Custom Sprocket DFM & RFQ Submission Checklist

Design for Manufacturability Guidelines, CAD File Standards & Export Ordering Parameters

Providing complete geometric, metallurgical, and tolerance specifications at the Request for Quotation (RFQ) stage accelerates CNC programming, eliminates engineering queries, and ensures accurate unit pricing. Use this checklist before submitting custom stainless steel sprocket drawings to Passaro International.

1. PRE-RFQ ENGINEERING SPECIFICATION CHECKLIST

Req.	Design Parameter	Required Drawing Callout & Engineering Notes
☐	**Chain Standard & Pitch**	Specify governing standard (ANSI B29.1 or ISO 606 / DIN 8187), pitch size (e.g., #40, #60, 08B, 12B), roller diameter, and inner width.
☐	**Strand & Tooth Count**	Define strand configuration (Simplex, Duplex, Triplex) and exact number of teeth (Z). Note any custom tooth relief or modified profile.
☐	**Hub Configuration**	Indicate Type A (Flat Plate), Type B (One-Side Hub), Type C (Both-Sides Hub), or Taper-Lock bushing interface, including hub OD and length through bore (LTB).
☐	**Bore, Keyway & Set Screws**	State finished bore diameter with ISO/ANSI fit tolerance (e.g., H7), keyway width/depth (DIN 6885-1 or ANSI B17.1), and tapped set-screw size/orientation.
☐	**Material Grade & Finish**	Specify AISI 304 or AISI 316L (ASTM A240/A276), surface roughness target (standard Ra 1.6–3.2 µm or electropolished Ra ≤ 0.8 µm), and citric/nitric passivation.
☐	**Critical Runout & GD&T**	Call out maximum radial pitch-circle runout (TIR) and axial face wobble relative to the bore datum axis for high-speed or servo-driven conveyors.

2. CAD FILE FORMATS & DFM OPTIMIZATION TIPS

- **Preferred File Package:** Submit both a neutral 3D solid model (**.STEP** or **.IGES**) for CAM toolpath generation and a fully dimensioned 2D engineering drawing (**.PDF** and **.DWG/.DXF**) defining tolerances, surface finishes, and notes.
- **Internal Corner Radii & Reliefs:** Specify generous fillet radii at hub-to-web transitions and keyway corners to reduce stress concentration and optimize CNC tool life.
- **Avoid Over-Tolerancing Non-Functional Surfaces:** Apply tight tolerances (≤ ±0.025 mm) strictly to finished bores, keyways, and pitch concentricity while retaining standard ISO 2768-mK tolerances on non-mating web faces to lower machining cost.
- **Part Marking & Serialization:** Indicate if laser etching or dot-peen marking (part number, heat code, or tooth count) is required on the hub face for OEM inventory traceability.

3. ORDER QUANTITIES, LEAD TIMES & EXPORT LOGISTICS

Commercial Parameter	Prototype / Pilot Batch	Series OEM Production
Minimum Order Quantity	25 – 50 pieces per part number (First Article Inspection included)	100 – 5,000+ pieces (Blanket orders with scheduled releases)
Manufacturing Lead Time	3 – 4 weeks post-drawing approval	4 – 6 weeks post-PO and raw material mill allocation
Quality Documentation	CMM Dimensional Report + EN 10204 Type 3.1 MTR	EN 10204 3.1 MTR, PMI Report, CMM Report & SGS Inspection (optional)
Packaging & Incoterms	VCI protective wrap in heavy-duty export cartons (Air Courier / Air Freight)	VCI wrap in fumigated ISPM-15 wooden crates (FOB Chennai / CIF / DDP)

CONFIDENTIALITY & NDA PROTOCOL

Passaro International executes formal bilateral Non-Disclosure Agreements (NDAs) prior to sharing customer CAD files with our audited CNC machining partners in South India. All proprietary drawings remain protected under strict access controls.

Submit Your RFQ & Engineering Drawings:
Passaro International — 87, Babu Nagar III Main Road, Medavakkam, Chennai 600100, Tamil Nadu, India
Email: sales@passarotrading.com | **Phone / WhatsApp:** +91 9962 002500