

RING FORGINGS PRIVATE LIMITED

A-283/284, 6th main, 2nd Stage, Peenya Industrial Estate, BANGALORE - 560 058.

Tel: (080) 40201704 / 28361693 Fax:- (080) - 28367197 email : ringforgings@gmail.com /

Website : www.ringforgings.com

TEST CERTIFICATE - EN 10204 : 3.1

TC No. : RF / TC / 0240 / 2026-27 DATE : 09.04.2026

1. Customer : M/s. JC VALVULAS INDIA PVT LTD 4. Heat Number : 25L2149

2. P.O. No. : JCRM-2526-0218 5. Invoice Number : RF/2627/0240

3. Material : ASTM A182 Gr. F60 -25A 6. Forging Ratio : 3 : 1 Min

COMPONENT DETAILS

SL.NO.	PART DESCRIPTION	PART NUMBER/ DRAWING NO	Qty
1	PROOF M/C FORGED BAR DIA 104 X 52 MM	XRM-104-052-000-353-965	10
2	FORGED BAR DIA 104 X 40 MM	XRM-104-040-000-353-965	20

CHEMICAL COMPOSITION (Wt.%)

Elements	C%	Mn%	Si%	S%	P%	Ni%	Cr%	Mo%	N%	PREN
Min	-	-	-	-	-	4.50	22.00	3.00	0.140	35
Max	0.030	2.00	1.000	0.020	0.030	6.50	23.00	3.50	0.200	-
Product Values	0.023	1.620	0.034	0.003	0.026	4.850	22.620	3.06	0.175	35.518

HEAT TREATMENT

HT BATCH No.	TYPE OF HEAT TREATMENT	TEMPERATURE	SOAKING TIME	COOLING MEDIA
PC4171	SOLUTION ANNEALING	1050 ° C	5 HOURS	WATER

MECHANICAL TEST AS PER ASTM A370

PARAMETER	UTS - Mpa	Offset YS 0.2 % - Mpa	Offset YS 1 % - Mpa	%EL	%RA	HARDNESS - HBW	IMPACT 20°C 10 X 10 X 55 MM	IMPACT -30°C 10 X 10 X 55 MM
Min	680	450	500	25	45	-	75J Single/ 100J Avg	40J Single/ 60J Avg
Max	900	-	-	-	-	28 HRC	-	-
Actual Values	783	571	591	55.7	73.6	223, 224, 223	217, 214, 212 Avg~ 214.33J	224, 228, 226 Avg~ 226J

Supply Condition : FORGED, SOLUTION ANNEALED & PROOF MACHINED.

Identified as follows: RFPL / F60/ PART NO / HEAT NO : 25L2149

Remarks :

- SPECIFICATION AS PER JC-MDS-353 Rev.8 AND SP-965
- NO WELD REPAIR WAS CARRIED OUT, NO VISIBLE DEFECTS, INCLUDING SEAMS, LAPS, AND FOLDS
- MATERIAL CONFORMS TO NACE STD. MR 0175 : 2021 / ISO 15156 : 2020 & MR0103:2015.
- MATERIAL IS FREE FROM RADIOACTIVE CONTAMINATIONS.
- VISUAL EXAMINATION WAS PERFORMED AND RESULTS FOUND SATISFACTORY AS PER ASME BPVC Section VIII, Division 1, UF-45 AND UF-46

We hereby certify that the items mentioned above have been tested and inspected in our presence in accordance with drawings and satisfy the requirements of ASTM A182 Gr. F60 -25A. The results comply with product description.

For RING FORGINGS PVT LTD



Authorized Signatory





RING FORGINGS PRIVATE LIMITED

A-283/284, 6th main, 2nd Stage, Peenya Industrial Estate, BANGALORE - 560 058.

