

# ORION 3 Flute End Mills

## 3 Flute Aluminum Series



## ORION 2 & 3 Flute Aluminum Series for Aluminum & Non-Ferrous Metals

Rani Tool's Orion end mills increase productivity when machining all types of aluminum including high silicon, die cast, and extruded metal parts. Orion mills resist clogging and are designed for aggressive chip evacuation under extremely high chip loads while maintaining excellent surface finish.

- Use the two flute style for greater stock removal and flute volume
- Use the three flute style for finishing applications or roughing on lower horsepower machines

Achieve maximum performance in:

- Aluminum
- Non-ferrous metals

### Stub Length Cylindrical Shank End Mills

without Corner Radius	dia.	shank dia.	flute length	OAL
Designation				
OS3SC-0125	1/8	1/8	1/4	1-1/2
OS3SC-0187	3/16	3/16	5/16	2
OS3SC-0250	1/4	1/4	3/8	2-1/2
OS3SC-0312	5/16	5/16	7/16	2-1/2
OS3SC-0375	3/8	3/8	1/2	2-1/2
OS3SC-0500	1/2	1/2	5/8	3
OS3SC-0625	5/8	5/8	3/4	3-1/2
OS3SC-0750	3/4	3/4	1	4
OS3SC-1000	1	1	1-1/4	4

### Standard Length Cylindrical Shank End Mills

without Corner Radius	dia.	shank dia.	flute length	OAL
Designation				
OR3SC-0125	1/8	1/8	3/8	1-1/2
OR3SC-0187	3/16	3/16	9/16	2
OR3SC-0250	1/4	1/4	3/4	2-1/2
OR3SC-0312	5/16	5/16	13/16	2-1/2
OR3SC-0375	3/8	3/8	1	2-1/2
OR3SC-0500	1/2	1/2	1-1/4	3
OR3SC-0625	5/8	5/8	1-5/8	3-1/2
OR3SC-0750	3/4	3/4	1-5/8	4
OR3SC-1000	1	1	2	4

### Standard Length Weldon Shank End Mills

without Corner Radius	dia.	shank dia.	flute length	OAL
Designation				
OR3SW-0250	1/4	1/4	3/4	2-1/2
OR3SW-0375	3/8	3/8	1	2-1/2
OR3SW-0500	1/2	1/2	1-1/4	3
OR3SW-0625	5/8	5/8	1-5/8	3-1/2
OR3SW-0750	3/4	3/4	1-5/8	4
OR3SW-1000	1	1	2	4

- three flute design for smooth cutting action and less harmonic stress
- capable of very aggressive feed rates

**Ideal for finishing  
and low horsepower  
applications!**



# ORION 2 Flute End Mills

## 2 Flute Aluminum Series

### Stub Length Cylindrical Shank End Mills

without Corner Radius	dia.	shank dia.	flute length	OAL
Designation				
OS2SC-0125	1/8	1/8	1/4	1-1/2
OS2SC-0187	3/16	3/16	5/16	2
OS2SC-0250	1/4	1/4	3/8	2-1/2
OS2SC-0312	5/16	5/16	7/16	2-1/2
OS2SC-0375	3/8	3/8	1/2	2-1/2
OS2SC-0500	1/2	1/2	5/8	3
OS2SC-0625	5/8	5/8	3/4	3-1/2
OS2SC-0750	3/4	3/4	1	4
OS2SC-1000	1	1	1-1/4	4

**Great for roughing  
& finishing!**

### Standard Length Cylindrical Shank End Mills

without Corner Radius	dia.	shank dia.	flute length	OAL
Designation				
OR2SC-0125	1/8	1/8	3/8	1-1/2
OR2SC-0187	3/16	3/16	9/16	2
OR2SC-0250	1/4	1/4	3/4	2-1/2
OR2SC-0312	5/16	5/16	13/16	2-1/2
OR2SC-0375	3/8	3/8	1	2-1/2
OR2SC-0500	1/2	1/2	1-1/4	3
OR2SC-0625	5/8	5/8	1-5/8	3-1/2
OR2SC-0750	3/4	3/4	1-5/8	4
OR2SC-1000	1	1	2	4

### Standard Length Weldon Shank End Mills

without Corner Radius	dia.	shank dia.	flute length	OAL
Designation				
OR2SW-0250	1/4	1/4	3/4	2-1/2
OR2SW-0312	5/16	5/16	13/16	2-1/2
OR2SW-0375	3/8	3/8	7/8	2-1/2
OR2SW-0500	1/2	1/2	1	3
OR2SW-0500L	1/2	1/2	1-1/4	3-1/4
OR2SW-0625	5/8	5/8	1-1/4	3-1/2
OR2SW-0750	3/4	3/4	1-5/8	4
OR2SW-1000	1	1	2	4-1/2

- two flute design for extremely high chip loads
- works equally well in low and high speed applications
- high strength carbide grade for heavy feed applications
- use for maximum metal removal rates
- produces excellent surface finishes
- available with corner radius for increased corner strength
- chips are pulled up and away from workpiece thereby protecting the work piece finish and alleviating chip packing

### Long Length Cylindrical Shank End Mills

without Corner Radius	dia.	shank dia.	flute length	OAL
Designation				
OU2SC-0250	1/4	1/4	1-1/4	3
OU2SC-0312	5/16	5/16	1-3/8	3
OU2SC-0375	3/8	3/8	1-1/2	3-1/4
OU2SC-0500	1/2	1/2	2	4
OU2SC-0750	3/4	3/4	2-1/2	5
OU2SC-1000	1	1	2-5/8	5