## APOCALYPSE STEEL AND POWER LIMITED

: U27300WB2017PLC222752

GSTIN NO: 19AAQCA0268D1ZN

#### **CORPORATE OFFICE**

241,MAHARAJA N.K ROAD P.O.: ALAMBAZAR KOLKATA - 700036 STATE: WEST BENGAL (INDIA)

#### **REGISTERED OFFICE**

275 C,M SHAH, ROAD PO+PS-BARRACKPORE KOLKATA-700120 STATE: WEST BENGAL (INDIA)

Website: www.apocalypsesteelandpower.net Email Id: sales@apocalypsesteelandpower.com cmd@apocalypsesteelandpower.com

Contact No: 09874030149 / 09874030628 / 09874030661











## APOCALYPSE STEEL AND POWER LIMITED

Contact No: 09874030149 / 09874030628 / 09874030661

Website: www.apocalypsesteelandpower.net Email Id: sales@apocalypsesteelandpower.com

cmd@apocalypsesteelandpower.com

#### Apocalypse Steel & Power Ltd. TMT Bars

Apocalypse Steel & Power Ltd. TMT is the latest generation or ribbed, high strength. thermomechanically treated reinforcement bars that are poplar the world over. The company has been the first in Eastern India to introduce the state-of-art Thermex process under licence from HSE. Germany to produce these bars in grade designated as Apocalypse Steel & Power Ltd. MAT Fe 415 and Apocalypse Steel & Power Ltd. TMT Fe 500 with different mechanical properties.

The Thermex MAT process features rapid cooling of heated bars periphery. This transforms the peripheral suucture to martensne, which is then annealed through the heat available at the core. The resultant bar structure is of tempered martensite on the outer surface and of fine-grained ferrite-pearlite at the core, imparting high strength, toughness and ductility.

Thermo-mechanically treated (TMTI reinforcement bars are today essential for any serious construction. For load bearing applications they have completely replaced CID and plain bars on account of their remarkable weight to strength ratio.

## "All blooms and billets are procured from SAIL Laboratory testing of samples"



#### **Structurals**

Structural steel is steel Construction materials, a profile, formed with a specific shape or cross section and certain standards of chemical composition and strength. Structural steel shape, site. composition. strength. storage. etc, is regulated in most indusmalned countries. Snuctinal Steels shape structure on mathematical geometry and solely depend on 90°.

The structural mill produces a variety of hot rolled products such as angels, channels and beams and joists, as well as bats and rounds of various dimensions. The versatile range includes a cross section of special contours for bridges, buildings, trammission towers, industrial structures as well as (or automobile and stripping industries. An online straightening machine ensures accuracy of anibis. which is particularly important for transmission

The strength and quality consistency make AM structural products a favourite among leading engineering and construction companies All raw materials are sourced from SAIL Each batch is subjected to stringent tests. Samples from every cast are sent for chemical analysis, tensile and bend tests. Where required impact spectromax testing are also undertaken. Finally, precettplece inspection ensures that only flawless pieces are dispatched. When Ws AM, you ate sure.



Over the years, Apocalypse Steel & Power Ltd. has develop an enviable roster of customers in India. As well as growing export market In Nepal, Bhutan etc. We are enlisted with numerous Government departments and multinational companies, who recognize the quality of our steel Noteworthy approvals include power Grid Corporation for MS angles and Military Engineering Services (MES) for TMT and Structural sections. Many prestigious buildings have been made with our steel.

#### **▶ STRENGTH**

Apocalypse Steel & Power Ltd. are available in AR TMT Fe . 415/ 500. Apocalypse Steel & Power Ltd. STRUCTURAL Fe : 4101440/490/540 grades which are much stronger than ordinary steel and give a 20% stronger concrete suucture with a same quantity of steel

#### ► STRENGTH

Apocalypse Steel & Power Ltd. are available in AR TMT Fe . 415/ 500. Apocalypse Steel & Power Ltd. STRUC-TURAL Fe : 4101440/490/540 grades which are much stronger than ordinary steel and give a 20% stronger concrete suucture with a same quantity of steel

#### THEHMAI STABILITY

Apocalypse Steel & Power Ltd. have high thermal stability unlike other ordinary steel. II can be used even at high temperature till 600°C without any loss in strength.

#### **BEND PROPERTIES**

Apocalypse Steel & Power Ltd. possesses excellent bendability due to the unique feature of uniform elongation.

#### **▶ WELD PROPERTIES**

Apocalypse Steel & Power Ltd. have very good weldability. They do not suffer from loss of strength at the weld joints.

