

NASA 053

Specifications for NDT

Method:	Sectors:	Techniques:	ASME Codes:	ISO/EN Standards:	Description:
PT	Welds Casting Forgings	Visible, Fluorescent Water, Solvent, Post Emulsifiable Dry, Aqueous, Non- Aqueous	ASME V Article 6 ASME V Article 24	ISO 3059	Non-destructive testing — Penetrant testing and magnetic particle testing - Viewing conditions
				ISO 3452-2	Non-destructive testing — Penetrant testing — Part 2: Testing of penetrant materials
				ISO 3452-3	Non-destructive testing — Penetrant testing — Part 3: Reference test blocks
				ISO 3452-4	Non-destructive testing — Penetrant testing — Part 4: Equipment
				ISO 3452-5	Non-destructive testing — Penetrant testing — Part 5: Penetrant testing at temperatures higher than 50°C
				ISO 3452-6	Non-destructive testing — Penetrant testing — Part 6: Penetrant testing at temperatures lower than 10°C
				ISO 12706	Non-destructive testing — Penetrant testing — Vocabulary
MT	Welds Casting Forgings	Visible, Fluorescent Longitudinal, Circular AC, DC, HWDC Yoke, Headshot, Coil Wet, Dry Continuous, Residual.	ASME V Article 7 ASME V Article 25	ISO 3059	Non-destructive testing — Penetrant testing and magnetic particle testing — Viewing conditions
				ISO 9934-2	Non-destructive testing — Magnetic particle testing — Part 2: Detection media
				ISO 9934-3	Non-destructive testing — Magnetic particle testing — Part 3: Equipment
				ISO 17635	Non-destructive testing of welds — General rules for fusion welds in metallic materials

Document Number:	Document Title:	Revision:	Issue Dated:	Page No:
NASA 053	Specifications for NDT	0	13-Jul-2026	1 of 4

Method:	Sectors:	Techniques:	ASME Codes:	ISO/EN Standards:	Description:
UT	Welds Castings Forgings Nozzles T-Joints Nodes	Compression Shear Automated Contact	ASME V Article 4 ASME V Article 23	ISO 17640	Non-destructive Testing of Welds – Ultrasonic Testing – Techniques and Testing Levels
				ISO 23279	Non-destructive Testing of Welds – Ultrasonic Testing – Characterization of Indications.
				ISO 11666	Non-destructive Testing of Welds – Ultrasonic Testing – Acceptance levels.
				ISO 12668-1	Characterization and Verification of Equipment Part 1 – Instruments.
				ISO 12668-2	Characterization and Verification of Equipment Part 2 – Probes.
				ISO 12668-3	Characterization and Verification of Equipment Part 3 - Combined equipment.
				ISO 12223	Calibration block No 1.
RT	Welds Castings	X Rays Gamma Rays Conventional Film	ASME V Article 2 ASME V Article 22	BS EN ISO 17636-1	Non-destructive testing of welds - Radiographic testing – Part 1: X- and gamma-ray techniques with film
				ISO 5576	Non-destructive testing - Industrial X-ray and gamma-ray Radiology – Vocabulary
				ISO 19232-1	Non-destructive testing -- Image quality of radiographs - Part 1: Determination of the image quality value using wire-type image quality indicators
				ISO 5580	Non-destructive testing - Industrial radiographic illuminators– Minimum requirements
VT	Welds	Direct, Indirect, Remote	ASME V Article 9	EN 1330-10	Non-destructive testing - Terminology - Part 10: Terms used in visual testing
				EN ISO 8596	Ophthalmic optics - Visual acuity testing - Standard optotype and its presentation (ISO 8596)
				BS EN 13018	Non-destructive testing —Visual testing — General principles
				ISO 17637	Non-destructive testing of welds —Visual testing of fusion-welded joints
				EN 1330-10	Non-destructive testing - Terminology - Part 10: Terms used in visual testing
				EN ISO 8596	Ophthalmic optics - Visual acuity testing - Standard optotype and its presentation (ISO 8596)
				BS EN 13018	Non-destructive testing —Visual testing — General principles

Document Number:	Document Title:	Revision:	Issue Dated:	Page No:
NASA 053	Specifications for NDT	0	13-Jul-2026	2 of 4

Method:	Sectors:	Techniques:	ASME Codes:	ISO/EN Standards:	Description:
ET	Welds	Manual Hand Scanning, Complex Plane Analysis	ASME V Article 8 ASME V Article 26	BS EN ISO 15548-3	Equipment for Eddy Current Examination - System characteristics and verification
				BS EN ISO 17643	Eddy Current Testing of welds
				ISO 2360	Non-conductive coatings on nonmagnetic electrically conductive base metals
				BS EN ISO 15549	ET General principles
				BS EN ISO 15548-1	ET Equipment - Instrument Characteristics and Verification
				BS EN ISO 15548-2	Probe Characteristics and Verification
PAUT	Welds	Linear, Sectorial, P-Scan, S-Scan	ASME V Article 4 Mandatory Appendix XII Non-Mandatory Appendix P	BS EN 16018	Non-destructive testing. Terminology. Terms used in ultrasonic testing with phased arrays
				BS EN ISO 18563-1	Non-destructive testing. Characterization and verification of ultrasonic phased array equipment. Instruments
				BS EN ISO 18563-2	Non-destructive testing. Characterization and verification of ultrasonic phased array equipment. Array probes
				BS EN ISO 18563-3	Non-destructive testing. Characterization and verification of ultrasonic phased array equipment. Complete Systems
				BS EN 13588	Non-destructive testing of welds. Ultrasonic testing. Use of automated phased array technology

Document Number:	Document Title:	Revision:	Issue Dated:	Page No:
NASA 053	Specifications for NDT	0	13-Jul-2026	3 of 4

Method:	Sectors:	Techniques:	ASME Codes:	ISO/EN Standards:	Description:
TOFD	Welds	A – Scan, B – Scan, Parallel Scan, Non-Parallel Scan Automated, Manual. Single/Multi Zone Scan.	ASME V Article 4 Mandatory Appendix III	BS EN ISO 16810	Non-destructive testing. Ultrasonic testing. General principles
				BS EN ISO 16809	Non-destructive testing. Ultrasonic thickness measurement
				BS EN ISO 16828	Non-destructive testing. Ultrasonic testing. Time of flight diffraction technique as a method for the detection and sizing of discontinuities
				ISO 5577	Non-destructive testing. Ultrasonic testing. Vocabulary
				BS EN ISO 16811	Non-destructive testing. Ultrasonic testing. Sensitivity and range setting
				BS EN ISO 22232-1	Non-destructive testing. Characterisation and verification of ultrasonic test equipment – Instruments
				BS EN ISO 22232-2	Non-destructive testing. Characterisation and verification of ultrasonic test equipment – Probes
				BS EN ISO 22232-3	Non-destructive testing. Characterisation and verification of ultrasonic test equipment – Combined equipment
				BS EN ISO 10863	Non-destructive testing of welds. Ultrasonic testing. Use of time-of-flight diffraction technique (TOFD)
				BS EN ISO 15626	Non-destructive testing of welds. Time-of-flight diffraction technique (TOFD). Acceptance level
				BS EN ISO 16828	Non-destructive testing. Ultrasonic testing. Time of flight diffraction technique as a method for the detection and sizing of discontinuities

Document Number:	Document Title:	Revision:	Issue Dated:	Page No:
NASA 053	Specifications for NDT	0	13-Jul-2026	4 of 4