ASTM Standards for the Additive Manufacturing and Medical Devices Industries

A262	Standard Practices for Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels
A276	Standard Specification for Stainless Steel Bars and Shapes
A484	Standard Specification for General Requirements for Stainless Steel Bars, Billets, and Forgings
A751	Standard Test Methods, Practices, and Terminology for Chemical Analysis of Steel Products
A1080	Standard Practice for Hot Isostatic Pressing of Steel, Stainless Steel, and Related Alloy Castings
B211	Standard Specification for Aluminum and Aluminum-Alloy Rolled or Cold Finished Bar, Rod, and Wire
B212	Standard Test Method for Apparent Density of Free-Flowing Metal Powders Using the Hall Flowmeter Funnel
B213	Standard Test Methods for Flow Rate of Metal Powders Using the Hall Flowmeter Funnel
B214	Standard Test Method for Sieve Analysis of Metal Powders
B215	Standard Practices for Sampling Metal Powders
B243	Standard Terminology of Powder Metallurgy
B311	Standard Test Method for Density of Powder Metallurgy (PM) Materials Containing Less Than Two Percent Porosity
B329	Standard Test Method for Apparent Density of Metal Powders and Compounds Using the Scott Volumeter
B348	Standard Specification for Titanium and Titanium Alloy Bars and Billets
B417	Standard Test Method for Apparent Density of Non-Free-Flowing Metal Powders Using the Carney Funnel

B527	Standard Test Method for Tap Density of Metal Powders and Compounds
B557	Standard Test Methods for Tension Testing Wrought and Cast Aluminum- and Magnesium-Alloy Products
B565	Standard Test Method for Shear Testing of Aluminum and Aluminum-Alloy Rivets and Cold-Heading Wire and Rods
B600	Standard Guide for Descaling and Cleaning Titanium and Titanium Alloy Surfaces
B645	Standard Practice for Linear-Elastic Plane–Strain Fracture Toughness Testing of Aluminum Alloys
B646	Standard Practice for Fracture Toughness Testing of Aluminum Alloys
B647	Standard Test Method for Indentation Hardness of Aluminum Alloys by Means of a Webster Hardness Gage
B648	Standard Test Method for Indentation Hardness of Aluminum Alloys by Means of a Barcol Impressor
B703	Standard Test Method for Apparent Density of Metal Powders and Related Compounds Using the Arnold Meter
B769	Standard Test Method for Shear Testing of Aluminum Alloys
B783	Standard Specification for Materials for Ferrous Powder Metallurgy (PM) Structural Parts
B822	Standard Test Method for Particle Size Distribution of Metal Powders and Related Compounds by Light Scattering
B855	Standard Test Method for Volumetric Flow Rate of Metal Powders Using the Arnold Meter and Hall Flowmeter Funnel
B880	Standard Specification for General Requirements for Chemical Check Analysis Limits for Nickel, Nickel Alloys and Cobalt Alloys

B909	Standard Guide for Plane Strain Fracture Toughness Testing of Non-Stress Relieved Aluminum Products
B923	Standard Test Method for Metal Powder Skeletal Density by Helium or Nitrogen Pycnometry
B964	Standard Test Methods for Flow Rate of Metal Powders Using the Carney Funnel
C1145	Standard Terminology of Advanced Ceramics
D638	Standard Test Method for Tensile Properties of Plastics
D3951	Standard Practice for Commercial Packaging
D4000	Standard Classification System for Specifying Plastic Materials
D6128	Standard Test Method for Shear Testing of Bulk Solids Using the Jenike Shear Tester
D6779	Standard Classification System for and Basis of Specification for Polyamide Molding and Extrusion Materials (PA)
D6980	Standard Test Method for Determination of Moisture in Plastics by Loss in Weight
E3	Standard Guide for Preparation of Metallographic Specimens
E6	Standard Terminology Relating to Methods of Mechanical Testing
E7	Standard Terminology Relating to Metallography
E8	Standard Test Methods for Tension Testing of Metallic Materials
E9	Standard Test Methods of Compression Testing of Metallic Materials at Room Temperature
E10	Standard Test Method for Brinell Hardness of Metallic Materials
E11	Standard Specification for Woven Wire Test Sieve Cloth and Test Sieves
E18	Standard Test Methods for Rockwell Hardness of Metallic Materials
E21	Standard Test Methods for Elevated Temperature Tension Tests of Metallic

