

TECHNICAL ENGINEERING SPECIFICATION

Multi-Angle Component Inspection & Verification Report

Manufacturer:	ESS KAY ENGINEERS	Report Date:	July 1, 2026
Component:	Precision Toothed Rack & Guide Bar	Document Ref:	EKE-TS-2026-04A

1. Multi-Angle Orthographic & Perspective Views

The following composite frame illustrates four distinct visual profiles of the precision manufactured components, detailing surface finishes, interlocking gear geometry, and end-face threading design from isometric, top-down, lateral, and true sectional profiles.



2. Technical Specifications & Features

Design and Material Properties

- **Dual Material Architecture:** Includes high-grade brass/bronze alloy rack paired with a precision-ground hardened steel block mating guide.
- **Surface Geometry:** Features precise linear teeth configuration engineered for smooth translation, high load distribution, and low backlash applications.
- **End-Face Configuration:** Integrated concentric internal mechanical threading on the golden-alloy rack section for secure axial mounting.
- **Quality Assurance:** Designed and verified by ESS KAY ENGINEERS to meet rigorous institutional tooling and industrial machinery standards.