













Excellence from the ground up

### MANUFACTURERS OF FOOD PROCESSING MACHINERIES, REBAR COUPLERS & THREADING MACHINES





### **NOVA Infrasys**

Regd. Office: Nai Basti Chaudhran Patti Baraut, (Baghpat) U.P. 250611.

Contact No: 91 7055477435

Email: Info@novainfrasys.com

Web: www.novainfrasys.com

ADD. Address: UPSIDC, Plot-D53, Baghpat Industrial Area, Baghpat (UP)

250619

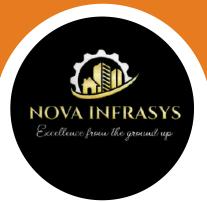
ADD. Address: UPSIDC, Plot-C62, Baghpat Industrial Area, Baghpat (UP)

250609



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### INTRODUCTION

**NOVA INFRASYS** is introducing to the market a parallel threaded mechanical splicing system, which was formed in the year 2017 by a group of indigenous professionals with years of experience in construction. In a short span of 2–3 years, we have established our name as one of the leading companies in the construction field.

The company has its own offices in UP and a Delhi factory at Baraut (UP) & Sonipat (HR). We have one of the largest manufacturer & supplier networks in UP and India, with stocking & sales facilities.

Our customer base ranges from government to public & private sectors throughout the country. Rendering our services in areas where the highest importance is given to quality, total commitment to customer satisfaction is our utmost objective. We ensure that all individuals receive attention to priority.

Our sales service supports functions related to sales and ensures the consistent quality of parallel threaded mechanical splices, where threading is one of the most crucial steps. We never compromise on our quality system, ensuring it meets the requirements of our valued customers/clients.



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### **OUR PROFILE**

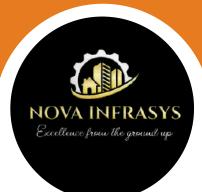
NOVA INFRASYS is in the market of a parallel threaded mechanical splicing system designed for the connection of concrete reinforcing bars ranging from 16mm to 56mm. Our system is manufactured following international quality standards, conforming to British & American standards BS 8110 (1997) & ACI 318 (2005), ACI 349, ASME Sec III, Div 2. By manufacturing in A3 steel, our process includes cold forging & threading, ensuring a wide bar end finish for easy installation, with no torque wrenching required. We also use numerical control (CNC) technology for making couplers.

The mechanical splice connection develops tension or compression greater than 125% of the specified yield strength of the concrete reinforcement bar. The connection is designed under strict quality assurance by the ACP to withstand a minimum breaking strength of 650  $N/MM^2$ .

Thus, the mechanical splicing system is the most reliable and economical, offering additional advantages. It has been developed with the assurance of maintaining load path continuity in structural reinforcement, independent of conditions or the existence of concrete.

**NOVA INFRASYS** also manufactures Bar Break (BB) Type 2 cold-forged parallel threaded mechanical couplers as per Seismic Design ACI-318, based on client-specific orders. We provide all types of fabrication works in MS & SS.

Additionally, we manufacture Rice, Pulses, Flour & Wheat Plants, along with all types of machinery, based on client-specific orders.



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### ORGANIZATION SETUP

1. Name of The Company : NOVA INFRASYS

2. **Status**: PROPRIETOR

3. **Year of Establishment** : 2017

4. **Director** : Mr. JAVED KHAN

5. Office Address(1) : Regd. Office: Nai Basti

Chaudhran Patti Baraut,

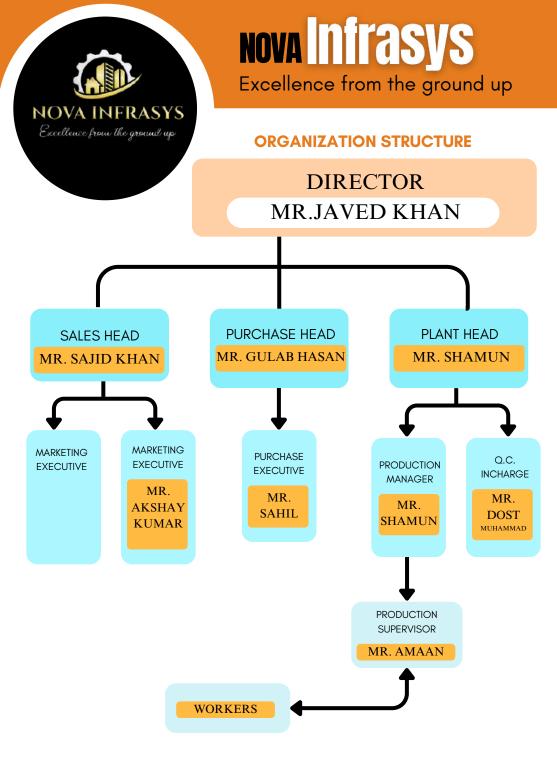
(Baghpat) U.P. 250611.

(2) : UPSIDA, D53 & C62 Baghpat

Industrial Area (U.P.) 250609

6.**Total Staff** : 22

7.**Bankers** : AXIS BANK, CANARA BANK





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DESIGN OF REINFORCEMENT REBAR COUPLER (PARALLEL THREADED – COLD FORGED



REBAR SIZE	OD (D) SIZE (±1mm)	LENGHT (L) (±O.2mm)	FINISH WEIGHT	THREAD PITCH (mm) 2.0 MM	THREAD SIZE
16MM	35.5	44	0.13	2.5 MM	M-18X2.0
20MM	42.5	54	0.18	3.0 MM	M-23X2.5
25MM	48	62	0.45	3.0 MM	M-29X3.0
28MM	50.5	72	0.59	4.0 MM	M-31X3.0
32MM	60.5	80	0.69	4.0 MM	M-35X4.0
36MM	63.5	90	1.19	4.0 MM	M-39X4.0
40MM			1.33	4.0 MM	M-43X4.0



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### **COMPANY SCOPE**

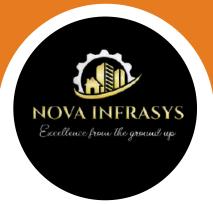
**Manufacture** & Supply of couplers and providing threading job work of TMT bars on site for construction industry.

Procedure for Production, Maintenance & Quality Control (Parallel Coupler)
Our Manufacture Unit Procedure are as Below:-

Steel EN 8D or C-45 steel purchased by ISMT are tested. Once the material is receive from the supplier

Inspection is carried out as per the raw material quality plan. Raw materials are tested at regular intervals as per the requirements of customer. The raw material is tested to check the chemical compositions. Once the material is found OK as per the requirements, the QC in charge signs in the Party's challan and sends the party challan with one copy of inspection report to head office. The OK Material batch code number is recorded in raw material inspection report the same raw material batch code is then conveyed to production department for further tracability.

The operating of the machine /operations is done on the basis of the Standard Operating Procedures as listed in list of S.O.P.