#### CORROSION RESISTANCE

Apocalypse Steel & Power Ltd. shows virtually no rusting even after a long time due to the absence of any residual stress.

#### **EARTHQUAKE PROOF**

Apocalypse Steel & Power Ltd. can be used in Earthquake zones as its guarantee better elongation.

#### COASTAL STEEL

Apocalypse Steel & Power Ltd. are rolled from IS 2830 Bilets all procured from SAIL to produce CRS Steels. which provides better Stability, and function in coastal region.

#### **► FATIGLIF RFSISTANCF**

Apocalypse Steel & Power Ltd. have high fatigue resistance on dynamic loading on account of the high strength of the surface layer.

#### **▶ FIRE RESISTANCE**

Apocalypse Steel & Power Ltd. have higher thermal stability which making it safer in Fire Hazards.

#### **QUALITY ASSURANCE**

Apocalypse Steel & Power Ltd. uses the in house state of the art laboratory with modern and advanced machineries such as SPECTROMAX, ;PIA. Impact.

#### **SAVINGS**

Apocalypse Steel & Power Ltd. extra strenv, means more savings too. It saves steel upto 20%.





## Apocalypse Steel & Power Ltd.

The 21st century has marked good times for the Indian steel industry. Both domestic and international demand has been robust. For producers like AM, the boom in the infrastructure sector has fuelled demand from the construction from the construction industry. Almost all steel companies have done well and we are no exception.

Good times, however, do not last forever. In our quarter century of industry experience we have seen the ferrous cycle rise, fall and rise again. We have learnt that what survives is quality—and the trust of customers.

In the last few years we have consistently invested in budding a modern and plant implementing quality systems and processes. Today we use steel as the best raw material, process it with the best equipment and follow best practices to assure quality products.

I hope you will give us the opportunity to MP your trust.



Located in Hooghly . The Industrial hub of West Bengal, Apocalypse Steel & Power Ltd. is the first automatic plant in Eastern India to Produce Thermax TMT bars as well full range of structural steels.

It is the only plant in the region to be certified ISO 9001: 2000 for quality processes, ISO 14001:2004 for environment management. such as 1801786:1985 and ISO 2062:2006 have also been obtained.

The modern plant incorporates a complete Thermex treatment system and a structural mill. The complete range of requirements can therefore be met under one roof. Hooghlyt being one of India's premier steel hubs. the billets are locally procured from Steel Authority of India. Proximity to other raw materials and markets means that AM products are competitively priced despite their superior quality.





Sanction

Industnal, Hospital, Institution Buildings, Exhibition Halls, Stadiums. Railway and is stations. offshore structures.

**Agriculture 6 Rural areas** 

Machinery, Storage tanks, Brain hits. Bullock Carts, Meeting Halls

Infrastructures

Bridges, Flyovers, Foot Bridges. Culverts and RCC Structures. Notional Highways, Roads, Aiport.

Oil, Gas & Power

Walls, Platforms. Jetty. Nuelearfilmarmt/Hydro Powgr, Nod Mills and items related to power.

**Transport** 

**Electrical & Electronics** 

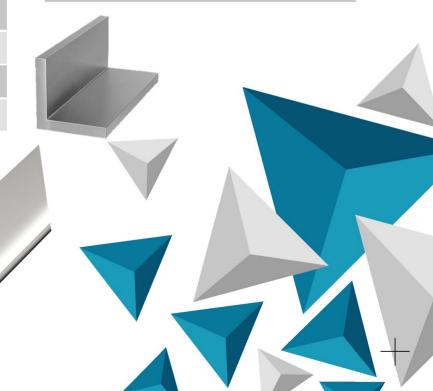
Railways, Metro Raihrays, Sky Bus. BJSES, Trucks, Lunn Coaches. Cars

Transformer core, Motors. Transmission line Towers. HT 111. RelitrIT. Sub stations, Jumper house, TL Hardwares.

## Product Range

TMT Bars	8 min to 32 mm
Angles	35 mm 200 mm
Channels	75 mm to 400 mm
Beams / Joists	100 mm to 203
H-Beams	150 mm to 203 mm
Rounds	upto 160 mm
Flats/Patta	upto 400 mm

Certif	ications
ISO	9001
ISI	1786:1985
ISI	2062:2006
HSD Bars	Thermex



		MS-H BEAM			
Size	Flang	WEB Thickness	R1	R2	Standard
HB 150 X 150	9.0	11.8	8.0	4.0	34.600
SC 152 X 152	11.9	7.9	11.7	3.0	37.100
WB 203 X 152	16.5	8.9	15.5	7.6	52.000