Tel: (080) 40201704 / 28361693 Fax:- (080) - 28367197 email : ringforgings@gmail.com / Website : www.ringforging.com

ULTRASONIC INSPECTION REPORT

UIR No. : RF / UT / 0240 / 2026-27

DATE : 09.04.2026

1. Customer : M/s. JC VALVULAS INDIA PVT LTD

4. Heat No. : 25L2149

2. P.O. No. : JCRM-2526-0218

5. Invoice Number : RF/2627/0240

3. Material : ASTM A182 Gr. F60 -25A

COMPONENT DETAILS

SL.NO.	PART DESCRIPTION	PART NUMBER/ DRAWING NO	Qty
1	PROOF M/C FORGED BAR DIA 104 X 52 MM	XRM-104-052-000-353-965	10
2	FORGED BAR DIA 104 X 40 MM	XRM-104-040-000-353-965	20

EQUIPMENT , PROBE & TESTING DETAILS

Apparatus :- EINSTEIN - IIDGS [Modsonic]

Stage of Test :- After Heat Treatment

SI No.:- E5484-9170

Surface Condition :- Proof machined

Sensitivity Settings

Testing Presentation :- A - Scan

Probe Type :- NM-4LS

Wave Propagation :- Longitudinal

Probe Size :- DIA 10 mm

Couplant :- Oil

Frequency :- 4 MHz

Scanning Speed :- 4 inch / sec

Cable :- BNC TO MINILEMO

Basic Calibration Block :- IIW V1 Block

Full Screen Range :- 0 to 135 mm

Area Coverage :- All possible volume scanned.

Scanning dB :- 32 + 6 dB

Reference Method :- DGS

Procedure :- PS05/17B Rev 05

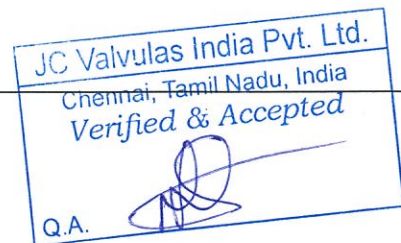
Acceptance Criteria :- ASME SEC V Article Article 4/ASME B16.34 Appendix IV /ASTM A388

REMARKS :- No Significant discontinuity noticed.

TEST RESULT :- Found Acceptable.

TESTED BY

Darshan Gowda DL
ASNT UT LEVEL II





RING FORGINGS PRIVATE LIMITED

A-283/284, 6th main, 2nd Stage, Peenya Industrial Estate, BANGALORE - 560 058.

Tel: (080) 40201704 / 28361693 Fax:- (080) - 28367197 email : ringforgings@gmail.com / Website : www.ringforging.com

DYE PENETRANT INSPECTION REPORT

DPR No. : RF / DP / 0240 / 2026-27 ✓

DATE : 09.04.2026

1. Customer : M/s. JC VALVULAS INDIA PVT LTD

4. Heat No. : 25L2149 ✓

2. P.O. No. : JCRM-2526-0218

5. Invoice Number : RF/2627/0240 ✓

3. Material : ASTM A182 Gr. F60 -25A ✓

COMPONENT DETAILS

SL.NO.	PART DESCRIPTION	PART NUMBER/ DRAWING NO	Qty
1	PROOF M/C FORGED BAR DIA 104 X 52 MM	XRM-104-052-000-353-965	10 ✓
2	FORGED BAR DIA 104 X 40 MM	XRM-104-040-000-353-965	20 ✓

TEST DETAILS

Test Procedure / Acceptance Criteria	: PS05/19 Rev.06/ ASME SEC V Art.6 / B16.34 APP.III ✓
Extent of Examination	: 100% ✓
Surface Condition	: Proof Machined ✓
Job Surface Temperature	: Ambient Temperature 25 deg C.
Test Method	: Colour Contrast Solvent Removal Type ✓
Penetrant Application	: By Brush ✓
Dwell Time	: 20 MINUTES ✓
Developer Applications	: By Aerosal Spray ✓
Development time	: 10 Minutes ✓
Light Intensity	: 1192 LUX ✓
Observation	: No relevant indication noticed. ✓
Results	: Accepted ✓
Post Cleaning	: Done by Cleaner ✓

CONSUMABLES DETAILS

CONSUMABLES	MAKE	BATCH NO.	Expiry Date
CLEANER	MR CHEMIE	2336	Aug-26 ✓
PENETRANT	MR CHEMIE	2318	Jul-26 ✓
DEVELOPER	MR CHEMIE	2301	Jul-26 ✓

REMARKS :- No Significant discontinuity noticed. ✓

TEST RESULT :- Found Acceptable. ✓

TESTED BY

Darshan Gowda DL
ASNT DPT LEVEL II

JC Valvulas India Pvt. Ltd.
Chennai, Tamil Nadu, India
Verified & Accepted
Q.A.



