



RANI TMT 500W GOLD

RANI 400W GOLD

RRM ANGLE 50G

RRM ANGLE 36G

RRM PRODUCTS

THE RANI RE-ROLLING MILLS LTD
RRM ALLOY STEEL INDUSTRIES LTD

THE RANI CONCAST STEEL MILLS LTD
THE RANI STEEL INDUSTRIES LTD

WWW.RANISTEEL.COM





আমরা গর্বিত, গর্বিত আমার দেশ

FIRST ASSOCIATE MEMBER OF WORLD STEEL ASSOCIATION



FROM BANGLADESH

Our Valuable Customers

Client Name	Logo
Bashundhara Group	
Asset Developments & Holdings Ltd.	
Anontex Group	
T k Group of Industries	
Hua Thai Ceramics Industries Ltd	
Ad Din Development Ltd	
Swadesh Properties Ltd.	
Ana Holdings Ltd	
Toma Group	
Shuchana Greehayon Ltd.	
Unitech Group	
Golden Future Properties Ltd	
Fare Builders Ltd	
AG properties Ltd (Ahsan Group)	

Client Name	Logo
Rupayan Group	
building technology & ideas	
Ace Development Ltd	
B H Builders Ltd	
Doreen Group	
SS Homes Limited	
BNS Group	
Nassa Holdings Ltd (Nassa Group)	
Project Builders Ltd	
Shuchana Development Ltd	
Baraka Properties Ltd	
Alif Group	
Exin Group	
Effort Development Ltd.	



RRM GROUP CONCERNS

THE RANI RE-ROLLING MILLS LTD.	RRM ALLOY STEEL INDUSTRIES LIMITED
THE RANI CONCAST STEEL MILLS LTD.	RRMSense GLOBAL SYSTECH LTD.
WAFEEQA REAL ESTATE LIMITED	SCHEMATICS LIMITED
RRM ELECTRONICS WORLD LIMITED	RRM INTERNATIONAL SCHOOL

GROUP CONCERN LOGOS



RRM has embarked upon a series of initiatives aimed at increasing its production capacity. Its ongoing modernization and technically advanced expansion projects are designed to follow all international standard of steel production protocols. More than 2000 employees are engaged to work together with the zeal to take the organization to its peak of success.

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CERTIFICATE

MESSAGE



Mr. Al-hajj Abul Bashar

Founder
RRM Group

“Being a development-driven company, “The Rani Re-Rolling Mills Ltd.”, The Rani Concast Mills Ltd. (the Mother Concern of RRM Group) is characterized by its ability to create and develop steel industry opportunities. From the establishment period since last 21 years, RRM is optimizing its operations through quality based management and implementing new technologies. Further, to our successful historical milestones, starting from the promotion of an extensive supply platform for steel products, to the acquisition and then the expansion of Bangladeshi domestic market. RRM has been committed to deliver steel solutions characterized by our corporate heritage: outstanding professional expertise and absolute transparency.

Moreover, sustainable economic growth is taking place in our country. So, it is expected that a booming construction period will be experienced in steel market during the next few years. Our purpose is to serve the nation with high advanced mechanized Re-Bars to assure people’s well-being through their living. Our aim is to install high quality standard machines which will reduce the energy consumption and be environment friendly. Finally, our organization seeks to provide the best quality TMT bars to meet all the needs of the clients. RRM asserts our exclusive product ‘RANI TMT 500W GOLD’ is the best ever steel in Bangladesh. RRM is facing high competitions and challenges in the domestic market. We are determined to establish RRM as a market leader in the steel industry in Bangladesh.”

MESSAGE



Sumon Chowdhury

Chairman
RRM Group

As a Chairman of RRM Group, I would like to start my words by thanking all of my fellow team members and employees for their endless support and faith in me as well as my work. It has been 21 years since we are successfully in business. That is undoubtedly down to the ongoing support and understanding of our customers, business partners and shareholders, and above all to the tireless hard work put in by our employees, who keep the company going on a daily basis.

RRM Group is like a sketch book for me, where I see all my dreams come true. We all learn from our mistakes and finally deliver something extraordinary. The result of those hard works are the present RRM Group, which is undoubtedly one of the successful group of companies in Bangladesh.

We serve our customers, our colleagues and our communities by integrating sustainability into our work every day. We believe it's not just the right thing to do, but it's also good business. This new world needs and our customers increasingly demand products that

have sustainability built into them from the start. Products with the inherent agility to take advantage of today's application economy, where customers are more likely to experience a brand through a higher technology.

We need each and every one of our employees to have a clear understanding of their role, and to join forces with colleagues in other divisions. We need to think about what we can do for our customers, so we can make their dreams come true. We want to be loved by our customers so that we are their first choice, whilst at the same time making a legitimate profit and contributing to society. I believe that is the path we should be taking for our business here at RRM Group.

Let us work together as a company and give it our all, so that RRM Group can continue to contribute in business of Bangladesh. The future is not at our feet, but a little way ahead. That is precisely why we need to hold our heads up and have confidence, as we continue to forge ahead.

MESSAGE



Shuvo Chowdhury

Managing Director
RRM Group

I can only be proud and grateful to be a part of the RRM Group and being able to contribute to the vision & mission of my father, Md. Al-hajj Abul Bashar and my elder brother, Md. Sumon Chowdhury had.

Our corporation values lie in the happiness of our employees and appreciation from our customers. As one of the most important driving forces in developing modern society, corporations have become the backbone of the communities they belong to. To build a secure and invulnerable society, it is a worthwhile

attempt for us to build a happy and sustainable business. We strive to fully undertake our social responsibility, building a green and sustainable business, leading as an example of a consistent developing business, and ultimately achieving the shared vision that started from the beginning. To set the RRM Group on the road towards further growth in the face of fierce competition in the business, we intend to create new growth engines and develop a powerful business model.

RRM CORPORATE PROFILE

The Rani Re-Rolling Mills Ltd. (RRM) is imbued with a forward-looking vision to acquire a global perspective and become a first-rate business conglomerate. RRM has a track record in manufacturing of mild steel structural Re-bars and Wire products in Bangladesh since decades.

