

KVS INFRAATECH LLP

KVS FORZA

THE HIGH STRENGTH STEEL

For a strong and durable construction, reinforcement from KVS Forza Steel Bars improves quality and life span of the construction.

KVS FORZA STEEL BARS

In Developing countries the use of Fe 550 Grade High Strength Steel Reinforcement Bars has now become imperative not only to save on cost of reinforcing steel, but also to contribute to its conservation. KVS Forza Bars is high strength and high bond reinforcing steel conforming to standards of India (IS: 1786) and other equivalent international standards. Forza Bars can be used with any grade of concrete, M 15 and above, without loss of savings.



CONFORMING TO Fe 550 Gr.

PRODUCT RANGE

We are distinguished manufacturers & suppliers of quality range of :

RIBBED BARS & PLAIN BARS (4mm to 7mm)

We offer a comprehensive range of Ribbed Bars & Plain Bars from 4mm to 7mm. These bars are known for their high Yield Strength, Smooth finish & Excellent reliability in civil components etc. Our full range is provided to our clients in varied specifications, sizes & dimensions as per the client's needs & requirements.

Comparison of KVS FORZA Bars Fe 550 Gr. with Fe 415 Gr. TMT Bars							
BIS Specification Grade of IS : 1786 (85)	Unit	6mm IS:1786 Fe 415	5mm IS:1786 KVS Forza	7mm IS:1786 Fe 415	6mm IS:1786 KVS Forza	8mm IS:1786 Fe 415	7mm IS:1786 KVS Forza
Size	mm	6	5	7	6	8	7
Actual Size	min mm	6	5	7	6	8	6.91
Area	mm ²	28.26	19.63	38.47	28.26	50.24	37.48
Weight	gm/mtr	222	154	302	222	395	295
Length in Kg. Wt.	mtr/kg	4.5	6.5	3.3	4.5	2.53	3.39
Eqvl. Wt.	mtr/kg	10	6.9	10	7.3	10	7.5
Proof Stress	N/mm ² min	415	550	415	550	415	550
Breaking Load	Kg	13500	12000	18500	16800	24000	23000
Tensile Strength	N/mm ² min	485	585	485	585	485	585
Savings in Steel	% age		30.6		26.5		25.4

KVS FORZA BARS FEATURES

- 8mm Ribbed bar can be totally eliminated and can be substituted by 7mm FORZA Bars.
- The above replacement can be adopted at any stage of the project even if the designs are prepared with Fe 415 since only direct substitution is needed.
- The above can be adopted irrespective of the area of usage, grade of concrete, thickness of member.

SAVING IN STEEL CONSUMPTION

Based on proof or yield strength of steel.

1 MT of FORZA Bars replaces 1.33 MT of 8 mm Ribbed bar Fe 415.

BENEFITS OF HIGH **FORZA** BARS

Fe 550 GRADE STEEL REINFORCEMENT BARS

■ **SAVING DUE TO HIGHER STRENGTH & SMALLER DIA**

FORZA Bars have higher proof strength than the minimum requirement of 550 N/sq.mm resulting in large saving upto 30% over the Fe 415 grade steel with a proof strength of 415 N/sq.mm., saving are also occurring due to smaller dia of make. High Strength FORZA Bars (Fe 550 Grade) are made by a process of cold rolling from mild steel coils and are available in 4mm to 7mm. This range of sizes will not only causes structurally superior components in addition to savings in steel consumption, in comparison to the Fe 415 Grade bars which come in a minimum dia of 8mm. Due to the diameters and High Strength, FORZA Bars (Fe550 Grade) get more closely placed and thus leads to smaller and more evenly distributed bending as well as shrinkage cracks in structural components.



■ UNIQUE RIB PATTERNS

The ribs pattern being used in FORZA Bars is first of its kind in India and has multiple advantages attached to it. The unique rib pattern results in higher area of ribs value and provides greater ribbed on comparison to a normal TMT bar. This ensures unmatched bonding between concrete mixture and the steel bar resulting in extra durable long lasting support for your construction. Usage of FORZA Bars with its unique RIBS also results in substantial saving in your cost of construction.

■ DIRECT SUBSTITUTION

FORZA Bars (Fe550) 7mm can easily and directly be replaced with a normal Fe 415 8mm TMT, without making any changes in the structure design, saving the architects / engineers from any additional work. Thus a double benefit of cost and effort saving. FORZA Bars of 6 / 6.8 mm often used as secondary reinforcement.

