



# AISWARYA LAKSHMI ENGINEERING WORKS

(ISO 9001:2015 CERTIFIED COMPANY)

## INSPECTION CERTIFICATE

(AS PER EN 10204 3.1)

CUSTOMER	JC VALVULAS INDIA PVT LTD., CHENNAI	OUR T.C No.	ALEW/GST/26-27 / 31 / 03
PART NAME	STEM DN25 A182 GR.F51	DATE	20.04.2026
PART No.	EPF5125TJQ	OUR INV No.	GST / 26-27 / 31
DRG No.	EPI25Q-JCI	MILL TC No.	252398
DRG REV No.	1	HEAT No.	24L1309
P.O.No.	JCCMP-2526-02306	QYT (NO' S)	52

MATERIAL SPECIFICATION : ASTM A182/A182M-24C, Gr. F51 (UNS S31803)

### CHEMICAL PROPERTIES

TEST REPORT NO: TR/25-26/45699-1 Dt 13-01-2026

%	C	Si	Mn	P	S	Cr	Ni	Mo	N
MIN						21.00	4.50	2.50	0.08
MAX	0.030	1.00	2.00	0.030	0.020	23.00	6.50	3.50	0.20
ACTUAL	0.021	0.405	1.482	0.026	<0.001	22.574	5.133	3.213	0.176

### MECHANICAL PROPERTIES

TEST REPORT NO: TR/25-26/45699-1 Dt 13-01-2026

PARAMETER %	MIN	MAX	ACTUAL
TENSILE STRENGTH IN Mpa	620	-	887
YIELD STRENGTH IN Mpa 0.2% OFFSET	450	-	764
ELONGATION IN GL OF 50mm%	25	-	37
REDUCTION IN AREA %	45	-	71.5
HARDNESS(HBW)	-	-	230-235

### METALLURGICAL PROPERTIES

I.G.C	: NIL
IMPACT	: NIL
MICRO	: NIL
FERRITE	: NIL
HEAT TREATMENT	: SOLUTION ANNEALED @ 1050 C SOAKING TIME 1 Hrs/Inch THEN WATER QUENCHED

### REMARKS:

- 1) We hereby certify that the items above have been tested and inspected in our presence in accordance with drawings and satisfy the requirements for "ASTM A182 Gr.F51 - 24 The results comply with product description.
- 2) Materials Free From Radioactive contamination.
- 3) Visual and Dimensional Found satisfactory as per drawing.
- 4) Markings done according to MSS-SP-25.
- 5) No weld Repair Performed.
- 6) MARKING, PUNCH IDENTIFIED AS F51 24L1309
- 7) Material is ultrasonically tested as per ASTM A388/388M & Found satisfactory
- 8) Material confirms to NACE MR0175/ISO - 15156- 2020 and NACE MR0103/ISO -17945 - 2016
- 9) JC MDS NO -JC-MDS-346 REV 9

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

Q.A. R. Dik

WE HEREBY CERTIFY THAT THE ITEMS MENTIONED ABOVE HAVE BEEN TESTED, INSPECTED & FOUND TO BE IN ACCORDANCE WITH THE SPECIFICATION REQUIREMENTS.

For AISWARYALAKSHMI ENGINEERING WORKS

R. L. Thirumurugan

Mr.L.Thirumurugan  
Quality Incharge



Address 132A, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI - 98. Email Id: alewchennai@gmail.com



**Test Report**

TC147282600005564F

<b>Customer:</b> M/s. Aiswarya Lakshmi Engineering Works No. 132A, Sidco Industrial Estate, North Phase, Ambattur, City: Chennai, 600098	Report No.:	TR/25-26/45699-1
	Report Date:	13-01-2026
	Customer Ref. No.:	810
	Ref. Date	08-01-2026
	Sample Received Date:	08-01-2026
	Date Of Completion:	12-01-2026

Samples drawn by Customer

**Sample Description:** Rod, Size: Dia 16.00mm, Material: ASTM A182/A182M-24C Gr. F51 (UNS S31803) / ASTM A182/A182M-24C, Gr. F60 (UNS S32205), Heat No: 24L1309

**Discipline : Chemical, Group : METALS & ALLOYS**

**SPECTRO CHEMICAL ANALYSIS**

**Test Method : JIS G 1253:2002 A-1:2013**

**Tested on : 09-01-2026**

**Verified By: PAPPITHA**

Test Parameters	Result	Requirement
% Carbon	0.021 ✓	0.030 max. ✓
% Silicon	0.405 ✓	1.00 max. ✓
% Manganese	1.482 ✓	2.00 max. ✓
% Phosphorus	0.026 ✓	0.03 max. ✓
% Sulphur	< 0.001 ✓	0.02 max. ✓
% Chromium	22.574 ✓	21.00-23.0 ✓
% Molybdenum	3.213 ✓	2.50-3.50 ✓
% Nickel	5.133 ✓	4.50-6.50 ✓
% Nitrogen	0.176 ✓	0.08-0.20 ✓

**Remarks :** The material conforms to Customer Specifications with respect to test/s carried out

**Discipline : Mechanical, Group : MECHANICAL PROPERTIES OF METALS**

**TENSILE TEST**

**Test Method : ASTM A370:24a**

**Tested on : 12-01-2026**

**Verified By: SURENDIRAN**

Test Parameters	Result	Requirement
Yield Strength (N/mm <sup>2</sup> or Mpa)	764 ✓	450 min. ✓
Ultimate Tensile Strength (N/mm <sup>2</sup> or Mpa)	887 ✓	620 min. ✓
Elongation (%) 4D GL	37.00 ✓	25 min. ✓
Reduction Area (%)	71.50 ✓	45 min. ✓

**Remarks :** The material conforms to Customer Specifications with respect to test/s carried out

**For MICROLAB**

*[Signature]*

P.L Saravanan  
Head- Chemical & Q.M.  
Authorised Signatory

*[Signature]*

P. Selvakumar  
Asst. Technical Manager  
Authorised Signatory

**End of Test Report**

**NOTE :** This report relates only to the particular sample submitted for test \* Any correction is not attested shall invalidate this certificate \* Sample will be destroyed after 15 days from the date of testing unless instructed otherwise \* Any complaints about this report should be communicated in writing within 7 days of this report \* This report not to be produced wholly or in parts and cannot be used as an evidence in a court of law and shall not be used in advertising Media without prior permission in writing \* Sample description is not verified in all cases and is given as described by the customers \* Sample are not drawn by us unless otherwise stated \* Laboratory reports the statements of Conformity to material specification as per Decision Rule 1, Non Conformity as per Decision Rule 4 & For Rule 2 & 3 Customer provides feedback.



JC Valvulas India Pvt. Ltd.  
Chennai, Tamil Nadu, India  
Verified & Accepted  
*[Signature]*