



STRUCTURAL STEEL AT THE CORE OF GROWTH



'India' and 'Growth', today have become synonyms. The world is seeing India as the centre of growth and a rising superpower. It has become a home to inventions and innovations that are not just giving India an edge over others, but also opening the doors to a better future for the whole world.

It all started in 1947 when India saw the light of freedom after a long and dark phase of colonisation. Left with nothing but underdevelopment, poverty, lack of education, unemployment and many such problems, the country realized that it's only industrialisation and development that can improve the nation's situation and help it move on the path of growth.



It was then that small and medium scale manufacturing units and workshops started to function and slowly flourish. Over time as the industrial boom spread across the country, the demand for structural steel rose rapidly.

While each and every Indian takes pride in presenting the growth and development of our country, we, at Mahavir Steel Industries, are extremely honoured to contribute towards it by putting our structural steel offerings to their best use, wherein they are at the core of infrastructure development, automobile manufacturing, power generation & distribution, heavy engineering and other industries.

We believe that the core sectors like infrastructure, transportation and energy together form the backbone of every nation and enable it to rise and grow.





The DNA, the core, of every industry is made of structural steel. And as they say 'A strong core is the key to explore endless possibilities'. We, at Mahavir Steel Industries, leave no stone unturned in the process of developing the finest quality structural steel elements that are directly or indirectly going to form the base of future India.

Mahavir Steel Industries Limited was founded in 1968 at Bhosari near Pune to be a part of the 'Developing India' and to power the nation to develop and grow even more. Manufacturing and delivering high quality structural steel elements not only helped us win the trust of all our existing clients, but also enabled us to get more and bigger clients spread across various industries.

Thus, helping us to reach the epic milestone of manufacturing more than 100 tonnes of structural steel elements per day in mid 1970s.

