



CERTIFICATE OF ACCREDITATION

This is to attest that

TCR ARABIA COMPANY LTD
KING ABDUL AZIZ SEAPORT FACILITY
DAMMAM 32224, KINGDOM OF SAUDI ARABIA

Testing Laboratory TL-783

has met the requirements of AC89, *IAS Accreditation Criteria for Testing Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories*. This organization is accredited to provide the services specified in the scope of accreditation.

Effective Date May 11, 2020



A handwritten signature in black ink, reading 'Raj Nathan'.

President

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

3060 Saturn Street, Suite 100, Brea, California 92821, U.S.A. | www.iasonline.org

TCR ARABIA COMPANY LTD

www.tcr-arabia.com

Contact Name Senthil Periyasamy

Contact Phone +966-13-8475784/85

Accredited to ISO/IEC 17025:2017

Effective Date May 11, 2020

Mechanical Testing	
<u>Tensile Test</u>	
API 1104	Standard for Welding Pipelines and Related Facilities (Section 5.6.2)
ASME Sec IX	Boiler and Pressure Vessel Code (Article 1, QW-150 Tension Test)
ASTM A370	Standard Test Methods and Definitions for Mechanical Testing of Steel Products (Section 6-14)
ASTM E8	Standard Test Methods for Tension Testing of Metallic Materials
<u>Bend Test</u>	
API 1104	Standard for Welding of Pipelines and Related Facilities (Sections 5.6.4 and 5.6.5)
ASME Sec IX	Boiler and Pressure Vessel Code (Article 1, QW-160 Guided Bend Tests)
ASTM A370	Standard Test Methods of Definitions for Mechanical Testing of Steel Products (Section 15)
<u>Impact Test</u>	
ASTM A370	Standard Test Methods and Definitions for Mechanical Testing of Steel Products (Sections 20-30)
ASTM E23	Standard Test Methods for Notched Bar Impact Testing of Metallic Materials
<u>Vickers Hardness Test</u>	
ASTM E92	Standard Test Methods for Vickers Hardness and Knoop Hardness of Metallic Materials
<u>Rockwell Hardness Test</u>	
ASTM A370	Standard Test Methods and Definition for Mechanical Testing of Steel Products (Section 18)
ASTM E18	Standard Test Methods for Rockwell Hardness of Metallic Materials
<u>Brinell Hardness Test</u>	

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ASTM A370	Standard Test Methods and Definitions for Mechanical Testing of Steel Products (Section 17)
ASTM E10	Standard Test Methods for Brinell Hardness of Metallic Materials
<u>Flattening Test</u>	
ASTM A370	Standard Test Methods and Definitions for Mechanical Testing of Steel Products (Annexure A2.5.2.1)
<u>Nick Break Test</u>	
API 1104	Standard for Welding Pipelines and Related Facilities (5.6.3)
<u>Proof Load Test</u>	
ISO 898-1	Tensile Test of fasteners made carbon steel and alloy steel – Part 1: Bolts, screws and studs with specified property classes – Coarse thread and fine pitch thread
Metallurgy	
<u>IGC Test (Intergranular attack in stainless steel)</u>	
ASTM A262	Standard Practices for Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels (Practice E)
<u>Macro Test</u>	
ASTM A923	Standard Test Methods for detecting Detrimental Intermetallic Phase in Duplex, Austenitic/Ferritic Stainless Steels – Method C
ASTM E340	Standard Practice for Macroetching Metals and Alloys
ASTM G28	Standard Test Method for Detecting Susceptibility to Intergranular Corrosion in Wrought, Nickel Rich Chromium – Bearing Alloys - Method A
ASTM G48	Standard Test Methods for Pitting & Crevice Corrosion Resistance of Stainless Steel and Related Alloys by Use of Ferric Chloride solution – Method A