



OUR VALUABLE PARTNERS



INTEGRATED STEEL PLANT

BEEKAY STEEL INDUSTRIES LIMITED

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XTRA BOND | XTRA STRENGTH | XTRA VALUE
EARTHQUAKE RESISTANT | CORROSION RESISTANT



GROUP OVERVIEW

Beekay Steel Industries Ltd. brings over **50 years of experience** in the Indian steel industry and more than **25 years of specialized expertise in TMT manufacturing**. Today, Beekay is a leading fully integrated steel producer, manufacturing a wide portfolio that includes **Sponge Iron, Billets, Ferro Alloys, Hot-Rolled Sections, Structural Steel, Bright Bars, Special Steel Profiles, and Construction-Grade TMT Bars**.

Beekay Steel Industries Ltd. is a publicly listed company on the **Bombay Stock Exchange**, reflecting its strong foundation, transparent governance, and long-term commitment to growth.

Beekay operates **nine manufacturing facilities** across India – with one unit in Jharkhand, six units in Andhra Pradesh, one unit in Tamil Nadu, and a fully integrated steel plant in Odisha. This strong manufacturing presence, supported by a **Pan-India sales and distribution network**, enables the company to serve critical applications in the **Automobile, Engineering, Infrastructure, Construction and Railway sectors**, both in India and overseas.

Beekay's **annual TMT production capacity exceeds 8,00,000 MT**. The company's integrated facility in **Odisha** supports seamless control across the entire production chain—from raw material processing and Captive Power Generation to Billets and finished TMT Bars—ensuring superior control over chemical composition, improved mechanical properties, and consistent product quality.

Through its International Business Division, **Beekay exports to the UK, Europe, Australia, the Middle East, and other global markets**, meeting stringent **BIS and international standards**.

At Beekay, safety is built into both its manufacturing processes and its products. With **Fully**



Automated and Digitally Monitored Plants, the company ensures consistent production, uniform performance, and dependable supply. That is why Beekay Turbo TMT bars are widely used in **residential buildings, commercial projects, and infrastructure developments** across India.

Aligned with the vision of Atmanirbhar Bharat, Beekay continues to strengthen the nation with steel that is made in India and built to last.



MANUFACTURING PROCESS – INTEGRATED, AUTOMATED, AND TECHNOLOGY DRIVEN

Beekay follows a **Fully Integrated Manufacturing Route** to ensure total control over quality at every stage of production. The company sources **Virgin Iron Ore** directly from mines and converts it into **Direct Reduced Iron (DRI)**. This DRI, along with carefully selected scrap and **in-house manufactured Ferro-Alloys**, is charged into Electric Furnaces with precise alloying additions to achieve superior and consistent steel chemistry.

Power requirements across melting and rolling operations are fully met by Beekay's **Captive Power Plant**, which efficiently utilizes Waste Heat recovered from the DRI process and AFBC Boilers—creating a system that supports both energy sustainability and metallurgical consistency.

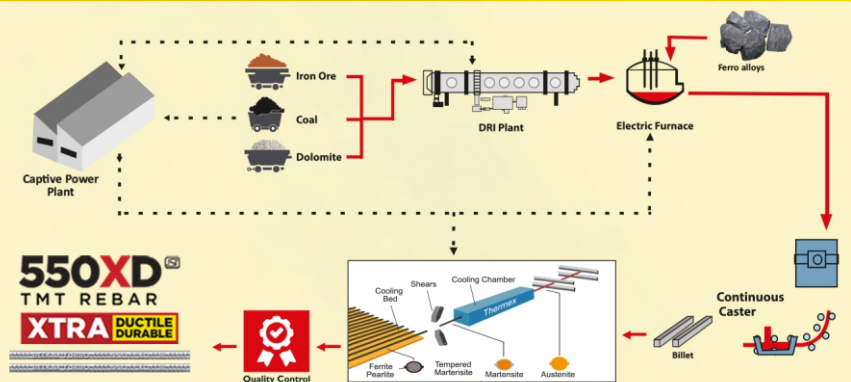
Molten steel is cast into Billets under controlled conditions and **hot-charged directly into state-of-the-art Rolling Mills**. Hot Charging minimizes temperature loss, reduces energy consumption, and ensures better metallurgical properties in the final product.

Rolling is carried out on **Fully Automated Mills** equipped with **PLC-controlled process monitoring systems**. Precision CNC machines are used for Rib Notching and Branding, with **Tungsten Carbide rolls** ensuring uniform rib geometry, excellent surface finish, and consistent bonding with concrete across every bar.

