

MYERS 850 /TWIN SHAFT HIGH SPEED DISPERSER PERFORMANCE REVIEW



25 HP 850 - Frequency Inverter Drive with manual shaft spreader assembly.

EXPECT SIGNIFICANT IMPROVEMENTS IN PRODUCT QUALITY AND TIME PERFORMANCE.

- Fast, extra fine dispersion capability
- Faster pigment loading *that may eliminate sand milling*
- Less heat build-up
- Better, faster dispersion
- Improved particle size
- Less air entrapment

CASE STUDY - Customer reduced total batch processing time by approximately 7 hours.

Application: White Paint

Results: Reduced processing time of titanium dioxide (TiO₂) slurry for Industrial Coating application.

Problem: Customer used typical paint processing equipment for mixing and milling of TiO₂ white base paint. A single shaft high-speed disperser was used to wet out and pre-disperse the pigment followed by milling in a vertical mill. Mixing time was approximately 3 hrs followed by two passes through the vertical mill, totaling 5 hours. The total processing time for a 750-gallon batch was 8 hours. The slurry contained approximately 60-70% TiO₂ by weight in a solvent/resin binder mixture. The slurry weighed approximately 12 pounds per gallon.

Solution: Customer significantly reduced batch mixing and milling time for TiO₂ slurry by replacing the single shaft high-speed disperser with a Myers 850 dual shaft high-speed disperser. The Myers 850 dual shaft high-speed disperser consisted of a single 75 HP motor driving two shafts with overlapping Myers high-speed blades. A total of four 12" diameter blades were used. When the mixer was installed, a side-by-side startup trial was performed comparing the dual shaft high-speed mixer with a single shaft high-speed mixer. Each mixer processed a 750-gallon batch of TiO₂ slurry at the same time with the following results. The batch processed using the Myers 850 dual shaft high-speed disperser achieved a Hegman grind of 7+ after approximately 45 minutes of mixing. The batch processed using a 75 HP single shaft high-speed disperser had only achieved a Hegman grind of 5 after four hours of mixing.



The four interlocking blades rotating simultaneously generate increased performance.

PERFORMANCE REVIEW - Significant Pre-Mix Time Saving Advantage

Application: Automotive Clear Coat Primer

Customer Report:

60 HP Model 850 Twin Shaft Dispenser - A single shaft dispenser takes approximately 45 minutes to incorporate the calcium carbonate and cab-o-sil fillers satisfactorily. By changing to a twin shaft Myers 850, the fillers immediately wetted out reducing the pre-mix time to a marginal step in the production process.

PERFORMANCE REVIEW - Grind Performance Improvement and Pre-Mill Step Elimination

Application: Flexographic and Clear Fluid Inks

Customer Report:

30 HP single motor dual shaft 850 has reduced production time of the mill base. The increased Hegman scale quality of the 850 has completely eliminated the rotor/stator mixing step. No longer having to transfer the mill base mix tank to another part of the plant has significantly reduced the labor and time of the entire process. Further, the customer reports that the dual high speed 850 can handle a larger batch than a single shaft dispenser.

In conclusion, this is a reduction of mill base mixing time, the elimination of an intermediate mixing step, and an increase in normal bath size.

SINGLE MOTOR, DUAL MOTOR, HOIST MOUNT AND TANK MOUNT DESIGNS ARE AVAILABLE.

