



Next Generation **INTERLOCK** Steel

KAMDHENU *Nxt*
DOUBLE RIB TMT BAR



KAMDHENU LIMITED

(Formerly known as Kamdhenu Ispat Limited) CIN: L27101DL1994PLC134282

Corporate Office: 2nd Floor, Tower-A, Building No.9,
DLF Cyber City Phase-3, Gurgaon-122 002,
Ph.: 0124-4604500 Fax: 0124-4218524
Email: info@kamdhenulimited.com
Website: www.kamdhenulimited.com



www.micgroup.com

content

- 1 The Outlook of the Management
- 2 A Glance at Kamdhenu Limited
- 3 Product Background: Kamdhenu Nxt
- 4 The Process
- 5 The Properties
- 6 The Features and Applications



The Outlook of the Management



New perspective and newer possibilities



As a new dawn ignited the financial development of India, intermingled reform ideas were presented in the policy framework of the government. This year, the infrastructure development was being put greater emphasis which in return, will increase the demand for steel. We, at Kamdhenu Limited carry innovation in our veins and stand high to produce products which can fulfill the diverse demands of the masses. In our country, the most challenging task for us is to create something technologically advanced within the affordability of our customers. Constructing a building is like constructing the dream of a new future and innovation is the key towards that. That is when our highly ambitious product Kamdhenu Nxt originated.

Today, there is a lot of population pressure and the cost of land is high. These demographics surely affect the growth in construction sector. Kamdhenu Limited looks forward to receive advantage from the present scenario and the envisaged future construction boom by ensuring the supply of high-end construction products at competitive prices. Mr. Sunil Agarwal, Director, Kamdhenu Limited says, "Our country is foreseeing a record allocation of Rs. 3.96 trillion to infrastructure sector. Therefore, the spotlight on reinforcement structures like ports, roads and other areas like affordable housing, physical infrastructure will provide necessary momentum to the steel sector to meet its growth targets."

The company has planned to utilize every opportunity in the new financial year so as to achieve the set targets and create new demands in the market for innovative steel products like Kamdhenu Nxt. Keeping the pace matched with developmental process with the tactful management of products is the motto of the company in the new world of unlimited possibilities.

Mr. Agarwal further says, "Kamdhenu Nxt is surely the **Next Generation Interlock Steel** which is going to change the definition of constructing new-age engineered projects."

With warm regards,



Sunil Kumar Agarwal
Director, Kamdhenu Limited

A Glance at Kamdhenu Limited



Two decades ago, the sun rose with some extra shine, when Kamdhenu Limited laid its first stone. Since then, we have established ourselves on the pinnacle of success, being into the compelling business of building concrete foundations of development. We have put forth our effort to shape the dynamism of Indian infrastructure and have become **the first company to offer branded steel products in India**. We have stringently followed all the prerequisite parameters for excellence to succeed on the tough path of self-establishment.

The company has grown speedily with diversifying business interests like Steel & Paints etc. Keeping our head high on the skies of trust, transparency and integrity; we are ambitious to add much broader section for ourselves in the market, in the forthcoming time.



Product Background



KAMDHENU *Nxt*

DOUBLE RIB TMT BAR

Kamdhenu Nxt is manufactured with the cutting edge technology which is at par with the futuristic national and international quality standards. That is why it bears the privilege of being called the '**Next Generation Interlock Steel**'. It is going to change the definition of modern architectural patterns and designs meant for newly engineered structures. Behind this fact, a profound as well as pragmatic research and development approach resides. A huge team of engineers, contemporary architects and industry experts sat together to derive the distinguished excellence of the product based upon the need of the industry.

Kamdhenu Nxt has got the angular double rib design having obtained all the rights to manufacture, market and sell the exceptionally created double rib TMT bar. With this product, Kamdhenu Limited has reached the zenith of the double rib steel industry.

The Process



Kamdhenu Nxt passes through a stringent process to turn into the best double rib TMT bar of the next generation. The strength of this revolutionary product is cautiously controlled by optimizing the water pressure for their core and surface providing an optimum strength, ductility and robustness. The three passing stages in the making of this interlock steel are quenching, tempering and cooling, resultantly, this high end product gets stronger to give impeccable strength to whatsoever application it goes through. The unique design of this TMT which has 'double rib' pattern engraved sets a benchmark of better interlock with concrete mix, giving more power to the structure.

