



Western Engineering (Pvt.) Ltd.

Special Class Contractor, Importer & Exporter

মেমো নং-ওয়েস্টার্ন/ঢাকা ওয়াসা/৬৬৫

তারিখ : ১১/১১/২০২৪ ইং

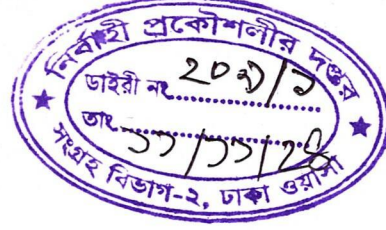
বরাবর

নির্বাহী প্রকৌশলী

সংগ্রহ বিভাগ-২, ওয়াসা ভবন (৬ষ্ঠ তলা)

৯৮, কাজী নজরুল ইসলাম এভিনিউ,

কাওরান বাজার, ঢাকা-১২১৫।



বিষয় : ঢাকা ওয়াসার এফ,এম বিভাগের জন্য ১০০ ঘনমিটার/ঘন্টা ১১০মিটার হেড সাব-মার্সিবল পাম্প-মটর সংগ্রহ কাজের **Third Party Inspection** এজেন্সী কর্তৃক পারফরমেন্স টেস্টের রিপোর্ট প্রদান প্রসঙ্গে।

বরাত :

ক) চুক্তি নং-৪৬.০৫.০০০০.৪২৮.০৭.০২৮.২৩/২০২৩-২৪/e-GP-সি২৫; তারিখ: ০৮/০৫/২০২৪

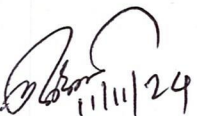
খ) স্মারক নং- ৪৬.০৫.০০০০.৪২৮.০৭.০২৮.২০২৩-২৭৪, তারিখ: ০১/১০/২০২৪

মহোদয়,

আপনার সদয় অবগতির জন্য জানানো যাচ্ছে যে, বরাত 'খ' অনুযায়ী ফ্যাক্টরী পরিদর্শন ও পারফরমেন্স টেস্ট Third Party Inspection প্রতিষ্ঠান SGS India Private Limited এর মাধ্যমে Inspection সম্পন্ন করত Test report আপনাদের দপ্তরে প্রেরণের জন্য অনুরোধ করা হয়েছিল। বর্তমানে উক্ত Test report এর Original কপি আমাদের হাতে এসে পৌঁছেছে যা অত্র পত্রের সাথে সংযুক্ত করা হলো।

বিষয়টি আপনার সদয় অবগতি ও পরবর্তী কার্যক্রমের জন্য প্রেরণ করা হলো।

ধন্যবাদান্তে



তরুন কুমার বিশ্বাস

অতিরিক্ত প্রধান প্রকৌশলী

SDE


Release Note N°: RN241101016D

Page N°: 1/3

RE-IN-I&E-INS-015 Ver.1.0/ 01.03.2024

RELEASE NOTE

JOB ORDER No.: 500020881

DATE: 01.11.2024

Name of Project : N.A.

Name of Client : E.E., Procurement Division-02, Dhaka Water Supply and Sewerage Authority, (DWASA), Dhaka (Bangladesh)

Name & Address of the Manufacturer : Shakti Pump (India) Ltd., F-14 and 15, SEZ, Phase – I, Sector-3, Pithampur, M.P. (India)

P.O. No. & Date : Ref. No.: Shakti/BD/WE/03/24/23 Date 05.03.2024

Date (s) & Place (s) of inspection : At Mfg'r's Work, Pithampur M.P. (India) on dated 28.10.2024

Description Of Material and Qty : Prototype Three Phase Stainless Steel (SS 304) Submersible Pump Set.

Details as Below:

Item No. as per Order	Brief Description of the Item	Qty. as per Contract /Order	Qty. previously passed	Qty. offered	Qty. Now Passed	Qty. Rejected	Qty. Balance
1.	Prototype Three Phase Stainless Steel (SS 304) Submersible Pump Set. (50 Hz., 415 +/- 10% V) Make – Shakti Model – QF 210-5 Pump Type- Multistage Centrifugal Type Rated Head – 110 Mtr. Rated Discharge – 100 m ³ /Hr (1667 LPM) Overall Efficiency - 67.16 % Stage – 5 Head Range – 72 M – 132 M HP / KW – 75 / 55 (Water Filled Type) Current – 111.1 A Rated RPM – 3000 (As Declared by Mfg'r.) Degree of Protection - IP 68 Power Factor: 0.87 (As Declared by Mfg'r.) Cable Size - 3 Core x 16 sq mm & 4 core x 16 sq mm Pump Sr. No.: 2169699701 Motor Sr. No.: 2169565501	01 No.	NIL	01 No.	01 No.	NIL	NIL

PO Status – Completed

SGS India Private Ltd
 1B, Press Complex,
 A.B. Road,
 Indore 452 008 (M.P.)

