
Oliver Valves Limited, Parkgate Industrial Estate, Knutsford, Cheshire, WA16 8DX, United Kingdom
Telephone: 01565 632636 Fax: 01565 654089

Pressure Test Certificate, Certificate of Material Conformity and Conformity to NACE Specifications MR0175/ISO 15156 & MR0103(Latest Revision)

To: AL ZERWA TRADING CO LLC **Date:** 24/01/2024
P.O. Box No : 64916
Umm Ramool
Nr. Dubai Duty Free W/H
Al Rashidiya
Dubai
UAE

Customer Order Ref: 6925/23
Oliver Valves Ref: 93715 **Item:** 10
Oliver Product Description: ISOLATING NEEDLE VALVE ENG032
Quantity: 500
Product Type No: F50S/HP/NA

We hereby certify that the equipment has been manufactured and tested strictly in accordance with your order requirements, Oliver Valves ISO 9001 Quality Management System and has satisfactorily passed our standard works inspection and pressure tests.

For a minimum period of **2** minutes, the pressure retaining shell was subjected to an internal water pressure of **15000** psi

For a minimum period of **2** minutes, the seat(s) was subjected to an internal water pressure of **11000** psi

Further to this, a low-pressure air test was performed at **80** psi for a minimum period of **2** minutes.

Acceptance Criteria, as detailed in the test procedure, Result: Passed.

The equipment standard working pressure is **10000** psi

The equipment conforms in all respects with the requirements of specifications NACE MR0175/ISO 15156 & MR0103(latest rev), pressure containing and wetted parts.

The Oliver Valves recordable traceable code(s) for the equipment is/are recorded below or attached for reference.

Body= KRT712, KRT726, KRT700, KRT701


Signature:

For and on behalf of Oliver Valves Limited.

Name: Angela Ellison

Position: Shipping Co-Ordinator

Date: 24/01/2024

K.R. TRANS ENERGY PVT. LTD

CERTIFICATE OF CONFORMITY AS PER ISO 10474 3.1. And EN 10204 3.1

Certificate No	KRT/ 23/ 135	Part number	105 F50S
Order No	IP00022051/3 IP00022000/1 IP00022108/4	Heat No	S-27663
Our Reference	2223 / 202310050/057/60/65	Quantity	2.220 KGS (1 1/8")
Date	29.06.2023/06.07.2023 /13.07.2023/20.07.23	Specification No	ASTM A182 / ASTM A276 / ASTM A479 /AISI 316 / AISI 316 L

Material Documentation:

The below mentioned documents are enclosed with this certificate.

Document Title	Reference number	Reference date
Raw material Processor / Stockist Certificate	TC199938	13/04/2023
Mill Test Certificate	TC199938	13/04/2023
Independent Test house report (if applicable)	ML/50586/1/22-23 ML/50586/2/22-23	24/03/2023
Ultrasonic Test report (If applicable)	Mar-23	10/03/2023
Coating cert (if applicable)	-	-

Special Conditions / Processing Details

In accordance with NACE MR01-75 latest revision. Released to ENG 032, Revision 16.
100% PMI verified in Bar and confirms SS316 grade

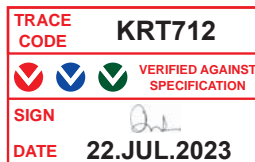
Concessions Agreed : -

"Certified that the supplies / services detailed hereon have been inspected and tested in accordance with the conditions, requirements of the contract or purchase order and, unless otherwise noted below, conform in all respects to the specification(s) / drawing(s) relevant thereto. The material is free from radioactive contamination.

V. Jeeva

Quality Representative
(V.JEEVA)

TRACE CODE
KRT 712



Certificate Type : EN 10204/3.1

Our Sales OrderNo	OA-MN-LO-2223-00785	Invoice No.	BSR-2324-00024	Certificate No.	TC199938
Customer Order No.	KRTE-PO-2223165	Invoice Date	13/04/2023	Date	13/04/2023

Customer : K.R. Trans Energy (P) Ltd.
Plot No.B9, G.K. Industrial Park, Redimangudi, Lalgudi
Road, Siruganur,
Tiruchirappalli, - 621105, Tamil Nadu, India

Trade Mark



Inspector's Mark :



Material Details					
Stainless Steel Square Bar Solution Annealed Cold Drawn & Polished					
Steel Grade	316/316 L/UNS S31603	Shape	Square Bar	Size	28.58 MM
Heat No.	S-27663	Tolerance	h 11	Length Of Bars	3.00-3.20 MTR
Net Weight	2.220 MT	Number Of Bars	108	Melting Process	EF - AOD - MEMS
Bundle Nos	4SQ23-00118, 4SQ23-00119, 4SQ23-00120, 4SQ23-00121				
Requirements	ASTM A 182 / A 182 M:2022 NACE MR 0175 / ISO 15156:2015	ASTM A 276:2017 NORSOK M-630	ASTM A 479:2021	NACE MR 0103/ISO 17945:2015	