SSAMET LABS LLP

#8GF, Nanda Gokula Industrial Estate,
Thigalarapalya Main Road,
Peenya 2nd stage, Bangalore 560058.
☎ 7022007927
ssalabsblr@gmail.com | www.ssalabs.in



Test Report

Page 1 of 1

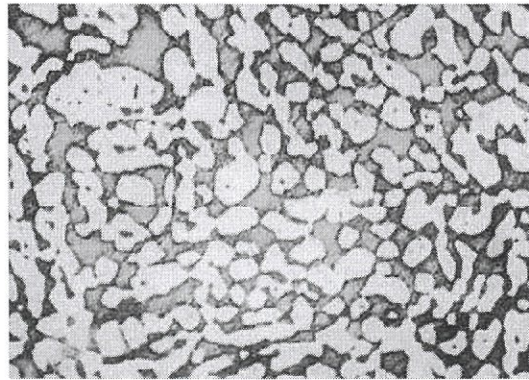
ULR-TC904926000001424F

Report No.	26-1282-1-1	Report date	14-03-2026
Customer Name & Address.	M/s. Ring Forgings Private Limited No:A-283/284 ,6th Main , Peenya Industrial Area ,Bangalore -560058		
Ref. No & Date	1057 & 13-03-2026	Sample Received on	13-03-2026
Sample Description	Sample	Test Completed on	14-03-2026
Sample Details:	ASTM A182 Gr.F60-25A, Heat No - 25L2149, Heat Batch No - PC4171		
Test :	Ferrite Content Measurement (5 Fields) ✓		

Discipline : Mechanical, Group : Metallography Test

Ferrite Content Measurment (5 Fields) Test Method : ASTM E562:2019e1 Tested on : 14-03-2026
 Eqt Name : Metallurgical Microscope (MEIJ) Model No:MT7100L Calibration Date: 08-APR-25 ✓
 Make:MEIJ SL No.:2100082 Due Date:07-APR-26

Parameter	Result
Etchant	40% NaOH Electrolytic etched
Mag	500x
No of Fields Eamined	5
Field No: 1	54
Field No: 2	53
Field No: 3	54
Field No: 4	53
Field No: 5	53
% RA	0.63
Average	53.4 ✓
Volume % Estimate (Vv-)	52.64
Volume % Estimate (Vv+)	51.96 ✓



.....END OF REPORT.....

ARSHA A S
Chemist

Checked by



R M Chandraiah
QUALITY MANAGER
Authorised Signatory



Note: This report relates only to the particular sample submitted for test. Any correction in the report will invalidate this report. Sample will be destroyed after 2 weeks from the date of completion of tests unless informed by the customer. Any complaints about this report should be communicated in writing within 2weeks of the issue of this report. This report cannot be reproduced except in full & cannot be used as an evidence in the court of law & should not be used in any advertising media without the written permission from Laboratory. Sample descriptions are given as described by the customer. +Computed value only for reference. Decision rule: Statement of Conformity as per simple acceptance rule agreed with customer.



Test Report

Page 1 of 1

ULR-TC904926000001425F

Report No.	26-1282-1-2	Report date	14-03-2026
Customer Name & Address.	M/s. Ring Forgings Private Limited No:A-283/284 ,6th Main , Peenya Industrial Area ,Bangalore -560058		
Ref. No & Date	1057 & 13-03-2026	Sample Received on	13-03-2026
Sample Description	Sample	Test Completed on	14-03-2026
Sample Details:	ASTM A182 Gr.F60-25A, Heat No - 25L2149, Heat Batch No - PC4171		
Test :	Micro Examination		

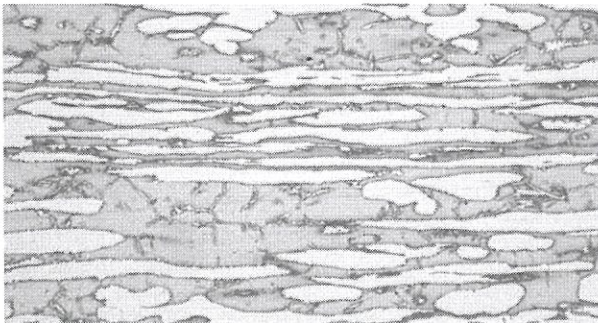
Discipline : Mechanical, Group : Metallography Test