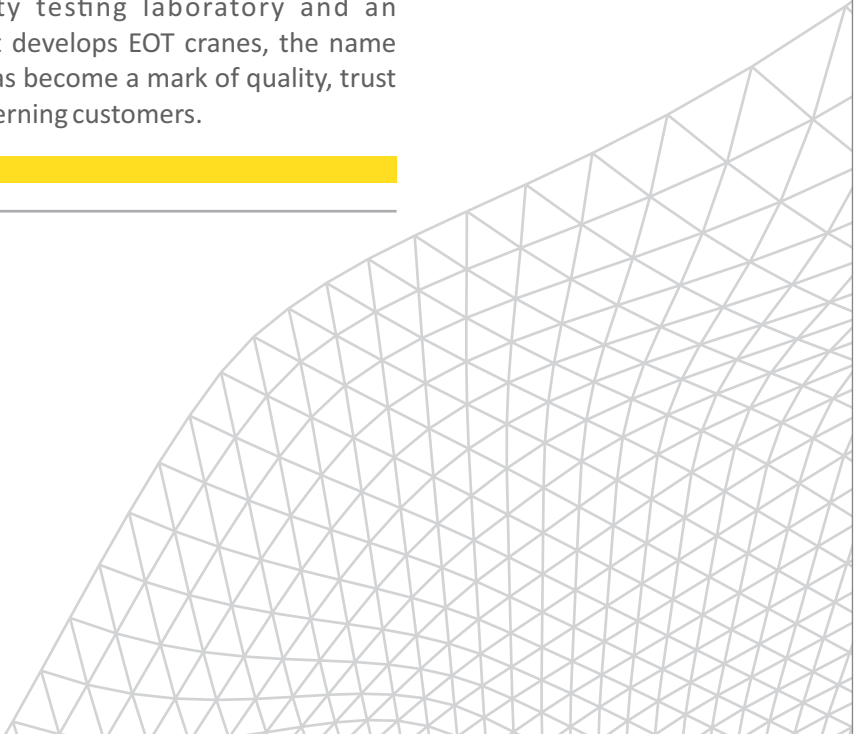



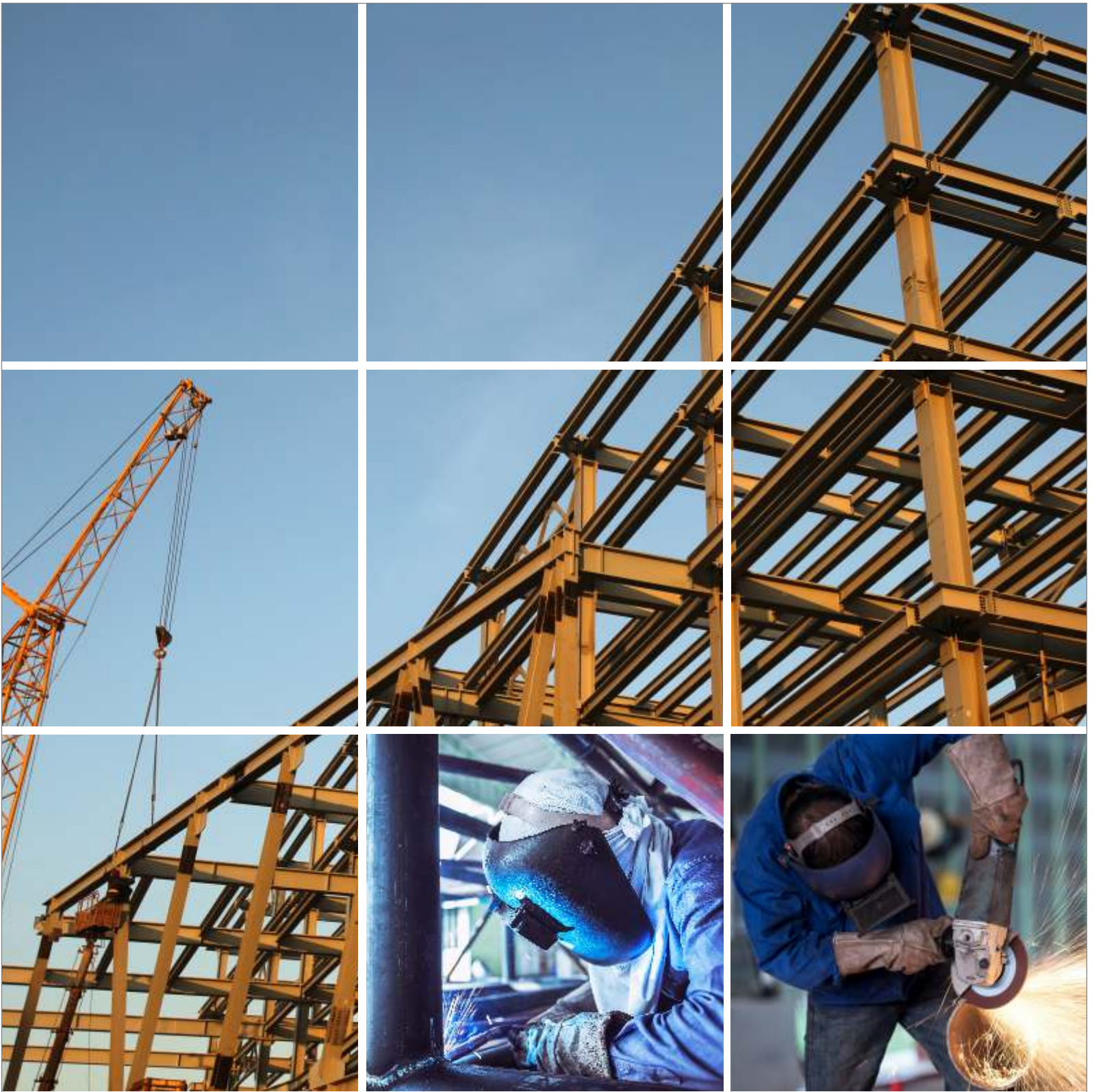
The passing time, growing trust and increasing requirements in the agricultural sector caused the setting up of our second unit at Yawat near Pune, in 1993. This improved and technologically advanced unit majorly catered to the requirements of the expanding vineyards in the Pune - Solapur region.

Mahavir Steel Industries is the most trusted name in manufacturing Angles, Channels, Flats, Round Bars, Square Bars, I Beams and H Beams. Our approach, goodwill and commitment towards achieving customer satisfaction also makes us the preferred partner of many industries and agricultural units to develop customised products to their specific requirements.

Combining stringent quality raw materials, innovative technology and years of experience, we deliver the highest quality MS products that meet international standards.

Today, with over 300 metric tonnes of daily & on-time deliveries, an in-house fleet of 15 delivery trucks along with in-house maintenance unit, in-house research & development, quality testing laboratory and an independent wing that develops EOT cranes, the name 'Mahavir Steel' itself has become a mark of quality, trust and confidence for discerning customers.





FABRICATING... the structure of the nation's dreams

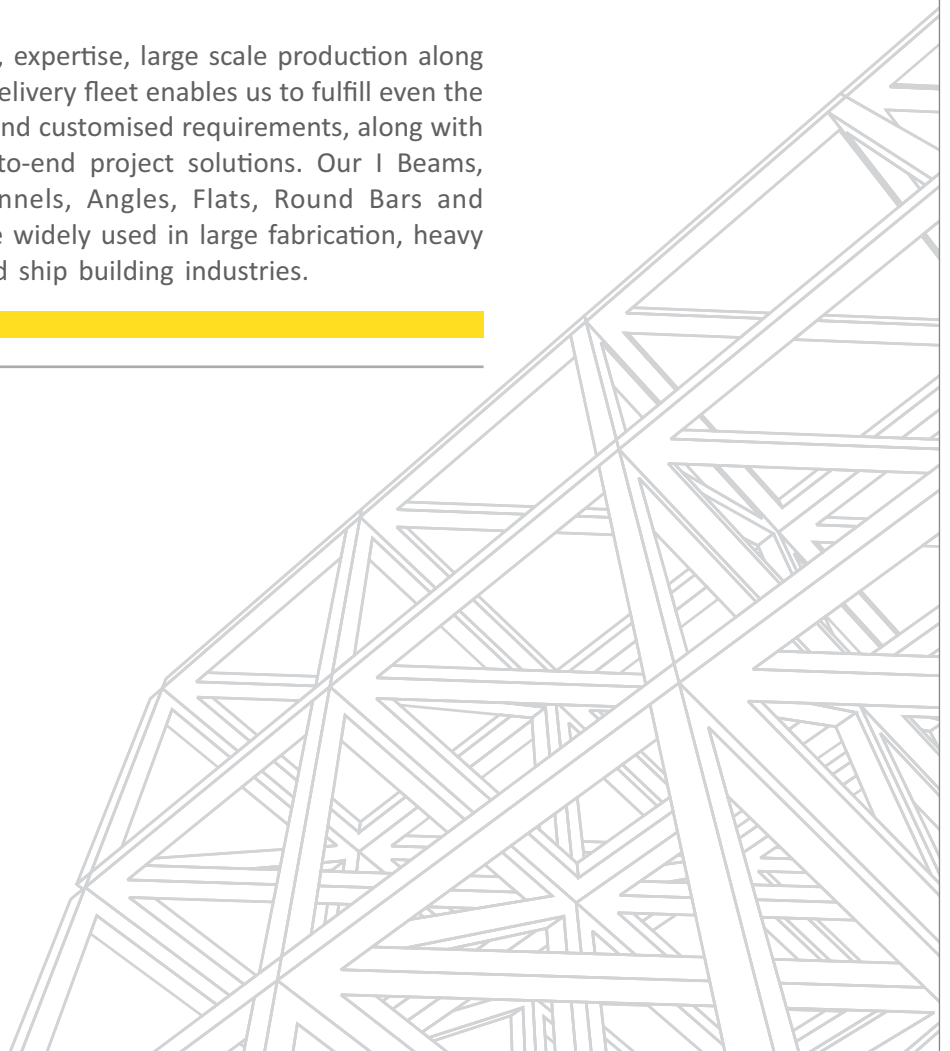
Fabrication is the first and the most important step in the journey of bringing the structure of your dream to life.