Chemical Analysis %

Element	C	Si	Mn	P	S	N2	Cr	Ni	Mo								
Min							16.0000	10.0000	2.0000								
Max	0.0300	1.0000	2.0000	0.0450	0.0300	0.1000	18.0000	14.0000	3.0000								
Melt	0.0210	0.3000	1.5400	0.0400	0.0220	0.0681	16.7800	10.1000	2.0700								

Mechanical Properties

	YS/(Rp 0.2%) (N/mm2) ASTM A 370:2016	UTS (N/mm2) ASTM A 370:2016	% Elongation 4D ASTM A 370:2016	% Reduction Area ASTM A 370:2016	Hardness (BHN) ASTM A 370:2016	Charpy Impact V Notch (Longitudinal) (Joules)				
						Temp .Deg (C)	1	2	3	Avg.
Min.	205.00	515.00	30.00	50.00						
Max.					237.00					
Results	502.91	635.18	47.42	71.60	193.00					

Heat Treatment :

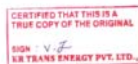
Solution Annealed @ 1040° C Soaking for 1"/ hr & Water Quenched.

Remarks

- * Country Of Origin Of Goods - India
- * Free from Radioactivity - verified through Gamma Ray Spectrometer
- * No Mercury contamination
- * Micro & Macro Test - Satisfactory
- * No welding has been performed on the material
- * Heat Treatment furnace calibrated as per API 6A Appendix-M
- * Specimen Size for UTS - 12.50 mm / 0.50 inch dia.
- * Specimen Size for Charpy Impact V Notch test - 55x10x10 mm dia.
- * Visual & Dimensional Inspection - OK
- * IGC Test:ASTM A 262:2010 Practice E No fissure / crack under 20X
- * Ultrasonic Test:ASTM A 388:2016 No recordable indication

- * Heat Treatment furnace calibrated as per "API 6D 24th Edition : Annex-F"
- * Grain Size : 7.00
- * Yield Stress : 72.94 KSi
- * Tensile Strength : 92.12 KSi
- * Five Sample of Hardness : 90, 90, 92, 92, 94,HRB
- * Material As Per Oliver Spec. ENG032 Rev. 16
- * Process route:- "Billet/Hot rolled/Cold Drawn"
- * Five Sample of Hardness: Less Than 20HRC
- * Billet Size : 120x120 mm

TRACE CODE:KRT 712



We confirm that the material is manufactured & supplied in accordance to the Purchase Order

QA Head/NDT Inspector
AMBICA STEELS LIMITED

Ambica Steels Limited

Regd. Office : C-54/1 Wazirpur Industrial Area, New Delhi 110052, India. Works:: 51/2, Site IV, Sahibabad Industrial Area, Ghaziabad, 201010, UP

