

# India's rising star in stainless steel tubes and pipes

By Frank Wöbbeking

**"Prosperity through performance":** this is the slogan that Ratnamani Metals & Tubes Limited uses to clearly formulate its ambitions. "In the long term we want to become competitive with the global players," says Mr. Prakashchandra Bhat, General Manager (Commercial). The company already manufactures a wide range of high-quality stainless steel tubes and pipes which meet the requirements of various domestic and overseas customers. "We are committed to continuously improving our performance. Our next step will be to develop one-stop piping solutions to our customers," says Mr. Bhat. The fact that Ratnamani is on the right track is confirmed by the company's impressive growth figures. **Stainless Steel world took a look behind the scenes.**

In the control cabin a handful of engineers are closely watching the testing of the new hot extrusion press. A few metres further on a seamless stainless steel tube is inching out of a pilgering mill. On the other side of the bay large diameter pipes are being welded from the outside. A short distance away long tubes are being carefully packed. Modern machines, a clean working environment and lots of testing facilities - a walk through the

new production plant at Kutch clearly shows what Ratnamani is upto.

From the time of its inception in 1985 with a plant in Chhatral, near Ahmedabad, Ratnamani has come a long way. It is now one of the leading manufacturers of stainless steel seamless and welded tubes and pipes, supplying to various customers not only in India but

across the globe for sectors such as oil & gas exploration, petrochemicals & refineries, power generation etc. The consistent quality of Ratnamani's products means they are now globally accepted by a wide range of customers for very critical applications, and the group turnover for the year 2006-07 is likely to be USD 125 million.

In order to meet the ever-increasing demand of the customers, Ratnamani undertook a major expansion of its manufacturing facilities for stainless steel pipes & tubes and carbon steel pipes at Kutch. With the successful commissioning of the new plant at Kutch, near port city of Kandla, the total manufacturing capacity stands at about 15,000 MT per year for stainless steel welded tubes/pipes, 6,000 MT per year for stainless steel seamless tubes/pipes and 300,000 MT for carbon steel welded pipes.

"We aim at manufacturing high-quality products in the first instance, not only to be globally competitive, but also to live up to the commitments made to the customers both in terms of delivery and quality", explains Mr. Bhat. For this reason, the company invests a large amount of time and manpower in testing and thus ensuring quality. A fully equipped laboratory for physical,

chemical and corrosion testing, a portable spectrometer, hydro testing, air under water testing, and NDT testing such as radiography, eddy current and ultrasonic testing facilities make sure that each product meets its special requirements. The company also permits inspection by customers. "It's quite simple," explains Mr. Abhay Shah, Manager (Export-Marketing), "we aim to establish long-term relationships with our customers. To achieve that we have to deliver top-quality products." To demonstrate the quality of its products, the company has obtained various certifications for all its manufacturing units, including ISO-9001, PED, ADW0, API 5L and API 2B to name a just few. The management has laid down very stringent safety, health and environment policies for the organization and wants Ratnamani to become a benchmark company in this regard.

## Flexible

One of the major strengths of the company is its flexibility to manufacture a wide range of stainless steel welded and seamless tubes and pipes in both manufacturing units. Today, welded pipes can be manufactured from a range of 1/2" NB to 40" NB in various lengths in fully solution-annealed condition. Similarly, seamless and welded heat exchanger tubes can be manufactured



## Tubes for power generation

Ratnamani's wide manufacturing range has given the flexibility to manufacture low-pressure feed water tubes, high-pressure feed water tubes and condenser tubes in welded and seamless construction for the power industry. The company can manufacture these critical tubes upto a developed length of 30 metres in Bright Annealed condition. These are then supplied in straight condition or in U-bend condition. U-portion is solution-annealed as per customer's requirement and all tubes hence manufactured meet specifications as per ASTM/SA-688, 249 and 213.

Stringent manufacturing and in-house testing facilities have allowed the company to supply these critical tubes to gas and coal based thermal power plants and nuclear power plants in India and overseas. After supplying approximate 90 Million metres for low-pressure feed water tubes, high-pressure feed water tubes and condenser tubes, the company is looking to expand its market share globally.



### Instrumentation tubes

Ratnamani manufactures instrumentation tubes in straight length of 6 metres in the range of OD 6.00 to 25.40mm from thickness ranging from 0.50 to 3.00mm. Manufactured in bright-annealed condition, the product has found extensive usage in very critical applications in the oil & gas and nuclear power industries. The stringent in-house manufacturing and testing facilities assure high-quality tubes for these critical applications. Ratnamani is experienced in supplying large volumes of instrumentation tubes for nuclear reactors with stringent ultrasonic testing as per ASME Sec-III. The company also manufactures critical cold-drawn tubes in ferritic and martensitic grades for nuclear power plants as per specification ASTM A-268 and customer's specification.

tor, petrochemicals & refineries, fertilizer plants, power industries and so on. The tubes manufactured by Ratnamani are used by all major heat exchanger equipment manufacturers world-wide.

"At the moment," Mr. Bhat continues, "we are executing a major order for seamless heat exchanger tubes to a European customer for Qatar Gas project. We are supplying welded tubes for another European customer for a desalination plant in the Middle East. He further explains that "Ratnamani is one of the few companies in the world able to manufacture welded and cold-drawn duplex stainless steel tubes. We have now successfully executed large orders to domestic as well as overseas customers. These tubes are being used in manufacturing equipment for the petrochemical industry."