From the simplest construction to the most intricate and iconic engineering structure, every project requires a strong core made using sturdy structural steel elements.

Mahavir Steel offers the most resilient structural steel elements manufactured using the best sourced raw materials, state-of-the-art technology and hot-rolled to ultimate precision. Moreover, each of our element is thoroughly checked for seamlessness, strength, durability and quality.

Our experience, expertise, large scale production along with in-house delivery fleet enables us to fulfill even the most complex and customised requirements, along with delivering end-to-end project solutions. Our I Beams, H Beams, Channels, Angles, Flats, Round Bars and Square Bars are widely used in large fabrication, heavy engineering and ship building industries.





DRIVING... the wheels of the nation's dreams

Since the beginning of the transportation revolution, after cast iron structural steel has been the first choice of every automobile and rail coach manufacturer for the construction of the body and chassis structure.



Along with being lightweight that helps to improve performance and fuel efficiency, structural steel also ensures ultimate safety of the passengers and goods in the vehicle.

Whether it's an upgrade in the design, performance, safety, economy or any other aspect, the automotive industry today is introducing a new innovation almost every day. The constantly changing needs and requirements have given rise to extremely specific demands by the manufacturers.

Believing in changing with time and constantly upgrading our offerings, at Mahavir Steel, we guarantee the best variety of Angles, Channels, Flats, Bars, Beams or any other customised structural steel element made in mild steel of varying sizes, thickness and strength best suited for automobiles and railways.





POWERING... **the future of the nation's dreams**

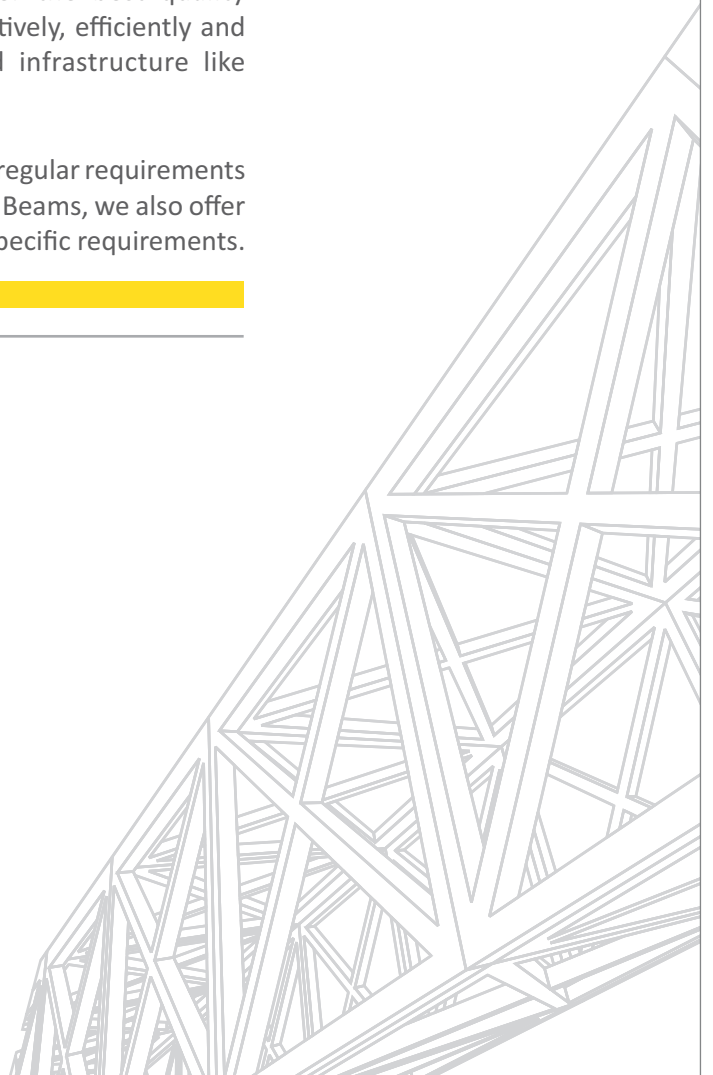
Energy is the soul of every operation that directly powers the growth and development of any country.

