

## Beechcraft Corporation Special Processes Index

### Special Processes that Require Approval to Perform

Updated: April 18, 2017

PROCESS	SPECIFICATION	APPROVAL CODE
<b>Brazing</b>		
<b>Note:</b> Part Number-specific approval is required for Suppliers who do <u>not</u> hold Nadcap Welding/Brazing certification. <u>Silver brazing requires Part Number-specific approval in all cases.</u> Contact: <a href="mailto:SCM_QA@txtav.com">SCM_QA@txtav.com</a> .		
Aluminum	MIL-B-7883, AWS C3.7	22A
Copper	MIL-B-7883, AWS C3.6	22B
Torch Brazing Of Copper, Copper Base Alloys, Nickel Alloys And Steels	BAEP 4520	6s
Nickel	MIL-B-7883, AWS C3.6	22C
Silver	AWS C3.4, 3.5, 3.6, 111530, 111524	2202 - 2211
Furnace	MIL-B-7883, AWS C3.6	22D
Induction	MIL-B-7883, AWS C3.5	22F
Dip	MIL-B-7883, AWS C3.7	22G
Nickel Brazing of Steel and Corrosion and Heat Resistant Alloys	MIL-B-7883, AWS C3.6, AMS 2675	22H
Torch	MIL-B-7883, AWS C3.4	22I
<b>Burn Testing</b>		
Interior/Upholstery Materials	BS 414, 14 CFR 25.853	23A
<b>Composites</b>		
Surface Preparation of Metals Prior to Adhesive Bonding, Non-Anodized	BS 25210	25G
Phosphoric Acid Anodizing, Structural Bonding, Aluminum Alloys	BS 24554	25Q
Fabrication, Aramid Fiber/Epoxy Prepreg, 250-350 Deg F Curing	BS 23769	26A
Fabrication, Carbon Fiber/Epoxy Prepreg, 250-350 Deg F Curing	BS 23767	26B
Composite Resin Transfer Molding Process (RTM)	BS 25271	26C
Material and Fabrication for Reinforced Fiber/Bismaleimide (BMI) Prepreg	BS 23966	26I
Fabrication, Fiberglass/Epoxy Prepreg Parts, 250-300 Deg F Curing	BS 23771	26D
Composite Fiber Placement	BS 24946	26E

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<b>Composites (cont'd)</b>		
Bonding Structural Assemblies Using Room Temp Curing Adhesives	BS 23738	26F
Structural Bonding of Composites Using 250-350 Deg F Curing Adhesive	BS 23773	26G
Fabrication, Glass Fabric Base Laminates	BS 20615	26J
Test Methods for Composites	BS 23717	26H
Testing, Mechanical, Composites & Adhesives	ASTM D1002	26H1
Testing, Non-Destructive (ultrasound)	BS 291834	35G
Corrosion Inhibiting Adhesive Bond Primer	BS 23865	32A9
Adhesive Bonding – Metal to Metal	BS 2647	29A
<b>Forming, Conventional</b>		
Superplastic Forming – Aluminum Alloys	BS 25339, As Required by HBC Eng. Drawing	27B
Hot Forming – Titanium Alloys	As Required by HBC Eng. Drawing	27C
Superplastic Forming – Titanium Alloys	As Required by HBC Eng. Drawing	27D
Hot Forming – Steel Alloys	As Required by HBC Eng. Drawing	27E
Forming of Aluminum Alloys: Hot Forming	BS 311327	27F2
Forming of Aluminum Alloys: Sub-Ambient (Cold) Forming	BS 311327	27F4
Forming & Straightening of Aluminum Alloys, General: Hot Forming	P1103	27G
Forming & Straightening of Aluminum Alloys, General: Sub-Ambient (Cold) Forming	P1103	27G1
<b>Forming, Thermal Fusion</b>		
Selective Laser Sintering (SLS)	Industry Standard Practice	30J
Hot Isostatic Pressing (HIP)	Industry Standard Practice	30K