With 21 years of experience in the steel manufacturing industry, RRM has a strong reputation history in adding value to its customer and dealer relationships maintaining standard quality product with exact section weight, accurate shape and timely delivery.

Our core philosophy is to produce safe, environment friendly and sustainable steel to our loyal customers and safety is the top priority in our works. Additionally, the pursuit of business excellence is our standard norms and significant focus on innovations, continuous research & development is our standard practice on national interest.

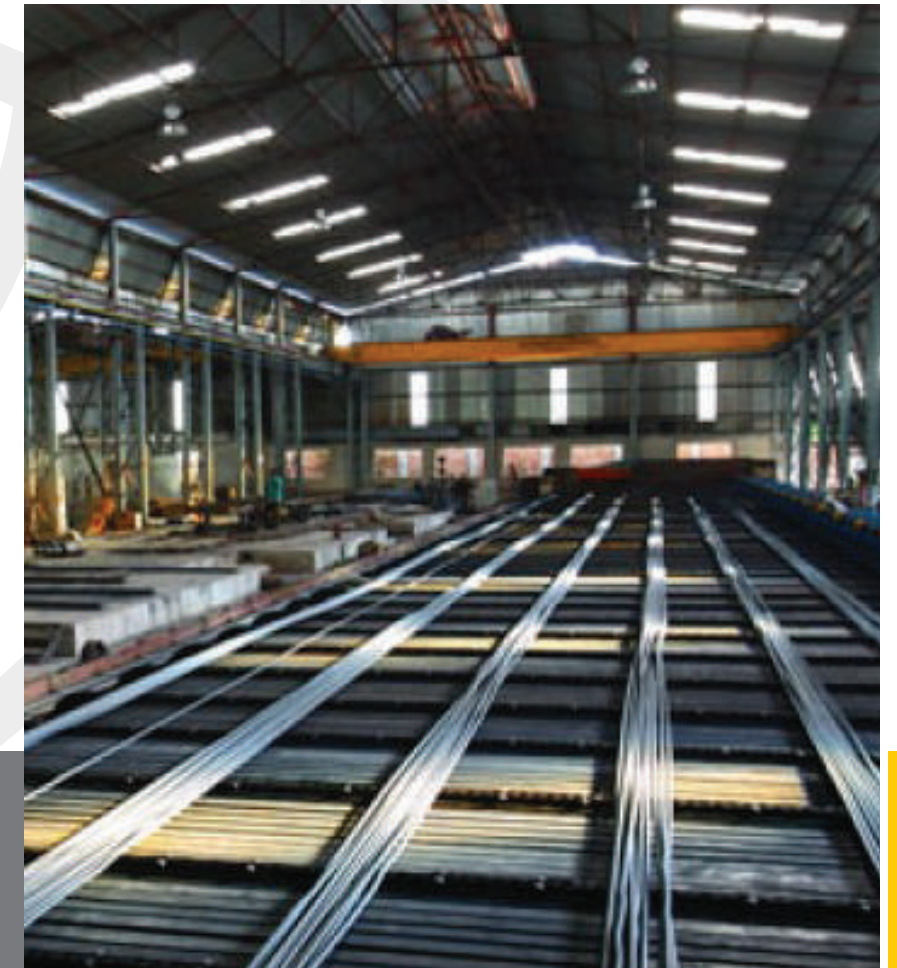
For the development of any modern economy, steel is vital and is considered to be the backbone of human civilization. The Steel industry is an established and growing industry in Bangladesh. RRM has been endowed to expand the unparalleled faith of people. Our products are being used at Govt. sector, real estate, and concrete roads, fly over & bridge etc. nationwide.

RRM is manufacturing High Quality International Standard TMT bar in brand name of 'RANI TMT 500W GOLD', RANI 400W GOLD & RRM Angle. We want to achieve our long-term goal rather than short term goal by implementing new technologies, developing new products and attributes.

RRM HISTORY

In 1996, the founder of The Rani Re-Rolling Mills "RRM", Mr. Al-hajj Abul Bashar started his first integrated re-rolling plant in Shyampur, Kadamtali, Industrial Area, Dhaka, Bangladesh to manufacture structural section Angles, Z-bars. And gradually it has achieved customer satisfaction in Bangladesh steel market.

RRM Angle was introduced in the steel market by the chairman of the Rani Re-Rolling Mills, causing huge demand in the market. In 2013, Honorable Chairman of RRM Group decided to expand the production capacity of 'The Rani Re-Rolling Mills' considering the business prospect as well as market demands and set up international standard TMT Plant. So, RRM Angle production was stopped for the time being. Maintaining the highest quality. TMT Bars are successfully fulfilling the steel market demands. As a part of business growth and considering the market demand, honorable chairman RRM Group has re-established Angle plant having modern machineries. RRM Angle is back with its previous glorious reputation and available in the market now.



MISSION

RRM believes to be a world-class steel manufacturer and service provider in Bangladesh steel industry and we do our level best to provide outstanding services to our customers. We continuously add value in our products based on the user feedbacks to improve stability and reliability of our end product.

VISION

- To maintain the ethical standard and create optimum value to clients.
- To deliver the international standard steel products in Bangladesh market.
- To enter the market with strong brand value and production capacity
- To bring the new concept into the customer's mind regarding marketing policy, branding & sales promotion and excellent customer service.
- To maximize not only the sales volume or net profit but also to supply excellent value of products



Products

- RRM Angle Grade 36
- RRM Angle Grade 50
- Rani 400W Gold
- Rani TMT 500W Gold



Manufacturing Processes

PRIMARY RAW MATERIALS

SCRAP
HMS

SHREDDED
211

P & S

HBI

SPONGE
IRON

PRODUCED BILLETS



FINAL FINISH PRODUCTS



RRM ANGLES

The term steel is usually taken to mean an iron-based alloy containing carbon in amounts less than about 2%. Carbon steels (sometimes also termed plain carbon steels, ordinary steels, or straight carbon steels) can be defined as steels that contain only residual amounts of elements other than carbon, except those (such as silicon and aluminum) added for deoxidation and those (such as manganese and cerium) added to counteract certain deleterious effects of residual sulfur. However, silicon and manganese can be added in amounts greater than those required strictly to meet these criteria so that arbitrary upper limits for these elements have to be set; usually, 0.60% for silicon and 1.65% for manganese are accepted as the limits for carbon steel. Steels of less than 0.30% carbon (referred to as Mild steel) have somewhat higher strength near the upper carbon level. Typically, mild steel are cheap so they are the normal choice for most fabrications.

