



RAMSARUP TMT 

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TOTAL MAJBOOTI AUR BACHAT

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RAMSARUP
INDUSTRIES LIMITED
UNIT: RAMSARUP UTPADAK

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The Ramsarup Group

Founded in 1966, Ramsarup - engaged in the manufacturing of various grades of steel wires and TMT Bars, is one of the fastest growing Group catering to Power and Infrastructure sector of India. Soon the Group will be one of the most integrated player in steel infrastructure - right from iron ore to transmission lines.



Ramsarup TMT Bars - An Overview

Ramsarup TMT Bars - Total Majbooti Aur Bachat - derives its strength from the following :

- ◆ Raw Material used
- ◆ Technology adopted
- ◆ Complete size range from 8mm to 40 mm
- ◆ State-of-the-art Laboratory
- ◆ Dedicated workforce
- ◆ Customer friendly approach

The raw material used for producing the bars is of IS2830 Billets, technology is of Thermex, provided by H & K Rolling Mills Engineers Pvt. Ltd., Mumbai, the exclusive collaborator for Indian territory, of M/s HSE Germany, the developers and patent holder of the coveted Thermex® Technology.



Location :
Shyamnagar / Agarpara,
West Bengal

Our plants and processes

Manufacturing technology

The production of quality TMT bar depends on three major factors - quality raw materials, a properly designed automated mill, and a well-designed quenching and tempering technology. All rebars must be purchased based on the properties of yield strength, tensile strength and elongation values.

This is a special heat treatment process wherein the heat treatment is done from the heat of the rolling process itself. At the exit of the rolled product, the ribbed bar is subjected to TMT process which involves heat treatment in successive stages of rapid quenching in a special water system converting the surface layer of the ribbed to a hardened structure.

Then tempering process involves flow of heat from the core of the bar to the surface and finally cooling the bars in atmospheric air on the cooling bed, This transforms the outer surface of the bar into tempered martensitic state while internally the bar will be a fine ferrite pearlite core.

The TMT process eliminates all undesirable qualities. **Ramsarup TMT Bars** attains higher strength, excellent ductility, outstanding bendability and superior weldability.





Our offering to customers

Product portfolio

Ramsarup produces complete range from 8 mm to 40 mm diameter.

TRADE MARK : RAMSARUP TMT / RAMSARUP TMX

SPECIFICATION : As per IS 1786/2008 Grade FE 415, FE 500, FE 550 and FE 600 for Chemical and Physical properties. Material can also be supplied as per International Standards like ASTM A 615 / BS 444 Gr 450 / DIN 488-BSt 500 / GOST 5781-82 or as per specific requirements of the customer.

FIXED LENGTH : 11/12 Meters or any length as per customers requirement.



The Ramsarup TMT advantage

EXTRA STRENGTH > The process used ensures combination of tempered martensite on the surface and fine grain ferrite-pearlite in the core providing higher strength, toughness and ductility.

THERMAL STABILITY > Ramsarup TMT Bars have high thermal stability unlike ordinary bars, it can be used even at high temperature till 600°C without any drop in strength.

EXCELLENT STRAIGHTNESS > Ramsarup TMT Bars are produced in straight length unlike most of the mills, which produces the TMT bars in coil form. Straightening of bars by decoiling process does not provide the same straightness as provided by "Ramsarup". After passing through the cooling system Ramsarup TMT is passed through a Special Rotary Flying Shear which ensures perfect straightness.

HIGHER ELONGATION > Ramsarup TMT Bars has elongation over 15% even for FE 550 grade.

BETTER CORROSION RESISTANCE > Ramsarup TMT bars show virtually no rusting even after a long time, as there is absence of residual stress. Appropriate Chemistry, Micro-structure ensures high level of resistance in corrosive atmosphere. A true friend for cement to prevent corrosion.

HIGHER WELDABILITY > Ramsarup TMT Bars are produced from IS 2830 Billets. Hence, it can be used in making of pre-welded meshes. The same is done without reduction in strength of weld joints.