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Release Note N°: RN241101016D

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RE-IN-I&E-INS-015 Ver:1.0/ 01.03.2024

RELEASE NOTE

JOB ORDER No.: 500020881

DATE: 01.11.2024

Reference Document No. (Spec. / Standard/ Code) Drawing / QAP/ Any other)	Scope of Inspection (Checks/Test witnessed & reviewed)	Observations/ Results
P.O. & Date: Ref. No.: Shakti/BD/WE/03/24/23 Date 05.03.2024. Reference standard / code / specification & Edition / Version / Year: As per Tender Specification Provided by the Mfr. Sampling Standard & Edition / Version / Year: 100%	As per Tender Specification, as confirmed by the Mfr. which is provided by the Buyer. Following Parameters were covered under the inspection, Details as below: Visual Inspection for workmanship, completeness, Finishing any Mfr. / Welding defects. For Pump 1. Overall Efficiency 2. Rated Head & Flow 3. Rated Speed For Motor 1. Rated Power 2. Rated Current 3. Power Factor (As Declared by Mfr.) 4. Operating Voltage 5. Rated Speed at No Load 6. Enclosure (Degree of Protection) 7. Cable Size Review Raw Material Test Certificates, Bought out item Test Certificates (Submersible Cable & Thrust Bearing) and Calibration Certificates.	Satisfactory

Current Hold Points / Deviations: NIL

Remarks: NIL

Facsimile of SGS identification marking	Location of SGS Identification marking	Inspected by	Signature of SGS Representative
SGS Yellow Sticker 	On Pump & Motor	Rakesh Yadav	

"In accordance with Client's instructions, the Company's involvement has been limited to witnessing/observing a third party's intervention(s) at the third party's laboratory/test house or other facilities and installations used for the intervention(s). The Company's sole responsibility was to be present at the time of the third party's intervention(s) to forward the results, or confirm the occurrence, of the intervention(s). The Company is not responsible for the condition or calibration of apparatus, instruments and measuring devices used, the analysis methods applied, the qualifications, actions or omissions of the third party's personnel or the analysis results. This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law." This inspection has been carried out to the best of our knowledge & our responsibility is limited to the exercise of reasonable care, This Release Note reflect our findings at the time & place of inspection and are not intended to relieve the seller from their contractual obligations. This document is unlawful and offenders may be prosecuted to the fullest extent of the law. This inspection has been carried out to the best of our knowledge & our responsibility is limited to the exercise of reasonable care, This Release Note reflect our findings at the time & place of inspection and are not intended to relieve the seller from their contractual obligations.

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Release Note N°: RN241101016D

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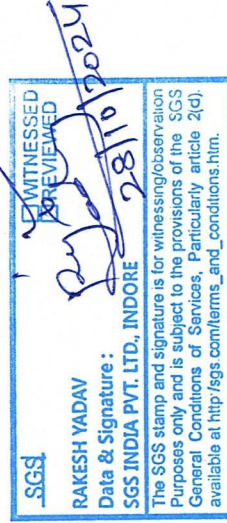
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SHAKTI PUMPS (INDIA) LTD.

SUBMERSIBLE PUMPSET PERFORMANCE TEST REPORT

SUBMERSIBLE PUMPSET PERFORMANCE TEST REPORT													
		Material code:-	9000003426								QF-10.07/1		
											28.10.2024		
											2169699701		
PUMPS SPECIFICATION													
Type		QF 210-5											
HP		75											(kw)
Stages		5											(A)
Bore (mm)		200											(Volt)
Del. (mm)		150											(Hz)
PUMPSET PERFORMANCE : @415													2.2
S.No	Frequency (Hz)	Pump Speed (R.P.M.)	Del.Guage Reading (M)	Vel. Head (M)	Total Head (M)	Discharge (LPM)	Current (A)	Input Power (W)	Corrected To Rated Frequency		bPKW	Overall Efficiency (%)	Pump Efficiency (%)
									Discharge	Head			
1	49.5	3000	2	0.51	4.71	3351	91.9	50242	3384.85	4.81		5.13	
2	49.5	3000	80	0.31	82.51	2625	99.9	54097	2651.52	84.19		65.42	
3	49.5	3000	107	0.19	109.39	2048	96.1	53481	2068.69	111.61		68.45	
4	49.2	3000	120	0.13	122.33	1695	87	48955	1722.56	126.34		69.21	
5	49.5	3000	147	0.00	149.20	0	61.7	31215	0.00	152.23		0.00	
GAUGE DISTANCE (M)													