■ ADVANTAGE OF MANUFACTURING PROCESS

FORZA Bars (Fe 550) as mentioned is being manufactured by cold rolling process, which provides a lot of advantages to the end product. Our product comprises of smoother is also increased over hot rolled products.

■ ECONOMY

Since FORZA Bar is available in smaller diameters and has far superior strength and bond properties to even Fe 415 grade steel, it can be efficiently be used to achieve maximum economy.

The saving in steel is in the order of upto 30% over Fe 415 grade steel. Thus results in cost savings of upto 20%.

RECOMMENDED ENGINEERING APPLICATIONS

- | | |
|--------------------|--------------------------|
| 1. RINGS / FRAMES | 5. RCC ROADS |
| 2. RCC FOUNDATIONS | 6. RCC PAVING / FLOORING |
| 3. RCC SLABS | 7. PRE CAST COMPONENTS |
| 4. RCC BEAMS | |

CUT & BENT REINFORCEMENT STEEL

We have always believed that our interests are best served by putting our client's interest first. Supply of any quantity of Pre-Cut & Bent steel reinforcement to the required size for the bar bending schedules. By using our experience gained over many years and knowledge of the market, we are today providing timely, efficient, cost effective & above all quality products & services to the construction industry. Combining all the positive attributes to reduce construction cycle time & ensure quality, KVS FORZA Bars are customized to your every need right from the blue-print stage. For you it means, steel that bends to your requirements.

AVAILABLE IN 4mm to 7mm SIZES IN CUT AND BENT.

QUANTITY SAVINGS CHART

SAVINGS IN STEEL CONSUMPTION
BASED ON PROOF OR YIELD STRENGTH OF STEEL

1 MT of 7mm FORZA Bars replaces 1.33 MT of 8mm (Rebar Fe 415).

Slabs	FORZA Bars	TMT Bars
Based on proof or yield strength		
	1 MT	1.325 MT
Slab Thickness	Based on Min. Area of Steel, Min. Dia available and Max. spacing permitted	
100mm	1 MT	1.57 MT
120mm	1 MT	1.47 MT

Substitution Chart Based on Strength Considerations	
TMT Rebar Fe 415	FORZA Bar Fe 550
8mm @ spacing Smm	7mm @ spacing Smm

CONVERSION TO **FORZA BARS** STIRRUPS

Substitution Chart for Distribution Steel in slabs	
FROM ORIGINAL DESIGN WITH	CONVERT TO
8mm TMT Bar (Fe 415)	8mm FORZA Bar with no change in spacing

Conversion to FORZA Bars Stirrups			
CONVERT FROM		CONVERT TO FORZA BARS	
Grade of Steel N/sq. mm	Dia & spacing of stirrups	Based on restricted characteristic strength of 415 N/sq. mm	Based on actual proof strength of Fe 550
Fe 415	8mm @ Smm c/c	7mm @ 0.77 Smm c/c	7mm @ Smm c/c

Conversion to Column Ties		
FROM ORIGINAL DESIGN WITH	CONVERT TO	REMARKS
8mm Rebar Fe 415	7mm FORZA Bars with no change in spacing	This conversion ensures atleast same strength as with original design

SAVINGS
IN LABOUR COST UPTO

20%

SAVINGS
IN STEEL COST UPTO

25%

COST
SAVINGS UPTO

25%



KVS FORZA ^{BAR} PROPERTIES

CHEMICAL PROPERTIES

Test	IS : 1786, Fe 550 Gr.	KVS FORZA Bar Fe550 Gr.
Carbon (Max.)	0.30%	0.13%
Sulphur (Max.)	0.055%	0.035%
Phosphorus (Max.)	0.050%	0.050%
Sulphur + Phosphorus (Max.)	0.100%	0.085%

MECHANICAL PROPERTIES

Test	IS : 1786, Fe 550 Gr.	KVS FORZA Bar Fe550 Gr.
Yield Stress / Proof Stress (N/mm ²)	>550	575
Tensile Strength (N/mm ²)	>585	640
Elongation (Min.)	10%	12%

IN-HOUSE **LABORATORY** AND **QUALITY** CONTROL

- Well equipped Chemical Laboratory for Wet Analysis with Strohlien Apparatus Oven, Hardness Tester, Electronic Balances etc.
- Spectrometers Model GDS 500A, Leco Make, USA with 22 elements.
- UTM of 40 Tons Capacity to check Mechanical properties.
- Impact & Bend Testing Machine.
- Team of specialized and qualified technicians to ensure utmost conformity of the product to laid down stringent parameters.