FIRE RESISTANCE > No loss of strength even at high temperature of 600°C leading to better security of concrete structure.

EARTHQUAKE RESISTANT > The alloy chemistry and process parameters are controlled to achieve a high stress ratio (UTS/YS) at high level of ductility enabling the steel bar to absorb higher in-elastic strain energy during cyclic loading encountered in earthquake condition.

MORE VALUE FOR MONEY > Ramsarup TMT Bars provide more value for money due to saving of as high as 10%-24% in steel consumption compared to ordinary bars.

NEGATIVE TOLERANCE > Ramsarup TMT Bars can be supplied in negative tolerance also as per customer's requirements.

Complete range from 8mm to 40mm


Fixed Length

Negative Tolerance



Our hallmark of pride

Quality



Ramsarup's TMT bars are produced through a very rigorous quality control process during its manufacturing process. The state-of-the-art laboratory manned by highly qualified QCA personnel constantly monitor the entire production process, starting from raw material selection to the packaging of finished TMT bars. Quality is assessed across all stages from raw material sourcing, process planning, in-process inspection and final testing.



SPECIFICATIONS

	IS 1786 FE 415	RAMSARUP TMT 415	IS 1786 FE 500	RAMSARUP TMT 500	IS 1786 FE 550	RAMSARUP TMT 550
YIELD STRENGTH – MPA	415 MIN	450 MIN	500 MIN	530 MIN	550 MIN	575 MIN
Tensile Strength – MPA	485 MIN	530 MIN	545 MIN	630 MIN	630 MIN	675 MIN
Elongation - %	14.5 MIN	20 MIN	12 MIN	18 MIN	18 MIN	15 MIN
Bend-Upto 20 MM	3d	2d	4d	2d	2d	3d
Rebend-Upto 10 mm	5d	4d	5d	4d	7d	4d
Over 10 mm	7d	4d	7d	4d	8d	4d

Identification

TMT Bars have embossing of "RAMSARUP TMT" / "RAMSARUP TMX" at every metre and every bundle has "RAMSARUP TMT" / "RAMSARUP TMX" metallic tags.

WEIGHT TABLE OF TMT BARS

Size mm	As per IS 1786 Kg / Metre	Offered by RAMSARUP Kg / Metre
8.0	0.367 - 0.423	0.370 - 0.400
10.0	0.574 - 0.660	0.580 - 0.620
12.0	0.844 - 0.932	0.850 - 0.900
16.0	1.499 - 1.660	1.520 - 1.600
20.0	2.396 - 2.544	2.420 - 2.480
25.0	3.734 - 3.965	3.780 - 3.850
28.0	4.685 - 4.975	4.750 - 4.850
32.0	6.121 - 6.499	6.200 - 6.350
36.0	7.750 - 8.229	7.800 - 8.000
40.0	9.554 - 10.145	9.600 - 9.950