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# QUALITY CONTROL POLICY

Procedure for Production, Maintenance & Quality Control - (TMT)Threading

We have started mobile service through container and can do Threading job at any site for minimum 2000 Threading Work. 16MM, 20MM, 25MM, 32MM 36MM & 40 MM Threading Job work is carried out by us.

#### Our site procedure are as below:-

TMT Threading production at site are carried out under controlled conditions to ensure compliance of product to specified requirements & Customer Requirements. Site incharge and Production Supervisor, Responsible for monitoring process parameters, operators and maintaining related production records.

To provide guidelines for measuring and monitoring of product parameters for verifying conformance to specified requirements. QC- In charge is responsible for implementation of this procedure.

Production planning is based on the requirements given by the customer thru work order. The Site in charge plans the production of threading. The Daily priority list is then prepared by Site incharge as per planning displayed daily production planning board.

The process wise quality plan is prepared and issued by Q.C. In charge. For finished product, the Q.C in charge authorizes the acceptance under deviation with due approval of customer as per contractual obligations.

The main tool used in production activities are chasers and dies. All TMT Bar Thread length is thoroughly checked by Vernier Caliper and OD size is checked by Ring Go Gauge – Ring No Go Gauge. All instrument and gauges are identified with unique number and its calibration status.



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### REBAR TECHNICAL SPECIFICATION- COLD FORGED

NOVA	(COUPLER)		DATE:-
INFRASYS	TECHNICAL	REVISION	02-06-2018
INFRASTS	SPECIFICATION		02-00-2010

CHECKING PARAMET ERS	16MM	20MM	25MM	32MM	36MM	40MM	Checking Instrument	Frequency Check
OD SIZE (±1mm)	25.5	32.5	42.5	50.5	60.5	63.5	Vernier caliper	Each
LENGTH (±0.2mm)	36	44	54	72	80	90	Vernier caliper	Each
PITCH (MM)	2.0	2.5	3.0	4.0	4.0	4.0	Plug Gauge	3 Per lot
THREAD	M-18x2.0	M-23x2.5	M-29x3.0	M-35x4.0	M-39x4.0	M-43x4.0	Thread Plug Gauge	5 Nos/shift
ANTIRUST	Apply	Apply	Apply	Apply	Apply	Apply	Visual	Each
PACKING	320	105	60	40	24	18	Visual	Each
Nominal Area (mm²)	201.14	314.28	491.1	804.6	1018.3	1257.2	TC	Every piece/heat
U.T.S. (N/mm²)	650	650	650	650	650	650	-	-



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### REBAR COUPLER TECHNICAL SPECIFICATION

NOVA INFRASYS	(COUPLER) TECHNICAL SPECIFICATION	REVISION	DATE:- 01-06-2018
	SPECIFICATION	DOC. NO.:- SE/06	SHEET:- 1 OF 1

		QUA	ALITY PROCESS - FIN	NAL INSPECTION				
			ACCEPTABL	E LIMIT				
CHECKING PARAMETERS	16MM	20MM	25MM	32MM	36MM	40MM	CHECKING INSTRUMENT	FREQUENC CHECK
OD SIZE (±1MM)	25.5	32.5	42.5	50.5	60.5	63.5	VERNIER CALLIPER	EACH
LENGTH (±0.2MM)	36	44	54	72	80	90	VERNIER CALLIPER	EACH
PITCH H (MM)	2.0	2.5	3.⊙	4.0	4.0	4.0	PLUG GAUGE	3 PER LO
THREAD	M-18X2.⊙	M-23X2.5	M-29X3.O	M-35X4.O	M-39X4.O	M-43X4.0	THREAD PLUG GAUGE	5 Pcs Per Sh
ANTIRUST	APPLY	APPLY	APPLY	APPLY	APPLY	APPLY	VISUAL	EACH
PACKING	320	105	60	40	24	18	VISUAL	EACH
Nominal Area (mm²)	201.14	314.28	491.1	804.6	1018.3	1257.2	TC	Every piec per heat
U.T.S (N/mm²) Minimum	650	65⊙	65⊙	650	65⊙	650		•

PREPARED BY:- Q.C. INCHARGE

APPROVED BY:- MR. ROBIN



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### **PLANT MACHINERY DETAILS**

#### Following Tables Shows the List of Machine.....

S.No	Machines
1	Bend Saw Machine
2	Forging Machine
3	Bench Grinder Machine
4	Hand Grinder Machine
5	Turning Machine
6	Traub Machine
7	RollTech Threading Machine
8	Chaser Threading Machine
9	Electrode Welding Machine
10	Mig Welding Machine
11	CNC Machine
12	Milling Machine
13	Drill Machine



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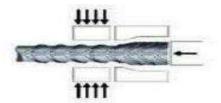
### THREADING METHOD :COLD FORGED

#### 1. Cutting - The end of Reinforcing bar in saw square.



#### 2. Cold Forging

The saw end of the reinforcing bar is then enlarged by a patented cold forging process. The core diameter of the bar is increased to a pre-determined diameter.



#### 3. Turning

The Rib of Forged bar is removed by turning process for even surface.



#### 4. Threading

Finally, the thread is mechanically cut onto the enlarged end of the bar.





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### THREADING METHOD: - ROLL TECH

#### 1. Cutting- The end of Reinforcing bar in saw square.



#### 2. Turning

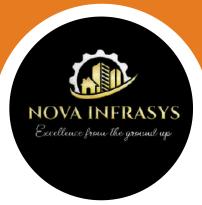
The Rib of Forged bar is removed by turning process for even surface.



#### 4. Threading

Finally, the thread is mechanically made onto turned end of the bar.

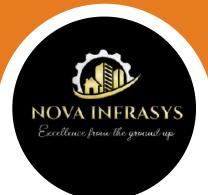




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#### THREAD INSPECTION... COLD FORGED

NOVA INFRASYS	in maccoss	QUALITY PLAN FOR FINAL SPECTION(Full & Half Thread)			REVIS	REVISION NO.:-00		DATE: 01/06/2019	
						NO.:- SE /06	SHEET: 1	OF 1	
		_	QUALITY P	ROCESS - FI	NAL INSPEC				
CHECKING PARAM	METERS		ACCEPTABLE LI	MIT		CHECKING II	NSTRUMENT	FREQUENC	
		16mm	Half Thread	20(-1mm	n):	Vernier	Calliper	Each	
		1	Full Thread	36(±1 mm	1)	Vernier	Calliper	Each	
		20mm	Half Thread	27(±1mm	4	Vernier	Calliper	Each	
			Full Thread	44(±1 mm)		Vernier Calliper		Each	
TMT BAR THREAD LENGTH		25 mm	Half Thread	Thread 32(s1mm)		Vernier Calliper		Each	
	LENGTH		Full Thread	Full Thread 54(z1mm)		Vernier	Calliper	Each	
		32mm	Half Thread	hread 39(±1mm)		Vernier	Calliper	Each	
			Full Thread	72(±1:mm	(rlmm) Vernier Calliper		Calliper	Each	
		36 mm	Half Thread	43(±1mm	1)	Vernier	Calliper	Each	
			Full Thread	80(±1mn	1	Vernier Calliper		Each	
		40 mm	Half Thread	45(±1mn	1)	Vernier Calliper		Each	
		10 111111	Full Thread	90(±1mm	1)	Vernier	Calliper	Each	
		Hamm	M-	18X2.0		Ring Gauge		3 Per Lot	
		20mm	M-	23X2.5		Ring Gauge		3 Per Lot	
THREAD SE	7 V	25mm	M-	29X3.0		Ring Gai	igr.	3 Per Lot	
THE LAND SE	645:	32mm	M-	35X4.0		Ring Gauge		3 Per Lot	
		36mm	M-	39X4.0		Ring Gauge		3 Per Lot	
		40mm	M-43X4.0			Ring Gauge		3 Per Lot	