E23	Standard Test Methods for Notched Bar Impact Testing of Metallic Materials
E29	Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Standard Specifications
E111	Standard Test Method for Young's Modulus, Tangent Modulus, and Chord Modulus
E132	Standard Test Method for Poisson's Ratio at Room Temperature
E140	Standard Hardness Conversion Tables for Metals Relationship Among Brinell Hardness, Vickers Hardness, Rockwell Hardness, Superficial Hardness, Knoop Hardness, Scleroscope Hardness, and Leeb Hardness
E143	Standard Test Method for Shear Modulus at Room Temperature
E290	Standard Test Methods for Bend Testing of Material for Ductility
E292	Standard Test Methods for Conducting Time-for-Rupture Notch Tension Tests of Materials
E353	Standard Test Methods for Chemical Analysis of Stainless, Heat-Resisting, Maraging, and Other Similar Chromium-Nickel-Iron Alloys
E354	Standard Test Methods for Chemical Analysis of High-Temperature, Electrical, Magnetic, and Other Similar Iron, Nickel, and Cobalt Alloys
E384	Standard Test Method for Knoop and Vickers Hardness of Materials
E399	Standard Test Method for Linear-Elastic Plane-Strain Fracture Toughness KIc of Metallic Materials
E407	Standard Practice for Microetching Metals and Alloys
E466	Standard Practice for Conducting Force Controlled Constant Amplitude Axial Fatigue Tests of Metallic Materials
E467	Standard Practice for Verification of Constant Amplitude Dynamic Forces in an Axial Fatigue Testing System

E468	Standard Practice for Presentation of Constant Amplitude Fatigue Test Results for Metallic Materials
E539	Standard Test Method for Analysis of Titanium Alloys by X-Ray Fluorescence Spectrometry
E572	Standard Test Method for Analysis of Stainless and Alloy Steels by Wavelength Dispersive X-Ray Fluorescence Spectrometry
E606	Standard Test Method for Strain-Controlled Fatigue Testing
E647	Standard Test Method for Measurement of Fatigue Crack Growth Rates
E740	Standard Practice for Fracture Testing with Surface-Crack Tension Specimens
E837	Standard Test Method for Determining Residual Stresses by the Hole-Drilling Strain-Gage Method
E915	Standard Test Method for Verifying the Alignment of X-Ray Diffraction Instrumentation for Residual Stress Measurement
E1019	Standard Test Methods for Determination of Carbon, Sulfur, Nitrogen, and Oxygen in Steel, Iron, Nickel, and Cobalt Alloys by Various Combustion and Fusion Techniques
E1049	Standard Practices for Cycle Counting in Fatigue Analysis
E1086	Standard Test Method for Analysis of Austenitic Stainless Steel by Spark Atomic Emission Spectrometry
E1221	Standard Test Method for Determining Plane-Strain Crack-Arrest Fracture Toughness, KIa, of Ferritic Steels
E1304	Standard Test Method for Plane-Strain (Chevron-Notch) Fracture Toughness of Metallic Materials
E1316	Standard Terminology for Nondestructive Examinations
E1409	Standard Test Method for Determination of Oxygen and Nitrogen in Titanium and Titanium Alloys by Inert Gas Fusion

