

**SHRI BALAJI
STEEL PRODUCTS**



**THE POWER THAT
BUILDS THE NATION**

NO COMPROMISE ON STRENGTH

FE 550/FE 550D / FE 500 / FE 500D / 500D CRS



THERMEX® QST TECHNOLOGY REBARS



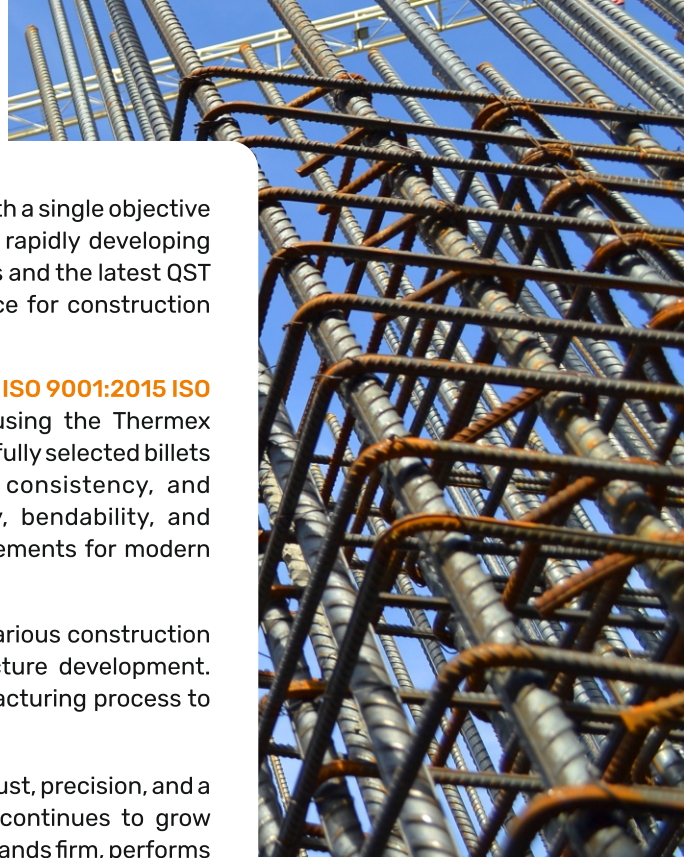
ABOUT US

BHARAT TMX is the brand identity of **Shri Balaji Steel Products**, designed with a single objective in mind to provide high performance construction steel designed for the rapidly developing infrastructure sector in India. With over a decade of manufacturing prowess and the latest QST technology at its core, BHARAT TMX has emerged as the preferred choice for construction professionals who demand nothing but the best.

Produced in a fully certified manufacturing facility as per **IS 1786:2008 and ISO 9001:2015 ISO 45001:2018 ISO 14001:2015** standards, BHARAT TMX bars are made using the Thermex Quenching & Self-Tempering (QST) process. Each TMX bar is made from carefully selected billets and ingots procured from leading manufacturers to ensure purity, consistency, and metallurgical properties. This ensures high tensile strength, ductility, bendability, and earthquake & corrosion resistance properties, which are the basic requirements for modern RCC structures.

As years passed, BHARAT TMX emerged with a wide range that caters to various construction requirements, such as residential, commercial, industrial, and infrastructure development. Stringent quality tests are performed continuously throughout the manufacturing process to further reiterate our focus on reliability and performance.

Rooted in the values of **Shri Balaji Steel Products**, BHARAT TMX stands for trust, precision, and a promise to build stronger foundations for India's future! As the nation continues to grow vertically and horizontally, our mission remains simple: to deliver steel that stands firm, performs better, and lasts longer.



STRENGTH THAT BUILDS THE NATION

BHARAT TMX 

► CHAIRMAN'S MESSAGE

At BHARAT TMX, our journey has always been guided by a simple belief strength must begin at the foundation. In construction, in partnerships, and in values. When we entered the steel business, we had set our minds to build a brand that would be trusted by engineers, builders, and the nation.

As years go by, we continue to invest in technology, talent, and processes to enhance quality. BHARAT TMX is a reflection of this commitment. Every bar manufactured here, is not just a product. In fact, it's a promise of consistency, resilience, and unparalleled performance.

We are proud have products like Thermex QST bars which are a preferred choice across various projects. Enabling disciplined manufacturing, ethical sourcing, and a united front, we are able to be at the top of our game.

As India builds faster, our responsibility grows stronger. We promise to continue innovating, and strengthening the backbone of India's infrastructure. I thank everyone who has been part of our journey. Thank you for believing in us! United, we will continue to build a future that stands tall and proud.