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### **OUR VALUABLE CLIENTS**

- CCTEB Private Ltd (China)
- L&T Energy Hydrocarbon Limited (India)
- Tulip Infra Pvt. Limited (India)
- Shrinath Industries (India)
- Abhiram Nirmaan India Pvt. Ltd. (India)
- M.K. Builders (India)
- Hema Abodes (India)
- Vaishakhi Developers (India)
- DEPL (India)
- Bhagwati Lacto Foods Pvt. Ltd. (India)
- Healthy Harvested Food Pvt. Ltd. (India)
- Everyday Steels Storage Pvt. Ltd. (India)
- Bhupati Engineering (India)
- Dawat Rice Mill (India)
- Indian Oil Adani Ventures (India)
- Jianan Engineering Pvt. Ltd. (China)
- Wuhuan Engineering Pvt. Ltd. (China)
- AB Pallet Foods (Nepal)
- First Choice Foods Inc. (Canada)



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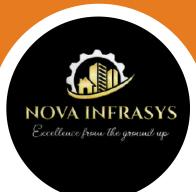
### **OUR VALUABLE CLIENTS**

#### WHY CHOOSE REBAR REINFORCEMENT SYSYEM!

Difference between Overlapping & Reinforcement

DIA	LENGTH OF OVERLAP	WEIGHT	VALUE OF OVERLAPPED BAR	VALUE OF REINFORCEMENT SYSTEM
16MM	800MM	1.26Kg	X Rs / Joint	Y Rs / Joint
20MM	1000MM	2.40Kg	X Rs / Joint	Y Rs / Joint
25MM	1250MM	4.82Kg	X Rs / Joint	Y Rs / Joint
32MM	1600MM	10.11Kg	X Rs / Joint	Y Rs / Joint

- 1. Here "x" indicated the Current Rates of Rebar
- 2. Here "Y" Indicates the current Rates of Re-Inforcement System
- 3. Here "Z" Indicates the Difference Between Overlapping & Re-Inforcement
- 4. Coupler's Metal Grade is "EN8D"
- 5. "EN8D" is govt. Approved Metal for joints in Construction Industry.
- 6. By using Re-Inforcement system, you will save around a good amount on per joint in 16MM Bar.
- 7. By using Re-Inforcement system, you will save around a good amount on per joint in 20MM Bar.
- 8. By using Re-Inforcement system, you will save around a good amount on per joint in 25MM Bar.
- 9. By using Re-Inforcement system, you will save around a very good amount on per joint in 32MM Bar.



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### **UTS REPORT OF 25 MM REBAR**



Ref.BVIPL:S.STEEL/ BL/2516(a)/3/2014

Test Order dated: 24.3.17

Date: 24.3.2017

#### TEST REPORT ON COUPLER JOINT SAMPLE

Source of sample Sample supplied by the customer

No. of samples tested UIN 1 (One) 17009371

Customer's Reference

Letter dated 24.3.17 Project\* Not furnished

Grade of Steel\* EN 8D Date of test 24,3,17

Condition of samples Satisfactory Test Method

IS:1608 – 2005 (Reaffirmed 2011) and IS: 16172 – 2014

SI No	Nominal Dia* (mm)	Static Tensile Strength (N/mm²)	Elongation (%)	Location of fracture	
1	25 / 25	658	5.4	Fractured outside the coupler	
Requirement as per IS: 16172 - 2014		Min. 600	Min. 3.0	The location of failure shall be deemed to be in the bar	

\* As furnished by the customer

1. The results relate only to the samples tested. Note:

Report shall not be reproduced, except in full, without the written approval of the lab.

Any correction invalidates this report.

for BUREAU VERITAS (INDIA) PRIVATE LIMITED Construction Services Laboratory

do 24 02 2013

SANJEEV PATGAR Quality Manager



Bureau Veritas (India) Private Limited (Construction Service Laboratory) India Magadi Road, Kamakshipalya, Bangalore - 560 079 Tel.: +91 80 2301 800 Fax: +91 80 2671683 bangalore Lab@in.bureauveritas.com

Regd. Off.: Marwah Centre, 6th Floor K. Marwah Marg, Off Saki-Vihar Road Andheri (Fast), Munbai - 400 922. India Tel.: +91 22 66956300 Fast: +91 22 66956309 www.bureauveritas.co.in CIN: 1U74210MF42001PTC134262

Offices/Labs at: Ahmedabad, Baroda Bhopal, Chennal, Cochin, Coimbatore Delhi, Goa, Hubli, Hyderabad, Indore Jaipur, Kakinada, Kandla, Kodkata, Ludhiana Mangalore, Nagpur, Nashik, Pune, Raipur Surat, Tirchy & Visakhapatnam



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### **UTS REPORT OF 32 MM REBAR**



38/6, K. M. Stone, Delhi-Jaipur Highway, Narsingpur, Gurgaon - 122 001 (Haryana) India Ph.: +01-124-4129294, Fax: +91-124-4129751/52 E-mail: Isb@sunbeamatub.com URL: sunbeamlabs.com

TESTING. RESEARCH & DEVELOPMENT CENTRE

Certificate No.

#### TEST CERTIFICATE

Party Name: SKY MANSION PROJECT

CHANDAN HULA

DELHI

Date: 18/12/2018

Job Order No.: 812-811-1042

Reference No. :

Date: 17.12.2018

Sample Particulars: ONE SAMPLE OF TMT BAR WITH COUPLER MARKED AS DIA 32MM WAS RECEIVED.

