

ADVANCED MANUFACTURING



This document is the property of Necsa and shall not be used, reproduced, transmitted or disclosed without prior written permission

DOC No: AM-18704-TDS-0015	Rev. No.1.0	Page 1 of 4
TITLE: TECHNICAL DATA SHEET		

Description: Visual Examination specification	Date: See Signature block
--	----------------------------------

Technical Data Sheet for the supply of: Visual Examination of welds as per the requirements of ASME B31.1

	Name	Signature	Date
Prepared	TP Choeu QC Section Manager		2026/01/28
Reviewed	MM Mathada NDE Technician		2026/01/28
Reviewed	CIK Corbitt QA Section Manager		2026/01/28
Approved	MD van Heerden MO Manager		2026/01/28

REVISION HISTORY

Rev	Date	Description of changes
1.0	Data	First issue

1 SCOPE

1.1 The document provides specific requirements for Visual Examination for welds in accordance with ASME B31.1 Intended for use in verifying that welded joints meet the required standards. Applicable documents

2 APPLICABLE DOCUMENTS

2.1 The documents listed in this section are applicable to and required for the use of this TDS because the applicable information in them is not necessarily repeated in this TDS.

[1] ASME BPV Code Section V, article 9, 2019 Edition

[2] Exceptions and Additional Requirements for Use of ASNT SNT-TC-1A 2016 Edition

[3] ASME Code for Pressure Piping, B31.1 2020 Ed

[4] Doc No: AM-QAP4-QAR-0009 Rev 10.0 – Quality Assurance Requirements for Testing Services.

[5] And this TDS.

ADVANCED MANUFACTURING



This document is the property of Necsa and shall not be used, reproduced, transmitted or disclosed without prior written permission

DOC No: AM-18704-TDS-0015

Rev. No.1.0

Page 2 of 4

TITLE: **TECHNICAL DATA SHEET**

3 BASIC REQUIREMENTS

3.1 Basic Information:

3.1.1 Material Specification:	As per NDE requisition form
3.1.2 Material Type:	As per NDE requisition form
3.1.3 Test Temperature:	Ambient
3.1.4 Acceptance Criteria:	ASME B31.1 Par 136.4.2 Ref: [3]
3.1.5 Test Results:	Required as per T-991

3.2 Units of Measurement:

- 3.2.1 SI units of measurement shall be used.
- 3.2.2 Where measurements of any parameter are taken, they shall be recorded directly on the data sheet in the units of the measuring instrument.
- 3.2.3 The units of measurements shall be specified for every value in all documentation and certificates.
- 3.3 All documents shall be provided in the English language.
- 3.4 Notification and Hold Points shall be confirmed before start of testing.
- 3.5 No Code Cases are allowed

4 PROCEDURE REQUIREMENTS

- 4.1 Visual examination shall be performed in accordance with a written procedure, which shall, as a minimum, contain the requirements listed in Table T-921. The written procedure shall establish a single value, or range of values, for each requirements **Error! Reference source not found.** and shall meet the requirements of paragraph T-920 ref: [1]

5 EQUIPMENT

- 5.1 Equipment used for visual examination techniques, for example, direct, remote, or translucent, shall have the capabilities as specified in the procedure. Capabilities include, but are not limited to viewing, magnifying, identifying, measuring, and/or recording observations in accordance with requirements of paragraph T-930 of Ref [1]

6 PERSONNEL REQUIREMENTS

- 6.1 Personnel performing examinations shall be qualified in accordance with requirements of Ref; [2]

ADVANCED MANUFACTURING



This document is the property of Necsa and shall not be used, reproduced, transmitted or disclosed without prior written permission

DOC No: AM-18704-TDS-0015

Rev. No.1.0

Page 3 of 4

TITLE: **TECHNICAL DATA SHEET**

7 Evaluation and acceptance shall be done in accordance with paragraph ASME B31.1 Par 136.4.2 Ref: [3] (a)

8 EXAMINATION RECORDS

A written report of the examination shall contain the following information:

8.1 The date of the examination

8.2 Procedure identification and revision used

8.3 Technique used

8.4 Results of the examination

8.5 Examination personnel identity,

8.6 Qualification level

8.7 (6) Identification of the part or component examined (b) Even though dimensions, etc., were recorded in the process of visual examination to aid in the evaluation, there need not be documentation of each viewing or each dimensional check. Documentation shall include all observation and dimensional checks specified by the referencing Code Section.

9 NON-CONFORMANCES

9.1 Non-Conformances shall be treated as specified in ref.[3].

10 INSPECTIONS

10.1 The Supplier shall provide the Purchaser's QC Inspector access to its facilities and records to enable the QC Inspector to monitor the preparation of specimens and the performing of tests as specified in ref.**Error! Reference source not found.**

11 IDENTIFICATION AND STATUS

12 RIGHT OF ACCESS

12.1 Access to the Supplier's and its Sub tier Supplier's facilities shall be provided to the Purchaser, Authorized Inspector or others authorized by the Purchaser including his customer and end user for surveillance, inspection, or audit.

13 DOCUMENTATION TO BE PROVIDED BY THE SUPPLIER

13.1 The following information shall also be supplied:

13.1.1 Full description of material tested (as applicable specification number, grade, class or type, size).

ADVANCED MANUFACTURING



This document is the property of Necsa and shall not be used, reproduced, transmitted or disclosed without prior written permission

DOC No: AM-18704-TDS-0015

Rev. No.1.0

Page 4 of 4

TITLE: **TECHNICAL DATA SHEET**

13.1.2 Test procedure number and revision

13.1.3 Date of test

13.1.4 Tester data record (Name, Signature, and Date of Signature)

13.1.5 Type of test and test conditions

13.1.6 Actions taken in connection with any deviations noted. If applicable reference the non-conformance report number.

13.1.7 Person evaluating the tests results (Name, Signature, and Date of Signature)

13.1.8 Calibration reports and number of measuring and test equipment used for testing.

13.1.9 Test equipment description and identification number

13.1.10 Results of tests and test acceptability

13.2 All characteristics required to be reported by the Purchase Order and TDS shall be verified and the results recoded. Records shall be traceable to the documents and revision to which a test was performed.

14 QUALITY ASSURANCE REQUIREMENTS

14.1 All general and specific Quality Assurance requirements shown in the Purchase Order and ref. [3] shall be met.

15 HANDLING OF COMPONENTS

All products and chemicals in contact with the material must meet the following requirements:

15.1. Total halogens (chlorine + fluorine + bromine) < 200 ppm

15.2 Total sulphur < 200 ppm

15.3. Other prohibited materials not allowed as a known constituent of the product: lead, zinc, copper, aluminium, cadmium, tin, mercury, antimony, bismuth, silver, cobalt, arsenic, rare earths, gallium, indium, ferric iron salts, low melting point alloys in general and their compounds.