► GOVERNMENT APPROVALS

- Sarva Shiksha Abhiyan
- Project Implementation Unit
- Gujarat Energy Transmission Corporation Limited (MGVCL, UGVCL, DGVCL, PGVCL, GSECL, GUVNL)
- Gujarat State Road Transport Corporation (GSRTC)
- Gujarat State Police Housing Corporation Ltd.
- Many More...





▶ VISION

Our vision is to become the most trusted brand in the market, offering technologically advanced TMX bars in India, and become a leader who provides strength, safety, and durability in every construction we are part of.



▶ MISSION

- To manufacture high-performance Thermex QST bars that can achieve the highest quality standards in the country and abroad
 - To leverage technology and promise precision, consistency, and reliability in every facet of the production process
 - To encourage the culture of innovation, improvement, & excellence.
 - To contribute to the development of the infrastructure of India by providing products that would last for generations.
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▶ CORE VALUES

- **Quality Comes First:** Every bar is tested to deliver nothing short of perfection.
- **Integrity & Transparency:** All communications are built on honesty, ethics, and openness.
- **Innovation-Driven Approach:** Constantly upgrading technology, processes, and systems to deliver what the market demands.
- **Strength with Responsibility:** We prioritise safe practices, responsible sourcing, and environmentally conscious operations
- **Teamwork & Expertise:** Upholding high standards by encouraging collaboration, skill development, and knowledge-sharing.
- **Consistency & Reliability:** We promise uniform performance, dependable supply, and consistent quality

▶ WHY CHOOSE US



Superior Strength & Durability:

Through Thermex QST technology, we are able to provide maximum tensile strength, ductility, and durability for all types of constructions.



Certified Quality You Can Trust:

Made according to IS 1786:2008 and ISO 9001:2015 ISO 14001:2015 ISO 45001:2018 standards, each bar is tested for quality and reliability



Purity from the Very Beginning:

Procuring best quality billets and ingots helps us ensure the quality of material, creating uniformity and increased strength.



Earthquakes & Corrosion resistant:

Better safety and minimizes the risk of damage due to natural calamities like earthquakes, cyclones, fire, and other casualties, etc.



A Brand Committed to Nation-Building:

Join hands with an organization that's committed to building the foundation of our country with steel that ensures safety, stability, and strength



Logistics that Ticks the Right Boxes:

Strong & efficient dealer and logistics networks provide quick onsite delivery which saves time, inventory, and storage costs

► QUALITY CONTROL

At BHARAT TMX, quality begins long before production actually begins. Every single bar we produce is built on a foundation of carefully selected raw materials from reputed billet and ingot manufacturers. Each batch is carefully screened for chemical accuracy, purity, and consistency before we let it enter our production line.

Our plant operates under very stringent IS 1786:2008 and ISO 9001:2015 ISO 140001:2015 ISO 45001:2018 guidelines along with highly sophisticated Thermex QST equipment. This process of controlled quenching and self-tempering helps to refine the internal structure of the steel, making the bars extremely ductile yet very strong in terms of tensile strength. We strive to attain uniformity and strength in every meter of BHARAT TMX steel through very stringent thermal controls and line monitoring

All bars go through a series of rigorous quality checks during their conversion process. Starting from chemical, mechanical, bend, rebend, and elongation tests, our in-house lab confirms that each and every batch meets the high standards set for a high-end TMX brand, while visual inspection and accuracy tests ensure a perfect finish, rib pattern, and diameter



Our team is of the firm belief that solely products of formidable quality will give our business an edge over competitors in the market. Through evolving times and changing market trends, we have ensured that the quality of our products and services is not impacted, and our clients are content.

We greatly stress upon stringent quality measures in all our processes through our state-of-the-art in-house physical and chemical laboratories. Right from the screening of raw materials to inspecting the final TMX bars produced, we leave no stone unturned to ensure that our clients and customers only get the best.

- Raw materials screening by performing composition tests on samples
- Ensuring the right chemical composition of metal during the melting and refining process
- Quality control during the continuous casting process
- Quality checks on billets produced and used for making TMX bars
- Quality check of rolled TMX bars periodically for their mechanical properties like specific weight, yield strength, ultimate tensile strength (UTS), bend/rebend test, elongation percentage, surface finish, etc

► FE 550 / FE 550D

A new generation of high-strength reinforcing steel bars has been developed specifically for high-grade construction. The main aspects kept in mind are the safety and performance standards under adverse conditions. The additional D stands mainly for ductility!

The main area where they both differ slightly is that the FE 550D bars are more flexible in nature.

