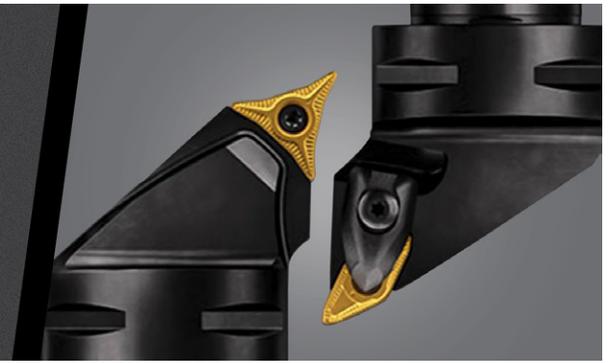


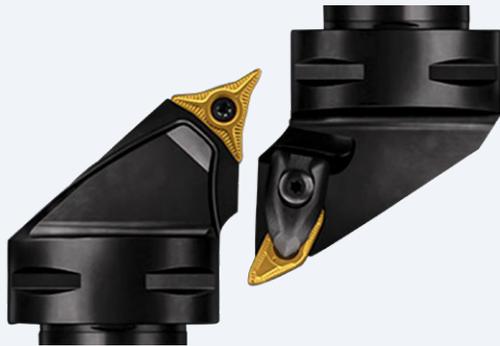


# COROTURN® PRIME All-Directional Turning



## A Revolution In Turning

Introducing a revolution in turning with a new product that is more than a tool, it is a complete new way of turning. PrimeTurning™ is the industry's first "all-directional turning" solution that offers improved machining flexibility, and productivity gains over conventional turning. This revolutionary concept is comprised of a new turning method, dedicated CoroTurn® Prime tools, and a code generator.



## All-Directional Tooling

All-Directional Tooling PrimeTurning operates in multiple directions. The tool moves toward the chuck in the Z axis as it cuts in a traditional manner, but the tool can also "go in reverse" moving away from the chuck as it cuts. The tool can cut "up from" or "down to" the part centerline in the X axis for facing or shoulder cutting. Each insert can rough, finish or profile by cutting in either direction.

## Benefits

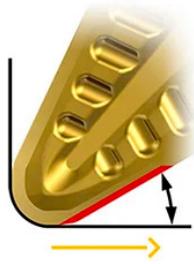
- More than 50% productivity increase compared to conventional turning
- Flexibility to do turning in all directions
- Longer lasting inserts
- More parts per run enabled by doubled speed and feed rates
- Increased profitability through higher productivity, lower capital expenses, and reduced cost per component
- Higher machine utilization resulting from decreased set-up time, fewer production stops, and less tool changes

[View CoroTurn Tools](#)



## Productivity Increases

In some applications, operators achieve productivity increases of more than 50 percent by using PrimeTurning rather than conventional techniques.



### Small Entering Angles

The small entering angle (KAPR) will create a thin and wide chip, which spreads the load and heat away from the nose radius. This results in increased tool life.

#### Entering and lead angles:

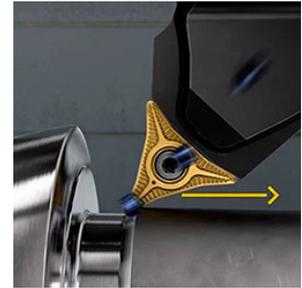
A-type KAPR = 30°, PSIR = 60°

B-type KAPR = 25°, PSIR = 65°



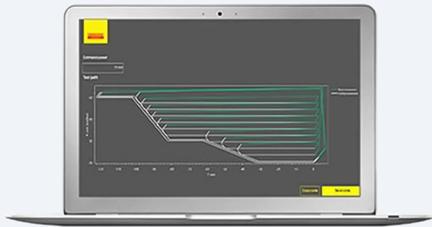
### Efficient Edge Utilization

CoroTurn Prime inserts have three edges per corner. One edge each for longitudinal, facing, and profiling, distributing the wear over a longer edge and not just the insert tip. It also moves heat away from the cutting zone, helping inserts last substantially longer.



### No Chip Jamming

The PrimeTurning method enables turning away from the shoulder, eliminating the possibility of chip jamming commonly observed in conventional turning. This results in an excellent surface finish and avoids tool damage.



### Code Generator

To develop cutting strategies that yield maximum output levels, the PrimeTurning code generator supplies programming codes and techniques to set up proper parameters and variables for a particular application. It also creates ISO codes and is compatible with various CNC systems.

For more info about CoroTurn® Prime and PrimeTurning™ call **1-800-323-TOOL (8665)** to speak with a Steiner metalworking representative.

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