

## Q019: Special Process Approved Processor Source - with Deliverable Documentation

Special Processes defined on Aerojet Rocketdyne (AR) and AR customer drawings shall be performed by Aerojet Rocketdyne approved processors (listed in the [Aerojet Rocketdyne Supplier Portal Gateway](#)). Special Processes defined on supplier drawings must be controlled by the supplier but are exempt from this requirement. For specifications that require Supplier Material Process Procedure (SMPP) approval, supplier shall perform work and certify to the specification revision referenced on the AR approved SMPP.

Special processes are processes such as, but are not limited to, metallurgical and chemical processes, metal joining, bonding, plating, coating, anodize, surface treatment, cleaning and material removal by non-conventional methods, water jet, etc. which also includes selected nondestructive inspection methods (Radiography, Ultrasonic, Eddy Current, Liquid Penetrant, and Magnetic Particle) used to evaluate item conformance to design and quality requirements. Additional examples of Special processes are listed in Table 1 (page 2).

Aerojet Rocketdyne Company design specifications and/or industry specifications controlling these processes are referred to as Special Process specifications also known as 'certified special processes'. NADCAP approval for industry special processes is preferred but special process source is still required to be listed in the Approved processor list in the Supplier Portal Gateway.

A Certificate of Conformance or equivalent Process certificate, signed by an authorized agent of the Processor / Seller shall be included with the shipping documentation (packing slip).

The certificate shall include:

1. Purchase contract number, Line item number,
2. Part number(s),
3. Trace number (as applicable),
4. Process specification number with revision (if applicable)
5. Processing date(s) and name of the Processor(s) performing each of the approved processes.
6. Warranty; Conformance / Acceptance Statement: Specific process certifications (from the approved processor) must include a statement of acceptance to the requirements specified / flowed (Processing Specification).

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**Table 1**

Special Processes:							
Coatings	Chemical Processing	Heat Treatment	Testing	Nonconventional Machining	Surface Enhancement	Welding: Bonding, Brazing, Metal Joining, Soldering	Nondestructive Inspection Methods:
Coating	Anodize	Annealing	Materials Testing (RC5166)	Electro-discharge Machining (EDM)	Honing	Diffusion	Digital Radiography (DR), Computed Tomography (CT).
Coating Evaluation	Chemical Fine Cleaning	Aging	Leak Testing, Helium	Electro-chemical Discharge Machining (ECM)	Peening	Electron Beam	Eddy Current
Diffusion Coating	Conversion/ Phosphate Coating <sup>1</sup>	Brazing		Laser Cutting		Flash	Liquid Penetrant
Plating	Chemical Milling	Carburizing		Water Jet		Friction/Inertia	Magnetic Particle
Plasma Spray	Dry Film Coatings	Heat Treating				Fusion	Radiography (Film and Non-Film (Computed Radiography (CR)
Thermal Spray	Etching	Hardening & Tempering				Laser	Shearography & Thermography
Vapor Deposition	Electro Polishing	Hot Forming				Resistance	Ultrasonic
	Passivation	Induction Hardening				Selective Laser Melting (SLM)	NAS Certification & Qualification of Nondestructive Test Personnel <sup>2</sup>
	Precision Cleaning	Nitriding				Torch/Induction	
	Pre-Cleaning for Alu, Cu, Ti materials only.	Normalizing				Welder Welding Operation Qualification	
	Stripping	Stress Relieving					
		Vacuum Brazing					
	<sup>1</sup> Touch-up only, CSP not req'd.						<sup>2</sup> SNT-TC-1A OK when NAS not req'd.