



Lorenz Inc. dba

# Karel Manufacturing

Suntek Manufacturing Technologies, SA de CV

## PURCHASE ORDER QUALITY REQUIREMENTS

1. A CERTIFICATE OF COMPLIANCE (COFC) FOR ALL MATERIALS PURCHASED SHALL BE INCLUDED. TEST REPORT IS REQUIRED FOR COMPLETED ASSEMBLIES. THESE DOCUMENTS MUST CONTAIN THE TEST/INSPECTION STAMP OF THE INDIVIDUAL PERFORMING THE TASK, OR THE SIGNATURE AND THE TITLE OF THE AUTHORIZED REPRESENTATIVE OF THE VENDOR PERFORMING THE TEST. **FURTHER REQUIREMENTS FOR THE COFC ARE DESCRIBED IN THE COFC REQUIREMENTS SECTION.**
2. ALL PROCESSES, INCLUDING SPECIAL PROCESSES, REQUIRED BY THIS P.O. MUST BE PERFORMED BY QUALIFIED PERSONNEL.
3. VENDOR SHALL HAVE AN EFFECTIVE QUALITY SYSTEM THAT COMPLIES WITH REQUIREMENTS OF ISO 9001 / AS9100 (OR EQUIVALENT). FOR CALIBRATION SERVICES, VENDOR SHALL BE CERTIFIED TO ISO 10012-1, ANSI NCSLZ540-1, AND/OR ISO/IEC17025 (OR EQUIVALENT). VENDOR SHALL MAKE SPECIFIED QUALITY DATA AND/OR APPROVED DESIGN DATA AVAILABLE IN THE ENGLISH LANGUAGE.
4. VENDOR SHALL MAINTAIN THE PROPER IDENTIFICATION AND REVISION STATUS OF SPECIFICATIONS, DRAWINGS, PROCESS REQUIREMENTS, INSPECTION/VERIFICATION INSTRUCTIONS AND OTHER RELEVANT TECHNICAL DATA.
5. VENDOR MUST PROVIDE ADEQUATE INSPECTION/VERIFICATION AND REQUIRED DOCUMENTATION TO DEMONSTRATE THAT THE PRODUCT SUPPLIED IS IN FULL COMPLIANCE WITH THE PURCHASE ORDER REQUIREMENTS, INCLUDING DESIGN, TESTS, INSPECTION PLANS, VERIFICATIONS, USE OF STATISTICAL TECHNIQUES FOR PRODUCT ACCEPTANCE, AND ANY APPLICABLE CRITICAL ITEMS INCLUDING KEY CHARACTERISTICS. ADDITIONAL SPECIAL REQUIREMENTS SHALL BE NOTED ON PURCHASE ORDER. COMPLIANCE WITH THESE REQUIREMENTS IS SUBJECT TO AUDIT BY KAREL. THE VENDOR SHALL FLOW DOWN TO SUB-TIER VENDORS THE APPLICABLE REQUIREMENTS IN THE PURCHASING DOCUMENTS, INCLUDING KEY CHARACTERISTICS WHERE REQUIRED.
6. KAREL RESERVES THE RIGHT TO DESIGNATE REQUIREMENTS FOR TEST SPECIMENS FOR DESIGN APPROVAL, INSPECTION/VERIFICATION, INVESTIGATION OR AUDITING.
7. VENDOR IS REQUIRED TO:
  - a. NOTIFY KAREL OF NONCONFORMING PRODUCT WHEN IT IS SUSPECTED OR CONFIRMED THAT IT WAS SHIPPED TO KAREL.
  - b. OBTAIN KAREL'S APPROVAL FOR NONCONFORMING PRODUCT DISPOSITION WHEN THIS AFFECTS FIT, FORM OR FUNCTION OF THE PRODUCT.
  - c. NOTIFY OUR ORGANIZATION OF CHANGES IN PRODUCT AND/OR PROCESS, CHANGES OF VENDORS, AND CHANGES OF MANUFACTURING FACILITY LOCATIONS.
  - d. FLOW DOWN TO THE SUPPLY CHAIN THE APPLICABLE REQUIREMENTS INCLUDING CUSTOMER REQUIREMENTS.
8. ALL QUALITY RECORDS ARE TO BE LEGIBLE, REPRODUCIBLE, AND IDENTIFIABLE TO THE PURCHASE ORDER. QUALITY RECORDS ARE TO BE STORED AND MAINTAINED IN SUCH A WAY THAT THEY ARE READILY RETRIEVABLE IN FACILITIES THAT PROVIDE A SUITABLE ENVIRONMENT TO MINIMIZE DETERIORATION OR DAMAGE AND TO PREVENT LOSS. THIS APPLIES TO OUR VENDORS AND ANY LOWER-TIER VENDORS. KAREL, OUR CUSTOMERS, GOVERNMENT, OR REGULATORY AGENCY REPRESENTATIVES SHALL HAVE ACCESS TO REVIEW QUALITY RECORDS AS THEY PERTAIN TO SPECIFIC ORDERS.  
PERIOD FOR ALL QUALITY RECORDS RETENTION, INCLUDING RADIOGRAPHIC FILMS, IS AS FOLLOWS:

