



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/0182/22-23/02 |
| P.O.No. | JCCMP- 2223002143 | DATE | 31.03.2023 |
| PART NAME | STEM DN150 | OUR INV No. | GST/0182 / 22-23 |
| PART No. | EPF51150TJQ | MILL TC No. | 178892 |
| DRG No. | EPI150Q | HEAT No. | 22L1399 |
| DRG REV No. | 01 | QYT (NO' S) | 20 |

MATERIAL SPECIFICATION : ASTM A182 Gr.F51

CHEMICAL PROPERTIES

TEST REPORT NO: ML/49842/2/22-23 Dt 18-03-2023

| % | 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 | 0.016 | 0.455 | 1.130 | 0.024 | 0.005 | 22.25 | 4.614 | 3.111 | 0.148 |

MECHANICAL PROPERTIES

TEST REPORT NO: ML/49842/3/22-23 Dt 18-03-2023

| PARAMETER % | MIN | MAX | ACTUAL |
|-----------------------------------|-----|-----|--------|
| TENSILE STRENGTH IN Mpa | 620 | - | 738 |
| YIELD STRENGTH IN Mpa 0.2% OFFSET | 450 | - | 574 |
| ELONGATION IN GL OF 50mm% | 25 | - | 41.0 |
| REDUCTION IN AREA % | 45 | - | 74.5 |
| HARDNESS(HBW) | - | - | 226 |

METALLURGICAL PROPERTIES

| | | |
|----------------|---|--|
| I.G.C | E | : 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 - 21 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 HEAT NO, F51 A
- 7) Material is ultrasonically tested as per ASTM A388/388M & Found satisfactory
- 8) Material confirms to NACE MR0175/ISO - 1516- 2020 and NACE MR0103/ISO -17945 - 2016
- 9) JC MDS NO -JC-MDS-346 REV 3

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

For AISWARYA LAKSHMI ENGINEERING WORKS

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| PREPARED BY : Mr.L.Thirumurugan | APPROVED BY : Mr.L.Thirumurugan |

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