

TECHNICAL BULLETIN – DDR08

**SUBJECT: DOUBLE DRUM DRYERS
 DRUM DRYING RESOURCES SLURRY LEVEL CONTROL SYSTEM**

General

The feeding of slurry and the control of the level of slurry above the drums of a double drum dryer is critical to the productivity and the quality of the dry product produced on a double drum dryer.

The level of slurry above the nip determines the area of contact between the slurry and drum surface and the time the slurry remains in the slurry puddle between the drums. The area of contact between the slurry and drum surface determines the rate of water removal by boiling in the puddle. The higher the level, the more drum surface area is used to boil the slurry resulting in a higher production rate. Also, a higher level of slurry means that more gallons of slurry are in the puddle above the drums. A higher volume of slurry means that the slurry is retained in the puddle for a longer period of time to increase the solids level in the puddle.

The water removal rate and an increase in the concentration of the slurry affect the rate of production and quality factors of the dry sheet being produced. To maintain ideal production conditions over a period of time, an accurate slurry level control system is required.

The Drum Drying Resources Level Control System is designed and manufactured to provide a precise and dependable level control of slurry in a double drum dryer. The system includes the following elements:

1. A sanitary probe to sense the level of slurry above the drums. The sensitive probe senses the change in pressure of slurry against a diaphragm as the level of slurry increases or decreases.
2. A control instrument receives the signal from the probe. The instrument has a level set point, which selects the desired operating level. Comparison of the actual level in the puddle determined by the probe and the desired level determined by the set point results in a signal to a slurry flow control valve.
3. A sanitary diaphragm operated slurry flow control valve regulates the flow of slurry to the dryer puddle. The signal from the control instrument modulates the valve to increase or decrease the flow of slurry to the dryer puddle to maintain the desired operating level.
4. An operator's panel houses the instrumentation and control elements of the system.

The Drum Drying Resources Level Control System is available on all new and remanufactured double drum dryers produced by Drum Drying Resources. The system can also be retrofitted to existing drum dryers. Please contact Drum Drying Resources for additional information and pricing.

Drum Drying Resources supplies new, rebuilt, and retrofitted Double Drum Dryers to the drying industry. Each dryer is configured to specific designs, specifications, and systems to produce your product at maximum quality, sanitation, and productivity levels.

Check our Technical Bulletin section often in order to learn more about how our products and services can help you become more productive.