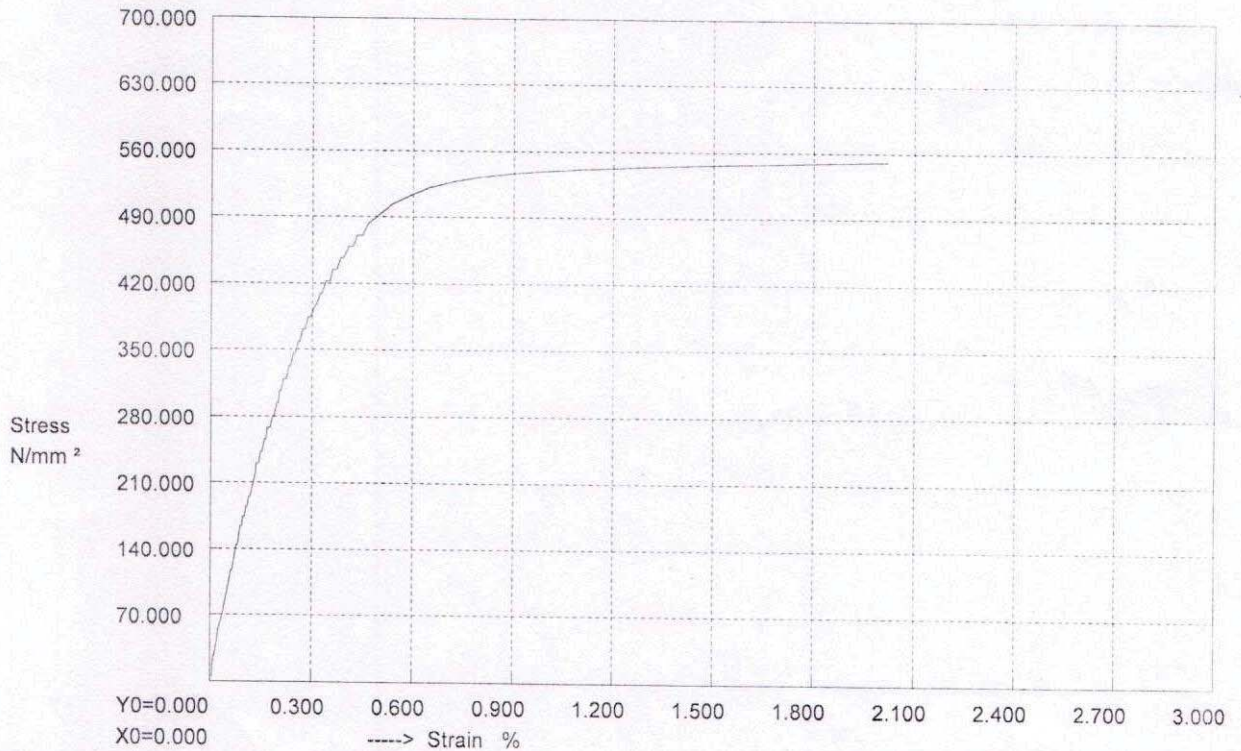
Works : Plot No.32, Site II, Loni Road Industrial Area, Ghaziabad, 201007, UP. Ph:91-120-41893000, Fax: 91-120-418399

Name of Company : AMBICA STEELS LTD.
 Address : GHAZIABAD
 To : Ambica Steel Ltd
 Address : site no 2, Mohan Nagar, Industrial Area, Sahibabad
 Sample Identification : BC22-2223-01235-316L-S-27663-28.58SQR-OLIVER
 Machine : FIE Make Universal Testing Machine, UTE-40

Input Data : File Name : BC22-2223-01235-316L-S-27663-28.58SQR-OLIVER , Record No. : 1 , Date : 11/03/2023
 : Sample Type -- Round Solid Bar Area : 123.082 mm²
 : Diameter = 12.516 mm Final Dia : 6.67 mm
 : Ext. Gauge Length: 25 mm, Speciman Gauge Length: 50 mm, Final Gauge Length: 73.71 mm
 : Test Speed : 8 mm/min

Results of : Extension Test **BHN:- 198, 191, 203, 183, 203, 183, 202, 196, 184**
 Maximum Force (Fm) : 78,180.000 N **185**
 Tensile Strength (Rm) : 635.185 MPa ✓ **HRC 14, 14, 16, 11, 11, 16, 16, 14, 11, 11,**
 Elongation : 47.420 % ✓ **HRB 92, 92, 94, 90, 90, 94, 94, 92, 90, 90**
 Reduction in Area (Z) : 71.600 % ✓
 Proof Stress (Rp0.2) : 502.9154 MPa ✓

Graph : Stress Vs Strain



For AMBICA STEELS LTD.



(Signature)
 11/3/22
 (S. KOPPLER & SHARMA)
 OVL

Cust: - KRE

22-2223-01235

HT-2223-16874

Sheet: - HT-02664

21/01/2023



- No1 [°C]
- No2 [°C]
- No3 [°C]
- No4 [°C]
- No5 [°C]
- No6 [°C]

Order size: - 28.58 sq. mm

Heat No.: - S-27663

Grade: - 316L

Process: - Sol'n Annealed @ 1040°C Soaking for 1" / hr & water Quenched.



CERTIFIED THAT THIS IS A TRUE COPY OF THE ORIGINAL
SIGN: V.F
KR TRANS ENERGY PVT. LTD.

S. Gupta
11/3/23
S. Gupta (S.H.A.M.)
OVI L

TRACE CODE:KRT 712

TEST REPORT

Customer : M/s.Oliver Valves India Pvt Ltd No: 6, First Cross Street, SIDCO Industrial Estate, Ambattur Chennai - 600 098	Report No / Date	ML/50586/1/22-23 Dt-24 Mar 2023
	Your ref./ Date	DC No: Q0106/23/N Dt-21 Mar 2023
	Our ref./ Date	TOCR :50586/22-23 Dt: 23 Mar 2023
	Date of Testing	23 Mar 2023 -24 Mar 2023
	Sample Drawn By	Customer
	Sample Description	Square Rod Size: 28.58mm Heat No-HT BTH No: S-27663 ID: N Grade: SS316L Supplier: Ambica Ref Document: Ambica Oliver Spec: ENG032 Rev16 QTC Stamped By: Ovil QTC Taken From: End Of The Bar Qty: 1No

