

Rotors and Stators

Ceramaret manufactures high quality Rotors and Stators, made out of High Purity Alumina (96%, 99,7% or 99,9%) and TZP Zirconia ceramics for high and low pressure injection and selection valves.

Rotors and Stators are subject to intensive mechanical stress and chemical aggression while having to maintain a perfectly leak free adjustment between the two components. No leak, limited stiction and low wear are the most important parameters to guarantee long life and reliability to your valve. These can be achieved by an adequate surface finish, a perfect flatness of the surfaces in contact and a proper selection of the material. Every application is different and Ceramaret will help you define the parameters required for your particular valve.

Ceramic Rotors and Stators are used in valves for many high-tech applications, such as HPLC, micro-HPLC, Medical, Industrial, etc.



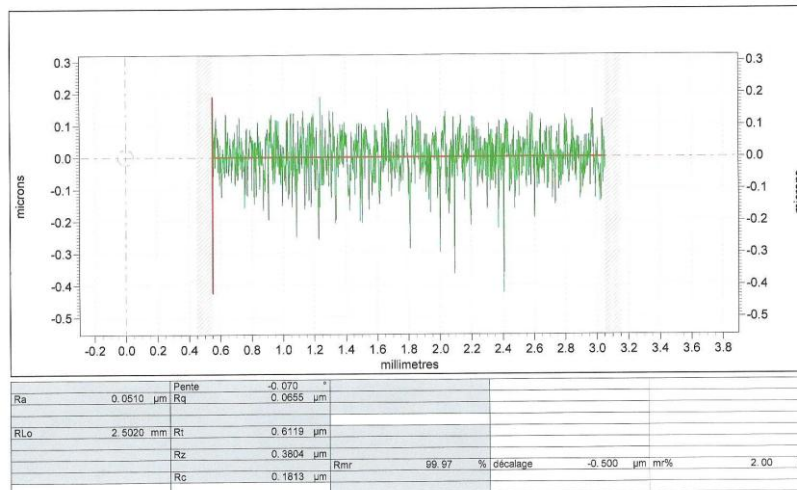
Typical Characteristics

<u>Rotor:</u>	Outside diameter:	< 30,00 mm (1.18")
	Thickness:	< 7,00 mm (.28")
	Groove(s) dimensions:	Width > 0,051 mm (.0002") Depth > 0,13 mm (.0052") Length > 2,00 mm (.0780")
<u>Stator:</u>	Outside diameter:	< 30,00 mm (1.18")
	Thickness:	< 7,00 mm (.28")
	Hole diameter:	> 0,22 mm x 0,25 mm (.008" x .010")

Surface finish, Rotor or Stator

Zirconia:	$\geq 0,025 \mu\text{m}$ (1 μin) or N1
Alumina 99,9 %:	$\geq 0,05 \mu\text{m}$ (2 μin) or N2
Alumina 96% or 99,7%:	$\geq 0,1$ to $0,2 \mu\text{m}$ (4 to 8 μin) or N3 to N4

Taylor Hobson



Typical profile

Flatness: Down to 1 light band interference = $0,6 \mu\text{m}$ (.000025")

