

# Corrosion Resistant PTFE Stirring Paddle And Customizable Toothed Dispersion Disk For Chemical Pharmaceutical Mixing

Item Number: PL-CP16



## Introduction

High-performance corrosion resistant PTFE stirring paddle and toothed dispersion disk engineered for demanding chemical pharmaceutical mixing. Fully customizable diameters and configurations ensure optimal fluid dynamics, superior chemical inertness, and long-term durability in aggressive industrial processing environments.

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Application	Description	Key Benefit
Pharmaceutical Synthesis	Agitation of active pharmaceutical ingredients (APIs) in acidic or basic solutions.	Prevents metal ion contamination and ensures high-purity results.
Fine Chemical Production	High-shear mixing of specialty chemicals and corrosive reagents.	Total resistance to chemical attack and pitting corrosion.
Battery Material Processing	Dispersion of electrode slurries and conductive additives in lithium-ion manufacturing.	Maintains slurry homogeneity without introducing metallic impurities.
Petrochemical Additives	Blending of aggressive additives and catalysts into petroleum-based products.	Durable performance in high-temperature, high-pressure environments.
Pigment and Ink Dispersion	Breaking down pigment agglomerates into liquid carriers for uniform color distribution.	High-shear efficiency and easy cleaning between color changes.
Waste Treatment	Neutralization and mixing of hazardous industrial effluents and concentrated acids.	Long-term survival in the most aggressive waste streams.
Food and Beverage	Homogenization of acidic food components and flavorings.	Compliance with inertness standards and non-stick cleaning efficiency.
Nanomaterial Research	Precise mixing of colloidal suspensions and nanoparticle dispersions.	Consistent shear rates and avoidance of particle adhesion to the paddle.

Specification Category	Parameter Details (Product Item: PL-CP16)
<b>Material Construction</b>	High-Purity PTFE / TFE (Polytetrafluoroethylene)
<b>Design Type</b>	Customizable Toothed Dispersion Disk / Stirring Paddle
<b>Diameter Range</b>	Fully Customizable based on user requirements
<b>Shaft Compatibility</b>	Custom bored or threaded for integration with existing drive systems
<b>Operating Temperature</b>	-200°C to +260°C
<b>Chemical Resistance</b>	Universal (except molten alkali metals and elemental fluorine)
<b>Hardness</b>	60-65 Shore D
<b>Tensile Strength</b>	3625 - 4496 psi
<b>Elongation at Break</b>	300% - 400%
<b>Surface Finish</b>	Ultra-smooth CNC machined finish

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Specification Category	Parameter Details (Product Item: PL-CP16)	
Color	Opaque White	
Fabrication Method	End-to-end custom CNC machining for bespoke configurations	