Mild Steel (MS) angle is a length of steel that is bent at a right angle, commonly used for making frames, racks and for construction purposes. Demanded in construction industry, the offered angle is manufactured in differed sizes and related specifications to meet the exact demands of clients. Our offered angle is manufactured using optimum-grade mild steel scrap, sourced from reliable vendors of the industry. The offered MS Angle is delivered within stipulated time through our fastest transportation facility.

MS Angles are L-shaped structural steel represented by dimension of sides & thickness. For e.g. 50x50x6 means, both the sides of angles are 50mm & thickness is of 6mm.

Equal angles: - They are angles having both the sides of equal dimensions.

Unequal Angles: They are angles in which both the sides are of different dimensions.

RRM ANGLES

At RRM, steel is produced through the induction furnace route. Billets thus produced are rolled into Angles of various sizes and grades. Steel scraps are charged in the induction furnace. The procedures involved in an induction furnace are as follows:

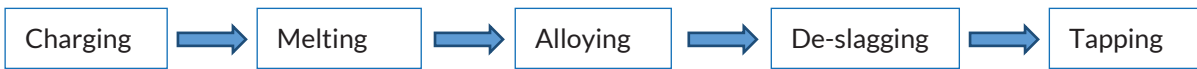


Figure 1 : Process flow chart for melting and tapping of steel in induction furnace.

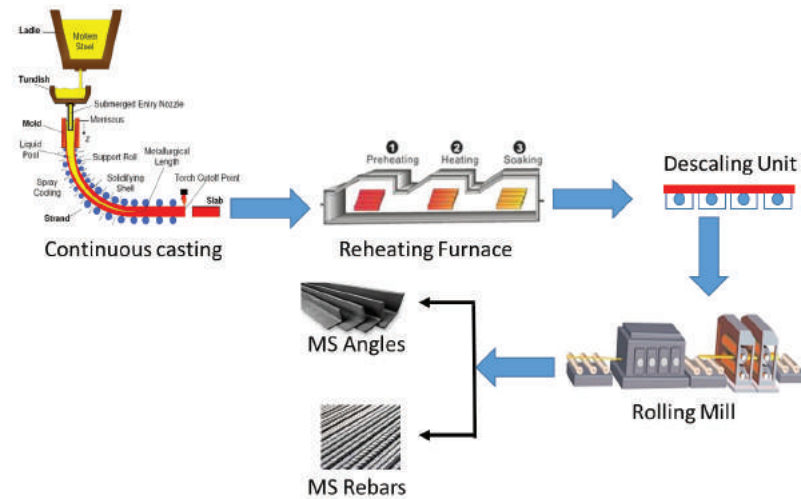


Figure 2 : Process flow diagram for the production of different structural steels in RRM plant.

Steel scraps of different grades in a close requisite ratio are charged in the induction furnace. Scrap is melted in the Furnace. Ferro-alloying and de-slagging ensure some level of removal of impurities like Sulphur thereby giving clean steel for casting to billets. Molten steel is then casted to billets of desired lengths. Angles are hot rolled from the billets. This integrated process ensures consistent quality in steel manufacturing resulting in better quality MS Angles, at the same time differentiating itself from other secondary producers.

QUALITY ASSURANCE

RRM is committed to provide quality products and excellent manufacturing support. Our emphasis is on quality excellence starting right from the purchasing of raw materials to delivery. Our products are manufactured to internationally accepted standards such as ASTM, BS and JIS, including the prestigious MS ISO 9001 Quality Management System certified.

