

Fabrication Industry

CASE STUDY

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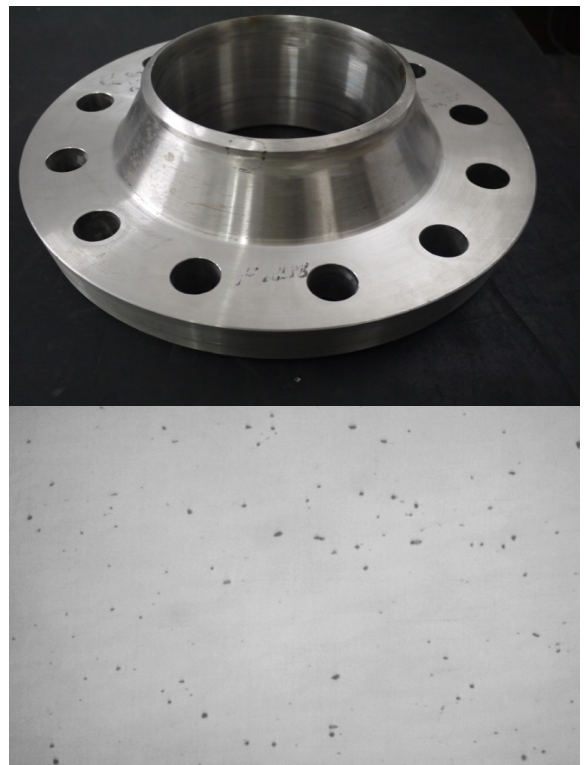
Key Facts

Sector Fabrication Industry

Category Investigation of WNRF DN150 Flange

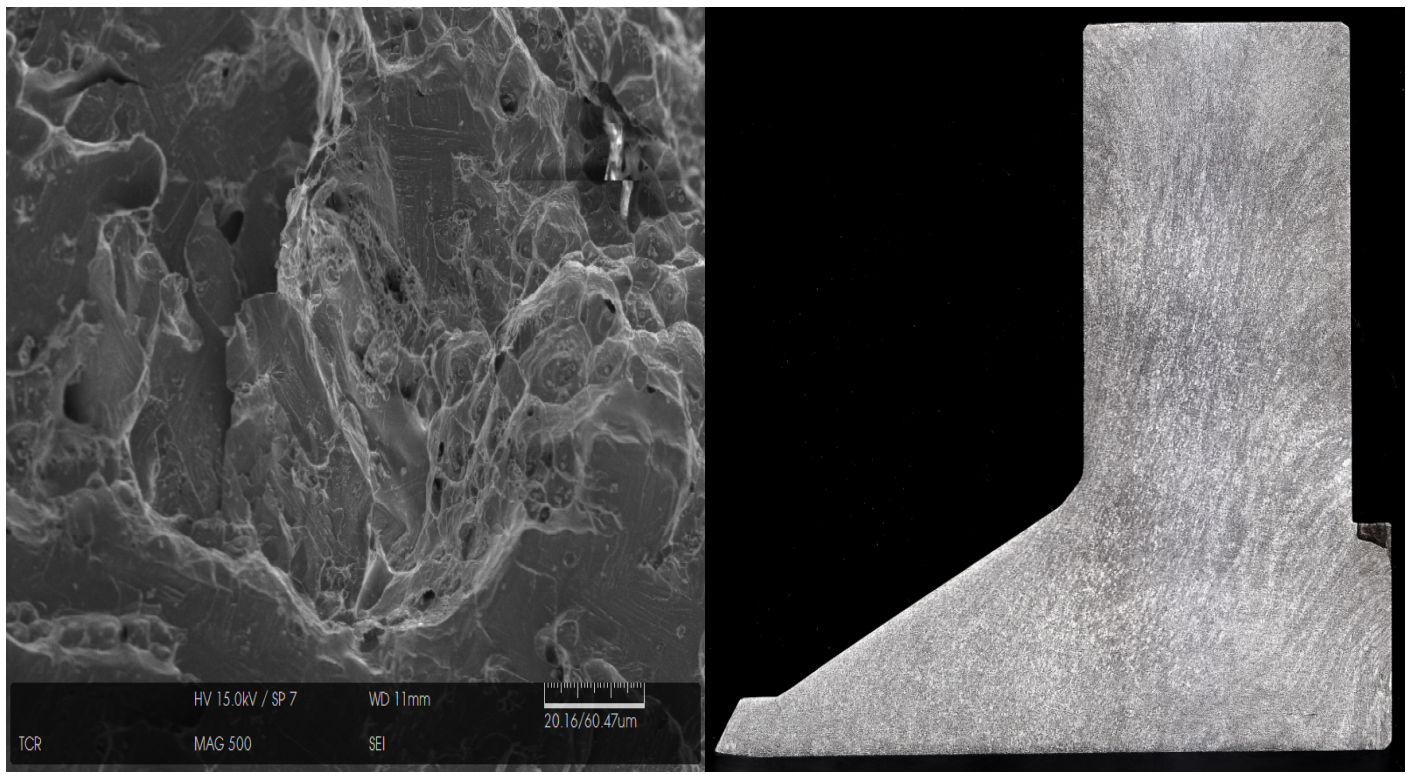
Problem

- Weld neck raised face flange DN 150 was observed with poor values in impact test carried out at -50°C .
- The required values for impact at this temperature should be 60J whereas it was observed less than 20J.
- The material of construction is ASTM A182 grade F51.



Diagnosis

- The reason for poor impact test results is the high level of manganese sulphide inclusions which are observed globular in nature.



Solution/Recommendations

- The steel cleanliness shall be maintained in such a way that the rating of thick and thin is below 0.5/1 for all inclusion types.
- The chemical composition should be improvised to bring down ferrite content on lower side.
- The temperature parameters during hot- working shall be controlled in order to avoid elongated nature of the phases.

Contact Us

If you are interested to learn more about TCR Advanced,
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