per detailed study undertaken by INSDAG, steel/cement ratio is more than 1.0 in developed as well as some developing countries, while it is only around 0.3 in India. Industrial buildings, Bridges, residential buildings, office buildings, ware houses & storage facilities, schools/college buildings, multistory & high rise buildings, roads, dams etc are mostly built with steel in countries like Japan, Germany, UK, US, France, Korea, Australia etc. In India however, RCC structure is still dominant. INSDAG has been coordinating with architects, designers and structural consultants to make them aware of the many advantages of steel as construction material. There has been some success and several steel intensive structures/buildings have come up in the last few years in various parts of the country. However, there is still a long way to go. Main producers in general and VSP in particular should join INSDAG to promote steel usage in construction.

The usage pattern of steel structurals in different end use segments is shown in table – 4. It is obvious that there is huge potential particularly in construction & infrastructure sectors. It may be noted that long products constitute 57% of finished steel in China (India 43%) and structurals are 40% of this (India – 20%)