1	Chemical Analysis (FeN)	ASTM E1086-2014, ML/VAL/Fe/2013-2014	
	Test Parameters	Specified Value	Observation
	Carbon (C) (%)	0.030 max	0.019
	Silicon (Si) (%)	1.00 max	0.327
	Manganese (Mn) (%)	2.00 max	1.538
	Phosphorus (P) (%)	0.045 max	0.037
	Sulphur (S) (%)	0.030 max	0.028
	Chromium (Cr) (%)	16.00-18.00	16.64
	Molybdenum (Mo) (%)	2.00-3.00	2.090
	Nickel (Ni) (%)	10.00-14.00	10.07
	Nitrogen (N) (%)	0.10 max	0.068

Remarks : The above chemical composition MEETS the requirements of Oliver Specification ENG032 Rev16

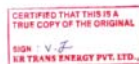
Verified By : T K Murugan

For MICROLAB



P.Selvakumar-Asst Manager - Technical
 Authorized Signatory

----- End of the test report -----



TRACE CODE:KRT 712

ULR - TC681523000127175F

TEST REPORT

Customer : M/s.Oliver Valves India Pvt Ltd No: 6, First Cross Street, SIDCO Industrial Estate, Ambattur Chennai - 600 098	Report No / Date	ML/50586/2/22-23 Dt-24 Mar 2023
	Your ref./ Date	DC No: Q0106/23/N Dt-21 Mar 2023
	Our ref./ Date	TOCR :50586/22-23 Dt: 23 Mar 2023
	Date of Testing	23 Mar 2023 -24 Mar 2023
	Sample Drawn By	Customer
	Sample Description	Square Rod Size: 28.58mm Heat No-HT BTH No: S-27663 ID: N Grade: SS316L Supplier: Ambica Ref Document: Ambica Oliver Spec: ENG032 Rev16 QTC Stamped By: Ovil QTC Taken From: End Of The Bar Qty: 1No

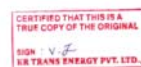
1	Intergranular Corrosion Test (Practice - E)	ASTM A262-2015 (RA-2021)
	Test Conditions Sensitization Temp (Degree celcius) Test Solution Duration of Test (Hours)	Value Specimen was sensitized at 675 °C for 1 hour Copper – Copper Sulfate – 16% Sulfuric Acid 16 Hours
	Test Parameters Test Specimen Size (mm) Total Surface Area of the specimen (cm ²) Start of Boiling (dd/mm/yy) End of Boiling (dd/mm/yy) Bend Test Evaluation Photo graphs	Observation L:89.76 x W:23.37 x 9.87 Thick 64.2857 23.03.2023 (05:00 pm) 24.03.2023 (09:00 am) 1T / 180 Degree No Cracks and Fissures Observed at 20x Magnification The Macro photograph is exhibited in Annexure – A

Verified By : T K Murugan

TRACE CODE:KRT 712

For MICROLAB



 P.Selvakumar-Asst Manager - Technical
 Authorized Signatory


----- End of the test report -----

ULR - TC681523000127175F

ANNEXURE-A (Photograph)

SUPPLEMENT TO TEST REPORT-TR. No:ML/50586/2/22-23 / Dt: 24 Mar 2023

Intergranular Corrosion Test (Practice - E)

20X



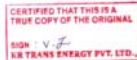
-----CONCLUDED-----

For MICROLAB



P.Selvakumar-Asst Manager - Technical
Authorized Signatory

TRACE CODE:KRT 712





ECHO INSTITUTE OF NDT

Certificate

Mr. PRAVEEN KUMAR SINGH

Of AMBICA STEELS LTD.

Is hereby certified to **NDT Level - II**

in **Ultrasonic Testing**



Having fulfilled the certification and demonstrated proficiency by successfully passed the examination in according with the requirements of SNT TC-1A -2016 ASNT

Certificate No. : UT - II - 08

Training Hours : 40 hours

Date of Issue : 18.05.2019

NDT Experience : 12 years

Date of Expiry : 17.05.2022

Qualification : B.Sc.

Marks

Exam	Theory	Practical	Specific	Composite
May-2019	83%	82%	75%	80%

First Renewal	Second Renewal
Validity:- UP To 16.05.2025	Validity:-

Eye Vision

Examination	Near Vision	Colour Vision
14.05.19	J-2	Normal

Roop Chand Sharma
ASNT NDT Level-III
Certificate No:-173585

Roop Chand Sharma
ASNT NDT Level-III
Certificate No:-173585



COURSE DIRECTOR

EMPLOYER

EXAMINER