#### RESULTS ULR - TC676418000004122F

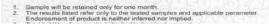
Test As Per IS: 16172 Dia: 32mm

Test	Observation	Requirement Fe-500D	Conformity
Tensile Strength (N/mm²)	694*	565 Min	Yes
Location Of Failure	Broken Outside Mechanical Splice	Should Be Outside Of Mechanical Splice	Yes

Note: For calculation of tensile strength, nominal area is used instead of actual cross sectional area

Remarks : The above sample conforms to IS : 16172 : 2014 (Gr -500D) W.R.T. Above test

\*\*\*\*\* End of Result \*\*\*\*









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### **CHEMICAL COMPOSITION OF M 20 COUPLER**



Highway, Narsingpur, Gurgaon - 122 001 (Haryana) India Ph.: +91-124-4129254, Fax: +91-124-4129751/52 E-mail: lab@sunbeamauto.com URL : sunbeamlabs.com

TESTING, RESEARCH & DEVELOPMENT CENTRE

489304 Certificate No.

#### **TEST CERTIFICATE**

Party Name: SKY MANSION PROJECT

CHANDAN HULA

Chemical Analysis

DELHI

Date: 18/12/2018

Job Order No.: 812-811-1047

Reference No.:

Date: 17.12.2018

Sample Particulars :

#### RESULTS

ONE SAMPLE OF COUPLER MARKED AS DIA 20MM WAS RECEIVED.

#### ULR - TC676418000004127F

#### As Per EN 8D Grade of Steel

Element	%	Specified %	Conformity
Carbon	0.448	0.40 - 0.45	Yes
Silicon	0.176	0.05 - 0.35	Yes
Manganese	0.739	0.70 - 0.90	Yes
Phosphorus	0.025	0.060 Max	Yes
Sulphur	0.009	0.060 Max	Yes
Chromium	0.009		
Molybdenum	0.000		
Nickel	0.023		
Aluminium	0.0085		
Boron	0.0000		
Cobalt	0.000		***
Copper	0.005		
Neobium	0.0090	THE PROPERTY IN	CONTRACTOR OF THE
Lead	0.0023		
Tin	0.007		
Titanium	0.001		
Vanadium	0.000	ACADA ACADA A	
fron	98.53		ED ON THE STATE OF

Remarks: Sample conforms to EN 8D grade of Steel W.R.T.



The results listed refer only to the tested samples and applicabl Endorsement of product is neither inferred nor implied. Total liability of our works is limited to invoiced amount.



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### CHEMICAL COMPOSITION OF **M 25 COUPLER**



38/6, K. M. Stono, Delhi-Jaipur Highway, Narsingpur, Gurgaon - 122 001 (Haryans) India Ph.: +91-124-4129254, Fax: +91-124-4129751/52 E-mail: Lab@sunbeamsuto.com URL: sunbeamilabs.com

TESTING, RESEARCH & DEVELOPMENT CENTRE

489302 Certificate No.

#### TEST CERTIFICATE

Party Name: SKY MANSION PROJECT

CHANDAN HULA

DELHI

Date: 18/12/2018

Job Order No.: 812-811-1045

Reference No. :

Date: 17.12.2018

Sample Particulars :

ONE SAMPLE OF COUPLER MARKED AS DIA 25MM WAS RECEIVED.

#### ULR - TC676418000004125F

#### RESULTS As Per EN 8D Grade of Steel

#### Chemical Analysis

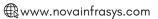
By Emission Spectrometer (Protocol: Technical Manual)

y V	Element	<u>%</u>	Specified %	Conformity
	Carbon	0.450	0.40 - 0.45	Yes
	Silicon	0.205	0.05 - 0.35	Yes
	Manganese	0.716	0.70 - 0.90	Yes
	Phosphorus	0.019	0.060 Max	Yes
	Sulphur	0.008	0.060 Max	Yes
	Chromium	0.000	-	
	Molybdenum	0.000	게 !!! ! ! 요즘데 뭐셨다! [ ] [ ] [	
	Nickel	0.036	144	***
	Aluminium	0.0200		
	Boron	0.0000		
	Cobalt	0.000		
	Copper	0.004		
	Neobium	0.0081		
	Lead	00022		
	Tin	0.007	***	***
	Titanium	0.003		
	Vanadium	0.000		
	Iron	08 51		The second second

Remarks: Sample conforms to EN 8D grade of Steel W.R.T.

End of Result \*\*\*\*





Sample will be retained only for one month. The results listed refer only to the tested samples and a Endorsement of product is neither inferred nor implied. Total liability of our works is limited to invoiced amount.



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### **CHEMICAL COMPOSITION OF** M 32 COUPLER



38/6, K. M. Stone, Delhi-Jaipur Highway, Narsingpur, Gurgaon - 122 001 (Haryana) India Ph.: +91-124-4129254, Fax: +91-124-4129751/52 E-mail: lab@sunbeamaulo.com URL: sunbeamlahs.com

TESTING, RESEARCH & DEVELOPMENT CENTRE

489300 Certificate No.

#### TEST CERTIFICATE

Party Name: SKY MANSION PROJECT

CHANDAN HULA

Date: 18/12/2018

Job Order No.: 812-811-1043

Date: 17.12.2018

Sample Particulars :

ONE SAMPLE OF COUPLER MARKED AS DIA 32MM WAS RECEIVED

#### ULR - TC676418000004123F

#### RESULTS As Per EN 8D Grade of Steel

Chemical Analysis			
By Emission Spectrometer	(Protocol:	Technical Manual)	
Element	9/		Consider of

Element	%	Specified %	Conformity
Carbon	0.444	0.40 - 0.45	Yes
Silicon	0.254	0.05 - 0.35	Yes
Manganese	0.707	0.70 - 0.90	Yes
Phosphorus	0.012	0.060 Max	Yes
Sulphur	0.008	0.060 Max	Yes
Chromium	0.000		-
Molybdenum	0.000		
Nickel	0.032		
Aluminium	0.0240		10 / Aug V 10 / 10 / 10 / 10 / 10 / 10 / 10 / 10
Boron	0.0000		
Cobalt	0.000	THE PROPERTY OF THE PROPERTY O	
Copper	0.004		
Neobium	0.0090		
Lead	0.0030		
Tin	0.007	1	
Titanium	0.005		
Vanadium	0.000		
lean .	09.47		

Remarks: Sample conforms to EN 8D grade of Steel W.R.T. above test

\*\* End of Result \*\*\*\*



The results listed refer only to the tested samples and Endorsement of product is neither inferred nor implied. Total listbility of our works is limited to invoiced amount.







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### PROJECTS & DEVELOPMENT INDIA LIMITED



प्रोजेक्ट्स एण्ड डेवलपर्मेंट इण्डिया लिमिटेड (भारत सरकार का उपक्रम) : मिनी रल-1 कंपनी

Projects & Development India Limited (A Govt of India Undertaking): A Mini Ratna-1 Company

PDIL Bhawan, A-14, Sector-1, NOIDA-201 301 Dist. Gautam Budh Nagar, (U.P.), India CIN: U74140UP1978GOI028629 ISO 9001:2015 & OHSAS 18001:2007 Certified

ISO/IEC 17020.0012 Achred 833

Ref No.: PDIL/TFL/Site/Wuhuan/CGU & AU/87

To,

M/s Wuhuan Engineering Co, Ltd TFL, Talcher site office Talcher, Angul District, Odisha (India)

Kind Attn: Zeng Bo (Site Manager)

Project: Coal Gasification Plant at Talcher Fertilizer Limited, Talcher, Odisha.