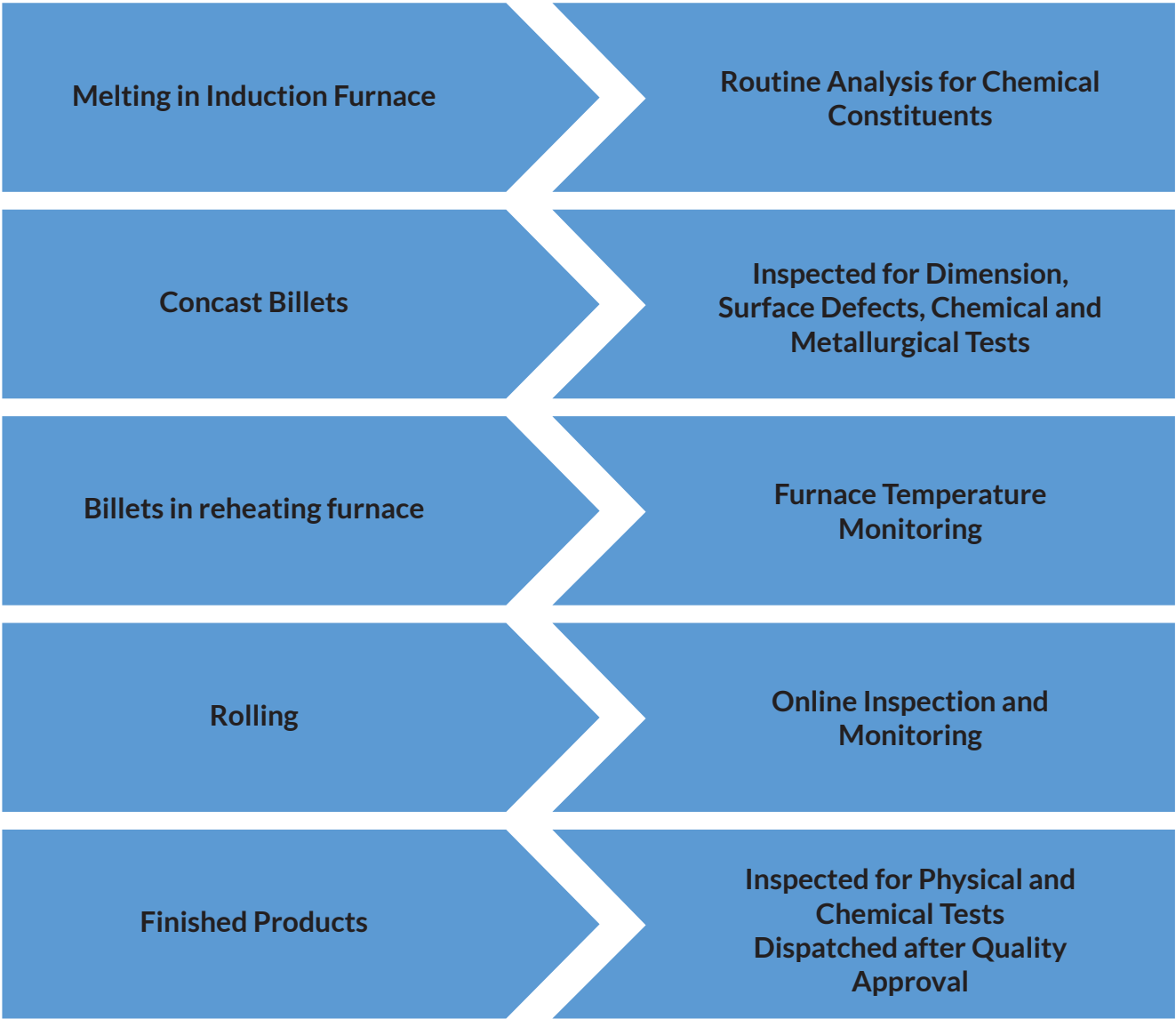


Figure 3 : Quality Assurance Process flow diagram for the production of structural steels in RRM plant.

The quality system ensures every stage of production adheres to the highest quality standard, which include the following tests:-

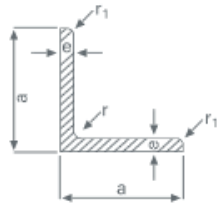
- Chemical Analysis
- Visual Inspection
- Dimensional Inspection
- Microstructural investigation
- Tensile Test
- Bend Test
- Flattening Test

KEY FEATURES OF RRM ANGLES:

Excellent Durability
The use of relatively clean steel which is free from harmful impurities, inclusions on account of selected grade scrap raw material combined with the controlled melting facilities lends excellent durability.

Superior Weldability
As a result of its chemical composition of steel and lower carbon equivalent, the structures offer superior weldability.

Economy
Due to low cost of fabrication on account of additional profile options with superior straightness and strict dimensional accuracy. There are various sizes of angles which are as follows:-



Short Sign L		Dimensions						Total Surface Area	Section Area	Unit Weight
		a		e		r	r1			
		mm	Tolerance mm	mm	Tolerance mm	mm	mm	m²/m	cm²	kg/m
25x25x	3	25	±1.0	3	±0.5	3.5	1.75	0.097	1.42	1.11
	4			4					1.85	1.45
30x30x	3	30		3		5	2.5	0.116	1.74	1.36
	4			4					2.27	1.78
35x35x	3	35		3		5	2.5	0.136	2.04	1.60
	4			4					2.67	2.09
40x40x	3	40		3		6	3	0.155	2.35	1.84
	4			4					3.08	2.42
	5			5					3.79	2.97

TECHNICAL SPECIFICATIONS:

Grade	Standard	Chemical Composition wt. %					Method of Deoxidation
		C	Mn	Si	S	P	
Grade 36	ASTM-A36M	0.26 max.	0.60~0.90	0.40 max.	0.05 max.	0.04 max.	Semi-killed
Grade 50	ASTM-A709	0.26 max.	-	0.40 max.	0.05 max.	0.04 max.	Semi-killed

Grade	Standard	Mechanical Properties		
		Yield Point	Tensile strength	Elongation (G.L.=200mm)
		ksi [N/mm ²]	ksi [N/mm ²]	%
Grade 36	ASTM-A36M	36 [250] min.	58-80 [400-550]	20 min.
Grade 50	ASTM-A 709	50 [345] min	65 [450] min.	18 min.

APPLICATIONS OF RRM ANGLE

The applications of RRM Angle Structure have been classified under the following segments:

- Architectural
- Infrastructural
- Industrial
- General Engineering

Applications

Architectural	➤ Shopping Malls ➤ Canopies/Atrium ➤ Glass Curtain Wall Frames ➤ Partition Frames ➤ Space Frames ➤ Guard Rails & Staircases
Infrastructural	➤ Bridges ➤ Bus Stands ➤ Sign Supporting Structures ➤ Pedestrian Walkovers (Footbridge) ➤ Sports Galleries
Industrial	➤ Industrial Sheds ➤ Material Storage Racks ➤ Conveyor Gentries, Trestles ➤ Steel & Power Plants ➤ Fly over bridge ➤ Steel building



RELEVANT SITE PRACTICES FOR RRM ANGLES

RRM is committed to find the best solutions to help the customers by working in partnership. Our technical service team is available to assist our customers. These skilled engineers can apply their knowledge of steel and its application helping customers optimize productivity, efficiency and product performance.