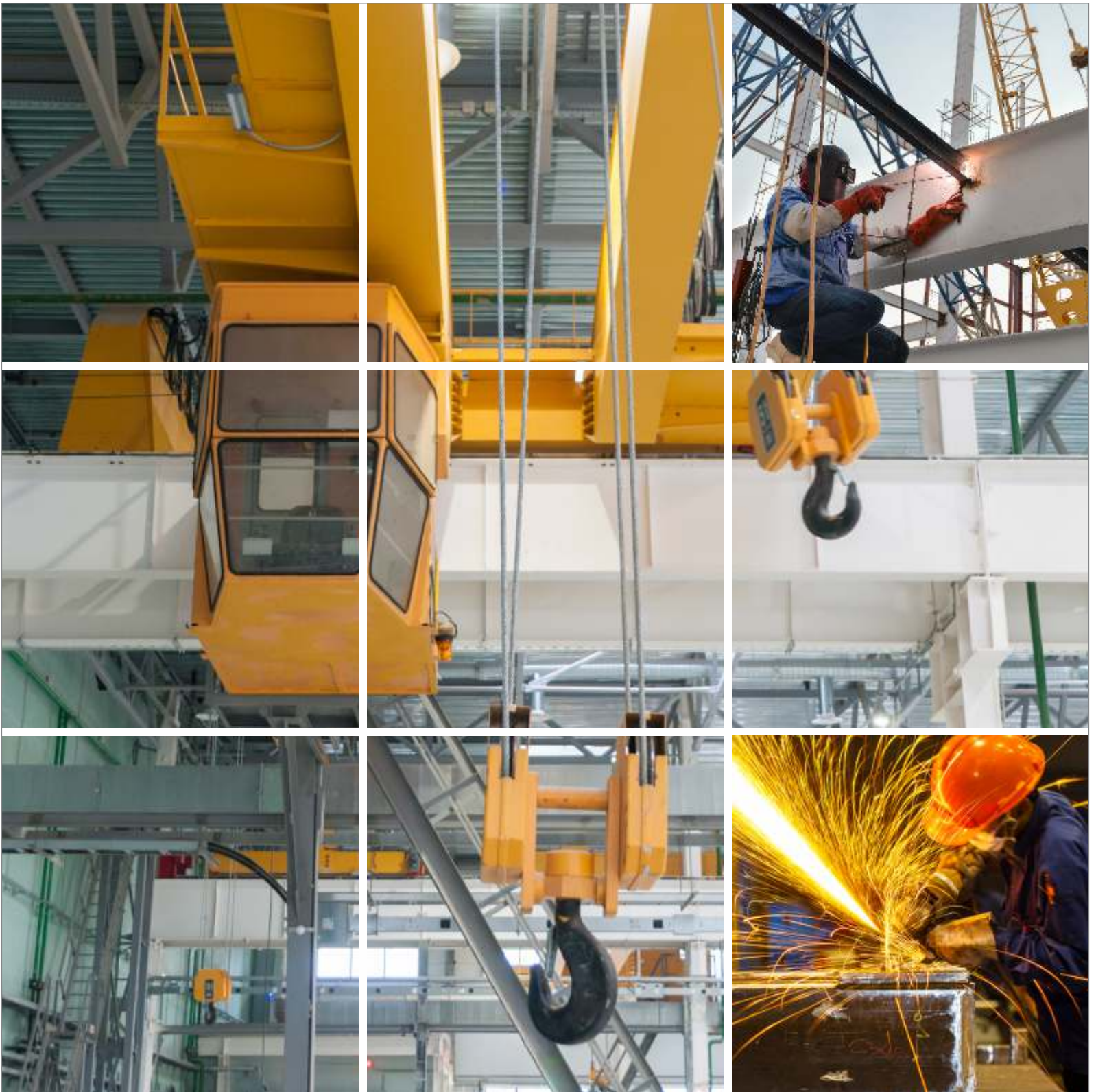


Whether it is industrialisation, agriculture or general use, the demand for energy is rising each day. With the growing development the need for power generation units, transmission and distribution infrastructure is also ever increasing.

Understanding this scenario, we at Mahavir Steel are committed to develop and deliver the best quality structural steel elements that effectively, efficiently and functionally support the required infrastructure like transmission towers.

Along with successfully meeting the regular requirements for Angles, Channels, Flats, Bars and Beams, we also offer exclusive customized solutions for specific requirements.






HANDLING... the load of the nation's dreams

Time is money and the constant innovation in technology has enabled us to save both. Today, as the demand for industrial goods and products is constantly rising, the pressure to deliver better quality products at a faster pace is also increasing.






So, in order to accelerate the pace of delivery and ensure smooth and safe handling of products, manufacturers have started to upgrade their production units, workshops and warehouses with technologically advanced EOT Cranes. This upgradation move has not just helped them save time and money, but also the precious lives of the workers, along with the goods, by radically reducing the amounts of accidents.

Since the introduction our material handling range of structural steel elements that focuses on aiding the development of innovative EOT Cranes, we at Mahavir Steel, have been trusted by private companies as well as public sector to deliver the best quality and strong steel of varied shapes and sizes.

The EOT Cranes are mostly custom built to cater to specific requirements of various setups. Our innovative designs and technology enables the EOT Crane manufacturers to choose the precise structural products from our size range that perfectly matches their requirements, thus minimize wastage.







