CASE STUDY

CHEMICAL PROCESSING - PAINT



PROJECT DESCRIPTION

Today's modern paints are made from many ingredients that are blended together to form a viscous mixture.

MIXPRO® CHALLENGE

The customer wanted to make larger batch volumes of a particularly popular industrial paint. Their existing agitator had a single Cowles saw-blade impeller which could not create a vortex deep enough to draw-down and mix in the significant quantities of a dry ingredient which needed to be added to the batch. The tank was unbaffled and driven by a large high-speed belt agitator equipped with a variable speed motor.



RECOMMENDED SOLUTION

We recommended a single hydrofoil impeller, as we were very confident that a deep vortex could be created utilizing this solution. The impeller was extra rugged, carefully sized to fit through the top manhole and designed to attach to the shaft without any modifications to the shaft itself.

Although the impeller was deeply submerged in the tank, a vortex could be drawn the whole way to the impeller and then ingest air. The operator could adjust the operating speed of the agitator to create the vortex depth required to uniformly thicken the paint as hundreds of bags of powdered chemical were added through the top manhole.

PROJECT SUCCESS

The time required to prepare a large batch of this paint was reduced by 50% over the previous equipment.