EXCELLENCE ENDORSED

KVS Premier Group is endeavoring in manufacturing KVS FORZA Bars as per BIS Specification 1786:2008.

OUR VALUED CUSTOMERS :

1. LARSEN & TOUBRO, NOIDA
2. HERO REALTY LIMITED, HARIDWAR
3. PARAS BUILDTECH, GURGAON
4. ASSOTECH BUILDER, NOIDA
5. STELLAR VENTURE, NOIDA
6. MAHAGUN REAL ESTATE BUILDER, NOIDA
7. 3C REAL ESTATE DEVELOPER, NOIDA
8. K WORLD (REAL ESTATE), NOIDA
9. SHREE GROUP (REAL ESTATE), NOIDA
10. FUSION HOMES, NOIDA
11. ANTHEM INFRASTRUCTURE, NOIDA
12. AHLUWALIA CONTRACTS (INDIA) LTD., GURGAON
13. K R PULP & PAPER, SHAHJAHANPUR
14. RICHA INDUSTRIES, FARIDABAD
15. TULIP TOWER, BAREILLY

CERTIFICATES

BIS 1786 - 2008 7MM RIBBED BAR



BIS 1786 - 2008 5MM RIBBED BAR



TEST REPORT

**SHIRAM LAB DELHI
FE 550 GRADE 5 MM RIBBED BARS**



**SHIRAM LAB DELHI
FE 550 GRADE 7 MM RIBBED BARS**



TEST REPORT

DELHI TEST HOUSE

DELHI TEST HOUSE
 40/15 E, Phase II, Connaught Place, New Delhi, India. Phone: 011-26102000
 Fax: 011-26102001. Email: info@delhi-testhouse.com

Client: _____
 Address: _____
 City: _____ State: _____ Pin: _____

Job No: _____ Date: _____

TESTING:

Sl. No.	Particulars	Unit	Result
1	_____	_____	_____
2	_____	_____	_____

Signature: _____
 Date: _____

ISO 9001 ACCREDITED LABORATORY

DELHI TEST HOUSE

DELHI TEST HOUSE
 40/15 E, Phase II, Connaught Place, New Delhi, India. Phone: 011-26102000
 Fax: 011-26102001. Email: info@delhi-testhouse.com

Client: _____
 Address: _____
 City: _____ State: _____ Pin: _____

Job No: _____ Date: _____

TESTING:

Sl. No.	Particulars	Unit	Result
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____
5	_____	_____	_____
6	_____	_____	_____
7	_____	_____	_____
8	_____	_____	_____
9	_____	_____	_____
10	_____	_____	_____

Signature: _____
 Date: _____

ISO 9001 ACCREDITED LABORATORY

DELHI TEST HOUSE

DELHI TEST HOUSE
 40/15 E, Phase II, Connaught Place, New Delhi, India. Phone: 011-26102000
 Fax: 011-26102001. Email: info@delhi-testhouse.com

Client: _____
 Address: _____
 City: _____ State: _____ Pin: _____

Job No: _____ Date: _____

TESTING:

Sl. No.	Particulars	Unit	Result
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____
5	_____	_____	_____
6	_____	_____	_____
7	_____	_____	_____
8	_____	_____	_____
9	_____	_____	_____
10	_____	_____	_____

Signature: _____
 Date: _____

ISO 9001 ACCREDITED LABORATORY

PURCHASE ORDER

L&T LTD. NOIDA

PARAS BUILDTECH GURGAON

ANTHEM INFRASTRUCTURE PVT. LTD. NOIDA

ASSOTECH LTD GURGAON

FUSION BUILDTECH PVT. LTD. NOIDA

KASHI ENTERPRISES

DELIVERING **FOUNDRY SOLUTIONS**
UNDER ONE ROOF
AT **KASHI ENTERPRISES**

THE **PRODUCT**
CATERING A **SUSTAINABLE**
QUALITY

The products offered by Kashi Enterprises assure to deliver the finest features, quality, and value for money to customers.