TIME	PRODUCT TYPE
40 YEARS	FLIGHT SAFETY, CRITICAL / MAJOR ROTOR PARTS (I.E. TURBINE AND COMPRESSOR DISKS, HUBS, SHAFTS, FREE TURBINE COUPLINGS AND TURBINE DISK SIDE PLATES), SERIALIZED MAJOR ENGINE (CAST / FABRICATED) CASES, (I.E. INLET FAN, COMPRESSOR, INTERMEDIATE, DIFFUSER, COMBUSTION, TURBINE AND EXHAUST CASES), AND MAIN SHAFT BEARING SUPPORTS WHICH ARE NOT INTEGRAL TO A MAJOR CASE AND ENGINE COMPONENTS TRACEABLE BY ENGINEERING DRAWING / QUALITY ASSURANCE DATA REQUIRED SERIAL NUMBERS.

TIME	PRODUCT TYPE
30 YEARS	MANNED SPACE PROGRAM HARDWARE
15 YEARS	SERIALIZED PARTS AS IDENTIFIED ON THE HONEYWELL DRAWING OR PURCHASE ORDER
	TRACEABLE PARTS AS IDENTIFIED ON THE HONEYWELL DRAWING OR PURCHASE ORDER
11 YEARS	CASTINGS OR PARTS WHERE THE PURCHASE ORDER, ENGINEERING DRAWING OR SPECIFICATIONS REQUIRE SERIAL NUMBER TRACEABILITY. (IF SUCH REQUIREMENT IS NOT PRESENT, RECORDS SHALL BE RETAINED ONLY IF NO OTHER INSPECTION RECORD IS RETAINED THAN DOCUMENTS COMPLETION AND FINAL ACCEPTANCE OF RADIOGRAPHIC INSPECTION.
	NON-TRACEABLE, NON-SERIALIZED PARTS
7 YEARS	DISTRIBUTOR STANDARD OFF THE SHELF PRODUCT

9. RIGHT OF ACCESS SHALL BE GRANTED TO KAREL, AND EXTENDED TO OUR CUSTOMER AND GOVERNMENT OR REGULATORY AUTHORITIES TO THE APPLICABLE AREAS OF ALL FACILITIES, AT ANY LEVEL OF THE SUPPLY CHAIN, INVOLVED IN THE ORDER AND TO ALL APPLICABLE RECORDS.
10. VENDOR IS REQUIRED TO PROVIDE PRODUCT THAT HAS A REMAINING SHELF LIFE OF AT LEAST 75% OF ORIGINAL LIFE AS OF THE DATE OF SHIPMENT.

### **REQUIREMENTS FOR CERTIFICATES OF CONFORMANCE (COFC)**

THE VENDOR MUST INCLUDE THE FOLLOWING REQUIREMENTS IN THEIR PACKING LIST/CERTIFICATE OF CONFORMANCE TO KAREL. IF APPLICABLE REQUIREMENTS ARE NOT MET KAREL WILL RETURN MATERIALS TO VENDOR.

1. CUSTOMER PART NUMBER AND REVISION STATED ON P.O.
2. MANUFACTURER PART NUMBER.
3. MANUFACTURER FULL NAME.
4. SPEC NUMBER AND REVISION LEVEL (WHEN APPLICABLE).
5. IF PARTS ARE BEING SUPPLIED FROM DISTRIBUTOR (BUILT BY THE MANUFACTURER) THESE MUST BE ACCOMPANIED WITH MANUFACTURER'S CERTIFICATE OF CONFORMANCE WITH TRACEABILITY BETWEEN DISTRIBUTOR AND MANUFACTURER (LOT NUMBER, BATCH / HEAT NUMBER OR PO NUMBER).
6. IF PARTS HAVE BEEN BUILT (VALUE-ADDED SERVICES) BY FRANCHISED/AUTHORIZED DISTRIBUTOR MATERIAL MUST BE ACCOMPANIED WITH MANUFACTURER'S CERTIFICATE OF CONFORMANCE WITH TRACEABILITY BETWEEN DISTRIBUTOR AND MANUFACTURER FOR ALL THE COMPONENTS USED TO BUILD THE ASSEMBLY PART (LOT NUMBER, BATCH / HEAT NUMBER OR PO NUMBER).
7. FOR CHEMICAL MATERIALS A MATERIAL SAFETY DATA SHEET MUST BE INCLUDED IN THE SHIPMENT.
8. SHELF LIFE REQUIREMENTS, INCLUDING EXPIRATION DATE.
9. FOR HEAT SHRINK / SLEEVING MATERIALS A TEST REPORT MUST BE INCLUDED IN THE SHIPMENT.
10. FOR FINISHED OR CHEMICAL TREATMENTS A CERTIFICATE OF CONFORMANCE FROM THE SERVICE PROVIDER MUST BE INCLUDED IN THE SHIPMENT TO KAREL.