Micro Examination Test Method : ASM Handbook Vol 9:2004/ SO 1771 Section 5.2.4:2017 Tested on : 14-03-2026

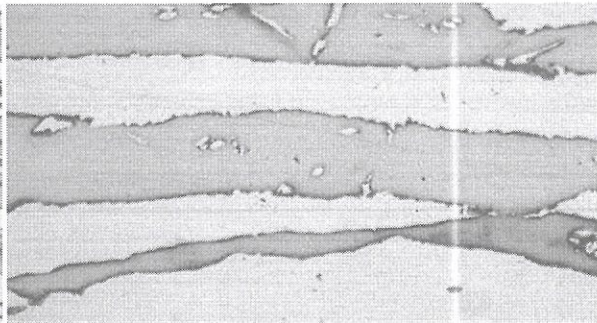
Eqt Name : Metallurgical Microscope (MEIJI) Model No:MT7100L Calibration Date: 08-APR-25

Make:MEIJI SL No.:2100082 Due Date:07-APR-26

Parameter	Result
Etchant	2% Nital
Magnification	500x/40% NaOH Electro Etched
Observation	Micro examination of the specimen revealed uniform ferrite and austenite phase distribution and no continuous precipitates at the grain boundaries. The structure is free from intermetallic phases (like sigma,chi,laves) & other precipitates (Nitrides) and carbides. No deleterious secondary phases.



Mag: 100x



Mag: 500x

.....END OF REPORT.....

Anand Sudhakaran
METALLURGIST

Checked by



R M Chandraiah
TECHNICAL MANAGER
Authorised Signatory



Note: This report relates only to the particular sample submitted for test Any correction in the report will invalidate this report Sample will be destroyed after 2 weeks from the date of completion of tests unless informed by the customer Any complaints about this report should be communicated in writing within 2weeks of the issue of this report This report cannot be reproduced except in full & cannot be used as an evidence in the court of law & should not be used in any advertising media without the written permission from Laboratory Sample descriptions are given as described by the customer +Computed value only for reference Decision rule: Statement of Conformity as per simple acceptance rule agreed with customer





SSAMET LABS LLP

#8GF, Nanda Gokula Industrial Estate,
Thigalarapalya Main Road,
Peenya 2nd stage, Bangalore 560058.
☎ 7022007927
ssalabsblr@gmail.com / www.ssalabs.in



Test Report

Page 1 of 2

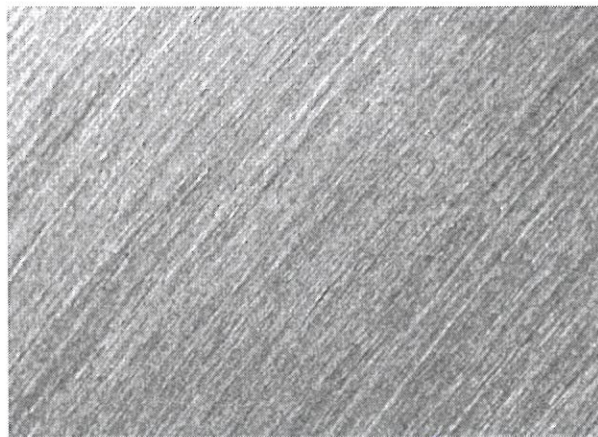
ULR-TC904926000001426F

Report No.	26-1282-1-3	Report date	14-03-2026
Customer Name & Address.	M/s. Ring Forgings Private Limited No:A-283/284 ,6th Main , Peenya Industrial Area ,Bangalore -560058		
Ref. No & Date	1057 & 13-03-2026	Sample Received on	13-03-2026
Sample Description	Sample	Test Completed on	14-03-2026
Sample Details:	ASTM A182 Gr.F60-25A, Heat No - 25L2149, Heat Batch No - PC4171 ✓		
Test :	Pitting Corrosion (Method C) ✓		