BUILDING... **the cities of the nation's dreams**

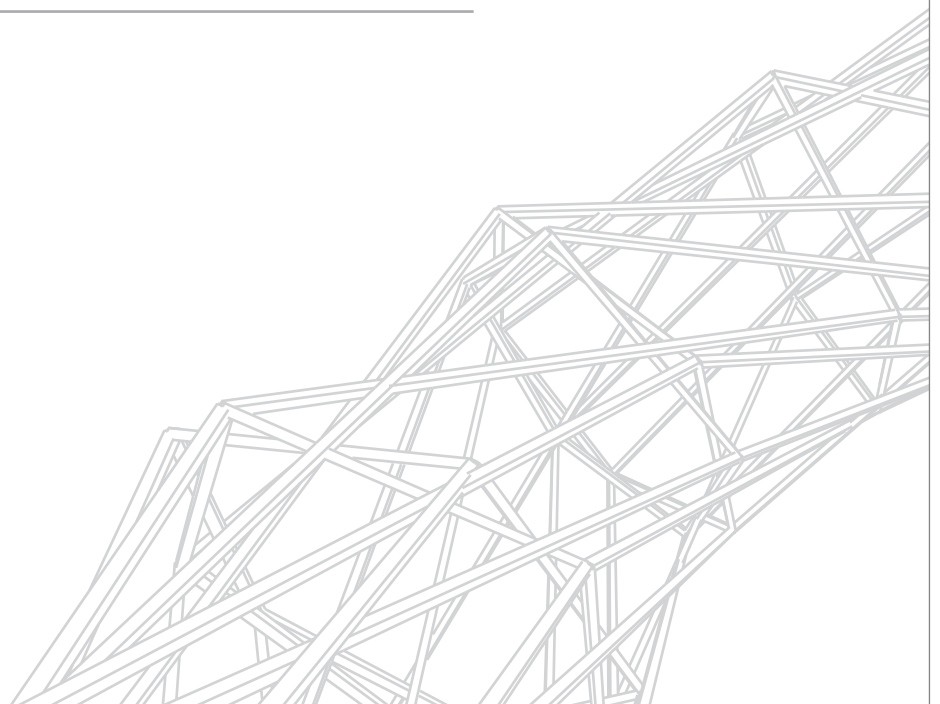
As they say 'Infrastructure is what you need to take the overall growth to the next level', India has already started to invest in building better, bigger and more beneficial infrastructure in order to accelerate the pace of the growth of our country.



Developing world-class infrastructure requires equally demanding building materials that give the construction a strong core and robust configuration, and enables it to stand strong for years and years.

Committed to contributing towards the growth and development of our country, at Mahavir Steel, we develop the finest quality, extremely strong and unbelievably long-lasting structural steel elements that help in developing the strongest core and build a landmark that will make our country proud.

Whilst offering the regular elements like Angles, Flats, Channels, Bars and Beams, we also develop exclusive customised elements to satisfy the precise requirements of extraordinary projects.





BRIGHTENING UP... the spaces of the nation's dreams

The rising awareness about environment-friendly and renewable substitutes of energy resources has made solar power the most sought clean, green and economical energy source.



Supporting the great migration from non-renewable energy to renewable energy, we at Mahavir Steel have designed and developed exceptional structural steel elements for fabricating Solar Module Mounting Systems, that match the environmental conditions of the installation site, minimise labor and enables easy on-site welding or fitting.

These innovative design and application solutions have helped our company to become a trusted supplier for not only Solar Setups manufacturers, but also government recognised urban and rural development authorities.