Subject: Approval for procurement & use of Re-Bar Coupler of required Vendor (NOVA

INFRASYS)

Dear Sir,

This has reference to the subject matter and as per your request letter no. 17125-CS/PS-L-0401, Dated 20.07.2022, and subsequently test results satisfactory as per IS-CODE 16172 (latest version).

Approval is granted for the procurement of reinforcement Re-Bar Coupler of M/s. NOVA INFRASYS and qualifying the below criteria:

- The sampling and testing have to be conducted on every lot of couplers reaching at site and shall be witnessed by PDIL/TFL and TPI Engineers.
- The process of using these couplers at site activities has to be carried out under strict supervision.
- The couplers should preferably not be used in foundation/pile cap. (As the slandered length of Re-Bars is more than the requirement)

Thanking you.

(RCM, PDIL-TFL Site)

CC:

1: Mr. S Mishra, GM(P)/TFL 2: Mr. R R Kumar, AGM & HOD(PM), PDIL

Regd. Office: PDIL. Bhawan, A-14, Sector-1, Noida-201301
Phone: +91 - 120 -2529842/34/151 Fax: +91 - 120 - 2529801, 2541493
E-mail: noida@polin.com
Other Offices: Sindri, Vadodara, Mumbai, Kolkata, Chennai, Hyderabad
Visit



## nova Infrasys

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### **TEST REPORTS 1**



#### SCIENTIFIC INFRA GEOINVESTIGATION LAB

Regd. Office: Plot No. 2, DC Enclave, Main Wazirpur Road, Near Dream Land 24, Faridabad, Harvana -121002 E-mail: scientificinfra6714@gmail.com; sigilab19@gmail.com; Website: www.sigeolab.com; Mob. No.- 9873720389, 8851141782

#### TEST REPORT

(NABL ACCREDATED LAB)

Page 1 of 1

Job Code No.: 20220823/04  Date of Testing (Start): 31/08/2022  Date of Testing (Final): 31/08/2022
Sample Quantity: 3 bar X 1mtr. Sample Condition: Ok Environmental Condition: Temp: 27 <sup>0</sup> ± 2 <sup>0</sup> C, RH: 65 ± 5 %
E

#### **TEST RESULTS**

SL. NO.	PHYSICAL TESTING	OBSERVED VALUE	TEST METHOD	PERMISSIBLE VALUES AS PER IS:1786-2008, RA-2018 Grade Fe-500D	CONFORMITY
1.	Yield Stress (N/mm2)	553.33	IS: 1608 (P-1) 2018	500.0 Min.	Yes
2.	Static Tensile Strength (N/mm2)	655.62	IS: 1608 (P-1) 2018	565.0 Min.	Yes
<ol> <li>Elongation (%) on GI = 5.65 √A (A= Area)</li> </ol>		20.20	IS: 1608 (P-1) 2018	16.0 Min.	Yes
4.	Slip Test	0.02	IS: 16172-2014	0.10 Max.	Yes
5.	Mass per meter run (Kg)	2.692	IS: 1786-2008	-	-
6.	Location of Fracture	Parent Metal	*	-	-

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Witness by

PDIL

Wuhuan Engineering Co. Ltd.

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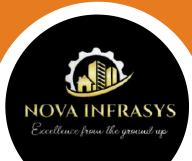
Mohd. Was

Avnich Jaim

AUTHORISED SIGNATORY

Note: 1. Sample will be retained for one month.

In case the sample is taken back, No futher responsibility of any discrepancies.
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### **TEST REPORT 2**



### SCIENTIFIC INFRA GEOINVESTIGATION LAB

Regd. Office: Plot No. 2, DC Enclave, Main Wazirpur Road, Near Dream Land 24, Faridabad, Haryana -121002 E-mail: scientificinfra6714@gmail.com; sigilab19@gmail.com; Website: www.sigeolab.com; Mob. No.- 9873720389, 8851141782

#### TEST REPORT

(NABL ACCREDATED LAB)

Page 1 of 1

Report Number: SIGIL20220798/05	Date of Report: 31/08/2022
Sample Description: TMT Steel (25mm)	Job Code No.: 20220823/05
Source/Brand- Nova Infrasys, Heat/Tag No.: - NIE103 Issued to: M/s. Projects & Development India Limited PDIL Bhawan, A-14, Sector-1, Noida-201301 Distt. Gautam Budh Nagar, (U.P.) India Letter Ref. No.: PDIL/TFL/Site/Wuhuan/70, Dated: 09/08/2022 Sample Received on: 23/08/2022 Name of Agency: Wuhuan Engg. Co. Ltd.	Date of Testing (Start): 31/08/2022 Date of Testing (Final): 31/08/2022 Sample Quantity: 3 bar X 1mtr. Sample Condition: Ok Environmental Condition: Temp: 27 <sup>0</sup> ± 2 <sup>0</sup> C, RH: 65 ± 5 %

#### **TEST RESULTS**

SL. NO.	PHYSICAL TESTING	OBSERVED VALUE	TEST METHOD	PERMISSIBLE VALUES AS PER IS:1786-2008, RA-2018 Grade Fe-500D	CONFORMITY
1.	Yield Stress (N/mm2)	589.74	IS: 1608 (P-1) 2018	500.0 Min.	Yes
2.	Static Tensile Strength (N/mm2)	707.30	IS: 1608 (P-1) 2018	565.0 Min.	Yes
<ol> <li>Elongation (%) on GI = 5.65 √A (A= Area)</li> </ol>		22.42	IS: 1608 (P-1) 2018	16.0 Min.	Yes
4,	Slip Test	0.04	IS: 16172-2014	0.10 Max.	Yes
5.	Mass per meter run (Kg)	4.165	IS: 1786-2008	0.10 max.	LINES.
6.	Location of Fracture	Parent Metal		-	

Witness by

PDIL

Wuhuan Engineering Co. Ltd.

Singnature

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Mohd Wasi

Avnish Jai

ARUN KUMAR PANDEY Quality Manager

AUTHORISED SIGNATORY

Note: 1. Sample will be retained for one month.

In case the sample is taken back, No futher responsibility of any discrepancies.

