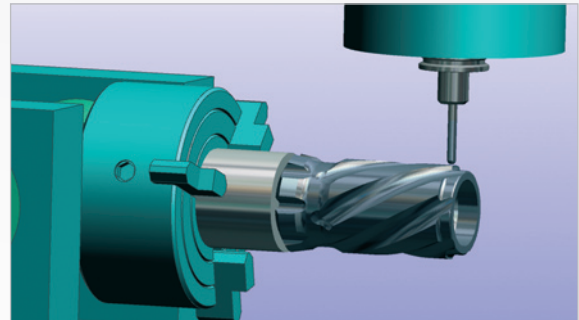


## 5-Axis Machining

### Introduction

Edgecam 4 and 5-Axis machining products are designed to meet the demanding machining requirements of industries such as aerospace, automotive, medical and oil & gas. Edgecam seamlessly integrates 4 and 5-Axis simultaneous machining within its milling and mill/turn environment to allow a range of multi-axis cutting strategies to be applied to the most complex tooling or components. The system's graphical user interface and intuitive commands enable it to be programmed quickly and accurately.



### Features

Easy-to-use machining strategies are geared to maximise productivity and quality.

### 5-Axis

Edgecam offers a wide range of 4 and 5-Axis strategies applicable to solids and surface geometry:

- SWARF cutting for machining of variable taper walls
- 5-Axis finishing across multiple surfaces, with control over lead/lag and side tilt angles
- 5-Axis profile machining for slotting, de-flashing and trimming of sheet forms
- Full support for all common tool profiles, including lollipop cutters

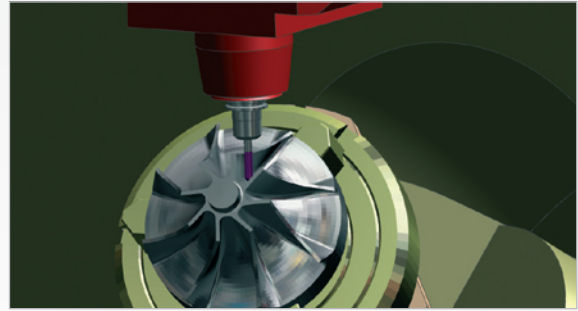
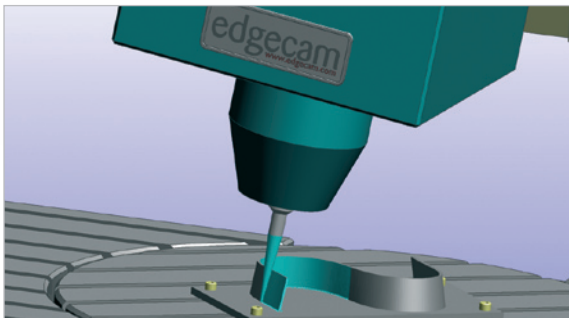
#### 4-Axis

Edgecam's 4-Axis strategies are ideal for the rotary machining of automotive and aerospace components such as camshafts, crankshafts and blades, as well as the production of rotary dies and components for the oil & gas industry. A range of advanced options provide complete tool control.

#### Machine simulation for safe operation

Accurate machine simulation is critically important with multi-axis machining, as small changes in tool orientation can lead to significant rotary movement of the cutting tool - with the associated risk of collisions or surface marking of the finished component.

Edgecam's 4 and 5-Axis modules include full machine simulation to aid visualisation of the machining process. The complete machine tool and all moveable axes may be modelled and incorporated within the interactive machining simulation, helping to ensure fast and safe process optimisation.



#### Benefits

4 and 5-Axis simultaneous machining offer key advantages over conventional indexed 3-Axis machining:

- Reduced cycle time by machining complex components in a single setup. In addition, dimensional accuracy can be significantly improved through the elimination of positioning errors between setups
- Improved surface finish and extended tool life are achieved by orienting the tool to maintain optimum tool-to-part contact at all times
- Improved access to undercuts and deep pockets - through tilting the tool or component - allows shorter series tooling to be employed, eliminating the need for secondary setups
- Reduced fixturing, as the cutter can be presented to the component at any required angle

The inherent complexity of 4 and 5-Axis CNC programs makes their generation virtually impossible without a powerful CAM system - make Edgecam your choice!