GROWING... the reach of the nation's dreams

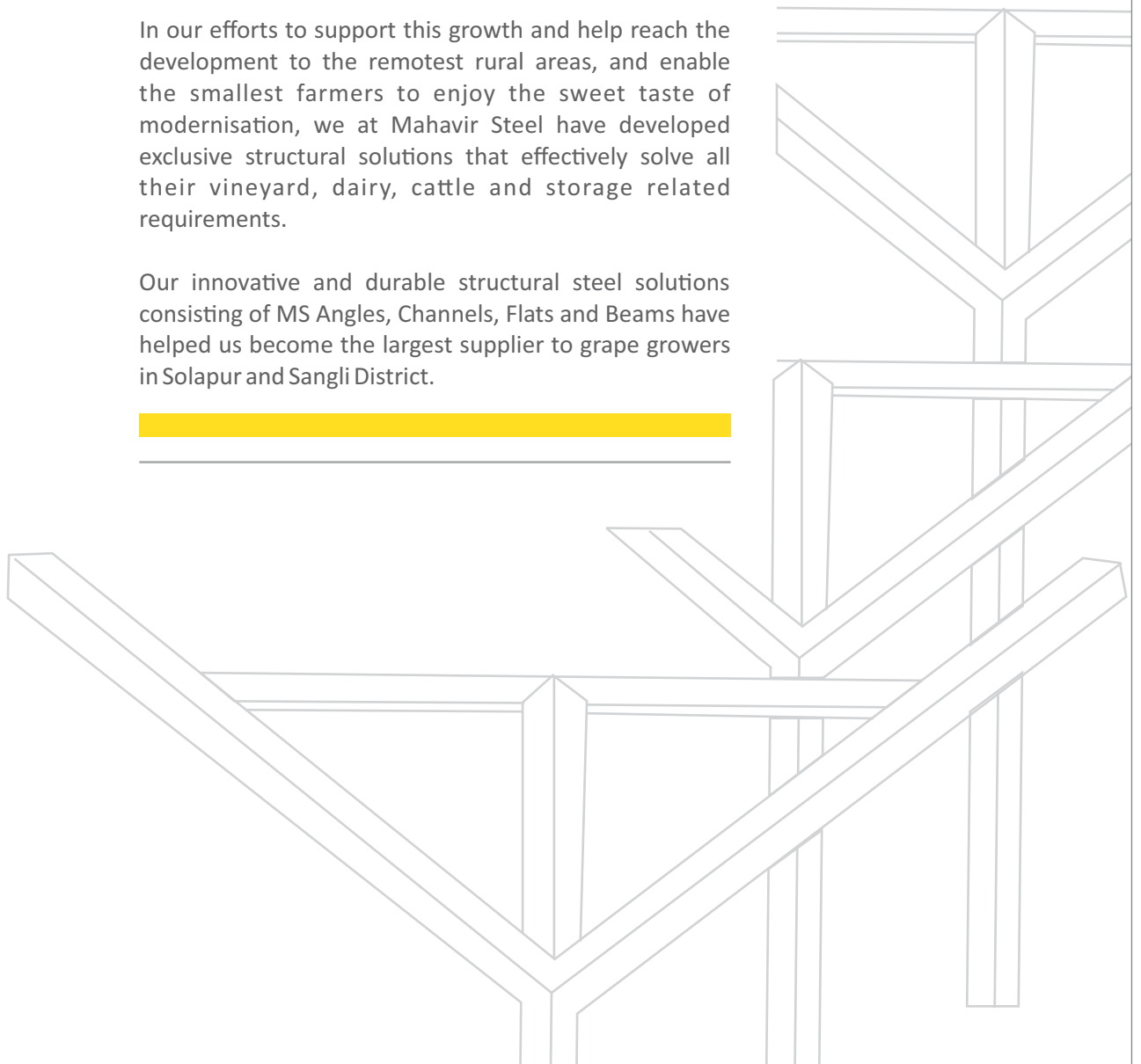
The most important part of the Indian economy, agriculture today is not the same as it was a few years back.



Along with other industries, the trend of growth, development and modern techniques has impacted the agricultural sector too and has transformed it into a surplus producing sector from just being self-sufficient.

In our efforts to support this growth and help reach the development to the remotest rural areas, and enable the smallest farmers to enjoy the sweet taste of modernisation, we at Mahavir Steel have developed exclusive structural solutions that effectively solve all their vineyard, dairy, cattle and storage related requirements.

Our innovative and durable structural steel solutions consisting of MS Angles, Channels, Flats and Beams have helped us become the largest supplier to grape growers in Solapur and Sangli District.





STRUCTURAL STEEL... the range that Mahavir Steel is proud of

Since inception, Mahavir Steel Industries has always been committed to developing more and more innovative and finest quality structural steel elements that can be used in every industry that strengthens the core industries of our country and helps its all-round, eco-friendly, and long-lasting growth and development.

Our structural steel range is in conformance to IS 2062 Grade A. We also manufacture in EN8, EN8D, EN9 and EN16 on prior sale and advance intimation.

MS ANGLES (EQUAL)

Size	Average Weight	
	mm	kg/mtr
25x3	1.10	0.30
25x5	1.80	0.50
25x6	2.10	0.60
30x3	1.40	0.40
35x3	1.60	0.50
35x4	2.10	0.60
35x5	2.60	0.80
37x3	1.70	0.50
40x4	2.40	0.70
40x5	3.00	0.90
40x6	3.50	1.10
45x4	2.70	0.80
45x5	3.40	1.00
50x4	3.00	0.90
50x5	3.80	1.20
50x6	4.50	1.40
55x4	3.30	1.00
55x5	4.10	1.30
60x4	3.70	1.10
60x5	4.50	1.40
65x4	4.00	1.20
65x5	4.90	1.50
65x6	5.80	1.80
65x8	7.70	2.40
65x10	9.40	2.90
75x5	5.70	1.70
75x6	6.80	2.10
75x8	8.90	2.70
75x10	11.00	3.40
75x12	13.00	3.94
90x6	8.20	2.50
90x7	9.50	2.90
90x8	10.80	3.30
90x10	13.40	4.10
100x6	9.20	2.80
100x7	10.70	3.30
100x8	12.10	3.70

MS ANGLES (EQUAL)

Size	Average Weight	
	mm	kg/mtr
100x10	14.90	4.50
100x12	17.70	5.40
110x8	13.80	4.18
110x10	16.60	5.03
110x12	20.80	6.30
130x10	19.70	5.97
130x12	23.50	7.12

MS ANGLES (UNEQUAL)

Size	Average Weight	
	mm	kg/mtr
45x30x4	2.20	0.67
45x30x5	2.80	0.85



MS CHANNELS

Size	Average Weight	
	kg/mtr	kg/ft
70x35	4.20	1.30
75x40 ST	7.10	2.20
75x40 MD	6.50	2.00
75x40 LT	5.70	1.70
100x50 ST	9.60	2.90
100x50 MD	9.20	2.80
100x50 MD	8.70	2.60
100x50 LT	7.90	2.40
120x55	12.50	3.10
125x65	13.10	4.00
150x75	16.80	5.10
200x75	22.30	6.80