Kashi Enterprises is committed to meet Indian and International quality norms in the domain of Graded Cast Iron, SG Iron and Alloy Steel as per specification or customized grade. The products having weight 500gm. to 30 Kg. in green sand process by automatic moulding machine ARPA 300 and above 30 Kg. to 4 MT single pieces in CO2 & no bake process by hand moulding. The unit is well equipped with in-house pattern making and repairing facility.

THE **PRODUCT RANGE**
VITAL RANGE (100gm- 1900kg Single Piece)

The products offered by Kashi Enterprises assure to deliver the finest features, quality, and value for money to customers.

Kashi Enterprises is committed to meet Indian and International quality norms in the domain of Graded Cast Iron, SG Iron and Alloy Steel as per specification or customized grade. The products having weight 500gm. to 30 Kg. in green sand process by automatic moulding machine ARPA 300 and above 30 Kg. to 4 MT single pieces in CO2 & no bake process by hand moulding. The unit is well equipped with in-house pattern making and repairing facility.

Automobile Industries (HCV,LCV& SUV)

- 1 Brake Drum for Tata Ace
- 2 Front Hub 0.75 Ton for Tata Ace
- 3 Front Hub 1.00 Ton for Tata Ace
- 4 Alternator Bracket 4th Speed for Tata Ace
- 5 Engine Mounting Arm Bracket 4th Speed for Tata Ace
- 6 Engine Mounting Arm Bracket 5th Speed for Tata Ace
- 7 Engine Mounting Arm Front 4th Speed for Tata Ace
- 8 Engine Mounting Arm Front 5th Speed for Tata Ace
- 9 Pulley for Tata Ace
- 10 Main Bearing Cap for Tata Ace
- 11 Lever Shift
- 12 WP Body
- 13 WP Pulley
- 14 Flange water pump pulley
- 15 PTO Housing

Two Wheelers

- 1 Body centrifugal oil filter
- 2 Drum gear shifter
- 3 Brake Drum for all types of light vehicle
- 4 Hub's for all types of light vehicle
- 5 Brake Disk for 4 wheelers
- 6 All types of Engine parts in SG Iron and Cast Iron
- 7 Bearing Caps for Engine
- 8 Steering housing for commercial vehicle
- 9 Power steering housing
- 10 Bracket and arms for suspension system
- 11 Inner and outer Hub for tractors
- 12 Center bracket for steering light vehicle

For Railway

Brake Beam, Buffer Plunger, Buffer Casing, Face Plate, Swivel Bearing, Tamping Arm.

General Engineering

Sugar mill, rolling mill, hydro and general engineering.



INFRASTRUCTURE

SEAMLESS & ENHANCED

Kashi Enterprises is run by a team of highly qualified, skilled and dedicated professionals. The company monitored the ongoing market trends and visualized upcoming ones to establish strong brand presence.

The management is continuously aiming to improve the quality of our products by streamlining processes and regularly upgrading the infrastructure as mentioned here under:





MELTING **SHOP**

POURING METALLURGY

We have coreless induction furnaces of Megatherm having furnace capacity 0.5 MT, 1MT & 2 MT.

PATTERN **SHOP**

TRACING COMPLEX CONTOURS

We have in house pattern shop for making patterns and also an inspection room for pattern inspections.

MOULDING **SHOP**

SHAPING THE **GEOMETRY**

We have installed fully Automatic Sand Plant in our works that is sufficient to run the 6 nos. of Moulding machine at a time along with:

- Intensive Sand Mixture with the capacity of 500kgs batch.
- Moulding Machines Arpa 300 (2 moulding line, 2-pairs of machine)
- Ladle pre-heating facility.
- Mg. treatment ladle for S.G. iron-2 Nos, 6 nos. pouring ladle in different capacities.
- Sand Dryers and automatic knock out.
- Core Shooter Machine- 6 Nos.





FETTLING **EXCELLENCE** IN **FINISHING**

- Automatic Knock out machine, Make Shree Shakti, Coimbatore.
- Shot Blasting Machine roter type and table type with 72" dia, 01 No. each.
- Gouging Machine, Swing Grinder, Pneumatic Chipper, Welding Machine,
- Pre heating Oven, stationary & Pedestal Grinder.

HEAT **TREATMENT** ENHANCING **STRENGTH** **DURABILITY** OF COMPONENTS

- PLC controlled electric heat-treatment furnace having capacity 2 MT batch.
- Oil fired Heat treatment Furnace fitted with automatic temperature indicator and graph having size 2.5x2.5x1.5 meter.
- Water/oil quenching facilities available.

