



ENGINEERING SERVICES

Conceptual Design Development of Machining Centers

Product / Project	Concept design of 3 and 5 axis Machining centers
Objective	To generate Concept designs and concept models for 5-axis machining centers.
Customer Inputs	<ul style="list-style-type: none"> ▪ Target Specifications like travel on X, Y & Z axes, Table sizes etc. ▪ Specs of bought-out items like guides, drive, ballscrews etc. ▪ Type of construction – Fixed column, moving column etc.
Challenges	<ul style="list-style-type: none"> ▪ Conceptualization from scratch with basic input ▪ Assuming a lot of factors and calculation of forces on the machine ▪ Design of cast items with consideration of using existing casting patterns with minimum rework ▪ Generation of variants and configurations with different sizes and strokes, using common items where possible. ▪ Building flexibility for various configurations ▪ Compliance to Standards ▪ Ease of Assembly
Our Approach	<ul style="list-style-type: none"> ▪ Understanding the Product (Function & Features). ▪ Generation of concepts ▪ Detail modeling and Assembly ▪ Design calculations at part and assembly level for CG, forces etc ▪ Technical reviews ▪ Delivery and final reviews with Customer
Benefits	<ul style="list-style-type: none"> ▪ Design meeting expectations of the customer ▪ Quick turn-around Concept development time for the Customer