MS CHANNELS

MS FLATS		
Size	Average Weight	
mm	kg/mtr	kg/ft
25x4	0.79	0.24
25x4.5	0.88	0.27
25x5	1.10	0.30
25x6	1.20	0.40
25x8	1.60	0.50
25x10	2.00	0.60
25x12	2.40	0.70
28x6	1.30	0.40
30x4	0.94	0.29
30x4.5	1.14	0.32
30x5	1.20	0.40
30x6	1.40	0.40
32x4	1.00	0.30
32x5	1.30	0.40
32x6	1.50	0.50
32x8	2.00	0.60
32x10	2.50	0.80
32x12	3.00	0.90
38x5	1.50	0.50
38x12	3.60	1.10
40x4	1.26	0.38
40x5	1.60	0.50
40x6	1.90	0.60
40x8	2.50	0.80
40x10	3.10	1.00
40x12	3.80	1.20
40x16	5.00	1.50
40x20	6.30	1.90
40x25	7.90	2.40
50x4	1.60	2.00
50x5	2.00	0.60
50x6	2.40	0.70
50x8	3.10	1.00
50x10	3.90	1.20
50x12	4.70	1.40
50x16	6.30	1.90
50x20	7.90	2.40

MS FLATS		
Size	Average Weight	
mm	kg/mtr	kg/ft
50x25	9.80	3.00
50x32	12.56	3.81
63x6	2.97	0.90
65x6	3.00	0.90
65x8	4.10	1.20
65x10	5.10	1.60
65x12	6.10	1.90
65x16	8.20	2.50
65x20	10.20	3.10
65x25	12.80	3.90
65x32	16.33	4.95
65x40	20.41	6.18
65x50	25.51	7.73
75x6	3.50	1.10
75x8	4.70	1.40
75x10	5.90	1.80
75x12	7.10	2.10
75x16	9.40	2.90
75x20	11.80	3.60
75x25	14.70	4.50
75x32	18.90	4.50
75x40	23.60	7.20
75x50	29.44	8.92
100x6	4.70	1.40
100x8	6.30	1.90
100x10	7.90	2.40
100x12	9.40	2.90
100x16	12.60	3.80
100x20	15.70	4.80
100x25	19.60	6.00
100x32	25.10	7.61
100x40	31.40	9.52
100x50	39.30	11.91
125x6	5.90	1.80
125x8	7.90	2.40
125x10	9.80	3.00
125x12	11.80	3.60

MS FLATS		
Size	Average Weight	
mm	kg/mtr	kg/ft
125x16	15.70	4.80
125x20	19.60	6.00
125x25	24.50	7.50
125x30	29.44	8.92
125x32	31.40	9.52
150x6	7.10	2.20
150x8	9.40	2.90
150x10	11.80	3.60
150x12	14.10	4.30
150x16	18.80	5.70
150x20	23.60	7.20
150x25	29.40	8.90
150x32	37.68	11.42
178x6	8.38	2.54
178x8	11.18	3.39
200x6	9.40	2.90
200x8	12.60	3.80
200x10	15.70	4.80
200x12	18.80	5.70
200x16	25.10	7.70
200x18	28.26	8.56
200x20	31.40	9.60
200x25	39.20	12.00
250x6	11.80	3.60
250x8	15.70	4.80
250x10	19.60	6.00
250x12	23.60	7.20
250x16	31.40	9.60
250x20	29.20	12.00
250x25	49.10	15.00
300x6	14.10	4.30
300x8	18.80	5.80
300x10	23.60	7.20
300x12	28.30	8.60
300x16	37.70	11.50


MS FLATS



MS I BEAMS

Size	Average Weight	
	kg/mtr	kg/ft
125x8	7.90	2.40
125x10	9.80	3.00
100x50 ST	8.90	2.70
100x50 MD	7.00	2.10
100x50 LT	5.30	1.60
125x70 ST	13.30	4.05
125x70 MD	11.50	3.50
125x70 LT	9.00	2.70
150x75 ST	15.00	4.60
150x75 LT	13.50	4.10
200x100	24.20	7.40


MSI BEAMS



MS H BEAMS		
Size	Average Weight	
mm	kg/mtr	kg/ft
116x100 STD	23.00	7.00
116x100 MD	21.50	6.50
125x70 ST	13.30	4.00
152x152 STD	37.10	11.30
152x152 MD	34.00	10.40
175x85 STD	19.60	6.00


MS H BEAMS

MS SQUARES BARS

Size	Average Weight	
	kg/mtr	kg/ft
10x10	0.80	0.20
12x12	1.10	0.30
14x14	1.50	0.50
16x16	2.00	0.60
20x20	3.10	1.00
25x25	4.90	1.50
32x32	8.00	2.40
40x40	12.60	3.80
42x42	13.85	4.20
50x50	19.60	6.00
53x53	22.05	6.68
56x56	24.60	7.50
63x63	31.20	9.50


MS SQUARE BARS

MS ROUND BARS

Size	Average Weight	
	kg/mtr	kg/ft
10	0.62	0.19
12	0.90	0.30
14	1.20	0.40
16	1.60	0.50
18	2.00	0.60
20	2.50	0.80
22	3.00	0.90
25	3.90	1.20
28	4.80	1.50
32	6.30	1.90
34	7.14	2.16
36	8.00	2.42
40	9.90	3.00
45	12.50	3.79
50	15.40	4.70
56	19.36	5.87
60	22.20	6.80
63.5	19.36	7.55
65	26.08	7.90
70	30.20	9.20
73	32.90	9.97
75	34.72	10.52
78	37.56	11.38
80	39.50	12.00
85	44.60	13.51
90	50.00	15.20
93	53.39	16.18
95	55.71	16.88
100	61.50	18.80
105	68.06	20.62
110	74.60	22.75
115	81.64	24.74
125	96.45	29.23


