**E N CORPORATION**
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# MILL TEST REPORT

PURCHASER : SOUTHWEST STAINLESS, INC.

DATE : 2018/02/01
P. O. NO.: 441748-00
S/C NO. : Q009SW

PRODUCT : STAINLESS STEEL FORGED FLANGE RF

| HEAT NO. | Q'TY. | DESIGNATION | SPECIFICATION |
|---|---|---|---|
| HLCJ3 | 25 | 316L/316 3" BL 300LB | ASME B16.5-2013/MSS SP25-2013 |

CHEMICAL ANALYSIS OF MATERIAL

| HEAT NO. | C | Mn | Si | P | S | Cr | Ni | Mo | N | SPECIFICATION |
|---|---|---|---|---|---|---|---|---|---|---|
| Maxi | 0.030 | 2.00 | 1.00 | 0.045 | 0.030 | 16.0 - 18.0 | 10.0 -14.0 | 2.0 - 3.0 | 0.100 | ASTM A/SA182-2015 |
| HLCJ3 | 0.021 | 1.83 | 0.39 | 0.030 | 0.026 | 16.95 | 10.08 | 2.05 | 0.055 | |

MECHANICAL CHARACTERISTICS

| HEAT NO. | T.S-PSI | Y.S-PSI | %-E.L. | %-R.A. | HEAT-TREAT. | HARDNESS | DIMENSION | P.M.I. |
|---|---|---|---|---|---|---|---|---|
| Mini | 75,000 | 30,000 | 30 | 50 | 1040 - 1150 °C | ≤90.0 HRB | | |
| HLCJ3 | 79,800 | 43,500 | 58 | 69 | 1060 °C | 78.0HRB | OK | OK |

MATERIAL RESISTANT TO INTERCRYSTALLINE CORROSION ICC TEST ACCORDING TO ASTM A262-10 PRACTICE E. MATERIAL IS MANUFACTURED MERCURY FREE AND FREE FROM MERCURY CONTAMINATION AND RADIO ACTIVITY. MATERIAL IS IN ACCORDANCE WITH NACE MR0175-SECOND EDITION, MR0103-2007, ISO 15156-2009 COMPLIANT. ISO 9001:2008, PED 97/23/EC CERTIFIED. EN10204:2005-3.1
MATERIAL RECEIVED SOLUTION TREAT & WATER QUENCHED AT 1060 DEGREE C.
MATERIAL WAS MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH ASTM A182-2015 AND ASTM A961-08A AND HAS BEEN FOUND TO MEET THE REQUIREMENTS. MATERIALS ARE FREE OF WELD REPAIR

Pb CONTENT: < 0.010%

COUNTRY OF ORIGIN: PHILIPPINES

FACTORY INSPECTOR:

DAVID WANG

QUALITY ASSURANCE DEPARTMENT

**BL300D3-S**