Tested By:-



Performance Curve

HEAD
[ft]
122' meter

Model: QF210-5

50 hz

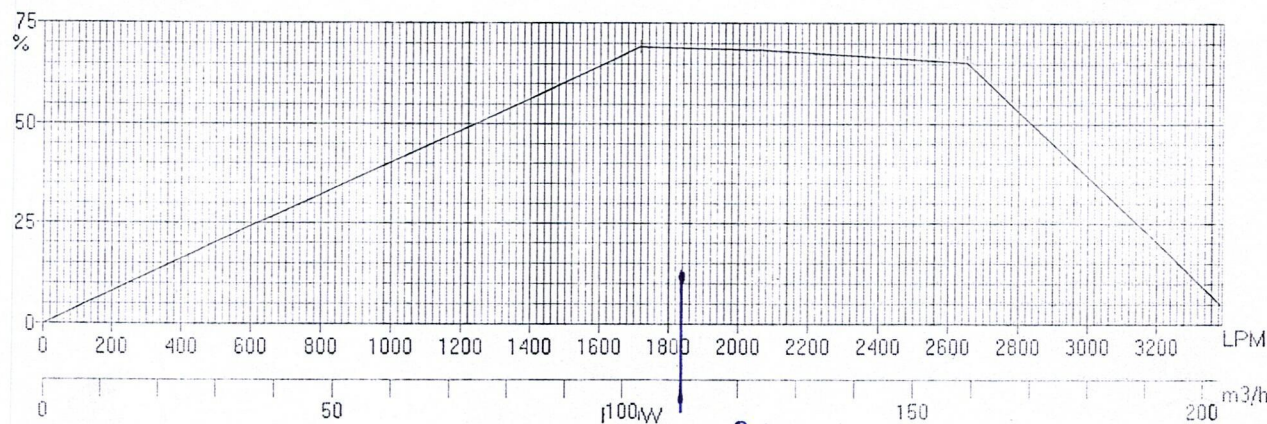
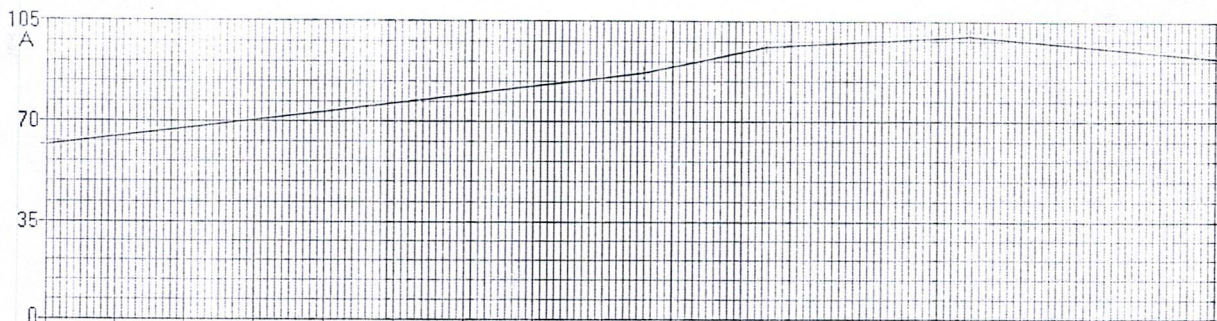
Duty Head = 110.00

Duty Flow = 1667.00

10/28/2024 (2169699701)

CURRENT

OVERALL EFF.



110 m³/hrs

SHAKTI PUMPS (INDIA) LTD.



SGS	☒ WITNESSED ☒ REVIEWED
RAKESH YADAV Data & Signature : SGS INDIA PVT. LTD., INDORE	
The SGS stamp and signature is for witnessing/observation Purposes only and is subject to the provisions of the SGS General Conditions of Services, Particularly article 2(d). available at http://sgs.com/terms_and_conditions.htm .	