CUTTING

RRM Angle can be cut:

- By means of a circular/hand saw
- By flame cutting: either manual or automatic

- The path of the cut can be marked directly on the surface of the section
- For section thicknesses of 5 mm and above, edges may be chamfered for proper welding penetration

BENDING

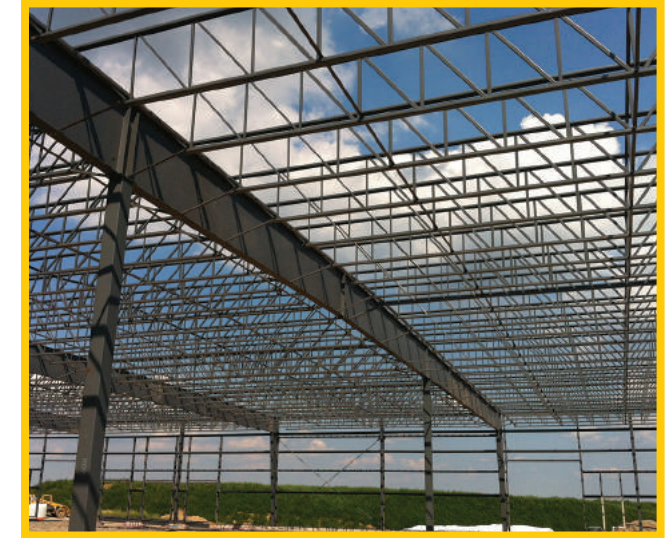
- Axial cold bending of RRM Angle is possible
- Three roll bending machine may be adapted
- Thicker or larger sections are recommended to be preheated in a normalizing furnace before bending in hot condition for better formation

WELDING

Technique in principle is similar for that of conventional sections. Follow relevant standard code of practice and design conditions.

Electrodes: Low hydrogen electrodes are suggested for use.

Ref: Dr. Ahmed Sharif
Prof. MME, BUET





RANI 400W GOLD

A615-60 grade steel is a structural billet steel for structural applications. A615-60 grade is a material grade and designation defined in ASTM A615 standard. ASTM A615 is an international material standard for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement for strengthening application. A615-60 grade Steel is higher in strength as compare to A615-40 steel.

The tensile strength of the A615-60 Grade Steels is expressed in Newton per millimeters and it must be at-least 620 N/mm² (MPa). The yield strength is minimum 413 N/mm² (MPa). The minimum percentage ranges for elongation is 9% thicknesses. 180 degree bends on 3.5 diameters.

ASTM A-615GRADE 60 REBAR

Byer Steel produces A-615 Grade 60 rebar per ASTM specifications in the following sizes:

Bar Size	Metric Size	# / Feet
#3 (3/8")	#10	0.376
#4 (1/2")	#13	0.668
#5 (5/8")	#16	1.043
#6 (3/4")	#19	1.502
#7 (7/8")	#22	2.044
#8 (1")	#25	2.670

ASTM A615 Grade 60 rebar is commonly utilized as a tensioning stratagem in reinforced concrete and strengthened building materials structures holding the concrete in compression. It is typically used in Construction, Bridge Building, and Road Building etc.

ASTM A516 GRADE 60/ASME SA516 GRADE 60 - SPECIFICATIONS AND STANDARDS

The chemical composition of ASTM A516 Grade 60 and ASME SA516 Grade 60 carbon steel plate is listed in table 2.

Table 2. Typical Chemical Composition of ASTM A516 Grade 60/ASME SA516 Grade 60.

Composition	Percentage %	Composition	Percentage %
C	0.18	Cu	0.3
Si	0.4	Ni	0.3
Mn	0.95/1.50	Mo	0.08
P	0.015	Nb	0.01
S	0.008	Ti	0.03
Al	0.02 (Min)	V	0.02
Cr	0.3	-	-

ASTM A516 GRADE 60/ASME SA516 GRADE 60 - MECHANICAL PROPERTIES

The mechanical properties of ASTM A516 Grade 60 and ASME SA516 Grade 60 carbon steel plate are outlined in table 3.

Table 3. Typical Mechanical Values of ASTM A516 Grade 60/ASME SA516 Grade 60.

Properties	Value
Tensile strength (N/mm²)	415/580
Yield stress/ min (N/mm²)	265



RANI TMT 500W GOLD

The brand name of our prime product is “RANI TMT 500W GOLD”, where Rani indicates Queen; TMT means Thermo Mechanical Treated or process. Steel with a Grade 80 / 500W weld-ability designations offers minimum yield strength of 72,500 PSI (pound per square inch) & conforms to ASTM A-615 performance standards. There are many reasons that we can compare our product with Gold Standard. The proper explanation being;

In the broadest terms gold mining covers exploration, drilling, geological assessment, financing, development, extraction, initial refinement and delivery of Gold bars to a bullion refiner. Gold is the oldest valuable metal served as a universal symbol of status, wealth and power for royals and people of means. Years after year’s value, pride does not change so much. Gold has own valuable features such as unique density, luster, ductile nature, malleability and resistance to tarnish made it enjoyable to work and play with.

RRM supreme product “RANI TMT 500W GOLD” bar manufacturing process starts from collection of supreme quality scarps as raw materials, USA induction melting furnace, addition of proper chemical composition with controlled check by world’s best quality German made Spectrometer, casting of billets through continuous casting machine, Direct Re-rolling of hot casted billets in a fully automatic rolling mill, on-line heat treatment in TMT quenching box which is authorized by Belgium Tempcore technique to deliver “RANI TMT 500W GOLD” bars as final product to a automatic moving rack type cooling bed. The computerized controlled on line process of hardening & tempering using hot rolling (TMT). After leaving the last rolling stand at the required temperature, the hot rolled bar passes through a set of specially designed cooling pipes. The outer layer gets cooled while the core is still hot. The surface of the bar gets self-tempered by the conduction of heat from the core. The combination of a tempered martensite surface and ferrite + fine perlite core provides considerably higher strength and ductility to the finish Product, making it ideally suited for building strong structures.

Our finish product ensures standard features of ductility, malleability, weld ability, bend ability, corrosion resistant, higher elongation, fair resistant, earthquake resistance, excellent bonding strength & many more which is branded as gold’s standard. It is proved as the best quality steel which full-fills exact customer demand and need. We implement periodic availed techniques we invent by our own research and development. Our Finish product is our nation’s pride and we sustain in the steel market years after years. Since we are following all the needed steps to ensure maximum quality of “RANI TMT 500W GOLD”, that’s why we treat our product as Gold.