ТМТ	BARS
Size(mm)	Weight Kg/m
8	0.395
10	0.617
12	0.888
16	1.580
20	2.470
25	3.830
28	4.830
32	6.310

		MS BEAM			
Size	Flang	WEB Thickness	R1	R2	Standard
125 X 70	8.0	5.0	9.0	4.5	13.350
150 X 75	8.0	5.0	9.0	4.5	15.000
175 X 75	9.0	5.8	10.0	5.0	19.600
200 X 100	10.0	5.7	11.0	5.0	24.200
250 X 125	12.5	6.9	13.0	6.5	37.300
300 X 140	13.1	7.7	14.0	7.0	46.000
350 X 140	14.2	8.1	14.0	7.0	52.400



	I	MS CHANNEL			
Size	Flang	WEB Thickness	R1	R2	Standard
75 X 40	7.5	4.8	8.5	2.4	07.140
100 X 50	7.7	5.0	9.0	2.4	09.560
125 X 65	8.2	5.3	9.5	2.4	13.100
150 X 75	9.0	5.7	10.0	2.4	16.900
200 X 75	11.4	6.2	11.0	3.2	22.300
250 x 82	14.1	9.0	12.0	3.2	34.200
300 X 90	13.6	7.8	13.0	3.2	36.300
400 X 100	15.3	9.8	15.0	4.8	50.100

#### Ferro Vanadium

V	50% Min
Si	1.5% Max
Al	1.00% Max
S	0.04% Max
Carbon	0.10% Max
Size	10-70mm or as required by end user



Ferro	Vanadium - Chemical Analysis
V	78.00% Min
Si	1.50% Max
Al	1.00% Max
Р	0.10% Max
С	0.25% Max
S	0.04% Max
Cu	0.25% Max
Size	10.50mm or as required by end user

PIG I	ron - Foundary	
С	3.5% Max	
Si	2.5% Max	
S	0.06% Max	
Р	0.12% Max	
Mn	0.5-0.75% Max	







### Ferro Malybdenum

Мо	60-65%
Si	2.5% Max
p	0.1% Max
S	0.15% Max
С	0.15% Max
Cu	0.5% Max
Size	10-15mm - Min 90% or as required by end user



#### Ferro Boron

Ferro Bench is a binaivelloy of. iron vith a boron content of 17.5% to 20%.11 is the fewest cost boron additive for steel and other fern\*\* metals. Used to Improve the harden: Sty of C.k and 'owalloy steels for the improvement of steel, nttrogen scavenging and In mind,/ acidified materials Low loss materials for transformer cores. tkf ea magnets. Saeases hot workehIIN and creep resistance, Improves, lictucn absoco on. Prodtiction of low carbon cold wthing \*e rod. Production of automotive sheet steels.

#### **Noble Alloys**

Nk etfet a vedc range of Noble Alloys, which are used In various indttstries. Ors tango of allow are very high qualityand pure. Our (Bents Can avail these alloys from us at very reasonable pekes in standard 6 CUSIOnliThd sired both.

#### Ferro Titanium 1 Feno Niobium

Ferro Titanium. Ferro Niobium FERRO TITANIUM • 30% Cheering Analysts Guaranteed:

Ti	28-73%
Al	8% Max
Si	4% Max
С	0.12% Max
Р	0.04% Max
S	0.03% Max
Size	e 10-50mm, 50-70mm, 10-100mm or as required by end user

#### FERRO TITANIUM - 70% Chemical Analysis Guaranteed:

	The state of the s
Nb	62-70%
Si	3% Max
С	0.25% Max
Circ	15 70mm 1100/ talarance allowed are as required by and year

Size 15-70mm, +10% tolerance allowed or as required by end user

## red or as required by end user

#### FERRO Niobium - Chemical Analysis:

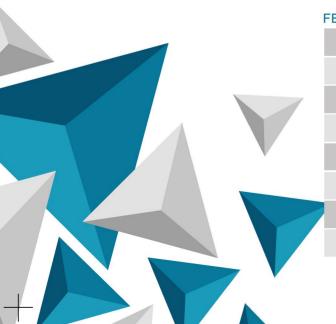
	TENTO Hibbian - Onemical Analysis .						
ı	Ti	65-75%					
	Al	0.5% Max					
	Si	0.10% Max					
	Mn	0.20% Max					
	С	0.20% Max					
	Р	0.04% Max					
	S	0.03% Max					
	Size	10-50mm, 50-70mm, 10-100mm or as required by end user					