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<b>Heat Treatment</b>		
Alloy Steels	AMS-H-6875, AMS 2759/1/2	28A0
Heat Treatment of Steels	BAEP 9008	5g, 5k, 5m, 5n, & 5o
Aluminum Alloys, Cast	TP1103	28B1
Heat Treatment Of Aluminum & Its Alloys	BAEP 9006	5a, 5b, 5c, 5d, 5l, & 5v
Aluminum Alloys, Cast	TP1103	28B2
Aluminum Alloys, Wrought	TP1102	28C1
Aluminum Alloys, Wrought	TP1102	28C2
Aluminum Alloys, Raw Material	TP1102	28C3
Copper/Beryllium Alloys	AMS-H-7199	28D1
Copper/Beryllium Alloys	AMS 2728	28D2
Corrosion Resistant Steels	AMS-H-6875, AMS 2759/3/4/5	28EA
Magnesium Alloy	AMS-M-6857	28F
Stress Relieving Of Steels & Nickel Alloys	BAEP 9009	5n
Stress Relief, Welding & Brazing, Steel Alloys	BS 249	36D4
Titanium and Titanium Alloys	AMS-H-81200	28H1
Titanium and Titanium Alloys, Annealing & Stress Relief	AMS 2801	28H2
AerMet® 100	AMS 6532, Contact HBC	28I
7175 Forged Aluminum Alloys	Proprietary Method, Contact HBC	28C4
<b>Non-Conventional Machining</b>		
Electrochemical Machining (ECM)	AS 7116/1	30E
Electrochemical Grinding (ECG)	AS 7116/2	30F
Electrical Discharge Machining (EDM)	AS 7116/3	30G
Laser Beam Machining (LBM)	AS 7116/4	30H
<b>Processing, Anodize</b>		
Chromic Acid Anodize, Type I –	MIL-A-8625, AMS 2470	25B

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Aluminum		
Chromic Acid Anodising	BAEP 0002	3a, 4a

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<b>Processing, Anodize (cont'd)</b>		
Sulfuric Acid Anodize, Type II – Aluminum	MIL-A-8625, AMS 2471	25C
Sulphuric Acid Anodising	BAEP 0003	4c
Sulfuric Acid Anodize, Class 2 Dyed – Aluminum	MIL-A-8625, AMS 2472	25D
Hard Coat Anodize, Type III – Aluminum	MIL-A-8625, AMS 2469	25E
Hard Anodising	BAEP 0012	4b
Titanium Hard Coat Anodize	AMS 2488	25E3
<b>Processing, Chemical Conversion</b>		
Black Oxide Conversion Coat – Steel	AMS 2485	25F
Black Oxide Conversion Coat – Steel	MIL-C-13924	25F1
Chemical Conversion Coat, Class 1A – Aluminum	MIL-DTL-5541, AMS 2473	25H
Chromate Conversion Coating For Aluminium Alloys	BAEP 0004	4r
Chemical Conversion Coat, Class 3 – Aluminum	MIL-DTL-5541, AMS 2474	25I
Iridite 14-2 Chromate Conversion Coating	BAEP 0014	4zv
Chromate Treatment Of Magnesium Based Alloys	BAEP 0005	4s
Phosphate Conversion Coat – Steel	AMS 2480, AMS 2481	25O
Phosphate Coating (MHI)	P2306	25O1
Manganese/Zinc Phosphate – Steel	MIL-DTL-16232	25P1
Phosphating Treatments For Steels	BAEP 0006	4u
<b>Processing, Coatings</b>		
Corrosion Preventative Treatments, Magnesium (Dow 7)	AMS-M-3171, AMS 2475	25J
Corrosion Preventative Treatments, Magnesium (Dow 19)	AMS-M-3171, AMS 2475	25K
Dry Film Lube	MIL-PRF-46010	25M