PHYSICAL PROPERTIES

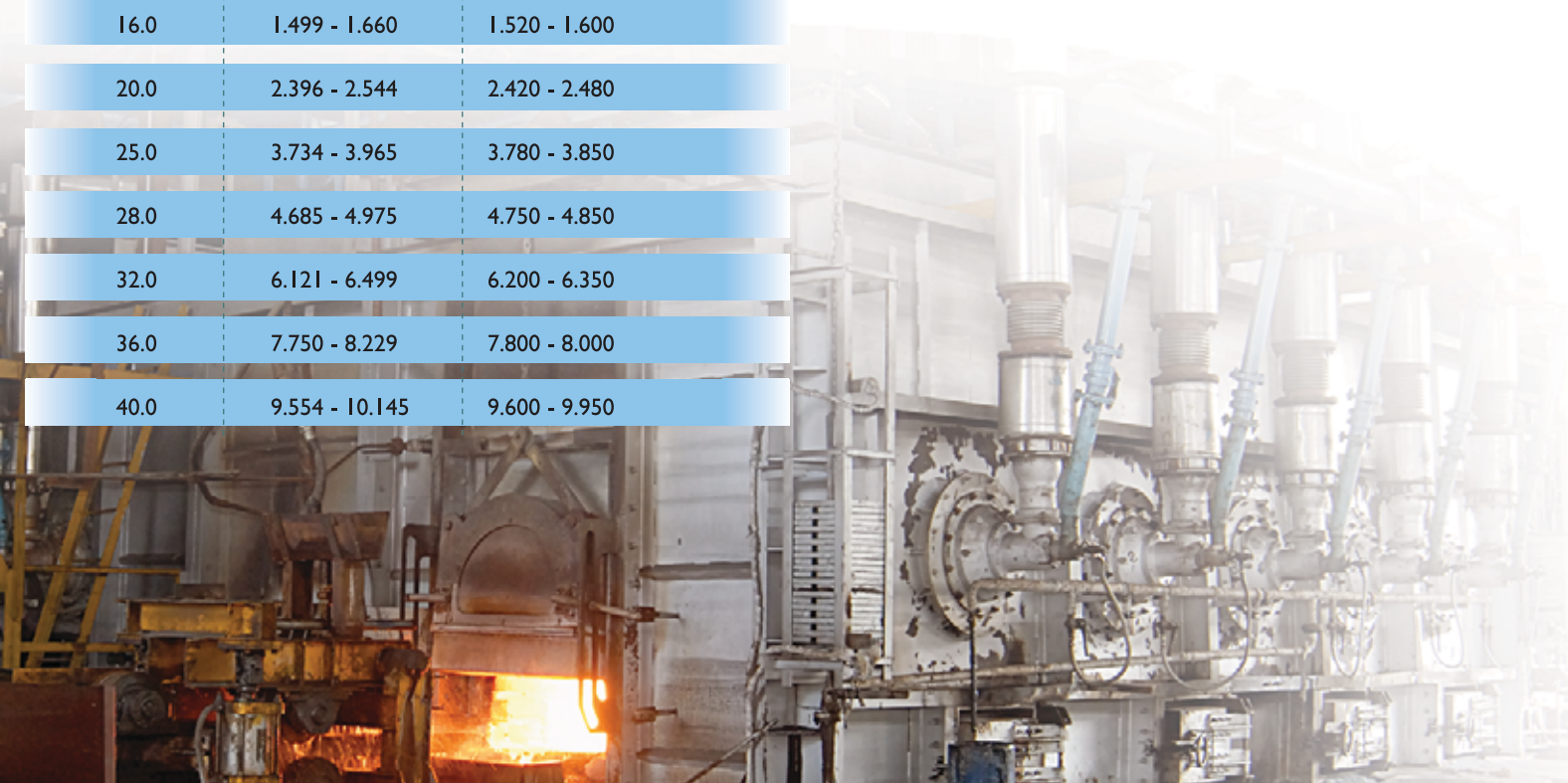
	As Per IS : 1786	Offered by Ramsarup
0.2% Proof Stress	415 N/mm ² min	460 N/mm ² min
Tensile Strength	485 N/mm ² min	510 N/mm ² min
Elongation	14.5% min.	16% to 23%



Our products are used almost everywhere

Ramsarup's TMT bars are aptly suited for all types of constructions and concrete structures. Irrespective of soil condition and environmental disparities, the bars are made for outstanding performance, every time. The commitment of the company is reflected through its superior quality which guarantees increased life expectancy of constructions, even in coastal and marine areas where corrosion can easily weaken the strength of a bar. Various sizes of steel bars are available to suit the following structures:

- ▶ Coastal and marine environments which are susceptible to corrosion
- ▶ Bridges
- ▶ Flyovers
- ▶ Dams
- ▶ Industrial structures
- ▶ High-rise buildings
- ▶ Thermal and Hydel power plants
- ▶ Underground platforms in metro railways and rapid transport systems, and many other areas
- ▶ General-purpose concrete reinforcement structures.





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