Beekay Turbo TMT bars are manufactured using advanced **German Thermex Quenching and Tempering Technology**. During rolling, the bars undergo rapid Surface Quenching, followed by Self-Tempering and controlled Atmospheric Cooling. This creates a tough **Tempered Martensite outer layer** with a ductile **Ferrite-Pearlite core**, delivering the ideal balance of strength, ductility, and fatigue resistance.

Digital process controls, automated handling, and online quality monitoring ensure **uniform mechanical properties, dimensional accuracy, and repeatable performance**—batch after batch.

PROCESS FLOW CHART



WHY BEEKAY TURBO TMT 550XD IS SUPERIOR TO OTHERS IN THE MARKET

Beekay Turbo TMT 550XD is a high-performance reinforcement steel that significantly outperforms conventional Fe 500 grade bars available in the market. Its higher yield strength allows designers and contractors to achieve the same structural strength with approximately **10% lower steel consumption**, resulting in direct cost savings without compromising safety – delivering not just stronger structures, but also better value per ton of steel.

Backed by Beekay's dedicated Research & Development team, continuous improvements are made to rib design, metallurgy, and rolling practices to enhance bond strength, consistency, and overall performance. This focus on innovation ensures that Beekay Turbo TMT does not only offer **Xtra Durability and Xtra Ductility**, but also **Xtra Value** through better structural performance and efficient steel usage.

BEEKAY TURBO 550XD PHYSICAL PROPERTIES

XD Properties	Unit	Beekay Turbo TMT(Typical)	BIS IS: 1786
Yield Stress (YS)	N/mm ²	570 min	550 min
Ultimate Tensile Strength (UTS)	N/mm ²	625 min	600 min
UTS/YS	Ratio	1.10 min	1.06 min
Elongation	%	13 min	10 min

BEEKAY TURBO 550XD CHEMICAL PROPERTIES

XD Properties	Unit	Beekay Turbo TMT(Typical)	BIS IS: 1786
Carbon	%	0.30 max	0.30 max
Sulphur	%	0.050 max	0.055 max
Phosphorus	%	0.050 max	0.050 max
Sulphur + Phosphorus	%	0.095 max	0.100 max

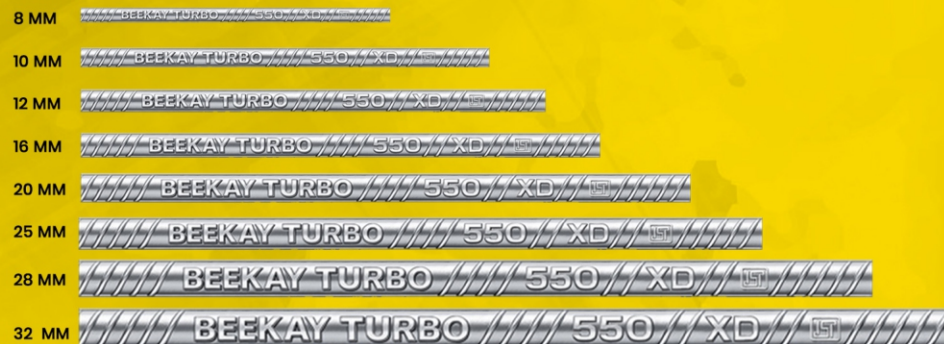
BEEKAY TURBO TMT 550XD ADVANTAGES

Trusted in Critical Construction

Beekay Turbo TMT 550XD is used in a wide range of **residential projects, commercial developments, industrial structures, and infrastructure works**, where consistent quality and dependable performance are critical. From individual homes to large construction projects, Beekay steel is chosen by engineers, contractors, and institutions that cannot afford material failure or variation.

Available Sizes

Beekay Turbo TMT 550XD is available in sizes : **8 MM, 10 MM, 12 MM, 16 MM, 20 MM, 25 MM, 28 MM, and 32 MM.**