MS ROUND BARS



1

Raw Material: Ingot and billets are stocked after QA clearance



2

Counter & Pusher: Batched ingot or billets are pushed into furnace



3

25 metre Furnace: Ingot or billets are tempered at 1100°



4

Ejector: Hot raw material from the furnace ready for rolling



5

Rolling Mill: Product taking shape on the rolling mill



6

Rolling: 7 - 14 passes depending on the shape and size as required



7

Cooling: After the rolling, the final products are set for cooling



8

Cutting: The rolled products are sized to batch and order



9

Stacking: The finished products are stored batch-wise

QUALITY... the core of what Mahavir Steel does

Mahavir Steel Industries is trusted for ethics, quality, processes, systems, precision, delivery and punctuality.



Awarded an ISO 9001:2008 certificate, Mahavir Steel is a proud home to a team of expert and experienced professionals. Two plants featuring state-of-the-art technology, in-house delivery fleet and an in-house testing laboratory that tests each and every batch that we manufacture and ensures its quality.

In order to fulfill our commitment to deliver only the finest structural steel elements, that strengthens our country's growth, we have invested in the latest equipment Universal Testing Machine, Ultrasonic Testing Machine, Spectrometer, Infra Red Gun, Hardness Testing Machine and Impact Testing Machine for our laboratory.

Our quality check procedure starts right at the procurement stage wherein the raw material, ingots, billets and every other material used in manufacturing the elements is checked thoroughly for its purity and composition. Every batch manufactured is thoroughly checked and ensured that it aggressively meets the IS 2062 Grade A production standards along with the customer's requirements.

A Mill Test Certificate with an original hologram and a signature in blue ink also endorses the quality of our products. Moreover, all our products except the 'Round & Square Bars' are embossed with 'Mahavir Pune', so that the customers can confirm the authenticity of our products.

Our structural steel is manufactured as per **IS 2062 Standard (Rev-2006)**, the set grade for **“Steel for General Structural Purposes”**. Our products adhere to all the quality parameters of this standard to Grade A, commonly known as **Fe 410 WA**.

Chemical Composition (in % max values)

Carbon %	Manganese max %	Sulphur max %	Phosphorus max %	Silicon max %	Carbon Equivalent
0.23	1.50	0.045	0.045	0.40	0.42
Tolerance					
+0.02	+0.005	+0.005	+0.005	0.003	

Mechanical Properties

Tensile strength min, MPa	Yield Stress min, MPa	% Elongation at gauge length	Bend Test min
410	240	23	3t*

*t is thickness of material



The IS 2062/2006 Standard also comprises following:

- IS 808/1989, IS 1730 and IS 1732 Standards State details on dimensional tolerances for Hot Rolled Steel Section, viz, Angles, Channels and Beams.
- IS 1852/1985 Standard State details on rolling and cutting tolerances for hot rolled sections. These tolerances are listed below:

Rolling Tolerances

Angles

Leg length	upto 45mm	±1.5mm
	50 to 100mm	±2mm
	over 100mm	±2%
Sectional weight	3mm thick over 3mm	±5% +5%/-3%

Channels

Depth		±2.5mm
Flange	upto 100mm	±2mm
Sectional weight		±2.5mm

Flats

Width	upto 50mm	±1.0mm
	50 to 75mm	±1.5mm
	75 to 100mm	±2mm
	100mm and above	±2% and max not exceeding 6mm

Thickness	upto 12mm	±0.5mm
	over 12mm	4% and max not exceeding 1.5mm

Sectional weight	upto 3mm over 3mm	±5% ±3%
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Round and Square Bars

Size	upto 25mm	±0.5mm
	25 to 35mm	±0.6mm
	35 to 50mm	±0.8mm
	50 to 80mm	±1.0mm
	80 to 100mm	±1.3mm
	100mm and above	±1.6% of diameter or side width

Ovality

±75% of total tolerance specified on the size

Weight size	10 to 16mm	±5%
	16mm and above	±3%

I Beams

Height		+3mm/ -2mm
Flange	upto 100mm	±2mm
	100 to 125mm	±2.5mm
	125 to 200mm	±4mm
Sectional weight		±2.5%

In case of fixed length supplies, tolerance in length maintained will be +100mm.





ACCREDITATION

- Power Grid Corporation
 - Nuclear Power Corporation of India
 - Gujarat Urja Vikas Nigam
 - Central Organisation for Railways Electrification
 - Tamil Nadu Transmission Corporation (TANGEDCO)
 - National Highways Authority of India (NHAI)
 - Dedicated Freight Corridor Corporation (DFCCIL)
 - L&T Hydrocarbon (Offshore & Onshore)
 - BGR Energy Systems Ltd
 - Saudi Aramco
 - Reliance Industries
 - Mumbai Trans Harbour
 - Railway Coach Factory (RCF)
 - GETCO
 - APTRANSCO
 - IRS
 - ONGC
 - MSEDCL
 - NTPC
 - BHEL
 - HAL
 - JNPT
 - Bureau of Indian Standards (IS 2062 Grade A)
 - ISO 9001:2015
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