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### **TEST REPORT 3**



### SCIENTIFIC INFRA GEOINVESTIGATION LAB

Regd. Office: Plot No. 2, DC Enclave, Main Wazirpur Road, Near Dream Land 24, Faridabad, Haryana -121002 E-mail: scientificinfra6714@gmail.com; sigilab19@gmail.com; Website: www.sigeolab.com; Mob. No.-9873720389, 8851141782

#### TEST REPORT

(NABL ACCREDATED LAB)

Page 1 of 1

Sample Description: TMT Steel (32mm) Source/Brand-Nova Infrasys, Heat/Tag No.: - NIE103 Issued to: M/s. Projects & Development India Limited PDIL Bhawan, A-14, Sector-1, Noida-201301	Date of Report: 31/08/2022  Job Code No.: 20220823/06  Date of Testing (Start): 31/08/2022  Date of Testing (Final): 31/08/2022
Source/Brand-Nova Infrasys, Heat/Tag No.: - NIE103 Issued to: M/s. Projects & Development India Limited PDIL Bhawan, A-14, Sector-1, Noida-201301	Date of Testing (Start): 31/08/2022
Letter Ref. No.: PDIL/TFL/Site/Wuhuan/70, Dated: 09/08/2022	Sample Quantity: 3 bar X 1mtr. Sample Condition: Ok Environmental Condition: Temp: $27^{\circ} \pm 2^{\circ}$ C, RH: $65 \pm 5$ %

#### **TEST RESULTS**

SL. NO.	PHYSICAL TESTING	OBSERVED VALUE	TEST METHOD	PERMISSIBLE VALUES AS PER IS:1786-2008, RA-2018 Grade Fe-500D	CONFORMITY
1.	Yield Stress (N/mm2)	548.62	IS: 1608 (P-1) 2018	500.0 Min.	Yes
2.	Static Tensile Strength (N/mm2)	667.55	IS: 1608 (P-1) 2018	565.0 Min.	Yes
<ol> <li>Elongation (%) on GI = 5.65 √A (A= Area)</li> </ol>		17.48	IS: 1608 (P-1) 2018	16.0 Min.	Yes
4.	Slip Test	0.03	IS: 16172-2014	0.10 Max.	Yes
5.	Mass per meter run (Kg)	6.792	IS: 1786-2008		
6.	Location of Fracture	Parent Metal	-	-	_

\*\*\*\*\*\*\*\*\*\*

Witness by

Wuhuan Engineering Co. Ltd.

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ARUN KUMAR PANDEY Quality Manager

AUTHORISED SIGNATORY

Note: 1. Sample will be retained for one month.

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### **L&T ENERGY HYDROCARBON REPORT**





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info@mest.co.in medson@yahoo.com www.metLcoxin

#### TEST REPORT

Page No. 1/1

Report No: METL/24-25	254/201	Report Date	11/09/2024			
issued To ; L &T Energy Hydrocarbon Ltd.		Date of Receipt	10/09/2024			
		Date of Sampling	10/09/2024			
	Boot Project, Extension of P-25 Project, IOCL, Refinery	Date of Start	10/09/2024			
Panipat (Haryana)		Date of Completion	10/09/2024			
Ref. No.: N.A.	**	Ref. Date	10/09/2024			
Subject	Testing of steel.					
Description of Sample:	COUPLER (20mm)					
Steel Make	Rashmi	Rashmi				
Coupler Make	Nova infrasys					
Sample No.	4					
Grade	Fe 500D	Fe 500D				

#### TEST RESULT

S.No.	Test Parameters	Units	Results	Requirement as per IS:16172 : 2023	Test Method
1	Static Tensile Strength	N/mm²	709.36	Minimum 130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2018	IS: 16172 : 2023
2	Location Of Failure		inside the mechanical spliced	shall occure outside the mechanical Spliced in the bar, if tonails Strength is <130 % of specified grade of Yield Stress as per IS 1786 2008 RA - 2018	IS; 16172 : 2023
3	Percentage Elongation at maximum force	96	6.32	3.0 Min	(S: 16172 : 2023

Remarks: The Submitted sample conforms to IS 16172: 2023 w.r.t above test.

Note:- The Submitted sample witness by L&T repersentative.

\*\*\*End of Report\*\*\*



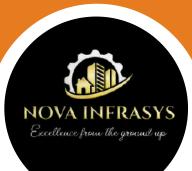


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### **L&T ENERGY HYDROCARBON REPORT**





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Flot No. 43, HSIIDC. Indl. Estate. Rei, Schepet, Heryona-131029 T. 01304017631 | M: -919215515658

Email/Website info@metLco.in medison@ywhoo.com www.mest.co.in

#### TEST REPORT

Page No. 1/1

Report No: METL/24-25	(254/202	Report Date	11/09/2024				
Issued To : L &T Energy Hydrocarbon Ltd. IAVL-Bullet & Tankage of Boot Project, Extension of P-25 Project, IOCL, Refinery		Date of Receipt	10/09/2024				
		Date of Sampling	10/09/2024				
		Date of Start	10/09/2024				
Panipat (Haryana)		Date of Completion	10/09/2024				
Ref. No.: N.A.	7-N	Ref. Date	10/09/2024				
Subject	Testing of steel.						
Description of Sample:	GOUPLER (20mm)						
Steel Make	Rashmi	Rashmi					
Coupler Make	Nova Infrasys						
Sample No.	2						
Grade	Fe 500D						

#### TEST RESULT

S.No.	Test Parameters	Units	Results	Requirement as per IS:16172 : 2023	Test Method
1	Static Tensile Strength	N/mm²	717.02	Minimum 130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2018	IS: 16172 : 2023
2	Location Of Failure	CHI.	Inside the mochanical spliced	shall occure outside the mechanical Spliced in the bar, if tensite Strength's <130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2018	IS: 16172 : 2023
3	Percentage Elongation at maximum torce	%	5.99	3.0 Min	IS: 16172 : 2023

Remarks: The Submitted sample conforms to iS 16172; 2023 w.r.: above test.

Note:- The Submitted sample witness by L&T repersentative.

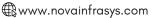
\*\*\*End of Report\*\*\*

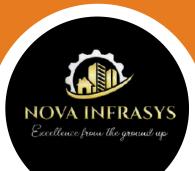




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1. The results incident only to the tested set will involved amount.
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#### TEST REPORT

Page No. 1/1

Report No: METL/24-25	/254/203	Report Date	11/09/2024
Issued To:		Date of Receipt	10/09/2024
L &T Energy Hydrocarb	L &T Energy Hydrocarbon Ltd.		10/09/2024
AVL-Buillet & Tankage of Boot Project, Extension of P-25 Project, IOCL, Refinery Panipat (Harvana)		Date of Start	10/09/2024
		Date of Completion	10/09/2024
Ref. No.: N.A.	44	Ref. Date	10/09/2024
Subject	Testing of steel.		
Description of Sample:	COUPLER (20mm)		
Steel Make	Rashmi		
Coupler Make	Nova infrasys		
Sample No.	3		
Grade	Fe 500D		

#### TEST RESULT

S.No.	Test Parameters	Units	Results	Requirement as per IS:16172 : 2023	Test Method
1	Static Tensile Strength	N/mm²	718.26	Minimum 130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2018	IS: 16172 : 2023
2	Location Of Failure	CHI.	Inside the mochanical spliced	shall occure outside the mechanical Spliced in the bar, if tensite Strength is <130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2018	IS: 16172 : 2023
3	Percentage Elongation at Maximum Force	%	6.66	3.0 Min	IS: 16172 : 2023

Remarks: The Submitted sample conforms to IS 16172; 2023 w.r.t above test.