S	Section	Mass KG/M	Root Radius (mm)		Mass KG/M	Root Radius (mm)
35	5X35X3	1.6	5.0	90X90X6	8.2	8.5
	4	2.1	5.0	7	9.6	10.0
	5	2.6	5.0	8	10.8	8.5
	6	3.0	5.0	10	13.4	8.5
40	0X40X3	1.8	5.5	100X100X6	9.2	8.5
	4	2.4	5.5	7	10.7	12.0
	5	3.0	5.5	8	12.1	8.5
45	5X45X3	2.1	5.5	10	14.9	8.5
	4	2.7	5.5	110X110X8	13.4	10.0
	5	3.4	5.5	10	16.6	10.0
	6	4.0	5.5	12	19.7	10.0
50	0X50X3	2.3	6.0	120X120X8	14.7	13.0
	4	3.0	6.0	10	18.2	13.0
	5	3.8	6.0	12	21.6	13.0
	6	4.5	6.0	130X130X8	15.9	10.0
55	5X55X4	3.3	6.5	10	19.7	10.0
	5	4.1	6.5	12	23.5	10.0
60	0X60X4	3.7	8.0	16	30.7	10.0
	5	4.5	6.5	150X150X10	22.9	12.0
65	5X65X4	4.0	6.5	12	27	12.0
	5	4.9	6.5	15	33.8	16.0
	6	5.8	6.5	16	35.8	12.0
	8	7.7	6.5	18	40.1	16.0
70	0X70X5	5.3	7.0	20	44.1	12.0
	6	6.3	7.0	200X200X12	36.9	15.0
75	5X75X5	5.7	7.0	16	48.5	15.0
	6	6.8	7.0	18	54.0	15.0
	8	8.9	7.0	20	60.0	18.0
	10	11.0	7.0	24	71.1	18.0
80	0X80X6	7.3	8.0	25	73.9	15.0
	8	9.6	8.0			



Different sizes in different dimensions can be rolled if sufficient order is received.



#### Ferro Alloys

Ferro Alloys are being used for making alloy steel, stainless steel & other special steels. It is being mixed with scrap for making different grades of steels. There are various types of alloys such as Mn, Si, Cr. Ti. Mo.

Ferro Silicon						
Si	70-72%	73-75%	75%Min			
Al	1% Max	0.80% Max	0.80% Max			
С	0.15% Max	0.12% Max	0.10% Max			
	0.02% Max	0.02% Max	0.02% Max			
Р	0.04% Max	0.04% Max	0.04% Max			
Cr	0.03% Max	0.03% Max	0.03% Max			
Li	0.02% Max	0.02% Max	0.02% Max			

Size: As per customer's request ranging between 10 to 150mm.

Packing: Loose in Bulk or in 1 MT Big Bags as per customer's request.

Ferro Silico Manganese					
Mn	60% Min	65% Min			
Si	14% Min	16% Min			
С	2.50% Max	2.20% Max			
Р	0.30% Max	0.30% Max			
	0.30% Max	0.03% Max			

Size: As per customer's request ranging between 10 to 150mm.

Packing: Loose in Bulk or in 1 MT Big Bags as per customer's request.



Ferro Ch	erro Chrome			
Test Name	LC Ferro Chrome	HC Ferro Chrome		
Cr% Min	66.11%	>66%		
C% Max	0.070%	8%		
P% Max	0.030%	0.03%		
S% Max	0.006%	0.05%		
Si% Max	0.10%	2.0%		
Al% Max		0.06%		

#### Ferro Chrome / Ferro Phosphorus

These are considered as an excellent alloy of iron with chromium, which find application for producing steel and various other industrial process

Ferro Manganese					
Mn	60-65%	70-75%			
Si	3.5% Max	1% Max			
С	6% - 8% Max	0.1% Max			
Р	0.05% Max	0.02% Max			
S	0.05% Max	0.02% Max			

**Calcium Silicon** 



# Ferro Phosphorus Type Cr% P 23-25% Min Si 2% Min C 1% Max Mn 2% Max S 0.5% Max

Calcium Silicon it is a				
Product Code	Product			
CA-SI-02	(2N) 99% Calcium Silicon Alloy.			
CA-SI-03	(3N) 99.9% Calcium Silicon Alloy			
CA-SI-04	(4N) 99.9% Calcium Silicon Alloy			
CA-SI-05	(5N) 99 9% Calcium Silicon Alloy			

#### Silicon Manganese

It is widely used as compound steel-making

Grade Mark	FeMn65Si17	FeMn60Si17	FeMn65Si14	FeMn60Si14
Mn	65-70	60-70	65-70	60-70
Si	17-20	17-20	14-17	14-17
С	1.8	1.8	2.5	2.5
Р	0.20	0.20	0.20	0.30
S	0.04	0.04	0.04	0.04