QUALITY CONTROL DELIVERING VALUE FOR MONEY

- Spectromaxx spectrometer
- Wet chemical Laboratory
- Sand testing lab.
- UTM of 40 Tons capacity to check Physical properties.
- Impact & Bend testing Machine.
- Hardness by optical hardness tester, Electronic hardness tester and Poldi.
- DP Test sets and MPI for checking surface defects.
- Measuring instruments i.e. height gauge, Air gauge, Micrometer, Vernier Caliper, Calipers etc. duly calibrated.
- Ultrasonic testing machines to detect internal defects of castings.
- Radiography.
- Marking table.
- Micro Scope in 1200X Magnification with Metallurgy Plus Software
- Leakage Test Machine- Leakage Test with Pressure 6kgf.

OTHERS **EQUIPMENTS** GUAGING **DIMENSIONS**

- EOT Cranes – 1 No. 7.5 MT, 1 No. 5 MT, 1 No. 2 MT.
- D.G. Set of 250 KVA capacities, Make Kirlosker
- Screw Compressor Set 107 CFM & 250 CFM capacity of ELGI make 2 Nos.
- Mobile Crane, JCB.

CONVENTIONAL **MACHINE** SHOP ADDING **VALUE** TO COMPONENT

- Planer Length 1.5 Meter.
- Shaper Length 30".
- Radial Drill Bore size 2", Height 30".
- Lathe Bed size 4', 6', 8', 10', 12' & 18'.
- Boring Machine Spindle size 80 mm, Make WMW, Germany.
- Milling machine Model No. M38, Size 56x12
- S.P.Ms

CNC **MACHINE** SHOP TURNING **ACCURACY**

- CNC Machines with Fanuc controller Hollow high speed chuck
250mm (06Nos.)
- VMC Machine with Fanuc controller- Table Size 800 x 400 mm (2 Nos)
- Leak Test Machine.
- Washing Machine.
- Drilling & Tapping Machine.
- Painting Booth.



OUR INCESSANT **ENDEAVOUR** TOWARDS **BETTER TOMORROW**

We believe that life is a moral responsibility along with several other things, therefore we believe in giving back to the society. Since the community has given us so much including the recognition in the society, patronage and clientele to spread out our business to such great pinnacle, we at KVS Steel are committed to our responsibility towards the society as a whole.

We make sure that our thoughts are converted into actions to maintain the environmental sustainability for the generations to come. Taking special care to avoid any damage to the environment we ensure that steps are taken to avoid industrial discharge and unhealthy ways of residue or garbage disposal.

KVS has substantial exposure in the field of corporate social responsibilities. To name a few:

KVS established two charitable trusts. One in the name of Galwalia Seva Shiksha Sansthan and the other one as Pyarelal Nand Kishore Galwalia Dharmath Sewa Sansthan undertaking progressive initiative in education and other social issues.

KVS has set up Pyare Lal Nand kishore Galwalia Rajkiya Mahavidyala Ramnagr. It has also built the fully furnished Computer Education block and renovation of school building at Mahadev Nagar near Bheem Nagar, Kashipur.

Established library at Gomti Pooran Prasad Garg Inter College, Ramnagar for the benefit of the readers at large.

KVS has also extended assistance by creating and maintaining the infra-structure of GGIC kashipur.

KVS has Constructed The Jindal Auditorium at KGCCI Kashipur to facilitate various social and corporate activities for the entire business community.

KVS has encouraged search for local talents in sports and athletics in the region. Stress has been laid in fitness and healthcare as well. .

Last but not least, the group provides scholarships to meritorious students of the region and some of those have excelled in their lives and have now a respectable identity of their own in the society.

CERTIFICATES

RDSO



ISO/TS 16949:2009



ISO 9001 - 2008





Kashi Vishwanath Steels Pvt. Ltd.

Narain Nagar Industrial Estate, Bazpur Road, Kashipur-244713 (Uttarakhand)

☎ Tel.: 05947-262109, 262209, 262138 ☎ Fax : 05947-262103

Regd. Office : D-6, Vivek Vihar, Phase-1, Delhi-110095

✉ E-mail : kvspremier@kvspremier.com 🌐 Website : www.kvspremier.com