Note:- The Submitted sample witness by L&T repersentative.

\*\*\*End of Report\*\*\*





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### **L&T ENERGY HYDROCARBON REPORT**





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#### TEST REPORT

Page No. 1/1

Report No: METL/24-25	/254/204	Report Date	11/09/2024
Issued To:		Date of Receipt	10/09/2024
AVL-Bullet & Tankage of Boot Project, Extension of P-25 Project, IOCL, Refinery Panicat (Harvana)		Date of Sampling	10/09/2024
		Date of Start	10/09/2024
		Date of Completion	10/09/2024
Ref. No.: N.A.	44	Ref. Date	10/09/2024
Subject	Testing of steel.		-
Description of Sample:	COUPLER-MBT (20mm)		
Steel Make	Rashmi		
Coupler Make	Nova Infrasys		
Sample No.	1		
Grade	Fe 500D		

#### TEST RESULT

s.No	. Test Parameters	Units	Results	Requirement as per IS:16172 : 2023	Test Method
t	Static Tensile Strength	N/mm²	703.0	Minimum 130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2018	IS: 16172 : 2023
2	Location Of Failure		Inside the mochanical spliced	shall occure outside the mechanical Spliced in the bar, if tensile Strength is <130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2019	IS: 16172 : 2023

Remarks: The Submitted sample conforms to IS 16172: 2023 w.r.t above test.

Note:- The Submitted sample witness by L&T repersentative.

\*\*\*End of Report\*\*\*





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#### TEST REPORT

Page No. 1/1

Report No: METL/24-25	254/205	Report Date	11/09/2024
Issued To:		Date of Receipt	10/09/2024
L &T Energy Hydrocarb	L &T Energy Hydrocarbon Ltd.		10/09/2024
Panipat (Harvana)		Date of Start	10/09/2024
		Date of Completion	10/09/2024
Ref. No.: N.A.	2.5	Ref. Date	10/09/2024
Subject	Testing of steel.		
Description of Sample:	COUPLER-MBT (20mm)		
Steel Make	Rashmi		
Coupler Make Nova Infrasys			
Sample No.	2		
Grade	Fe 500D		

#### TEST RESULT

s.No	. Test Parameters	Units	Results	Requirement as per IS:16172 : 2023	Test Method
1	Static Tensile Strength	N/mm²	703.00	Minimum 130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2018	IS: 16172 : 2023
2	Lecation Of Failure		Inside the mochanical spliced	shall occure outside the mechanical Spliced in the bar, if tensite Strength is <130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2019	IS: 16172 : 2023

Remarks: The Submitted sample conforms to IS 16172: 2023 w.r.t above test.

Note:- The Submitted sample witness by L&T repersentative.

\*\*\*End of Report\*\*\*

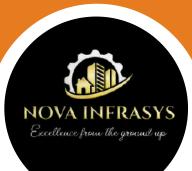




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### **L&T ENERGY HYDROCARBON REPORT**





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#### TEST REPORT

Page No. 1/1

Report No: METL/24-25	/254/206	Report Date	11/09/2024
Issued To:	300,000,000	Date of Receipt	10/09/2024
IAVL-Builet & Tankage of Boot Project, Extension of P-25 Project, IOCL, Refinery Panicat (Harvana)		Date of Sampling	10/09/2024
		Date of Start	10/09/2024
		Date of Completion	10/09/2024
Ref. No.: N.A.	7-N	Ref. Date	10/09/2024
Subject	Testing of steel.		
Description of Sample:	COUPLER-MBT (20mm)		
Steel Make	Rashmi		
Coupler Make	Nova Infrasys		
Sample No.	3		
Grade	Fe 500D		

#### TEST RESULT

s.No	Test Parameters	Units	Results	Requirement as per IS:16172 : 2023	Test Method
t	Static Tensile Strength	N/mm²	699.63	Minimum 130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2018	IS: 16172 : 2023
2	Lecation Of Failure		Inside the mochanical spliced	shall occure outside the mechanical Spliced in the bar, if tensite Strength is <130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2019	IS: 16172 : 2023

Remarks: The Submitted sample conforms to IS 16172: 2023 w.r.t above test.

Note:- The Submitted sample witness by L&T repersentative.

\*\*\*End of Report\*\*\*





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#### TEST REPORT

Page No. 1/1

Report No: METL/24-25	254/207	Report Date	11/09/2024
Issued To:		Date of Receipt	10/09/2024
IAVL-Bullet & Tankage of Boot Project, Extension of P-25 Project, IOCL, Refinery Panical (Harvana)		Date of Sampling	10/09/2024
		Date of Start	10/09/2024
		Date of Completion	10/09/2024
Ref. No.: N.A.	44	Ref. Date	10/09/2024
Subject	Testing of steel.		
Description of Sample:	COUPLER (16mm)		
Steel Make	Rashmi		
Coupler Make Nova Infrasys			
Sample No.	1		
Grade	Fe 500D		

#### TEST RESULT

S.No.	Test Parameters	Units	Results	Requirement as per IS:16172 : 2023	Test Method
1	Static Tensile Strength	N/mm²	701.55	Minimum 130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2018	IS: 16172 : 2023
2	Location Of Failure	CHI.	Inside the mechanical spliced	shall occure outside the mechanical Spliced in the bar, if tensite Strength is <130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2018	IS: 16172 : 2023
3	Percentage Elongation at maximum torce	%	6.82	3.0 Min	IS: 16172 : 2023

Remarks: The Submitted sample conforms to IS 16172; 2023 w.r.t above test. Note:- The Submitted sample witness by L&T repersentative.

\*\*\*End of Report\*\*\*





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1. The result when the only to the tested samples, and applicable parameters endorsement of product is neith
1. The result when the local is the tested to the inveded amount.
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### **L&T ENERGY HYDROCARBON REPORT**





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#### TEST REPORT

Page No. 1/1

Report No: METL/24-25	/254/208	Report Date	11/09/2024
Issued To:		Date of Receipt	10/09/2024
L &T Energy Hydrocarb	L &T Energy Hydrocarbon Ltd.		10/09/2024
AVL-Bullet & Tankage of Boot Project, Extension of P-25 Project, IOCL, Refinery Panicat (Harvana)		Date of Start	10/09/2024
		Date of Completion	10/09/2024
Ref. No.: N.A.	44	Ref. Date	10/09/2024
Subject	Testing of steel.		
Description of Sample:	COUPLER (16mm)		
Steel Make	Rashmi		
Coupler Make Nova Infrasys			
Sample No.	2		
Grade	Fe 500D		

#### TEST RESULT

S.No.	Test Parameters	Units	Results	Requirement as per IS:16172 : 2023	Test Method
1	Static Tensile Strength	N/mm²	719.43	Minimum 130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2018	IS: 16172 : 2023
2	Location Of Failure	-	Inside the mochanical spliced	shall occure outside the mechanical Spliced in the bar, if tensite Strength is <130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2018	IS: 16172 : 2023
3	Percentage Elongation at Maximum Force	%	8.01	3.0 Min	IS: 16172 : 2023

Remarks: The Submitted sample conforms to IS 16172; 2023 w.r.t above test.