28/10/2024

TYPE TEST REPORT OF SUBMERSIBLE MOTOR

Name of Customer: EXP.

Sr.No. : 2169565501

Material Code *

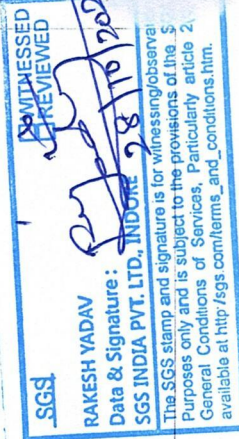
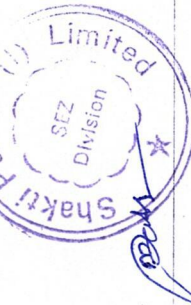
Type	HP	Motor Rating (kW)	Rated Current (A)	Rated Voltage (V)	Rated Speed (RPM)	Motor Eff (%)	No. of Phases	Bore Size (mm)	Freq. (Hz)	P.F.x Eff.	B.A.T. (%)
S4 MTSF 8 "	75.0	55.0	92.0	415.0	3000	90.0	3	200	50	0.79	180.00

TEST VOLTAGE : 415.0V +/- 1%

IS 9283:1995

CLAUSE 16.1

Insulation Resistance Test Both Before & After		100.0	(I)	Temperature Rise Test at Rated Voltage Deg.C		21.7
H.V. Test						
(B)	High Voltage Test at 1.5 kV	OK	(J)	Temperature Rise Test at Reduced Voltage Deg.C		29.0
(C)	Stator Resistance (Cold) R1 Ohms	0.12	(K)	Performance Values Calculations		
	Stator Resistance (Hot) R2 Ohms at Rated Voltage	0.13		No Load Copper Losses (W)		223.0
	Stator Resistance (Hot) R3 Ohms at Reduced Voltage	0.13		Constant Losses (W)		2654.9
(D)	No Load Run Voltage (V)	415		Primary Copper Losses (W)		1950.0
	No Load Current (Amp)	35.2		Total Stator Losses (W)		4604.9
	No Load Run Power (W)	2878		Rotor Input (W)		57940.0
	No Load Run Speed (RPM)	3000		Rotor Losses (W)		0.0
(E)	Reduced Voltage Run Test			Total Losses (W)		4604.9
	Clockwise Speed RPM	3000		Motor Output (W)		57940.0
	AntiClockwise Speed RPM	3000		Computation		
(F)	Locked Rotor Test Voltage V	95		Motor Efficiency %		92.64
	Current (A)	95.2	(1)	Power Factor		0.87
	Power (W)	6850	(2)	P.F.x Efficiency		0.81
	Torque (Kg)	125.00	(3)	Break Away Torque-%		185.50
	Length of Lever Arm (M)	0.26	(4)	Remark -		
(G)	Full Load Voltage (V)	415		Tested By		
	Full Load Current (A)	100.0				
	Full Load Power (W)	62545				
	Full Load Slip (RPM)	0				
(H)	Leakage Current at Rated Voltage (mAmp)	3.0				





CUSTOMER : SHAKTI PUMPS INDIA LTD
CITY : PITHAM PUR, DHAR
C.O.NO. : 1200039932 PO DATE: 08.05.2024
CUSTOMER SPECIFICATION : As per OA/PO agreement

CERTIFICATE NO. : JSL-JRD/QA/2024-25/DOM/01878988
DATE : 23.06.2024
VEHICLE NO. : RJ19GG5923
SALES ORDER NO. : 0558104656
SHIPMENT/DELIVERY NO. : 6300155203 NET WT(MT) : 28.810

Material Description/Product	Grade / Type	Material Specifications	Process-Route
STAINLESS STEEL	304/1.4301	EN 10088-2:14, EN 10028-7:16, ASTM A240/A240M-23A, ASME SA-240/SA-240M 2023 SEC. II, PART A, IS 6911:2017 AMD. 3	EF-AOD-LRF-CCS

