

**Wiseco Piston Install Prep - Why Plateau Finished?**

Plateau honing is the popular name for the process that replicates the cylinder bore surface finish normally produced by the rings after they have worn down the surface peaks during break-in.

This technique produces flat areas or plateaus (Rk) on the cylinder wall after finish honing by using a very fine grit stone or a PHT type brush tool to remove the peaks (Rpk) from the surface. This lowers the overall roughness average (Ra) while maintaining valley depth (Rvk) in the cross-hatch pattern of the cylinder wall. A high Rvk value is very desirable for oil retention qualities and will substantially reduce break in time and increase ring life.

Ra (Roughness Average) = Used to describe surface roughness as an average between the peaks and valleys that exist in a finish order

Rpk (Peaks) = Average Peak Height.

RVK (Valleys) = Average Valley Depth.

Cross Hatch = The pattern of intersecting parallel lines left after honing operations are completed. The smaller the intersection angle, the larger the area (Rk) between the hone marks.

<b>Example of Plateau Finishing</b>		
Original Bore Size .....	4.000	
Oversize .....	0.030	
Finish Size .....	4.030	<b>Surface Finish µRa</b>
Rough-to-size .....	4.0250	..... 75-98
First Finish .....	4.0290	..... 30-36
Second Finish .....	4.0295	..... 20-25
Third Finish.....	4.0300	..... 7-14