CUSTOMER SATISFACTION:

Today what we are, tomorrow what we will be, praise goes to the Almighty and then of course the customers. We believe that customer’s pleasure sets our future. Hence from the products to services –we do not leave any chance to protect any corner of negligence that will affect the standing relation with our valued customers to our best possible level. We honestly provide high quality products and valuable services to our customers by responding them in time with promptness, sensitivity, respects and of course always with integrity.

Our sales personnel always assist our customers from order taking to delivery and after-sales services to satisfy all their needs. We maintain customized product in size & section weight.

The Quality Control (QC) team reciprocates with direct action and on-site solutions to any clients objections against our supply. We provide guaranteed customer satisfaction by direct coordination with the end-user in-spote of sale through dealer/retailer. Hence, we are happier to step extra out of expectation of our customer.

Direct Hot Charging in Terms Of "Rani TMT 500W Gold" Quality

- Eliminates micro structural defects
- Higher Ductility, bendability and longevity
- Extreme yield strength & consistent quality
- Saving energy
- Drives down Green House Gas (GHG) emission.

Weight of 500W/75 grade steel (International Standard)

Size (mm.)	Weight in kg/meter	Total Weight (kg.)
8	0.394 kg	0.394x12= 04.73 kg
10	0.620 kg	0.620x12= 07.44 kg
12	0.890 kg	0.890x12= 10.68 kg
16	1.578 kg	1.578x12= 18.94 kg
20	2.465 kg	2.465x12= 29.59 kg
25	3.850 kg	3.850x12= 46.20 kg
28	4.830 kg	4.830x12= 58.00 kg
32	6.291 kg	6.291x12= 75.50 kg



DEALER NETWORK ZONE

- English Road
- Munshikhola
- Jatrabari
- Gazipur
- Uttara
- Mirpur
- Savar

BUET TEST REPORT



BAKLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY (BUET)
DEPARTMENT OF MME
MOBILE: 01741362504; PABX: 9665650-80 EXT. 7629

Tensile Test of MS Deformed Bar

Client: The Rani Re-Rolling Mills Ltd.
Road- 21, Plot-32
Shyampur, Kadamtali Industrial Area
Dhaka- 1204

MME-281/2016-17
BRTC Ref.: 1101-23021/MME; Dt. - 21/11/2016
Client's Ref.: NR; Date - 21/11/2016
27 November 2016
Sample Condition: Not Sealed

Fracture mark	Sample Number	Nominal Diameter	Actual Diameter	Weight/Length	Average Weight/Length	Yield Load	Yield Strength	Average Yield Strength	Ultimate Load	Ultimate Tensile Strength	Average Ultimate Tensile Strength	Elongation (G.L.+50)	Average Elongation (G.L.+50)
		mm	mm	kg/m	kg/m	kN	MPa	MPa	kN	MPa	MPa	%	%
RANI TMT 500W GOLD	1	8.11	0.41		0.40	29.83	577.39		35.11	679.72		17.50	
	2	8.01	0.40			28.52	565.99	570	33.81	670.89	673	17.50	19.16
	3	8.03	0.40			28.65	565.76		33.87	668.85		22.50	
RANI TMT 500W GOLD	1	9.96	0.61		0.61	43.66	560.39		51.43	660.06		19.00	
	2	9.98	0.61			45.49	581.50	585	52.93	676.61	665	19.40	19.66
	3	9.96	0.61			43.14	553.69		51.23	657.55		20.00	
RANI TMT 500W GOLD	1	11.73	0.85		0.85	59.39	547.76		77.01	712.62		15.83	
	2	11.73	0.85			63.24	585.20	569	79.03	731.34	721	21.00	19.83
	3	11.73	0.85			62.00	573.72		77.73	719.26		22.66	

Conversion Factors: 1N/mm² = 1 MPa = 145 psi = 10.197 kgf/cm²

Dr. Md. Moniruzzaman
Professor and Head

Please note: The client supplied the sample and the result given herewith corresponds to the sample tested only. The Department of Materials and Metallurgical Engineering of BUET takes no responsibility regarding the misidentification, if any, of the sample.



BAKLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY (BUET)
DEPARTMENT OF MME
MOBILE: 01741362504; PABX: 9665650-80 EXT. 7629

Tensile Test of MS Deformed Bar

Client: The Rani Re-Rolling Mills Ltd.
Road- 21, Plot-32
Shyampur, Kadamtali Industrial Area
Dhaka- 1204

MME-281/2016-17
BRTC Ref.: 1101-23021/MME; Dt. - 21/11/2016
Client's Ref.: NR; Date - 21/11/2016
27 November 2016
Sample Condition: Not Sealed

Fracture mark	Sample Number	Nominal Diameter	Actual Diameter	Weight/Length	Average Weight/Length	Yield Load	Yield Strength	Average Yield Strength	Ultimate Load	Ultimate Tensile Strength	Average Ultimate Tensile Strength	Elongation (G.L.+50)	Average Elongation (G.L.+50)
		mm	mm	kg/m	kg/m	kN	MPa	MPa	kN	MPa	MPa	%	%
RANI TMT 500W GOLD	1	15.80	1.54		1.54	108.33	552.54		131.96	673.03		20.31	
	2	15.81	1.54			109.84	559.48	558	133.07	677.83	677	18.75	19.06
	3	15.76	1.53			109.70	562.37		132.87	681.13		18.125	
RANI TMT 500W GOLD	1	19.84	2.43		2.44	153.62	496.92		195.65	632.86		21.80	
	2	19.99	2.47			155.00	493.86	501	198.39	632.14	640	18.55	20.78
	3	19.85	2.43			158.32	511.60		202.83	655.42		22.00	
RANI TMT 500W GOLD	1	22.23	3.05		3.05	226.32	583.13		278.73	718.14		18.40	
	2	22.29	3.07			214.45	549.55	572	270.05	692.04	709	15.95	18.01
	3	22.15	3.03			224.63	582.94		276.77	718.26		19.68	
RANI TMT 500W GOLD	1	24.64	3.74		3.75	281.50	590.35		325.85	683.36		20.96	
	2	24.65	3.75			285.65	598.56	591	331.70	695.06	694	19.04	19.86
	3	24.69	3.76			279.45	583.68		337.00	703.88		19.60	

Conversion Factors: 1N/mm² = 1 MPa = 145 psi = 10.197 kgf/cm²

Dr. Md. Moniruzzaman
Professor and Head

Please note: The client supplied the sample and the result given herewith corresponds to the sample tested only. The Department of Materials and Metallurgical Engineering of BUET takes no responsibility regarding the misidentification, if any, of the sample.

