Third-party Approval Bodies	
Customer Approvals	
Active Processes	
Outsourced Processes	
Not Applicable	N/A

February 2021
PRODUCTION PROCESSES

		BLUE ENGINEERING	SRS	SPI	MASSUCCO INDUSTRIE	MORELLO	COMUTENSILI	LMB	MEPIT	SMF	TTN	EUSEBIO SALD	LICAT	ROSFER	AERONDI	FLEXIDER	OUTSOURCED
QUALITY SYSTEM	NADCAP																N/A
	AS/EN 9100																N/A
	ISO 9001																N/A
	AGUSTA WESTLAND																N/A
	AVIO AERO																N/A
	GE AVIATION																N/A
	LEONARDO																N/A
	PRATT & WHITNEY																N/A
	ROLLS-ROYCE plc																N/A
	GE ALSTOM																N/A
	HITACHI RAIL																N/A
	UTAS ITALY																N/A
	ANSALDO ENERGIA																N/A
MANUFACTURING ENGINEERING	MANUFACTURING PROCESS SHEET																
	INSPECTION PROCESS SHEET																
	CNC PROGRAMMING																
	CMM PROGRAMMING																
	ASSEMBLY PROCESS SHEET																
	TOOL PATH SIMULATION																
	PART PROGRAM PRODUCTION VALIDATION																
	PART PROGRAM CMM VALIDATION																
	CAE SIMULATION																
COLD FORMING	SHEARING																
	MANUFACTURING FIXTURE TOOLS AND DEVICE																
	BENDING																
	DIE DESIGN																
	DIE MANUFACTURING (HWD)																
SPECIAL PROCESSES	HOT FORGING																
	HOT ROLLING																
	NITAL ETCHING																
	SANDBLASTING																
	WETBLASTING																
	GAS NITRIDING																
	ION NITRIDING																
	PHOSPHATING																
	SPOT WELDING																
	OVEN BRAZING																
	TOOLING DESIGN																
	TOOLING MANUFACTURING (HWD)																
EDM	DIE-SINK																
	WIRE																

	TOOLING DESIGN																
	TOOLING MANUFACTURING (HWD)																
WELDING	TOOLING DESIGN																
	TIG																
	MIG																
	MICRO SPOT WELDING																
	INERTIA WELDING																
	TOOLING MANUFACTURING (HWD)																
MACHINING	ROUGH MACHINING																
	FINISH MACHINING																
	MILLING																
	4-AXIS BORING																
	5-AXIS BORING																
	BROACHES PRODUCTION AND PERIODIC CONTROL																
	BROACHES DESIGN																
	DRILLING																
	DEEP DRILLING																
	STATOR-ROTOR BLADES DRILLING																
	STRAIGHT-TOOTH CUTTING																
	CUTTING TOOTH AFTER COPPER PLATING																
	VERTICAL MILLING																
	AUTOMATIC DEBURRING																
	MANUAL DEBURRING																
	TUMBLING DEBURRING																
	AUTOMATIC CHAMFERING																
	4-AXIS WORKING CENTER OPERATIONS																
	5-AXIS WORKING CENTER OPERATIONS																
	MACHINE AIRFOIL																
	TOOLING DESIGN																
	SMALL ROTORS BALANCING																
	TOOLING MANUFACTURING (HWD)																
	MARKING																
GRINDING	JIG GRINDING																
	HIGH-SPEED GRINDING																
	OUTER SPUR GEARS																
	INNER SPUR GEARS/SPLINES																
	INNER/OUTER DIAMETER GRINDING																
	FLAT GRINDING																
	HONING																
	PLANETARY GRINDING																
	TOOLING DESIGN																
	STOCK REMOVAL																

August 2020
PRODUCTION PROCESSES

		BLUE ENGINEERING	SRS	SPI	MASSUCCO INDUSTRIE	MORELLO	COMUTENSILI	LMB	MEPIT	SMF	TTN	EUSEBIO SALD	LICAT	ROSFER	AERONDI	FLEXIDER	OUTSOURCED
LASER	BLADE AND VANE ECM						■										
	TOOLING DESIGN						■							■			
	TOOLING MANUFACTURING (HWD)													■			
HEAT TREATMENTS	CARBURIZING				■						■	■					
	LOW-PRESSURE CARBURIZING										■	■					
	SOLUBILIZATION									■	■	■					
	AGEING/PRECIPITATION HARDENING									■	■	■					
	NORMALIZING				■					■	■	■					
	QUENCHING AND TEMPERING									■	■	■					
	ANNEALING				■					■	■	■					
	STRESS RELIEVING									■	■	■					
	CRYOGENIC TREATMENT				■						■	■					
	VACUUM BRAZING									■							
	BRAZING TOOLING DESIGN								■	■							
	BRAZING TOOLING MANUFACTURING (HWD)								■	■							
	QUENCHING AND STRESS RELIEVE				■					■	■	■					
	INDUCTION HARDENING										■	■					
	PRESS QUENCHING TOOLING DESIGN			■					■					■			
	PRESS QUENCHING MANUFACTURING FIXTURE (HWD)								■					■			
PAINTING	SPRAY PAINT - ELECTROSTATIC PAINT																■
	TOOLING DESIGN	■		■					■								
	TOOLING MANUFACTURING (HWD)								■								
INSPECTION	AUTOMATIC CLEANING																■
	NITAL ETCHING				■								■				
	DIMENSIONAL /GEOMETRY CMM					■			■	■		■	■	■		■	
	DIMENSIONAL /GEOMETRY CHECKS					■						■		■		■	
	TOOLING AND SPECIAL GAUGES DESIGN			■		■			■	■		■		■			
	TOOLING AND SPECIAL GAUGES PRODUCTION					■			■	■		■		■			
	SURFACE ROUGHNESS					■			■	■		■	■				
	TECHNICAL VALIDATION AND Cp/Cpk INDICATORS					■			■	■		■					
	FIRST ARTICLE INSPECTION (AS 9102 FORM)					■			■	■		■	■			■	
	FPI: FLUORESCENT PENETRANT INSPECTION									■			■		■	■	■

August 2020
PRODUCTION PROCESSES

		BLUE ENGINEERING	SRS	SPI	MASSUCCO INDUSTRIE	MORELLO	COMUTENSILI	LMB	MEPIT	SIMF	TTN	EUSEBIO SALD	LICAT	ROSFER	AERONDI	FLEXIDER	OUTSOURCED
INSPECTION	EDDY CURRENT																
	ULTRASONIC CONTROL																
	RADIOGRAPHIC																
	TAPPING TEST																
	VISUAL INSPECTION																
	RESIDUAL MAGNETISM																
	DIMENSIONAL BENCH INSPECTION																
	CONTACT PATTERN INSPECTION																
FUNCTIONAL TESTS	AIR FLOW																
	PRESSURE/LEAKS																
	OIL PRESSURE																
	WASH AND FLOW CORE PASSAGES + LIGHT BOROSCOPE																
	MILLIPORE																
	FLOW RATE																
	HRC HARDNESS																
	HV HARDNESS																
	HB HARDNESS																
	TEST BENCH DESIGN																
	TEST BENCH MANUFACTURING (HWD)																
	TEST EQUIPMENT DESIGN																
	TEST EQUIPMENT MANUFACTURING (HWD)																
COMPOSITES	AUTOMATIC SURFACES CUT																
	CARBON FIBRE LAMINATION IN CLEAN ROOM																
	AUTOCLAVE POLYMERIZATION																
	THERMOPOLYMERIZATION																
	BONDING																