PHYSICAL DESCRIPTION												
ROLL NO.	BATCH NO.	PARENT COIL NO. / PLATE NO.	PKT/PALLET NO.	WEIGHT (MT)	NO. OF PCS	HEAT NO.	THK (mm)	WIDTH (mm)	LENGTH (mm)	FINISH	EDGE	QUALITY
1	7069404007	0001041053	7069404007	1.900	21	40219H20	3.000	1,500.00	2,500.00	2B	Trim Edge	PRIME
2	7069428301	0001040455	7069428301	3.020	40	40218G22	2.500	1,500.00	2,500.00	2B	Trim Edge	PRIME
3	7069428302	0001040455	7069428302	2.860	38	40218G22	2.500	1,500.00	2,500.00	2B	Trim Edge	PRIME
4	7069428303	0001040455	7069428303	2.190	29	40218G22	2.500	1,500.00	2,500.00	2B	Trim Edge	PRIME
5	7069428304	0001040455	7069428304	2.030	27	40218G22	2.500	1,500.00	2,500.00	2B	Trim Edge	PRIME
6	7U69450303	0001044736	7U69450303	3.065	35	40308A32	3.000	1,500.00	2,500.00	2B	Trim Edge	PRIME
7	7U69450304	0001044736	7U69450304	3.065	35	40308A32	3.000	1,500.00	2,500.00	2B	Trim Edge	PRIME
8	7U69450305	0001044736	7U69450305	3.065	35	40308A32	3.000	1,500.00	2,500.00	2B	Trim Edge	PRIME

CHEMICAL ANALYSIS (LADLE)												
HEAT NO.	%C	%Mn	%S	%P	%Si	%Ni	%Cr	%N	%Mo	%Cu	%Ti	%Nb
40219H20	0.047	0.95	0.001	0.036	0.42	8.04	18.19	0.050	-	-	-	-
40218G22	0.046	0.99	0.002	0.033	0.34	8.04	18.05	0.056	-	-	-	-
40308A32	0.049	1.03	0.002	0.032	0.48	8.02	18.20	0.056	-	-	-	-

MECHANICAL PROPERTIES: SAMPLE DIRECTION - TRANSVERSE									
ROLL NO.	Rp 0.2/YS Mpa	Rp 1.0 Mpa	Rm/TS Mpa	%EL GL= 50 mm	%EL GL= 80 mm	%EL GL= 5.65√SO mm	Hardness HRBW	Bend Test	
1	331	368	610	58	-	63	82 / 83	-	
2	330	368	609	58	-	-	82 / 83	-	
3	330	368	609	58	-	-	82 / 83	-	
4	330	368	609	58	-	-	82 / 83	-	
5	330	368	609	58	-	-	82 / 83	-	
6	325	364	640	52	-	57	82 / 83	-	
7	325	364	640	52	-	57	82 / 83	-	
8	325	364	640	52	-	57	82 / 83	-	

ADDITIONAL INFORMATION									
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- 1- MATERIAL HAS BEEN SOLUTION ANNEALED AT MIN 1040°C & QUENCHED IN WATER.
2- ABOVE MATERIAL ALSO CONFIRM TO IS 6911:2017 AMD. 3 GRADE 304.
3- MATERIALS CONFIRM TO THE REQUIREMENTS AS PER ASTM A480/A480M-23B & ASME SA-480/SA-480M SEC. II PART A-2023.

SGS
RAKESH YADAV
Data & Signature :
SGS INDIA PVT. LTD., INDORE
The SGS stamp and signature is for witnessing/observation purposes only and is subject to the provisions of the SGS General Conditions of Services, Particularly article 2(d), available at http://sgs.com/terms_and_conditions.htm.

THE ABOVE MATERIAL FULLY CONFORMS TO IS 6911:2017 AMD 3 CHEMICAL & MECHANICAL PROPERTIES OF PRODUCT AS TESTED IN ACCORDANCE WITH THE SCHEME OF TESTING & INSPECTION CONTAINED IN BIS CERTIFICATION.

COLD ROLLED FINISHES : (BL, ANN, N1, 1D, CHQ) & COLD ROLLED FINISHES: (2E, 2D, 2B, BA, NO.4, HL)

THICKNESS:- MATERIAL 5.00 MM AND OVER IN THICKNESS AND OVER 250 MM IN WIDTH (AS PER ASTM/ASME STANDARD) & THICKNESS 3 MM OR OVER (AS PER DIN STANDARD)

WIDTH:- MATERIAL UNDER 5.00 MM IN THICKNESS AND 600 MM AND OVER IN WIDTH (AS PER ASTM/ASME STANDARD) & THICKNESS LESS THAN 3 MM (AS PER DIN STANDARD)

ROLL:- IN "PHYSICAL DESCRIPTION"- LENGTH MENTIONED AS "COIL".

