



The ASC Tornado™ Blade: A Smarter Approach to Mixing Across Industries

Efficient and uniform mixing is essential across a wide range of industries, from pharmaceuticals to coatings to food production. However, traditional mixing blades often struggle with air entrapment, uneven dispersion, and slow processing times. The ASC Tornado™ blade's patented design solves these challenges by fundamentally changing how materials move through the mixing process.

How It Works

Unlike conventional blades that simply push material outward, the ASC Tornado™ blade actively draws material through the blade, functioning like an unchambered pump. This creates a controlled, tornado-like flow that ensures even dispersion while eliminating air pockets. The result is a more uniform mixture, achieved in significantly less time.

Additionally, the blade's tapered bottom enhances circulation by pulling fluids down along the container walls and through the mixing zone. This improved flow reduces the need for high-speed mixing, cutting mixing times by 50-80% while maintaining thorough and efficient blending.

Industry Applications

The ASC Tornado™ blade's innovative design enhances mixing performance across multiple industries:



Pharmaceuticals & Biotech:

Precise ingredient dispersion is critical in pharmaceutical and biotech applications, where even minor inconsistencies can impact product efficacy. The ASC Tornado™ blade ensures thorough mixing of active ingredients, excipients, and binders, reducing particle agglomeration and eliminating air entrapment that could compromise sterility. The ability to mix at lower speeds also minimizes heat generation, preserving the integrity of temperature-sensitive compounds.



Oil & Gas, Adhesives, and Chemical Processing:

High-viscosity materials like petroleum-based products, adhesives, and industrial chemicals require powerful yet controlled mixing. The ASC Tornado™ blade's ability to create induced turbulence prevents stratification, ensuring a homogeneous blend even in thick or non-Newtonian fluids. By reducing air entrapment, the blade improves product stability and prevents unwanted foaming, which can lead to costly material loss.



Paints, Inks & Coatings:

In the coatings industry, proper dispersion is key to achieving uniform color, texture, and durability. The ASC Tornado™ blade promotes even pigment distribution while preventing particle settling. Traditional high-speed dispersers can introduce excess shear, leading to inconsistent finishes, but the ASC Tornado™ blade's controlled mixing action ensures a smooth, defect-free application while reducing processing time.

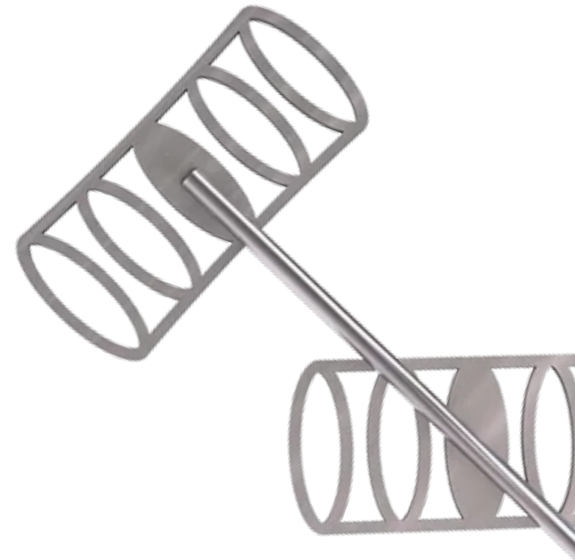



Food, Beverage & Agriculture:

From emulsification in dressings and sauces to fermentation in brewing and distilling, precise mixing is essential in food production. The ASC Tornado™ blade improves ingredient integration, reduces aeration (which can degrade quality), and ensures batch-to-batch consistency. In agriculture, its ability to efficiently blend fertilizers, animal feeds, and other raw materials ensures even distribution of nutrients and additives.

The ASC Tornado™ Advantage

By optimizing fluid movement and reducing inefficiencies, the ASC Tornado™ blade enables faster, more effective mixing at lower speeds—leading to improved product quality, reduced energy consumption, and streamlined production. Whether handling high-viscosity adhesives, temperature-sensitive pharmaceutical ingredients, or pigment-rich coatings, this innovative blade design ensures superior results across industries.



 717.259.0112

 info@ascornado.com

 420 West Fleet Street
Abbottstown, PA 17301