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Dri-Lube, Air Cured	MIL-L-23398	25M1
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<b>Processing, Coatings (cont'd)</b>		
High Velocity Oxy Fuel (HVOF)	AMS 2447, BS 25328	31H
Procedures for the Application Of Thermal Spray Coatings	BS 25328	32E
Plasma Flame Spray	AMS 2437, BS 25328	32B
Powder Coat	Commercial Practice	32C
Paint, Standard Finish	BS 361	32A
Paint, Standard Finish, Weapons Systems Application. & Control	BS 361, MIL-F-18264	32A2
Paint, Primer, Epoxy Polyamide, High Solids	BS 361, MIL-PRF-23377	32D
Paint, Primer, Aircraft Integral Fuel Tank	BS 25032, MIL-C-27725, AMS-C-27725	32A1
Paint, Primer, Corrosion Resistant Fuel Cell Epoxy	BS 25032	32A5
Paint, Primer, Epoxy, High Temperature	BS 25457	32A7
Paint, Topcoat Finishing Procedure, Polyurethane Finishes	BS 22455, MIL-PRF-85285	32A6
Paint, Topcoat, Epoxy	MIL-PRF-22750	32D1
Paint, Anti-Static	BS 24190	32K
Paint Stripping - Wheat Starch Blast	Supplier's Technique Sheet must be approved by HBC	32AB
<b>Processing, Chemical – General</b>		
Chemical Milling – Aluminum Alloys	Commercial Practice, AMS-C-81769	24A
Chemical Milling – Nickel Based Alloys	Commercial Practice, AMS-C-81769	24B
Chemical Milling – Steel Alloys	Commercial Practice, AMS-C-81769	24C
Chemical Milling – Titanium Alloys	Commercial Practice, AMS-C-81769	24D
Preparation of Pre-Processed Material	BS361	25H1

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Pickle & Passivation	AMS-QQ-P-35, AMS 2700, BS 4692, MIL-S-5002	25N
Passivation: Corrosion-Resistant Steels	BS 4692, ASTM A967	25N1

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<b>Processing, Chemical – General (cont'd)</b>		
Passivation of Corrosion Resisting Steels and Nickel Based Alloys	BAEP 0013	4zs
Pickling of Stainless Steels & Nickel Chromium Alloys	BAEP 9207	12za
Chromic Dip for Lead Alloys	BS 182011	31O
Light Chemical Etching of Aluminum Alloys / Pre-Penetrant Etch	BS 25691, Commercial Practice	35B1
<b>Processing, Plating</b>		
Aluminum Plate, Ion Vapor Deposition (IVD)	MIL-DTL-83488, AMS 2427	31Q
Cadmium Plate, Brush	MIL-STD-865, AMS 2451/4	31A
Cadmium Plate, Electrodeposited, Types I & II	AMS-QQ-P-416, AMS 2400, AMS 2401	31B
Cadmium Plating for Steels, Titanium & Titanium Alloys, and Copper and Copper Alloys	BAEP 1514	4f, 4g, 4h, 4j, 5o
Cadmium Plate, Titanium, Low Hydrogen	MIL-STD-1500, AMS 2419	31C
Cadmium Plate, Vacuum Deposited, Type I & II	AMS-C-8837, AMS 2426	31D
Chromium Plate, Electrodeposited, Decorative	AMS-QQ-C-320	31E
Chromium Plate, Electrodeposited, Hard	AMS-QQ-C-320, AMS 2406	31F
Hard Chrome Plating	BAEP 1519	4m
Copper Plate, Electrodeposited	MIL-C-14550, AMS 2418	31G
Bronze/Copper Plating Of Steel Components	BAEP 1520	4k
Nickel Plate, Electrodeposited	AMS-QQ-N-290, AMS 2403	31I
Nickel Plate, Electroless	MIL-C-26074, AMS-C-26074 AMS 2404, AMS 2405, BS 1786	31J

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Zinc Plate, Electrodeposited	ASTM B 633	31K
Zinc Plating for Steels, Copper and Copper Alloys	BAEP 1521	4z

