

Considerations of a Contract Manufacturing/Assembly Quote



When requesting a contract manufacturing quote, it's important to provide detailed information and to consider various factors to ensure you receive accurate and comprehensive proposals. In this white paper we will provide details that you can refer to when submitting a quote for contract manufacturing services and contract assembly to help ensure that you receive a quote that addresses all of the considerations of your project along with a budget estimate that matches your requirements.

CONTRACT MANUFACTURING QUOTE REQUEST CONSIDERATIONS



1. Provide Detailed Specifications

- Design Files: Provide CAD drawings, blueprints, or 3D models of the parts or products.
- Materials: Specify the materials to be used, including any certifications or grades required.
- Tolerances: Clearly define the acceptable tolerances for dimensions, surface finish, and other critical aspects.
- Quantity: State the production volume (prototypes, small batches, or large-scale production).
- Packaging: Detail any packaging requirements, such as custom labeling, protective wrapping, or specific container types.

2. Manufacturing Process Requirements

- Process Type: Indicate whether you require specific machining, injection molding, assembly, etc.
- Quality Standards: Specify any industry standards or certifications (e.g., ISO, FDA) that must be met.
- Inspection and Testing: Outline any specific quality control tests or inspections required, such as X-ray, CMM, or functional testing.

3. Lead Time and Delivery

- Production Timeline: Provide your desired timeline for production and delivery, including deadlines for prototypes or samples.
- Shipping Requirements: Include details about shipping methods, preferred carriers, and delivery terms (e.g., FOB, CIF).
- Flexibility: State whether there's flexibility in delivery schedules or if there are critical deadlines.

4. Cost Breakdown

- Unit Price: Request a breakdown of the unit cost, including any potential volume discounts.
- Tooling Costs: Ask about one-time setup costs, tooling fees, or any other initial charges.
- Additional Services: Clarify if services like design assistance, assembly, or post-processing are included or require extra fees.

5. Supplier Capabilities and Experience

- Experience: Inquire about the manufacturer's experience with similar projects or industries.
- Capacity: Ensure the manufacturer can handle your required volume and has the necessary equipment.
- Past Projects: Request examples of past projects or case studies to evaluate their expertise.

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6. Intellectual Property Protection

- NDA: Consider having a Non-Disclosure Agreement (NDA) in place before sharing sensitive information.
- IP Rights: Clarify who will own the design and intellectual property rights once the contract is completed.

7. Communication and Project Management

- Point of Contact: Establish a primary contact person for communication.
- Progress Updates: Determine how often you'll receive updates and the preferred method (email, phone, video call).
- Change Management: Discuss how changes in design, materials, or scope will be managed and priced.

8. Post-Production Support

- Warranty: Ask about warranties or guarantees on the manufactured products.
- After-Sales Service: Inquire about support for issues like defects, repairs, or returns.

9. Payment Terms

- Payment Schedule: Clarify the payment terms, including any deposits, progress payments, or final payment on delivery.
- Currency and Taxes: Confirm the currency for payment and any applicable taxes or duties.

10. Risk Management

- Contingency Plans: Ask about the supplier's contingency plans for potential disruptions in the supply chain or production.
- Compliance: Ensure the manufacturer complies with all relevant regulations and standards in your industry.

CONTRACT ASSEMBLY QUOTE REQUEST CONSIDERATIONS



When requesting a quote for the contract assembly of electrical and mechanical parts, along with testing, there are specific considerations to ensure the quote is accurate and comprehensive.

1. Assembly Process Details

- Bill of Materials (BOM): Provide a detailed BOM listing all components (electrical and mechanical), including part numbers, manufacturers, and specifications.
- Assembly Instructions: Include detailed assembly instructions or standard operating procedures (SOPs) that outline the assembly process, including any critical steps.
- Complexity of Assembly: Describe the complexity of the assembly process, including any intricate mechanical or electrical connections.
- Subassemblies: Indicate if there are any subassemblies that need to be pre-assembled before the final assembly.

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2. Testing Requirements

- **Electrical Testing:** Specify any electrical tests required, such as continuity tests, insulation resistance, functionality testing, or specific testing protocols (e.g., ICT, FCT).
- **Mechanical Testing:** Outline any mechanical testing requirements, such as load testing, torque testing, or vibration testing.
- **Compliance and Certification Testing:** Mention if the assembled product needs to comply with specific industry standards or certifications (e.g., UL, CE, RoHS).
- **Test Equipment:** Clarify whether the contract manufacturer needs to provide the testing equipment or if you will supply it.
- **Test Data Reporting:** Specify the format and frequency of test data reporting and whether you need full traceability.

3. Material and Component Sourcing

- **Component Procurement:** Indicate whether the contract manufacturer will source all components or if you will supply them (consignment).
- **Approved Vendor List (AVL):** Provide an AVL if there are specific suppliers or brands required for certain components.
- **Lead Times for Components:** Consider the lead times for sourcing critical components and how they affect the assembly timeline.

4. Quality Assurance

- **Inspection Criteria:** Define the inspection criteria for incoming materials, in-process checks, and final inspections.
- **Quality Control Standards:** Specify any quality control standards or certifications (e.g., ISO 9001, AS9100) that the manufacturer must adhere to.
- **Failure Analysis:** Inquire about procedures for handling defective parts or assemblies, including root cause analysis and corrective actions.

5. Environmental and Handling Requirements

- **ESD Protection:** Specify requirements for Electrostatic Discharge (ESD) protection during assembly and testing.
- **Cleanroom Requirements:** If applicable, indicate if assembly needs to occur in a cleanroom environment.
- **Environmental Conditions:** Outline any environmental conditions the assembly must withstand, such as temperature ranges, humidity, or exposure to chemicals.

6. Documentation and Traceability

- **Documentation Requirements:** Request copies of all assembly and test documentation, including certificates of compliance, inspection reports, and test data.
- **Traceability:** Ensure the manufacturer can provide traceability for each assembled unit, including lot numbers, serial numbers, and component tracking.

7. Volume and Scalability

- **Production Volumes:** Specify the initial production volumes and discuss the potential for scaling up production.
- **Production Flexibility:** Discuss how the manufacturer handles fluctuations in production demand and if they can accommodate short lead times or rush orders.

8. Packaging and Shipping

- **Packaging Requirements:** Provide details on packaging, including protective packaging for sensitive components, labeling, and any specific packaging standards.
- **Shipping Instructions:** Specify any shipping requirements, such as special handling, drop shipping to multiple locations, or export documentation.

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9. Cost Structure

- **Assembly Costs:** Request a breakdown of assembly costs, including labor, overhead, and any setup fees.
- **Testing Costs:** Ask for a separate breakdown of costs related to testing, including test fixture setup, testing time, and reporting.
- **Cost for Change Orders:** Clarify how changes to the assembly or testing process will be handled, including any associated costs.

10. Intellectual Property (IP) Considerations

- **NDA and IP Protection:** Ensure that IP is protected through NDAs or other agreements, particularly for proprietary designs or processes.
- **Ownership of Work:** Define who owns the assembly process, tooling, and test fixtures after the project is completed.

11. Supplier Capabilities

- **Experience with Similar Projects:** Ask about the supplier's experience with similar assembly projects, particularly in your industry.
- **Technical Support:** Inquire about the availability of technical support during and after the assembly process.
- **Capacity and Resources:** Ensure the supplier has the necessary resources, including skilled labor, machinery, and test equipment, to meet your requirements.

By addressing these considerations, you'll be better equipped to obtain a detailed and accurate quote for the assembly and testing of your electrical and mechanical parts, ensuring the chosen contract manufacturer can meet your needs effectively.