FATIGUE TEST REPORT

Testing House Kenfig Industrial Estate Margam Port Talbot SA13 2PE UK
tel: +44 (0)1656 748 000 fax: +44 (0)1656 670 130
email: info@r-techservices.co.uk web: www.r-techservices.co.uk



The Rani Re-rolling Mills Ltd.,
Plot 44, Block J,
Progodi Shoroni, Main Road,
Baridhara,
Dhaka-1212,
Bangladesh.

5th September 2016

Laboratory Test Report No. 160556

Client's order No. To be advised

Specimen identification

Twelve (12) off 16 mm Ø QST bar specimens to BS 4449:2005 grade B500C, approximately 1m in length.

Specimens identified during testing by laboratory numbering 160556/1/1 to 160556/1/12.

Date of test 17th July – 24th August 2016

Tests conducted

Fatigue test according to BS EN ISO 15630-1:2010 clause 8 with test conditions as specified in BS 4449:2005.

Fatigue test results

Specimen Identification	Bar ID No.	No of Cycles	Frequency (Hz)	Position of Failure	Comments
160556/1/3	3	5.0	115	n/a	Test stopped at 5.0 x 10 ⁵ cycles
160556/1/5	5	5.0	112	n/a	Test stopped at 5.0 x 10 ⁵ cycles
160556/1/11	11	5.0	117	n/a	Test stopped at 5.0 x 10 ⁵ cycles
160556/1/12	12	5.0	103	n/a	Test stopped at 5.0 x 10 ⁵ cycles
160556/1/1	1	5.0	122	n/a	Test stopped at 5.0 x 10 ⁵ cycles

Statement of compliance

This batch of specimens complied with the requirements of BS 4449:2005 clause 7.2.4.

Test report authorised by:

R J Chiplen
Laboratory Manager

End of report

Report No. 160556
Page 1 of 1

Registered Office
22 Dany-Bryn Avenue Radyr Cardiff CF15 8DD UK

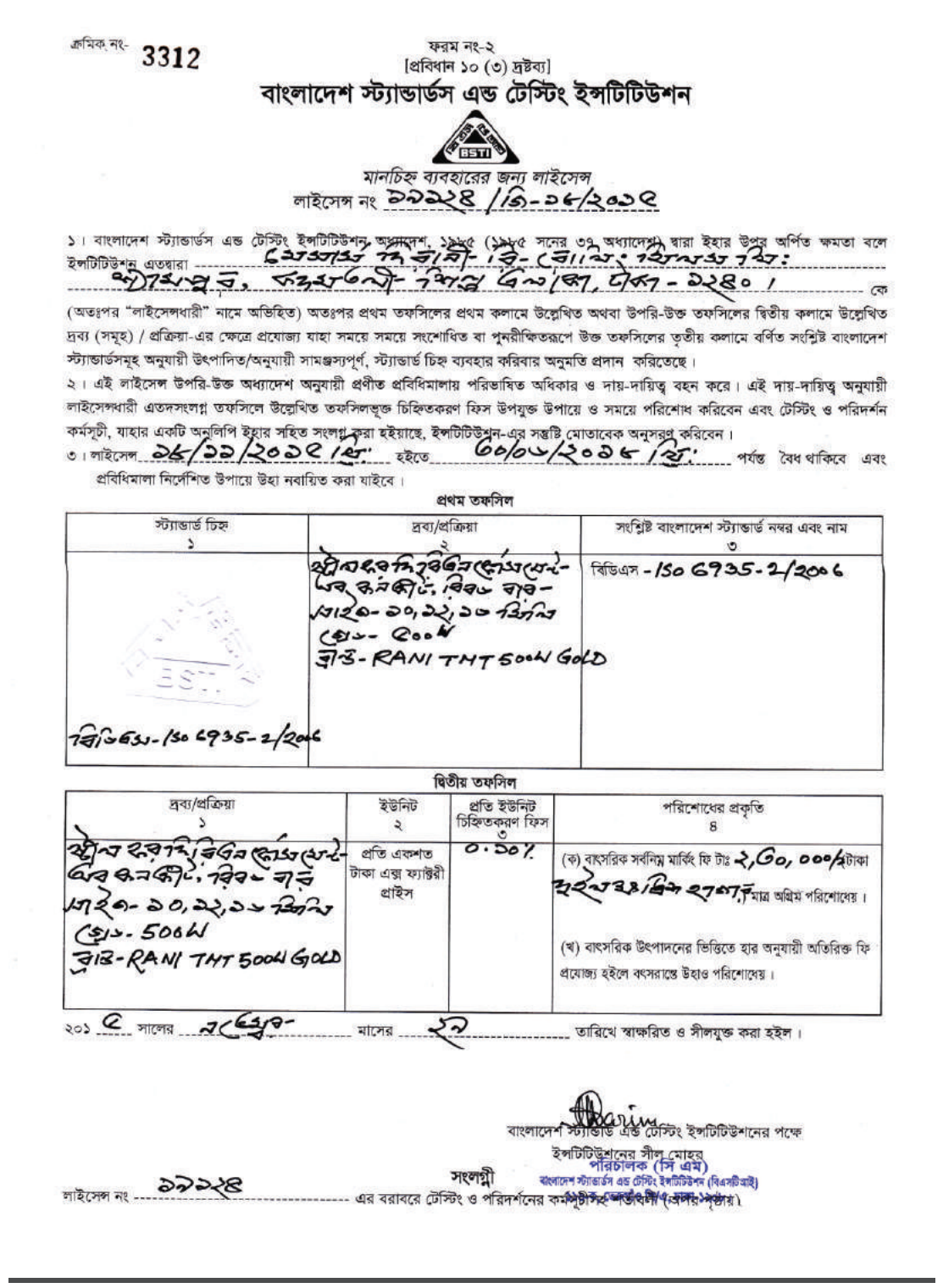
Company Registered No. 4547830
VAT Registration No. 800 7818 50



