



#### Innovate The Mill 4<sup>™</sup> Series

Brought to You by Kennametal | Jul 17, 2015

#### What You Need to Know

Engineered to achieve excellent performance in regards to surface quality as well as higher metal removal rates in shoulder milling applications. The Mill 4 <sup>™</sup> Series offers solution for both low and high power machines. "Stepless" solution for multiple-pass operations.



The Mill 4<sup>™</sup> Series is specially engineered to achieve excellent performance in regards to surface quality as well as higher metal removal rates in shoulder milling applications. Its unique design allows you to apply the tool in multiple passes (step down) with outstanding results from roughing to finishing operations. Mill 4<sup>™</sup> is applicable in a wide range of work piece materials: steel, cast iron, stainless steel, non-ferrous materials, and high-temp alloys

The Mill 4-11<sup>™</sup> with up to a 0.433" depth of cut, is the solution for low horsepower consumption while the Mill 4-15<sup>™</sup> with up to a 0.590" depth of cut, is the solution for more powerful machines. Features for both series include: superior wall and surface finish capabilities, double-sided strong insert with 4 cutting edges, screw-on, end mill, and shell mill cutters with internal coolant, and uneven pocket spacing.

A challenge with step down applications is, that most tools leave tool marks with every pass they take. Resulting in unsatisfactory or low quality wall finishes while requiring another finishing pass at the very end of the process. Applying Mill 4<sup>™</sup> delivers pristine wall finishes, and eliminates that finishing pass with an additional tool. That saves you time, and reduces your production cost. Insert features include: double-sided strong inserts with 4 cutting edges, a comprehensive offering to cover all applications in all material groups, high positive geometries for lower cutting forces, and "stepless" solutions for multiple-pass operations.

## SGE-Geometry



- SGE is the universal geometry for Mill 4<sup>™</sup>. First choice when machining steel, applicable in stainless steel, and high-temp alloys in heavy applications as well.
- Precision ground insert results in a great compromise for both roughing and finishing operations. Honed and negativ T-Land for strongest cutting edge.

### SGEM-Geometry



- First choice for cast iron applications, applicable in steel as well.
- Precision ground insert with very strong cutting edge for roughing applications.
- For heavy machining applications.

# **EGE-Geometry**



- EGE is the first choice for stainless steel and high-temp alloys.
- Use EGE-geometry for the highest finishing requirements in light machining for all materials. Honed for free cutting action.

### **EGEJ-Geometry**



- Mill 4-15<sup>™</sup> geometry for aluminum and other non ferrous materials.
- Precision ground, sharp cutting edge for semi finishing to finishing applications.
- For light to heavy machining applications.



## **ELEJ-Geometry**

- Mill 4-11<sup>™</sup> geometry for aluminum and other non ferrous materials.
  - Precision ground insert with a sharp cutting edge for semi finishing to finishing applications.
  - For light to heavy machining applications.

Mill 4 series insert geometries

Please visit MSCDirect.com for the full selection of *Mill 4™ cutters* and *insert geometries*.

#### Key Takeaways

- Mill 4<sup>™</sup> has solutions for materials such as; steel, cast iron, stainless steel, non-ferrous materials, and high-temp alloys.
- Applying Mill 4<sup>™</sup> delivers pristine wall finishes, and eliminates that finishing pass which reduces time and cost.