Note:- The Submitted sample witness by L&T repersentative.

\*\*\*End of Report\*\*\*





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### **L&T ENERGY HYDROCARBON REPORT**





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Flot No. 43, HSIIDC. Indl. Estate. Rei, Schepet, Heryona-131029 T. 01304017631 | M: -919215515658

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#### TEST REPORT

Page No. 1/1

Report No: METL/24-25	/254/209	Report Date	11/09/2024
Issued To:		Date of Receipt	10/09/2024
L &T Energy Hydrocarb	L &T Energy Hydrocarbon Ltd.		10/09/2024
IAVL-Bullet & Tankage of Boot Project, Extension of P-25 Project, IOCL, Refinery		Date of Start	10/09/2024
Panipat (Haryana)		Date of Completion	10/09/2024
Ref. No.: N.A.		Ref. Date	10/09/2024
Subject	Testing of steel.		
Description of Sample:	COUPLER (16mm)		
Steel Make	Rashmi		
Coupler Make	Nova Infrasys		
Sample No.	3		
Grade	Fe 500D		

#### TEST RESULT

S.No.	Test Parameters	Units	Results	Requirement as per IS:16172 : 2023	Test Method
1	Static Tensile Strength	N/mm²	679.66	Minimum 130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2018	IS: 16172 : 2023
2	Location Of Failure	CHI.	Inside the mechanical spiced	shall occure outside the mechanical Spliced in the bar, if tensite Strength's <130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2018	IS: 16172 : 2023
3	Percentage Elongation at maximum Force	%	5,56	3.0 Min	IS: 16172 : 2023

Remarks: The Submitted sample conforms to IS 16172: 2023 w.r.1 above rest.

Note:- The Submitted sample witness by L&T repersentative.

\*\*\*End of Report\*\*\*

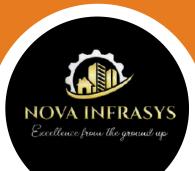




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#### TEST REPORT

Page No. 1/1

Report No: METL/24-25	/254/210	Report Date	11/09/2024
Issued To:		Date of Receipt	10/09/2024
L &T Energy Hydrocarb	L &T Energy Hydrocarbon Ltd.		10/09/2024
IAVL-Bullet & Tankage of Boot Project, Extension of P-25 Project, IOCL, Refinery		Date of Start	10/09/2024
Panipat (Haryana)		Date of Completion	10/09/2024
Ref. No.: N.A.		Ref. Date	10/09/2024
Subject	Testing of steel.		
Description of Sample:	COUPLER-MBT (16mm)		
Steel Make	Rashmi		
Coupler Make	Nova Infrasys		
Sample No.	1		
Grade	Fe 500D		

#### TEST RESULT

s.No.	Test Parameters	Units	Results	Requirement as per IS:16172 : 2023	Test Method
	Static Tensile Strength	N/mm²	706.51	Minimum 130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2018	IS: 16172 : 2023
2	Location Of Failure		Inside the mechanical spliced	shall occure outside the mechanical Spliced in the bar, if tensite Strength is <130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2019	IS: 16172 : 2023

Remarks: The Submitted sample conforms to IS 16172: 2023 w.r.t above test.

Note:- The Submitted sample witness by L&T repersentative.

\*\*\*End of Report\*\*\*





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### **L&T ENERGY HYDROCARBON REPORT**





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#### TEST REPORT

Page No. 1/1

Report No: METL/24-25	/254/211	Report Date	11/09/2024
L &T Energy Hydrocarbon Ltd. IAVL-Bullet & Tankage of Boot Project, Extension of P-25 Project, IOCL, Refinery		Date of Receipt	10/09/2024
		Date of Sampling	10/09/2024
		Date of Start	10/09/2024
Panipat (Haryana)		Date of Completion	10/09/2024
Ref. No.: N.A.		Ref. Date	10/09/2024
Subject	Testing of steel.		-
Description of Sample:	COUPLER-MBT (16mm)		
Steel Make	Rashmi		
Coupler Make	Nova Infrasys		
Sample No.	2		
Grade	Fe 500D		

#### TEST RESULT

s.No.	Test Parameters	Units	Results	Requirement as per IS:16172 : 2023	Test Method
1	Static Tensile Strength	N/mm²	726.39	Minimum 130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2018	IS: 16172 : 2023
2	Location Of Failure		Inside the Mechanical Spliced	shall occure outside the mechanical Spliced in the bar, if tensile Strength is <130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2019	IS: 16172 : 2023

Remarks: The Submitted sample conforms to IS 16172: 2023 w.r.t above test.

Note:- The Submitted sample witness by L&T repersentative.

\*\*\*End of Report\*\*\*





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### **L&T ENERGY HYDROCARBON REPORT**





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#### TEST REPORT

Page No. 1/1

Report No: METL/24-25	/254/212	Report Date	11/09/2024
L &T Energy Hydrocarbon Ltd. IAVL-Bullet & Tankage of Boot Project, Extension of P-25 Project, IOCL, Refinery		Date of Receipt	10/09/2024
		Date of Sampling	10/09/2024
		Date of Start	10/09/2024
Panipat (Haryana)		Date of Completion	10/09/2024
Ref. No.: N.A.		Ref. Date	10/09/2024
Subject	Testing of steel.		
Description of Sample:	COUPLER-MBT (16mm)		
Steel Make	Rashmi		
Coupler Make	Nova Infrasys		
Sample No.	:30		
Grade	Fe 500D		

#### TEST RESULT

s.No.	Test Parameters	Units	Results	Requirement as per IS:16172 : 2023	Test Method
1	Static Tensile Strength	N/mm²	721.42	Minimum 130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2018	IS: 16172 : 2023
ž	Location Of Failure		Inside the mechanical spliced	shall occure outside the mechanical Spliced in the bar, if tensite Strength is <130 % of specified grade of Yield Stress as per IS 1786 : 2008 RA - 2019	IS: 16172 : 2023

Remarks: The Submitted sample conforms to IS 16172: 2023 w.r.t above test.

Note:- The Submitted sample witness by L&T repersentative.

\*\*\*End of Report\*\*\*





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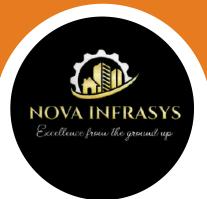




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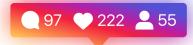








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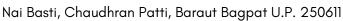
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