Discipline : Mechanical, Group : Metallography Test

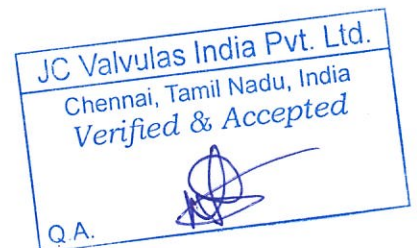
Pitting Corrosion Test (Method C) Test Method : ASTM A923-2023 / EN ISO 17781 ✓ Tested on : 13-03-2026 ✓
 Eqt Name : Metallurgical Microscope (MEIJI) Model No:MT7100L Calibration Date: 08-APR-25 ✓
 Make:MEIJI SL No.:2100082 Due Date:07-APR-26

Parameter	Result
Test Solution	Dissolve 100g of reagent grade ferric Chloride FeCl ₃ 6H ₂ O in 900ml of Distilled water
Total Surface Area of the Specimen	40.10
P H Solution of Testing	1.30
Test Temperature	24°C
Initial weight of the specimen (g)	90.5246
Start of the Test (Date & Time)	13-03-2026 05:00PM
Duration of Test	24 Hrs
End of the Test (Date & Time)	14-03-2026 05:00PM
Final weight of the specimen (g)	90.4892
Loss in Weight (mg)	35.4
Corrosion Rate (mdd)	0.88
Visual Observation	No Pittings Observed in all examined area ✓
Remarks	Test found satisfactory ✓



20x

.....END OF REPORT.....



Note: This report relates only to the particular sample submitted for test Any correction in the report will invalidate this report Sample will be destroyed after 2 weeks from the date of completion of tests unless informed by the customer Any complaints about this report should be communicated in writing within 2weeks of the issue of this report This report cannot be reproduced except in full & cannot be used as an evidence in the court of law & should not be used in any advertising media without the written permission from Laboratory Sample descriptions are given as described by the customer +Computed value only for reference Decision rule: Statement of Conformity as per simple acceptance rule agreed with customer





SSAMET LABS LLP

#SGE, Nanda Gokula Industrial Estate,
Thigalarapalya Main Road,
Peenya 2nd stage, Bangalore 560058.
☎ 7022007927
ssalabsblr@gmail.com / www.ssalabs.in



Test Report

Page 2 of 2

ULR-TC904926000001426F

Report No.	26-1282-1-3	Report date	14-03-2026
Customer Name & Address.	M/s. Ring Forgings Private Limited No:A-283/284 ,6th Main , Peenya Industrial Area ,Bangalore -560058		
Ref. No & Date	1057 & 13-03-2026	Sample Received on	13-03-2026
Sample Description	Sample	Test Completed on	14-03-2026
Sample Details:	ASTM A182 Gr.F60-25A, Heat No - 25L2149, Heat Batch No - PC4171		
Test :	Pitting Corrosion (Method C)		

ARSHA A S
Chemist

Checked by

.....END OF REPORT.....

R M Chandraiah
QUALITY MANAGER

Authorised Signatory



Note: This report relates only to the particular sample submitted for test Any correction in the report will invalidate this report Sample will be destroyed after 2 weeks from the date of completion of tests unless informed by the customer Any complaints about this report should be communicated in writing within 2weeks of the issue of this report This report cannot be reproduced except in full & cannot be used as an evidence in the court of law & should not be used in any advertising media without the written permission from Laboratory Sample descriptions are given as described by the customer +Computed value only for reference Decision rule: Statement of Conformity as per simple acceptance rule agreed with customer





SSAMET LABS LLP

#8GF, Nanda Gokula Industrial Estate,
Thigalarapalya Main Road,
Peenya 2nd stage, Bangalore 560058.
☎ 7022007927
ssalabsblr@gmail.com / www.ssalabs.in



Test Report

Page 1 of 2

ULR-TC904926000001501F

Report No.	26-1326-1-1	Report date	25-03-2026
Customer Name & Address.	M/s. Ring Forgings Private Limited No:A-283/284 ,6th Main , Peenya Industrial Area ,Bangalore -560058		
Ref. No & Date	1057 & 13-03-2026	Sample Received on	13-03-2026
Sample Condition	Good	Test Completed on	25-03-2026
Sample Details:	ASTM A182 Gr.F60-25A, Heat No - 25L2149, Heat Batch No - PC4171		
Test :	Intergranular Corrosion (Practice C)		