TOLERANCE

Size	Specific weight	BIS Standard	Other Bands	Beekay Turbo TMT 550XD	No. of Piece / Bundle (Length 12 mtr.)	Weight per bundle (in kg)
	(in kg/m)	Tolerance (in kg/m) %	Tolerance (in kg/m) %	Tolerance (in kg/m) %		
8 mm	0.395	0.367 – 0.423 ± 7%	0.387 – 0.410 -2% to +4%	0.371 – 0.383 -6% to -3%	12	53.47 – 55.17
10 mm	0.617	0.574 – 0.660 ± 7%	0.605 – 0.642 -2% to +4%	0.580 – 0.599 -8% to -3%	7	48.72 – 50.28
12 mm	0.888	0.844 – 0.932 ± 5%	0.870 – 0.924 -2% to +4%	0.852 – 0.861 -4% to -3%	5	51.15 – 51.68
16 mm	1.580	1.501 – 1.659 ± 5%	1.548 – 1.643 -2% to +4%	1.517 – 1.533 -4% to -3%	3	54.60 – 55.17
20 mm	2.470	2.396 – 2.544 ± 3%	2.445 – 2.519 -1% to +2%	2.408 – 2.421 -2.5% to -2%	2	57.80 – 58.09
25 mm	3.850	3.735 – 3.966 ± 3%	3.812 – 3.927 -1% to +2%	3.754 – 3.773 -2.5% to -2%	1	45.05 – 45.28
28 mm	4.830	4.685 – 4.975 ± 3%	4.782 – 4.927 -1% to +2%	4.709 – 4.733 -2.5% to -2%	1	56.51 – 56.80
32 mm	6.310	6.121 – 6.499 ± 3%	6.247 – 6.436 -1% to +2%	6.152 – 6.184 -2.5% to -2%	1	73.83 – 74.21

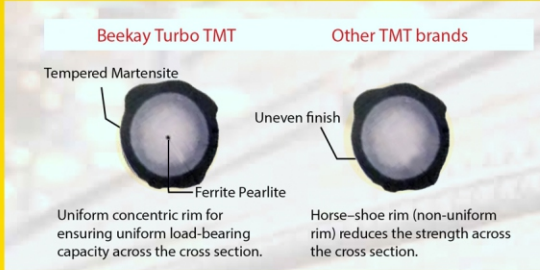
BEEKAY TURBO 550XD – XTRA QUALITY

Beekay Turbo TMT bars are the right choice for all kinds of concrete reinforcement structures, bridges and flyovers, dams, thermal power plants, industrial structures, high-rise buildings and othersuperstructuresthat require heavy load-bearing capacity.



Quality Control

The TQM (Total Quality Management) module being maintained at our unit includes monitoring and recording of all vital parameters of reheating furnace, rolling, quenching and cooling through computer controlled processes and ensures uniform quality and safety standards.



BEEKAY TURBO TMT 550XD ATTRIBUTES

1. Xtra Strength

Typical yield strength above 570 N/mm² and tensile strength above 625 N/mm², ensuring higher load-carrying capacity.



2. Xtra Ductility

Minimum elongation of 13% versus BIS requirement of 10%, allowing structures to absorb shock and deformation without sudden failure.



3. Earthquake Resistance

High ductility and fatigue resistance deliver better performance under cyclic and seismic loading.



4. Xtra Durable

Low-impurity chemistry and stress-free automated rolling improve corrosion resistance and long-term durability.



5. Xtra Bond

Advanced CNC-controlled rib design using Tungsten Carbide Rolls, continuously refined by R&D, ensures superior bonding with concrete, reducing slippage and crack propagation.



6. Xtra Value

Beekay Turbo TMT 550XD outperforms conventional Fe 500 bars by enabling up to 10% steel saving in design and delivering more rods per tonne through negative tolerance manufacturing. This gives customers stronger structures and better value, without compromising safety.



INTEGRATED STEEL PLANT

50 YEARS OF TRUST

OUR PRESTIGIOUS CLIENTS

Tata Projects Ltd – APTIDCO Sites

"On large housing and infrastructure sites like APTIDCO, consistency in steel supply matters as much as strength. With Beekay TURBO TMT, we received uniform quality across loads, which made site execution smoother and reduced rechecks. Deliveries were on time, and coordination with the Beekay team was straightforward. Overall, it helped us keep construction moving without material-related delays."

– Senior Site Engineer, APTIDCO Project



APGENCO Thermal Power Plant, Krishnapatnam

"Power plant projects demand reinforcement steel with predictable performance. Beekay TURBO TMT met our requirements for strength and bendability, and batch consistency remained stable throughout execution. What stood out was reliable

supply and responsive support during peak concreting stages."

– Project Engineer, APGENCO Krishnapatnam

The Ramco Cement Ltd, Kurnool

"Industrial plants involve heavy reinforcement and tight schedules. Beekay TURBO TMT provided consistent quality, which helped reduce material-related issues on site. The steel worked well during cutting and bending, and logistics support was dependable across phases of construction."

– Construction Engineer, Ramco Cement Project



HPCL Refinery, Vizag

"Refinery projects require dependable TMT for complex foundations and elevated structures. Beekay TURBO TMT showed consistent mechanical behavior and good workability. Their supply coordination helped us maintain continuity during critical structural pours."

– Structural Engineer, HPCL Vizag



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