

RenShape Machining Notes

	Roughing Speed (RPM)	Roughing Feed (IPM)	Finishing Speed (RPM)	Finishing Feed (IPM)
Polyurethane Foam Boards				
RenShape 5020	2,500	200	15,000	200
RenShape 5025	2,500	200	15,000	200
RenShape 5030	2,500	100	15,000	200
Modeling & Styling Boards				
RenShape 440	2,000	200	15,000	200
RenShape 450	2,000	100	15,000	200
RenShape 460	1,600	40	10,000	100
RenShape 5003	1,600	40	10,000	100
Tooling & High-Temp Work Boards				
470	1,600	40	10,000	100
RenShape 472	1,600	40	10,000	100
RenShape 473	1,600	40	10,000	100
RenShape 474	1,600	40	10,000	100
RenShape 550	1,600	40	10,000	100
RenShape 5166	1,600	40	10,000	100
RenShape 5169	1,600	70-140	10,000	100-200
RenShape 5179	1,500	60	10,000	100
RenShape 5005	1,600	40	10,000	100
RenShape 5008	1,600	40	10,000	100
RenShape 2000*	6-10,000	240+	15,000	300+

* Use coolant during machining.

Cutters Used:

Roughing – 1" Hog Ball End mill, 4-Flute, HS Steel, 8% Cobalt

Finishing – 5/8" Ball End Mill, 2-Flute Carbide

Depth:

Roughing – varied from 1/4" to 2-1/2" deep with a 40% stepover

Finishing – 1/8" deep leaving 0.0002" scallop height

These machining parameters are represented as starting points. Cutter type and material, spindle speed, feed rate, machine power and rigidity all affect machining results. User must determine best parameters for specific applications.