



LIGHT POWDER, MICRO AND NANO PARTICLE MIXING

LIGHT POWDER MIXING PROBLEM SOLVER – TRI-SHAFT WITH SWEEP, GATE AND DISPERSER BLADES

Myers Engineering, Inc., located in Southern California USA, recently provided a tri-shaft mixing machine incorporating a sweep and gate blade combination. The customer is manufacturing a natural based dental product. This multi-shaft design handles many applications where the efficient wetting of fine powders determines the quality of the mix.

When using the helix style blade, the material is drawn down for superior vertical batch flow while the sweep blade moves the mass around the perimeter zones.

Properly angled wipers serve a critical role cleaning the product from the tank walls aiding in uniform heat transfer throughout the tank. Adding a high speed disperser blade creates the accelerated shear necessary to achieve uniform particle distribution. The results of this blade combination offer the user faster processing times with lower process temperatures. An added benefit when using the helix blade is final deaeration by running the helix in reverse.



[APPLICATION FORM FOR QUOTATION REQUEST.](#)

DEAGGLOMERATION AND MIXING OF NANOPARTICLES



To address the unique characterization of Nanoparticle mixing, the right choice of mixing equipment is crucial. The combination of mixing, the amount of shear, deagglomeration, and time and temperature control are achievable with the use of a properly engineered mixing system. Tank movement is controllable and mix patterns can be specifically created to match the character of the nanoparticles or nanocomposites. A wide variety of applications rely on the ability to maintain their small size and large surface area to potentially improve performance of high value materials, drugs and biomaterials, food, cosmetics and coatings of many kinds.

Myers Engineering is a world leader in the design and manufacture of mixing and dispersing equipment. With over sixty years of engineering innovation, technology and experience, Myers produces some of the most effective mixing equipment within our industry. Products: High speed, high shear mixing and dispersing equipment in primary industries such as: paint, ink, adhesive and sealants, rubber, electronic and other composite materials, food, personal products, and many more.

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