

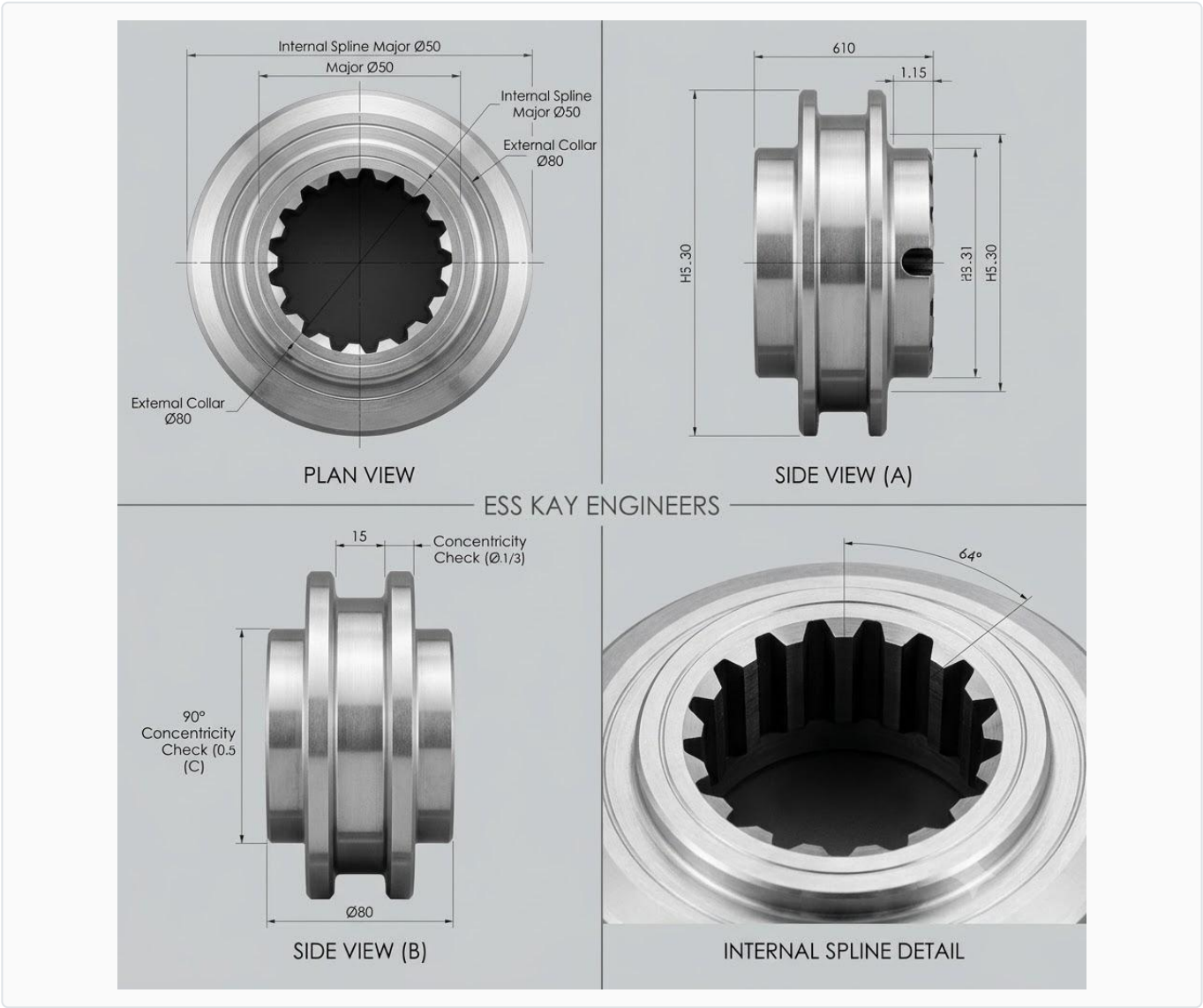
TECHNICAL PRODUCT SPECIFICATION

Precision Internal Splined Gear Collar & Coupling Hub

Manufacturer:	ESS KAY ENGINEERS	Report Date:	July 1, 2026
Component:	Concentric Internal Involute Splined Collar Hub	Document Ref:	EKE-SC-2026-19P

1. Blueprint Multi-Axis Engineering Diagram

The manufacturing blueprint below details the precise dimensional limits and quality inspection parameters for the splined coupling collar across four indexed quadrants: Plan View, Side View (A), Side View (B), and magnified Internal Spline Detail.



2. Engineering Geometric Parameters & Verification Standards

Geometric Technical Specifications

- **Principal Diameters:** Designed with a precision-ground **External Collar Diameter of Ø80 mm** and a matching **Internal Spline Major Diameter of Ø50 mm** for exact shaft interface fits.
- **Concentricity and Alignment Checks:** Features strict geometric dimensioning & tolerancing (GD&T) metrics, including a **15 mm track width** check and a specialized **90° Concentricity Check (0.5) (C)** to eliminate high-speed vibration harmonics.
- **Involute Spline Geometry:** Precision-broached straight internal teeth distributed radially with an angular pitching index profile of **64°** for seamless positive locking drive torque translation.
- **Manufacturing Quality Audit:** Produced, monitored, and certified under rigorous metrology control systems by ESS KAY ENGINEERS to ensure reliable performance under high sheer loads.