Discipline : Mechanical, Group : Corrosion Testing

Intergranular Corrosion Test (Practice C) Test Method : ASTM A262:2015 (RA2021) Tested on : 14-03-2026

Test Solution	Nitric Acid Test Solution
Duration of Test (Hours)	240
Test Parameters	Observation
Volume of test solution (ml/cm ²)	420 ml (20ml/cm ²)
size and total surface area of the Specimen (mm/cm ²)	25.00L x 20.00W x 12.00 Thick = 22.40
start of test (dd/mm/yy)	14.03.2026 (01:00 pm)
End of test (dd/mm/yy)	25.03.2026 (12:00 pm)
Period 1st 48 hours	
Initial wt.of specimen in g	52.4682
Final wt.of specimen in g	52.4561
Wt Loss in g	0.0121
Corrosion rate (mils/month)	0.398
Period 2nd 48 hours	
Initial wt.of specimen in g	52.4561
Final wt.of specimen in g	52.4450
Wt Loss in g	0.0111
Corrosion rate (mils/month)	0.365
Period 3rd 48 hours	
Initial wt.of specimen in g	52.4450
Final wt.of specimen in g	52.4382
Wt Loss in g	0.0068
Corrosion rate (mils/month)	0.224
Period 4th 48 hours	
Initial wt.of specimen in g	52.4382
Final wt.of specimen in g	52.4305
Wt Loss in g	0.0077
Corrosion rate (mils/month)	0.253



JC Valvulas India Pvt. Lt
Chennai, Tamil Nadu, India
Verified & Accepted
Q.A.



Note: This report relates only to the particular sample submitted for test. Any correction in the report will invalidate this report. Sample will be destroyed after 2 weeks from the date of completion of tests unless informed by the customer. Any complaints about this report should be communicated in writing within 2 weeks of the issue of this report. This report cannot be reproduced except in full & cannot be used as an evidence in the court of law & should not be used in any advertising media without the written permission from Laboratory. Sample descriptions are given as described by the customer. +Computed value only for reference. Decision rule: Statement of Conformity as per simple acceptance rule agreed with customer.





SSAMET LABS LLP

#8GF, Nanda Gokula Industrial Estate,
Thigalarapalya Main Road,
Peenya 2nd stage, Bangalore 560058.
☎ 7022007927
ssalabsllp@gmail.com | www.ssafabs.in



Test Report

Page 2 of 2

ULR-TC904926000001501F

Report No.	26-1326-1-1	Report date	25-03-2026
Customer Name & Address.	M/s. Ring Forgings Private Limited No:A-283/284 ,6th Main , Peenya Industrial Area ,Bangalore -560058		
Ref. No & Date	1057 & 13-03-2026	Sample Received on	13-03-2026
Sample Condition	Good	Test Completed on	25-03-2026
Sample Details:	ASTM A182 Gr.F60-25A, Heat No - 25L2149, Heat Batch No - PC4171		
Test :	Intergranular Corrosion (Practice C)		

Discipline : Mechanical, Group : Corrosion Testing

Intergranular Corrosion Test (Practice C) Test Method : ASTM A262:2015 (RA2021) Tested on : 14-03-2026

Period 5th 48 hours

Initial wt.of specimen in g

52.4305

Final wt.of specimen in g

52.4220

Wt Loss in g

0.0085

Corrosion rate (mils/month)

0.279

Average Corrosion Rate (mils/month)

0.304

.....END OF REPORT.....

ARSHA A S
Chemist

Checked by

R M Chandraiah
QUALITY MANAGER

Authorised Signatory



Note: This report relates only to the particular sample submitted for test Any correction in the report will invalidate this report Sample will be destroyed after 2 weeks from the date of completion of tests unless informed by the customer Any complaints about this report should be communicated in writing within 2weeks of the issue of this report This report cannot be reproduced except in full & cannot be used as an evidence in the court of law & should not be used in any advertising media without the written permission from Laboratory Sample descriptions are given as described by the customer +Computed value only for reference Decision rule: Statement of Conformity as per simple acceptance rule agreed with customer