Jindal Stainless Limited,
Jajpur Industrial Complex,
D: Danagadi, Jajpur
Dist: Jajpur - 755026, India.
EL : +91-9078399031,
AX : +91-06726-266006
Email: QualityMTC@jindalstainless.com

This is hereby certified that the material was manufactured, sampled, tested & inspected in accordance with requirements of the material specification and has been found to meet the requirements of order. The material supplied under this Test Certificate is free from any radioactive contamination as checked by procedures established by Jindal Stainless Limited as per the recommendations provided by AERB.

ISO 9001 : 2015
ISO 14001 : 2015
ISO 45001 : 2018
ISO 50001 : 2018
IATF 16949 : 2016
CERTIFIED COMPANY
Format Ref: JSLO/FQA-CRM/32 Rev.01
Eff Date: 24/09/2021



Kamlesh Mehta
Position: Laboratory Assistant

CHANDAN STEEL LIMITED
(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001 : 2015 CERTIFICATE No. 04 100 011022

ADM. OFFICE: 504, SUKH SAGAR, N. S. PATKAR MARG, MUMBAI 400 007, INDIA

Tel.: 91-22- 66290600. Fax.: 91-22-66290633/34

Website : www.chandansteel.net

Email : csl@chandansteel.net

WORKS:PLOT NO. 31 TO 36,45,46,48, & 49/2,142

(EXP. AREA)GIDC, UMBERERGAON & SURVEY NO. 102/2 & 3,VILLAGE,

DEHARI, TALUKA:UMBERGAON, DIST:VALSAD, GUJARAT -396171

GSTIN - 24AAACC4713B1ZG

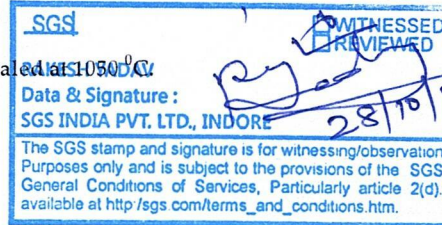
L/c. No.:

L/c. Date:

F860(824) QC 09/00/11.01.2018

MILL TEST CERTIFICATE
ACCORDING TO EN 10204 - 3.1 : 2005

Consignee ARSH INDUSTRIAL SOL PVT LTD. SECTOR III PITHAMPUR DHAR PLOT NO. 731 C INDUSTRIAL AREA PITHAMPUR. (MP) PIN-454775,				Test Certificate No. : 30/2024-2025 Date of Issue : 21.07.2024 P.O. No. : 9501003467 S/C No. : 0356/23-24 Invoice No. & Date : 00241/2024-25 Dt.21.07.2024							
PRODUCT STAINLESS STEEL ROUND BARS				LENGTH				Net Wt.			
				Ordered		Actual		2028 Kgs.			
				4.0 - 6.0 Mtrs.							
Heat No.	Grade	Size mm/inch	Tolerance	Process Route							
CH-22403	1.4362 (S32304)	32.00 mm	h9	Electric Melting, A.O.D. Refining, Continuous Casting & Hot Rolling							
CHEMICAL COMPOSITION (Weight %)											
	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	N
Min.	-	-	-	-	-	21.50	0.05	3.00	0.05	-	0.0500
Max.	0.030	1.00	2.50	0.040	0.030	24.50	0.60	5.50	0.60	-	0.2000
Results	0.026	0.44	1.73	0.030	0.003	22.45	0.21	4.50	0.25	-	0.1050
MECHANICAL PROPERTIES											
Specified Value	Yield Strength N/mm ² (Rp0.2)		Tensile Strength N/mm ² (Rm)		Elongation %		Reduction of area %		Hardness (HB)		
Min.	400		600		25		-		-		
Max.	-		-		-		-		290		
Results	521		724		33		65		228-231		
Remarks: 1. Peeled and Polished. 2. Solution annealed at 1050°C. 3. PMI test done 100% & found Satisfactory. 4. Material is calcium treated. 5. Material is free from radio-active contamination. 6. The material conforms to ASTM A276/A276M-23 specifications & customer TDC - SP121A Rev. 07.											
BUNDLE NO.: 1 to 3				COLOUR: YELLOW & GREY							



It is hereby certified that the above results are true and correct in every details and are meeting the requirements of specification & purchase order.



B. S. RAUTELA
MANAGER - QUALITY ASSURANCE