SINGAPORE LABORATORY ACCREDITATION SCHEME

Accredited Laboratory SAC-SINGLAS

Schedule

CAST Laboratories Pte Ltd
17 Tuas Ave 8
Singapore 639232

Certificate No. : LA-1998-0142-D

Issue No. : 29

Date : 10 December 2024

Expiry of Certificate : 13 September 2025

FIELD OF TESTING : Non-Destructive Testing

NDT TECHNIQUES	MATERIALS /PRODUCTS TESTED	STANDARD METHODS/ TECHNIQUES/EQUIMENT
1. RADIOGRAPHIC TESTING (Portable) a) Gamma Ray b) X-ray	All materials/products & Weldments, Casting and Forging under the General Standards	<u>General Standards</u> ASME Sec. V, Art.1, 2 & 22: 2023Ed API 1104: 22ND Ed. July 2021 ASTM E 94: 2023Ed ASTM E 999: 2023Ed BS EN ISO 17636-1: 2022 AWS D1.1/D1.1M: 2020Ed <u>Specific Standards</u> ASME Section VIII Div 1: 2023Ed ASME Section VIII Div 2: 2023Ed ASME Sec. I: 2023Ed ASME Sec. IX: 2023Ed ASME B31.1: 2022 Ed ASME B31.3: 2022 Ed ASME B31.8: 2022 Ed API 653: 2009Ed. Add 2016 API 620: 2013Ed. Add 2014 AWS D1.1: 2020Ed BS EN ISO 10675-1: 2021 API 650: 2020 Ed
2. ULTRASONIC TESTING Contact Method/ Pulse Echo Techniques a) Flaw Detection b) Ultrasonic Thickness Gauging (UTG)	All Materials / Products & Weldments, Casting, Forging and Rolling under the General Standards.	<u>General Standards</u> ASME Sec. V, Art 1, 4, 5 & 23: 2023Ed AWS D1.1/D1.1M: 2020Ed API 1104: 22ND Ed. July 2021 ASTM E-164: 2023Ed ASTM E-114: 2015 Ed ASTM E-797: 2023Ed BS EN ISO 16810: 2014 BS EN ISO 17640: 2018 BS EN ISO 17635: 2016

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		Specific Standards ASME Section VIII Div 1 : 2023Ed ASME Section VIII Div 2 : 2023Ed ASME Sec. I: 2023Ed ASME Sec. IX: 2023Ed ASME B31.1: 2022 Ed ASME B31.3: 2022 Ed ASME B31.8: 2022 Ed AWS D1.1: 2020Ed API 1104: 22ND Ed. July 2021 API 653: 2009Ed. Add 2016 API 620: 2013Ed. Add 2014 BS EN ISO 11666: 2018 BS EN 10160: 1999 BS EN 10228-3 : 2016 API 650: 2020 Ed ASTM A435/A435M: 2023Ed ASTM A578/A578M: 2023Ed ASTM E797: 2023Ed
3. MAGNETIC PARTICLE TESTING Visible and Florescent Techniques	Ferromagnetic Materials, All Materials / Products & Weldments, Castings & Forgings covered under the General Standards	ASME Sec. V, Art.1, 7 & 25: 2023Ed AWS D1.1 /D1.1M: 2020Ed API 1104: 22ND Ed. July 2021 ASTM E-709: 2023Ed BS EN ISO 9934-1: 2001 BS EN ISO17638 : 2016 BS EN ISO17635 : 2016 Specific Standards ASME Section VIII Div 1 : 2023Ed ASME Section VIII Div 2 : 2023Ed ASME Sec. I : 2023Ed ASME Sec. IX : 2023Ed ASME B31.1 : 2022 Ed ASME B31.3 : 2022 Ed ASME B31.8 : 2022 Ed API 1104 : 22ND Ed. July 2021 API 653 : 2009Ed. Add 2 2016 API 620 : 2013Ed. Add 1 2014 BS EN ISO 23278 : 2015 API 650 : 2020 Ed

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NDT TECHNIQUES	MATERIALS /PRODUCTS TESTED	STANDARD METHODS/ TECHNIQUES/EQUIMENT
4. LIQUID PENETRANT TESTING Solvent Removable Method - Visible Dye	Non Porous Materials / All Materials / Products & Weldments under the General Standards	<u>General Standards</u> ASME Sec. V, Art.6 & 24 : 2023Ed AWS D1.1/D1.1M : 2020Ed API 1104 : 22ND Ed. July 2021 ASTM E-165 : 2023Ed ASTM E-1220 : 2010Ed ASTM E-1417 : 2013Ed BS EN ISO 3452-1 : 2013 BS EN ISO 17635 : 2016 <u>Specific Standards</u> ASME Section VIII Div 1 : 2023Ed ASME Section VIII Div 2 : 2023Ed ASME Sec. I : 2023Ed ASME Sec. IX : 2023Ed ASME B31.1 : 2022 Ed ASME B31.3 : 2022 Ed ASME B31.8 : 2022 Ed AWS D1.1/D1.1M : 2020Ed API 1104 : 22ND Ed. July 2021 API 653 : 2009Ed. Add 2 2016 API 620 : 2013Ed. Add 1 2014 BS EN ISO 23277 : 2015 API 650 : 2020 Ed
5. POSITIVE MATERIAL IDENTIFICATION (PMI) a) X-ray Fluorescent Analysis (XRF) b) Optical Emission Spectroscopy (OES)	All the Materials/Products & Weldments covered the general standard	<u>General Standard</u> ASTM E-1085 : 2016Ed ASME Sec II : 2023Ed ASME Sec I : 2023Ed API 650: 2020 Ed
6. TIME OF FLIGHT DIFFRACTION (TOFD)	All Materials / Weldments under the General Standards	<u>General Standards</u> ASME Sec. V: 2023Ed <u>Specific Standards</u> ASME Section VIII Div 1 : 2023Ed ASME Section VIII Div 2 : 2023Ed ASME Sec. I : 2023Ed ASME Sec. IX : 2023Ed ASME B31.1 : 2022 Ed ASME B31.3 : 2022 Ed ASME B31.8 : 2022 Ed ASTM E2373 (2014) API 653: 2014 Ed Addendum 3: 2020 API 620: 2013 Ed Addendum 2 :2018

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NDT TECHNIQUES	MATERIALS /PRODUCTS TESTED	STANDARD METHODS/ TECHNIQUES/EQUIMENT
7. PHASED ARRAY ULTRASONIC TESTING (PAUT) a) Welds b) Corrosion Mapping	All Materials / Weldments under the General Standards	General Standards ASME Sec. V: 2023Ed Specific Standards ASME Section VIII Div 1 : 2023Ed ASME Section VIII Div 2 : 2023Ed ASME Sec. I : 2023Ed ASME Sec. IX : 2023Ed ASME B31.1 : 2022 Ed ASME B31.3 : 2022 Ed ASME B31.8 : 2022 Ed API 650: 2020 Ed API 653: 2014 Ed Addendum 3: 2020 API 620: 2013 Ed Addendum 2: 2018

Approved Signatory

Mr Munagala Mahesh Reddy - All tests

Note :

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025. A laboratory's fulfillment of the requirements of ISO/IEC 17025 means the laboratory meets both the technical competence requirements and **management system requirements** that are necessary for it to consistently deliver technically valid test results. The **management system requirements** in ISO/IEC 17025 are written in language relevant to laboratory operations and operate generally in accordance with the principles of ISO 9001.