CERTIFICATE



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বাংলাদেশ স্ট্যান্ডার্ডস এন্ড টেস্টিং ইনস্টিটিউশন

BANGLADESH STANDARDS AND TESTING INSTITUTION
Member ISO, OIML, APMP & Codex Alimentarius Commission of FAO/WHO

মান ভবন

১১৬/ক, তেজগাঁও শিল্প এলাকা, ঢাকা-১২০৮

116-A, TEJGAON INDUSTRIAL AREA, DHAKA-1208

ফোন : ৮৮৭০২৭৫, ৮৮৭০২৭৬, ৮৮৭০২৭৭, ৮৮৭০২৭৮, ৮৮৭০২৭৯, ৮৮৭০২৮০, ৮৮৭০২৮১, ৮৮৭০২৮২

Fax : ৮৮-০২-৭১৩১৫৮১ E-mail : bsti@bangla.net Website: www.bsti.gov.bd

সূত্র নং-৩৬.০৫.০০০.০৩.১৮.০৭৬৯.২০১৫/১১৮২ তারিখঃ ২৭/০৭/২০১৬ খ্রিঃ

✓ ব্যবস্থাপনা পরিচালক

মেসার্স দি-রানী রি-রোলিং মিলস লিঃ

শ্যামপুর, কদমতলী শিল্প এলাকা

ঢাকা-১২৪০।

বিষয়ঃ সিএম লাইসেন্স নং- ১৯১২৪ এ ৫০০ W গ্রেডের ২০ মিমি, ২৫ মিমি এবং ৪০০ গ্রেডের ২০ মিমি সাইজ সংযোজন প্রসঙ্গে।

প্রিয় মহোদয়,

উপরোক্ত বিষয়ে জানানো যাচ্ছে যে, আপনার প্রতিষ্ঠানের উৎপাদিত "Steel For the Reinforcement of Concrete, Ribbed Bar" সিএম লাইসেন্স নং- ১৯১২৪ এ নতুন সাইজ সংযোজনের জন্য আপনার আবেদনের প্রেক্ষিতে পণ্যটির ৫০০ W গ্রেডের ২০ মিমি, ২৫ মিমি সাইজ ব্রান্ডঃ RANI TMT 500W GOLD এবং ৪০০ W গ্রেডের ২০ মিমি সাইজ ব্রান্ডঃ RANI 400W GOLD নমুনা সংগ্রহ পূর্বক সংশ্লিষ্ট বিডিএস-আইএসও-৬৯৩৫-২/২০০৬ মোতাবেক পরীক্ষা নমুনাটি কৃতকার্য হওয়ায় ১৭-০৫-২০১৬ খ্রিঃ হতে ৩০-০৬-২০১৮ খ্রিঃ মেয়াদে অন্তর্ভুক্ত করা হল। এতদ্ব্যতীত বিল নং-০৩, তারিখঃ ১৯-০৫-২০১৬ খ্রিঃ এর মাধ্যমে দাবীকৃত সিএম ফি বাবদ টাকা ১,৭১,৯২৫.০০ (এক লক্ষ একাত্তর হাজার নয়শত পঁচিশ) মাত্র অত্র অফিসের রশিদ নং- ১৬৭৭৮৭, তারিখঃ ১৯-০৭-২০১৬ খ্রিঃ এর মাধ্যমে গৃহীত হয়েছে।

উল্লেখ্য, প্রকৃত উৎপাদনের ভিত্তিতে বৎসরান্তে অতিরিক্ত মার্কিং ফি প্রযোজ্য হলে পরিশোধ করতে হবে এবং লাইসেন্সে বর্ণিত শর্তসমূহ অপরিবর্তিত থাকবে।

ধন্যবাদান্তে,

আপনার বিশ্বস্ত,

(মোঃ রেজাউল করিম)

পরিচালক (সিএম) অঃদাঃ

সংযোজনীঃ-

১। নমুনা পরীক্ষার প্রতিবেদন- ০৬ কপি

CERTIFICATE



বাংলাদেশ স্ট্যান্ডার্ডস এন্ড টেস্টিং ইনস্টিটিউশন

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মান ভবন

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সূত্র নং-৩৬.০৫.০০০.০৩.১৮.০৭৬৯.২০১৫/১১৮২ তারিখঃ ০৩-০৩-২০১৬ খ্রিঃ

✓ স্বত্বাধিকারী/ব্যবস্থাপনা পরিচালক

মেসার্স দি-রানী রি-রোলিং মিলস লিঃ

শ্যামপুর, কদমতলী শিল্প এলাকা, ঢাকা-১২৪০

বিষয়ঃ সিএম লাইসেন্স নং- ১৯১২৪ এ ৫০০ W গ্রেডের ০৮ মিমি সাইজ সংযোজন প্রসঙ্গে।

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ধন্যবাদান্তে,

আপনার বিশ্বস্ত,

(মোঃ রেজাউল করিম)

পরিচালক (সিএম) অঃদাঃ

সংযোজনীঃ-

১। নমুনা পরীক্ষার প্রতিবেদন- ০২ কপি

CERTIFICATE

worldsteel
ASSOCIATION

Certificate of Membership
World Steel Association (worldsteel)

This is to certify that

The Rani Re-Rolling Mills Ltd.

is an Associate Member for 2017



Edwin Basson
Director General





RRM
GROUP