- Both grades of bars are of superior quality and possess the same strength
- They are ideal for various types of construction projects.
- Greater flexibility and ductility

Greater flexibility implies more elongation capability to bear a greater number of oscillations, which can arise due to the impact of storms/high and wild wind speed, tremors, earthquakes and so on. These bars guarantee a long-life cycle for the constructions. Chemical structure decides the best prolongation in these TMX bars. FE 550D has lower quantities of carbon, sulphur, and phosphorus. This guarantees simpler and better weldability, helps in preserving the steel, and makes these bars exceptionally worthy for a wide range of construction purposes.



GRADE	FE - 500		FE - 500 D	
MECHANICAL PROPERTIES	IS 1786:2008	BHARAT FE-500	IS 1786:2008	BHARAT FE-500 D
0.20% proof stress/ yield Stress min. (N/mm ²)	500	520	500	530
Tensile stress min. (N/mm ²)	545	580	565	600
UTS/YS ratio	-	1.12	1.10	1.12
Elongation % min	12	18	16	18
Total elongation% min.	-	5	5	7
CHEMICAL PROPERTIES				
C% Max.	0.300	0.250	0.250	0.250
S% Max.	0.055	0.050	0.040	0.040
P% Max.	0.055	0.050	0.040	0.040
S+P % Max.	0.105	0.100	0.075	0.075
CE%	0.420	0.420	0.420	0.420

► FE 500 / FE 500 D

FE 500 and FE 500D represent one of the most trusted grades of reinforcement steel that has been employed in the recent past in India for constructing buildings. This grade of reinforcement steel was meant to offer stability, security, and strength to buildings. This grade of reinforcement steel bars can be referred to as a combination of high tensile strength and high ductility, which makes them suitable for use in a wide variety of applications. D stands for ductility.

Although FE 500 and FE 500D offer the same level of strength, the bendability and flexibility of FE 500D make it easier for the structure to withstand dynamic forces. This is particularly important for areas where seismic, wind, and soil pressures are likely to be a problem.

- Both grades maintain consistent strength and durability
- Suitable for all forms of RCC construction
- Enhanced ductility ensures safer performance under stress

FE 500 and FE 500D represent BHARAT TMX's promise of safe, reliable, and high-performance steels. Conceived to serve the dynamic needs of the Indian construction industry, BHARAT TMX's FE 500 and FE 500D offer the strength to build with confidence and the ductility to endure for generations



GRADE	FE - 550		FE - 550 D	
MECHANICAL PROPERTIES	IS 1786:2008	BHARAT FE-550	IS 1786:2008	BHARAT FE-550 D
0.20% proof stress/ yield Stress min. (N/mm ²)	550	570	550	570
Tensile stress min. (N/mm ²)	585	650	600	630
UTS/YS ratio	-	-	1.08	1.1
Elongation % min	10	15	14.5	16
Total elongation% min.	-	-	5	6
CHEMICAL PROPERTIES				
C% Max.	0.300	0.250	0.250	0.240
S% Max.	0.055	0.040	0.040	0.040
P% Max.	0.050	0.040	0.040	0.040
S+P % Max.	0.105	0.080	0.075	0.075
CE%	-	-	0.420	0.420

► 500D CRS

FE 500D CRS is the latest generation of reinforcing steel bars, specifically designed to perform well in harsh environments. This grade of steel bars is specifically designed to be used in environments where the steel is exposed to moisture, coastal air, chemicals, and humidity. It is not only very strong but also possesses the highest corrosion resistance. The “D” stands for ductility, and the “CRS” stands for corrosion resistance

Although 500D CRS has similar strength properties to FE 500D, the former has been designed to possess a modified chemical composition and protective properties that significantly slow down the formation of rust. This makes 500D CRS suitable for construction in coastal belts, industrial areas, water-prone areas, and RCC structures where longer service life is required

- Same robust strength as FE 500D
- Enhanced corrosion resistance
- Ideal for harsh environmental conditions



GRADE	FE - 500 CRS	
MECHANICAL PROPERTIES	IS 1786:2008	BHARAT FE-500D CRS
0.20% proof stress/ yield Stress min. (N/mm ²)	500	520
Tensile stress min. (N/mm ²)	560	600
UTS/YS ratio	1.10	1.15
Elongation % min	16	17
Total elongation% min.	5	5
CHEMICAL PROPERTIES		
C% Max.	0.150	0.150
S% Max.	0.040	0.040
P% Max.	0.080	0.080
S+P % Max.	0.075	0.075
CE%	-	0.25



SHRI BALAJI STEEL PRODUCTS

Survey No. 99 & 100 Paiki, Opp. Bhajan
Dhram Weigh Bridge, Phase 4, GIDC
Industrial Estate, Sihor-Ghanghali Link
Road, Sihor, Bhavnagar, Gujarat - 364240.

 +91 89809 28488
 info@bharattmx.com
 www.bharattmx.com