

To maximize seal performance and durability, System Seals Inc. recommends the following finishing values for hydraulic seals.

### Surface Finish Table

#### Metric

Surface Roughness:	Ra	Rt
Sliding Surface	[0.3µm	[3.0µm
Groove root	[1.8µm	[10.0µm
Groove sides	[3.0µm	[16.0µm

#### Inch

Surface Roughness:	RMS
Sliding Surface	8
Groove root	32
Groove sides	125



#### Machining recommendations:

Rods: Ground with non-oriented finish or roller burnishing  
Barrels: Honing and roller burnishing

#### Hardness:

Heat treat to 45-60HRC to a minimum depth of 0.5mm.

#### Corrosion Protection:

Hard chrome overlay with coating thickness 30-50µm.

#### Finish re-work after chrome:

Super-finish or polish to obtain final surface finish recommendations.

System Seals, Inc. recommends to not only rely on the above information, but to also measure the profile bearing area ratio "Tp". Knowing the profile bearing area ratio will ensure a surface quality that is optimum for hydraulic seals. The recommendation is as follows:

Tp should be between 50-90% of the average height value "C=Rz/2" with reference line at Cref=0

