

TECHNICAL PRODUCT SPECIFICATION

Heavy Industrial Varied-Pitch Extruder Feed Screw

Manufacturer:	ESS KAY ENGINEERS	Report Date:	July 1, 2026
Component:	Progressive-Flight Injection Extruder Screw	Document Ref:	EKE-ES-2026-16L

1. Multi-View Orthographic Projection Analysis

The layout below presents the mechanical engineering configuration of the progressive extruder feed shaft from four standard viewing directions: Front View, Back View, Side View, and Top View orientations to document helix pitch consistency.



2. Engineering Parameters & Structural Specifications

Mechanical Design Characteristics

- **Progressive / Varied Pitch Flights:** Deep mechanical helical flights engineered to generate steady volumetric pressure during material feeding, compaction, and plasticization stages.
- **Polished Core Drive Shank:** Features a long, smooth straight-ground drive shank on the terminal end for seamless coupling to rotational motor gearboxes or thrust bearings.
- **Concentric Alignment:** Strict cylindrical tolerance metrics maintained along the total flight length to maximize shear efficiency inside extrusion barrels.
- **Manufacturing Quality Audit:** Monitored and inspected under strict industrial metrology by ESS KAY ENGINEERS to guarantee superior wear resistance and zero axial run-out under heavy operational stress.