E1417	Standard Practice for Liquid Penetrant Testing
E1447	Standard Test Method for Determination of Hydrogen in Titanium and Titanium Alloys by Inert Gas Fusion Thermal Conductivity/Infrared Detection Method
E1457	Standard Test Method for Measurement of Creep Crack Growth Times and Rates in Metals
E1473	Standard Test Methods for Chemical Analysis of Nickel, Cobalt, and High-Temperature Alloys
E1479	Standard Practice for Describing and Specifying Inductively Coupled Plasma Atomic Emission Spectrometers
E1515	Standard Test Method for Minimum Explosible Concentration of Combustible Dusts
E1569	Standard Test Method for Determination of Oxygen in Tantalum Powder by Inert Gas Fusion Technique
E1638	Standard Terminology Relating to Sieves, Sieving Methods, and Screening Media
E1681	Standard Test Method for Determining Threshold Stress Intensity Factor for Environment-Assisted Cracking of Metallic Materials
E1742	Standard Practice for Radiographic Examination
E1820	Standard Test Method for Measurement of Fracture Toughness
E1823	Standard Terminology Relating to Fatigue and Fracture Testing
E1875	Standard Test Method for Dynamic Young's Modulus, Shear Modulus, and Poisson's Ratio by Sonic Resonance
E1876	Standard Test Method for Dynamic Young's Modulus, Shear Modulus, and Poisson's Ratio by Impulse Excitation of Vibration
E1941	Standard Test Method for Determination of Carbon in Refractory and Reactive Metals and Their Alloys by Combustion Analysis

E1942	Standard Guide for Evaluating Data Acquisition Systems Used in Cyclic Fatigue and Fracture Mechanics Testing
E2368	Standard Practice for Strain Controlled Thermomechanical Fatigue Testing
E2371	Standard Test Method for Analysis of Titanium and Titanium Alloys by Direct Current Plasma and Inductively Coupled Plasma Atomic Emission Spectrometry (Performance-Based Standard Test Methodology)
E2465	Standard Test Method for Analysis of Ni-Base Alloys by Wavelength Dispersive X-Ray Fluorescence Spectrometry
E2472	Standard Test Method for Determination of Resistance to Stable Crack Extension under Low-Constraint Conditions
E2594	Standard Test Method for Analysis of Nickel Alloys by Inductively Coupled Plasma Atomic Emission Spectrometry (Performance-Based Method)
E2626	Standard Guide for Spectrometric Analysis of Reactive and Refractory Metals
E2714	Standard Test Method for Creep-Fatigue Testing
E2760	Standard Test Method for Creep-Fatigue Crack Growth Testing
E2789	Standard Guide for Fretting Fatigue Testing
E2792	Standard Test Method for Determination of Hydrogen in Aluminum and Aluminum Alloys by Inert Gas Fusion
F75	Standard Specification for Cobalt-28 Chromium-6 Molybdenum Alloy Castings and Casting Alloy for Surgical Implants (UNS R30075)
F90	Standard Specification for Wrought Cobalt-20Chromium-15Tungsten-10Nickel Alloy for Surgical Implant Applications (UNS R30605)

F136	Standard Specification for Wrought Titanium-6Aluminum-4Vanadium ELI (Extra Low Interstitial) Alloy for Surgical Implant Applications (UNS R56401)
F327	Standard Practice for Sampling Gas Blow Down Systems and Components for Particulate Contamination by Automatic Particle Monitor Method
F629	Standard Practice for Radiography of Cast Metallic Surgical Implants
F799	Standard Specification for Cobalt-28Chromium-6Molybdenum Alloy Forgings for Surgical Implants (UNS R31537, R31538, R31539)
F1472	Standard Specification for Wrought Titanium-6Aluminum-4Vanadium Alloy for Surgical Implant Applications (UNS R56400)
F1537	Standard Specification for Wrought Cobalt-28Chromium-6Molybdenum Alloys for Surgical Implants (UNS R31537, UNS R31538, and UNS R31539)
F2924	Standard Specification for Additive Manufacturing Titanium-6 Aluminum-4 Vanadium with Powder Bed Fusion
F2971	Standard Practice for Reporting Data for Test Specimens Prepared by Additive Manufacturing
F3049	Standard Guide for Characterizing Properties of Metal Powders Used for Additive Manufacturing Processes
F3122	Standard Guide for Evaluating Mechanical Properties of Metal Materials Made via Additive Manufacturing Processes
ISO/ASTM52900	Additive manufacturing -- General principles -- Terminology
ISO/ASTM52915	Specification for additive manufacturing file format (AMF) Version 1.2
ISO/ASTM52921	Standard terminology for additive manufacturing -- Coordinate systems and test methodologies