Though steel and concrete are two different materials yet they behave as a single unit in reinforcement structures. It happens when concrete grips the steel rebar to form the strongest bond through the unique double rib pattern of the bar. The CNC notch cutting m/c ensure uniform rib pattern which allows uniform bonding with concrete for the whole structure. Due to uniformity and critically designed ribs, fatigue strength and ductility of Kamdhenu Nxt is much superior to ordinary steel bars.



The Properties



Chemical Properties

Kamdhenu Nxt is a uniquely produced product of the company within the quality standards according to BIS specifications and complies with BS(British Standards).

| S.No. | Constituent | Unit | IS:1786 Fe-500 | KAMDHENU Nxt | BS:4449 |
|-------|-------------|------|----------------|--------------|------------|
| 1 | C | % | 0.30 Max. | 0.25 Max. | 0.24 Max. |
| 2 | S | % | 0.055 Max. | 0.050 Max. | 0.055 Max. |
| 3 | P | % | 0.055 Max. | 0.050 Max. | 0.055 Max. |
| 4 | S+P | % | 0.105 Max. | 0.100 Max. | 0.105 Max. |
| 5 | CE | % | 0.42 Max. | 0.38 Max. | 0.52 Max. |
| 6 | Mn | % | - | 0.50 Min. | - |
| 7 | Nitrogen | % | 0.012 Max. | 0.010 Max. | 0.014 Max. |

*As contained in 90% of the heats.

Physical Properties

Kamdhenu Nxt is manufactured by unique method maintaining the combination of strength & ductility that exceeds the minimum limit specified in BIS.

| S.No. | Properties | Unit | IS : 1786 Fe-500 | KAMDHENU Nxt | BS:4449 |
|-------|------------------|-------------------|------------------|--------------|-------------|
| 1 | Yield Stress | N/mm ² | 500 (min.) | 530 (min.) | 500 (min.) |
| 2 | Tensile Strength | N/mm ² | 545 (min.) | 585 (min.) | 545 (min.) |
| 3 | TS/YS | Ratio | 1.08 (min.) | 1.10 (min.) | 1.08 (min.) |
| 4 | Elongation | % | 12.0 (min.) | 16.0 (min.) | 12.0 (min.) |
| 5 | Total Elongation | % | - | 6.0 (min.) | 5.0 (min.) |

*As contained in 90% of the heats.

The Features & Applications



Features

Kamdhenu Nxt is called the product of the next generation because it has the characteristics to meet the requirements of the new engineered reinforcement structures and smart architectural concepts. The vital features of this high end interlock steel bar are as follows:

- **Exceptional double rib design:** For a stronger interlock bond
- **2.5 times stronger concrete - steel interlock (ratio of load/bond strength):** To give more strength to the structure
- **Advanced earthquake resistance:** Ensuring the safety and security of the building and structure
- **Superior thermal resistance:** To resist the heat flow in the constructed building
- **Better corrosion resistance:** To guarantee longer life span of interlock steel bar due to good anti-corrosion qualities
- **High ductile strength:** To make certain unbreakable flexibility assuring better application
- **Extensive application range:** Right chemical and physical properties make it suitable for maximum reinforcement structures and buildings
- **Compatible with skyline structures:** Well-suited for strengthening new-age high-rise buildings
- **Extremely economical:** To make innovative products available for all without compromising on the quality

Applications

In addition to the strength and ductility requirements, reinforce concrete needs adequate bonding between steel and concrete to ensure the composite works efficiently. This perfect bonding is essential for those applications where structures are subject to unexpected forces like seismic, dynamic, impact etc. Therefore, these are widely used in concrete reinforcement structures like **bridges, flyovers, dams, thermal and hydel plants, industrial towers, skyline buildings, underground platforms** etc. Throughout the making of this next generation double rib TMT bar, each process is highly focused upon so as to not compromise on its quality at any cost, at any stage.