In the domestic market, Ratnamani sees a lot of potential in supplying their products to power plants, both thermal and nuclear, as huge investments are assured by the government of India within the next one or two decades. With a strong manufacturing base, capable of manufacturing products for various critical applications, Ratnamani is bound to benefit from these major investments in the power sector." The tubes manufactured by Ratnamani are being widely used for space application, pharmaceutical and dairy industries.

### A high-quality work force

"One of the reasons for the success of Ratnamani is its technically sound work force," says Mr. Bhat. "We have employees working with us for the past so many years, through which they have gained enormous experience. Their ability to accept new challenges stands by them for achieving greater heights. The successful execution of the orders as per commitment given to the customers has not only resulted in continuous company's progress, but also leads to customer delights".

### Future plans

Among the company's future plans is the manufacture of tubular products in super austenitic for Oil & Gas sector and special alloys for nuclear applications, managing director Mr. Prakash M. Sanghvi reveals. "This is

in line with our plans to become a 250 Mn Dollar company by 2008-09". Looking into the domestic and global demand, Mr. Sanghvi explains, "We are going in for a backward integration and have already set-up a Hot Extrusion Mill for manufacturing Stainless Steel Seamless Mother Hollows and we expect to commence production within next few months. This will improve delivery to all our customers and allow us to manufacture higher alloys for the oil & gas, petrochemical & refineries and nuclear power industries." Mr. Sanghvi continues, "Ratnamani has already imported new tube mills for their plant at Kutch". With the commissioning of new tube mills, Mr. Sanghvi is confident of going in for manufacturing of Titanium tubes.

He also reveals "The company is also looking into manufacturing carbon steel line pipes to meet the ever increasing demand in this sector both in India and globe. All in all, with the dedicated team around him, Mr. Sanghvi has every reason to feel confident about the future.

For more information about Ratnamani Metals & Tubes Ltd., please visit their website at: [www.ratnamani.com](http://www.ratnamani.com)

ranging from OD 1/2" to 21/2" upto a maximum length of 30 metres as per customers' requirements. This can be supplied in straight or in U-bend condition. And all this under one roof. "We produce whatever our customers order, says Mr. Shah. "That means every order is different and is thus a new challenge." For special long-term customers, the company will even make short-run product. This strategy is obviously paying off, as Ratnamani has had customers in its fold right from its inception in 1985, and 80 per cent of these customers are repeat customers. The degree of customer faith in the company is demonstrated by the fact that the 75 per cent capacity of the new plant, which is fully commissioned, is booked with customer orders.

And that is not all: adjacent to the stainless steel plant is a modern carbon steel pipe production plant, which manufactures ERW pipes and spiral welded pipes as per various API standards. "We offer both carbon steel and stainless steel product. This is our first step on the way to creating a one-stop solution for our customers," says Mr. Manoj Sanghvi, Marketing Executive of Ratnamani.

### Infrastructure

After visiting these plants one question remains: why has Ratnamani built its new plant near Kutch, which at first glance, is in the "middle of nowhere" and 350 km away from its headquarters? "The port of Kandla, India's second largest port, is less than 20 miles away. This gives us a strategic advantage", says Mr. Bhat. "With the growing demand for both stainless steel pipes and tubes and carbon steel pipes in the Middle East, we are strategically positioned to serve our customers within the shortest time possible. Being near to



### Tubes for desalination plants and power plants

Although Ratnamani has been successfully supplying ferritic grade tubes to desalination plants world-wide, there is a new wave in the use of super ferritic as a substitute for titanium tubes for condenser equipment for desalination plants and power plants. Ratnamani has established manufacturing capability to supply super ferritic grade tubes for these applications and can manufacture the tubes in accordance with ASTM/SA 268 and 803. With the severe scarcity of titanium world-wide, alternatives such as super ferritic will promote early deliveries and cost effectiveness, without compromising on the technical front.

the port, it is easier for import of raw material from various destinations around the globe."

### Wide Industry Spectrum

Who are the company's customers these days? "We manufacture tubes and pipes for a wide range of projects," says Mr. Bhat. "Most of our heat exchanger straight and U-bend tubes are going into oil & gas sec-



### Large-diameter pipes

Ratnamani has been successfully supplying large-diameter welded pipes for petrochemicals, refineries, LNG terminals and oil & gas exploration for the past several years. The company can manufacture welded pipes as per ASTM A-358 & ASTM A-928 with diameter up to 40" and a thickness upto 35mm in fully solution-annealed condition in various austenitic and duplex grades. Ratnamani has wide experience in supplying these pipes for past one decade and at present are executing a very large volume (Approx. 20 KMS) of A-358 Class-1 pipes for a green field refinery project in India. In the above range, Ratnamani has successfully manufactured super austenitic grade, which is now widely preferred over conventional austenitic grade because of its high corrosion resistance. These pipes can be used in severe environments, particularly for oil & gas exploration and refining. With huge investments in the oil & gas sector, Ratnamani sees good potential in supplying higher alloy welded pipes to customers in India and overseas market.