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<b>Processing, Other</b>		
Mechanical Cleaning – Abrasive Blasting, Non-Ferrous Metals	BS25691, MIL-S-5002	25T2
Vacu-Blasting (With Dry Alumina Grit)	BAEP 2002	12s
Stress & Hydrogen Embrittlement Relief	BS 25526	28G
<b>Soldering</b>		
Tin/Lead, Electrical	BS 265919, J-STD-001D	33A
Tin/Lead, Non-Electrical	DOD-STD-1866	33B
<b>Surface Enhancement</b>		
Rotary Flap Peening	MIL-R-81841	30A
The Surface Improvement of Metal by Means of the ROTO PEEN	BAEP 2008	19za
Shot Peening	MIL-S-13165, AMS-S-13165, AMS 2430	30B, 30B1
Shot Peening For Improved Fatigue Resistance	BAEP 2001	19d
Surface Improvement By The Use Of Glass Beads	BAEP 2007	12t
Steel Shot Peening For Improved Fatigue, Stress Corrosion & Fretting Corrosion	BAEP 2009	19m
Shot Peen Forming	BS 25276 / TP1201	30C
Peening, Computer Controlled	AS 7117, AMS 2432	30D, 30D1
<b>Surface Hardening</b>		
Carburizing of Steel	AMS-S-6090, AMS 2759/7	28N1
Carburizing of Steel	AMS 2762	28N2
Nitriding of Steel	AMS-S-6090, AMS 2759/6	28O1
Nitriding of Steel	AMS 2755	28O2
<b>Testing, Certification</b>		
Welder Qualification	MIL-STD-1595, BS 23933,	36

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	AWS D17.1	
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<b>Testing, Destructive</b>		
Fracture Toughness	ASTM E 399, ASTM B 645	34D
Hardness, Micro Hardness	ASTM E 384	34E
Hardness, Rockwell	TP1601	34F
Hardness Testing - Metallic Materials	BAEP 9226	3d
Mechanical	ASTM E 8	34G
Metallurgical	As Required	34H
Salt Spray	ASTM B 117	34J
Spectrochemical Analysis	As Required	Captive Use: 34C Commercial: 34K
Wet Solution Analysis (Chemical)	As Required	Captive Use: 34B Commercial: 34L
<b>Testing, Nondestructive</b>		
Eddy Current	ASTM E 215	35A
Eddy Current Testing	BAEP 2503	3k
Fluorescent Penetrant	ASTM E1417	35B
Penetrant Flaw Detection	BAEP 2501	3b, 3c
Magnetic Particle	ASTM E1444, AMS 2442	35C
Magnetic Flaw Detection	BAEP 2502	3e
Radiographic	MIL-STD-453, ASTM E1742	35D
Ultrasonic	AMS-STD-2154, ASTM E2375	35E
Ultrasonic Inspection of Composite Parts & Assemblies	BAEP 2504	3m
X-Ray Interpretation of Castings	ASTM E 1742	XRI
<b>Welding</b>		
<b>Note:</b> Part Number-specific approval is required for Suppliers who do <u>not</u> hold Nadcap Welding/Brazing certification		
Electron Beam	AMS 2681, BS 4896	36A
Fusion – Aluminum Alloys	MIL-STD-2219, BS 510, AWS D17.1	36B1



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Fusion – Magnesium	MIL-STD-2219, AWS D17.1	36C1
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PROCESS	SPECIFICATION	APPROVAL CODE
<b>Welding (cont'd)</b>		
<b>Note:</b> Part Number-specific approval is required for Suppliers who do <u>not</u> hold Nadcap Welding/Brazing certification		
Fusion – Steel Alloys	MIL-STD-2219, BS 511, AWS D17.1	36D1
Fusion Welding & Brazing	BAEP 4521	6c, 6d, 6e, 6f. 6g, 6h, 6j
Fusion – Titanium Alloys	MIL-STD-2219, BS 25272, AWS D17.1	36EA
Resistance – Aluminum Alloys	MIL-W-6858, AMS-W-6858	36F
Resistance – Magnesium Alloys	MIL-W-6858, AMS-W-6858	36G
Resistance – Nickel and Cobalt Base Alloys	MIL-W-6858, AMS-W-6858	36H
Resistance – Steel Alloys	MIL-W-6858, AMS-W-6858	36I
Resistance – Titanium Alloys	MIL-W-6858, AMS-W-6858	36J
Seam	MIL-W-6858, AMS-W-6858	36K