

The Experts in Turbomachinery

## Roughing Strategy for MAX-PAC Computer-Aided Manufacturing Software **3+2 Roughing Module**

Concepts NREC's 3+2 Roughing Module allows roughing out of impellers using 3-axis algorithms, keeping a constant tool vector. This strategy optimizes the toolpath to provide constant cutting load making it suitable for high-speed machining. This is extremely useful for large (>0.5m) diameter impellers and/or hard materials where roughing using the traditional 5-axis strategies of MAX-PAC is less efficient.

## **Benefits**

- Achieve faster roughing using 3-axis toolpaths at an arbitrary angle (3+2)
- Provides consistent cutting conditions enabling greater feed rates as well as longer tool and machine life.
- Helical entry provides smooth engagement of the cutter and eliminates the need for drilling
- Save 5-axis machining time by performing roughing operations on 3-axis machines
- Save programming time by calculating roughing toolpaths together with finish toolpaths in the same software package on the same geometry
- Reduce software costs by eliminating the need for another package to calculate 3+2 roughing toopaths



## CORPORATE HEADQUARTERS

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